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Work-family trajectories of native and second generation women in Belgium

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Julie Maes

Promotors: Karel Neels, Jonas Wood

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Members of the Doctoral Commission

Karel Neels (promotor), University of Antwerp

Jonas Wood (promotor), University of Antwerp

Ive Marx, University of Antwerp

Helga de Valk, Netherlands Interdisciplinary Demographic Institute & University of Groningen

Additional members of the Doctoral Jury

Koen Decancq, University of Antwerp

Hill Kulu, University of St. Andrews

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Chapter 1

Introduction

In the second half of the 20th century, European countries experienced a massive increase in women's labour market participation, gradually resulting in a shift in couples' work-family organisation from a male-breadwinner to a dual-earner model. Around the same time, large immigration flows after the Second World War resulted in increasingly diverse populations in Northern and Western European countries. Compared to women without a migration background (hereafter, native women[1]), women with a migration background generally display a lower labour market participation. Although the employment gap with native women is most pronounced among first generation migrants, research consistently shows that second generation women - particularly of non-European origin - still display lower employment rates than native women (Corluy, 2014; Heath, Rothon, & Kilpi, 2008; Piton & Rycx, 2020). This migrant-native employment gap among women is also larger than among men. Compared to other European countries, Belgium exhibits one of the largest employment gaps between native and second generation women (Eurostat, 2014). In a context of accelerated population ageing and shrinking working age populations, the successful labour market participation of the large and growing share of second generation women is considered increasingly important in European countries to cover welfare state costs (e.g. pensions or health care). Besides the societal relevance, increasing the labour market participation of second generation women is also relevant at the micro-level, as a low labour market participation can jeopardise women's financial independence, may increase poverty risks at the household level and has long-term implications for future labour market opportunities and social security protection (e.g. pensions) at later stages of the life course (Koelet, De Valk, Glorieux, Laurijssen, & Willaert, 2015; Neels, De Wachter, & Peeters, 2018). It is therefore crucial to understand which mechanisms generate differences between the labour market participation of native and second generation women.

It has been widely established that women's labour market trajectories are strongly interrelated with their family trajectories (Matysiak & Vignoli, 2008). The literature on the interlinkage between parenthood and employment is extensive among general

[1] In this dissertation, Belgian natives are defined as individuals whose nationality at birth is Belgian and of whom the nationality at birth of both parents is Belgian as well. Due to a lack of information on the nationality of the grandparents, we cannot distinguish the third generation from natives.

populations and has indicated that while men's employment trajectories are relatively stable over the life course, the transition to parenthood strongly affects women's employment trajectories. Although the growing availability of formal childcare and parental leave in most European countries has increasingly facilitated the work-family combination, which resulted in an increase in maternal employment over the last fifty years, many women still reduce their working hours after the birth of their first child (Baxter, Hewitt, & Haynes, 2008; Gutierrez-Domenech, 2005; Kreyenfeld, 2015; Kuhhirt, 2011; Schober, 2013; Wood, Neels, De Wachter, & Kil, 2016). Little is known, however, on interlinkages between work and family trajectories among groups with a migration background. This is unfortunate, as research indicates that the migrant-native employment gap larger is among women with children than among childless women (Holland & de Valk, 2017; Rubin et al., 2008), which suggests that incorporating family trajectories may enhance our understanding of differences between the labour market participation of native and second generation women. In addition, since access to formal childcare enables parents' (and particularly women's) labour market participation (Hegewisch & Gornick, 2011), questions emerge on the use of formal childcare among migrant origin households. Unfortunately, research addressing differentials in the uptake of formal childcare by parents' migration background is hitherto limited in Europe, in particular our knowledge of formal childcare uptake among parents of the second generation is lacking. Therefore, the central research question of this dissertation is: "*How do the work-family trajectories of second generation women differ compared to those of women without a migration background in Belgium?"*. More specifically, this dissertation considers two dimensions of women's work-family trajectories: employment trajectories around the transition to parenthood, as well as the uptake of formal childcare. In exploring differentiation by migration background, I focus on the origin groups that resulted from the large post-WWII waves of labour migration and distinguish Turkish, Maghreb and Southern European origin groups.

The introductory chapter of this dissertation is structured as follows. First, Section 1.1 provides more information on the Belgian context given that parents' work-family organisation is influenced by the societal context they experience. To this end, Section 1.1.1 discusses the migration histories of Turkish, Maghreb and Southern European origin groups as these have given rise to specific socio-economic and ideational contexts. Section 1.1.2 subsequently addresses work-family reconciliation policies in Belgium, since these shape the degree to which work and family are (in)compatible for different population subgroups. Next, Section 1.2 introduces the life course perspective as conceptual framework that allows integrating established sociological and economic theories that have proven fruitful understanding (potential) migrant-native

differentials in employment trajectories around the transition to parenthood, as well as differential uptake of formal childcare in Belgium. Further, Section 1.3 discusses the three main contributions of this dissertation to available literature. Finally, Section 1.4 provides the outline of the dissertation, addressing the specific research questions and data infrastructures of the empirical chapters in more detail.

1.1 The Belgian context

1.1.1 Migration history Turkish, Maghreb and Southern European origin groups

Belgium is an old immigration country, with a substantial share of the population having a migration background. Apart from neighbouring countries, the largest foreign origin groups in Belgium originate from Southern Europe (mainly Italy, but also Spain, Portugal and Greece), Maghreb countries (with the overwhelming majority originating from Morocco) and Turkey. As a result of their long migration history, these origin groups also consist of a large second generation at working and childbearing age. In 2016, 5.9% of the Belgian population had a Southern European origin, 5.2% a Maghreb origin and 2.1% a Turkish origin (constituting 19.8%, 17.4% and 7.2% of the population of foreign origin, respectively) (FOD WASO & UNIA, 2019). Although these origin groups were initially recruited in the context of labour migration after the Second World War, they differ considerably regarding their subsequent migration mechanisms. This has shaped the socio-economic and ideational contexts of Turkish, Maghreb and Southern European origin groups in Belgium, which may in turn affect the work-family trajectories of the second generation.

During the time period considered in this dissertation (roughly 2000-2016), second generation Turkish and Moroccan migrants in the age groups under study consist mainly of the children of post-WWII guest workers. Due to the specific migration history of their parents, they have been disproportionately raised in working-class and low-income families by low educated parents with limited Dutch language skills. Turkish and Moroccan guest workers were recruited from 1964 onwards to address labour shortages in sectors such as industry, mining and construction (Reniers, 1999; Van Mol & De Valk, 2016). Turkish immigration had a pronounced rural character, but also a large proportion of Moroccan guest workers were predominantly recruited from low-educated rural areas characterised by rigid gender roles, resulting in a very selective profile of non-European guest workers in Belgium. Since their stay in Belgium was considered to be temporary, there were very few civic integration and language programmes available at the time (Höhne, 2013). With the passing of time, however, many Turkish and Moroccan guest workers decided to settle permanently in Belgium and to bring their spouses and family members over from their respective origin

countries in anticipation of or following the "migration stop" related to the oil crises in the early 1970s. In contrast to the close link between migration and labour market participation that existed among male Turkish and Moroccan guest workers, the migration of their female partners was not related to employment. This may have affected the labour market opportunities for first generation Turkish and Moroccan women since the people in their social networks were predominantly employed in male-oriented sectors such as industry, mining and construction. Besides the fact that the initial first generation predominantly originated from low-educated rural areas, the specifically gendered migration patterns of these first generation migrants may additionally have fostered favourable attitudes toward the male-breadwinner model among Turkish and Moroccan origin groups in Belgium. This may have continued to affect work-family strategies among the second generation.

A substantial share of second generation Turkish and Moroccan migrants continue to marry a partner from their country of origin (Corijn & Lodewijckx, 2009; Hartung, Vandezande, Phalet, & Swyngedouw, 2011; Heyse, Pauwels, Wets, Timmerman, & Perrin, 2006; Timmerman, Lodewyckx, & Wets, 2009). The specific settlement patterns of Turkish and Moroccan guest workers resulted in so called "transplanted communities" that maintain strong bonds with the communities in the region of origin and facilitate transnational marriages and new migrations (Kesteloot, 1985; Reniers, 1999). Due to restrictive migration policies towards non-European migrants, family reunification and formation have become and remain major migration channels for Turkish and Moroccan origin groups. However, marrying a partner from the country of origin is associated with specific socio-economic and ideational contexts. For second generation men, this is a way to ensure a male-breadwinner household, as many consider second generation Turkish or Moroccan women as too liberal in their attitudes whereas first generation women frequently originate from low-educated rural areas and have limited country-specific human capital (Lievens, 1999; Timmerman, 2006). In contrast, marrying a partner from their origin country provides second generation Turkish or Moroccan women with the opportunity to bend traditionally gendered power relations as they avoid the traditional habit of moving in with their husbands' parents. Also, since their recently arrived husbands have no or limited country-specific human capital and social networks, while frequently being higher educated themselves, second generation women are likely to have better labour market opportunities than their partner.

The considered age groups of second generation Southern Europeans consist not only of the children and grandchildren from the initial guest workers, but also of the children from more recent Southern European migrants. The recruitment of guest workers from Southern Europe already started in 1946 as a result of agreements with Italy to send

workers to the Belgian mines (Myria, 2016). The vast majority of the Italian guest workers originated from poor regions, mostly in Southern Italy, with relatively rigid gender roles (Levi, 1953; Morelli, 1988). There were also large immigration flows of Italian women and children who joined their husband or father in Belgium. Although the official immigration of Italian workers stopped after the mine disaster of Marcinelle in 1956, Italian migration continued due to spontaneous labour migration and family reunification. After the disaster of Marcinelle, the Belgian government started to recruit guest workers in Spain, Portugal and Greece from 1956 onwards. Since Southern Europeans could move within Europe without legal restrictions since the 1960s and due to economic growth in their origin countries during that period, there was a large extent of return migration among Southern European guest workers, but Southern European immigration flows continued. Compared to the predominantly male and low-educated migration flows after WWII, Southern European migrants that arrived after 1980 are characterised by a more divers profile in terms of their socio-economic position and gender, and display a mainly urban background (Myria, 2016). Hence, the migration history of Southern Europeans resulted in diverse socio-economic and ideational contexts among second generation Southern European women during the observation period of this dissertation.

1.1.2 Work-family reconciliation policies

Countries' work-family reconciliation policies such as parental leave and formal childcare shape the degree to which work and family are (in)compatible and in turn affect how parents organise their work and family life. Belgium is, alongside France and Nordic countries, considered as a forerunner context in which work and family are relatively compatible, and characterised by low employment gaps between mothers and childless women (Ciccia & Bleijenbergh, 2014; Leitner, 2003; Matysiak & Węziak-Białowolska, 2016). At the same time, Belgium displays larger socio-economic differences in the uptake of work-family reconciliation policies compared to other European countries (Pavolini & Van Lancker, 2018; Van Lancker, 2018).

In Belgium, all mothers are entitled to 15 weeks of maternity leave[2], which is a relatively short period compared to other European countries. Fathers only have 15 days of paternity leave after the birth of a child (10 days until 01.01.2021). In addition, parents can take up parental leave until the child is 12 years old[3] and reduce their working hours

[2] Self-employed mothers have a separate system and are entitled to 12 weeks of maternity leave (1 week before and 2 weeks after the birth of the child are obligatory).

[3] Age limit of 4 years from its introduction in 1997 until 2005, and of 6 years from 2005 until 2009.

by (i) 100% for 4 months (3 months until 01.06.2012), (ii) 50% for 8 months, (iii) 20% for 20 months, or (iv) 10% for 40 months, or combine periods of full-time and part-time leave, while receiving a relatively low flat-rate benefit. Further, Belgium has a relatively widespread formal childcare system for children under age 3 and all children are legally entitled to pre-primary education from the age of 2.5, which is free of charge and part of the Belgian educational system. Formal childcare can be provided centre-based (i.e. crèches) or home-based (i.e. childminders), with the majority of childcare places being centre-based (Kind en Gezin, 2020a; ONE, 2020). Childcare services can be subsidised or non-subsidised[4], which implies specific conditions regarding e.g. their prices and opening hours, and the majority of all childcare places is subsidised. With respect to the price, childcare costs for parents are relatively affordable in Belgium compared to other European countries, as all subsidised childcare services have to adopt income-related fees[5] (European Commission, 2019). Although fees are set freely on the market in non-subsidised childcare services, most adopt fees around the maximum fee in subsidised childcare (Farfan-Portet, Lorant, & Petrella, 2011). In addition, childcare expenses from all approved childcare services (both subsidised and non-subsidised) are tax deductible[6]. Regarding opening hours, all subsidised childcare services must be opened at least 220 days a year and at least 10 hours a day between 6.30 a.m. and 6.30 p.m. on weekdays[7]. In contrast, non-subsidised services have no requirements regarding opening hours.

In contrast to the universal entitlement to maternity and paternity leave, the access to parental leave and formal childcare are strongly conditioned on stable employment. Regarding parental leave, eligibility in the private sector requires continuous employment with the same employer for at least 12 months in the 15 months preceding the application (Koslowski, Blum, & Moss, 2016). In the public sector, all

[4] Since 01.04.2014, the Flemish Community adopts different subsidy levels and distinguishes i) childcare places that are not subsidised (level 0), ii) places receiving only the basic subsidy implying conditions regarding opening days (level 1), iii) places receiving income-related subsidies on top of the basic subsidy implying additional conditions regarding fees, opening hours, priority criteria and occupancy rates (level 2), and iv) childcare places receiving an additional subsidy on top of the income-related subsidy (level 3) for having a proactive admission policy that favours children from vulnerable families (Kind en Gezin, 2020b).

[5] From 16.02.2009 to 01.04.2014 also non-subsidised childcare services in the Flemish Community could decide to adopt income related fees.

[6] All parents are eligible for the tax deduction as long as at least one parent has a work-related income, including unemployment benefits or other replacement incomes.

[7] 11 hours a day in the Flemish Community. Since 01.04.2014, all subsidised childcare services in the Flemish Community must be open for at least 220 days a year and services receiving additional income-related subsidies (level 2) must also be opened 11 hours a day between 6 a.m. and 8 p.m.

employees with an employment contract at the time of the application are eligible, regardless of the duration of employment. The access to formal childcare is to a large extent also conditioned on stable employment. Since supply does not meet demand in Belgium (European Commission, 2014), long waiting lists occur and parents have to arrange childcare almost as soon as the pregnancy is known (MAS, 2007). To ensure inclusiveness, subsidised childcare services[8] have to adopt priority criteria depending on parents' employment status, family status or socio-economic status such as priority to working parents, single parents or low-income parents (European Commission, 2014; Kind en Gezin, 2010). However, since the heads of childcare services have large autonomy in applying these criteria, priority is in practice predominantly given to working parents, parents who register early on waiting lists or siblings of children who are already enrolled (Vandenbroeck & Bauters, 2016; Vandenbroeck, De Visscher, Van Nuffel, & Ferla, 2008). Giving priority to these parents with a more stable and predictable demand for care is more convenient for childcare providers, since subsidised childcare services need to ensure a 75% occupancy rate each year. Hence, Belgian work-family reconciliation policies can be considered to be commodified to a large extent since they primarily support parents who are firmly established in the labour market.

1.2 A life course perspective

There is a wide range of well-established economic and sociological theories regarding work-family behaviour (Becker, 1991; Blumberg, 1984; Friedman, Hechter, & Kanazawa, 1994; Lundberg & Pollak, 1996; Oppenheimer, 1994; West & Zimmerman, 1987). Whereas economic theories mainly address the combination of work and family through utility maximisation and opportunity costs (i.e. forgone earnings and career opportunities as a result of childrearing), sociological theories particularly emphasise the role of socialisation processes and prevailing parenting norms. In tandem with the increasing availability of longitudinal microdata, the life course perspective has become an important and fruitful approach in the social sciences and is particularly relevant to study individuals' work-family behaviour (Bernardi, Huinink, & Settersten Jr, 2019; Wingens, de Valk, Windzio, & Aybek, 2011). The life course perspective does not constitute an explicit and encompassing new theory, but rather provides a conceptual framework to integrate various established theories from different disciplines. This interdisciplinary approach addresses the life course as "a sequence of socially defined events and roles that the individual enacts over time" (Giele & Elder, 1998) and is likely to enhance our understanding of individual behaviour by considering the complex

[8] Since 01.04.2014 only services receiving income-related subsidies (level 2) in the Flemish Community.

interdependencies and interactions across time, levels, and life domains (Bernardi et al., 2019).

The life course perspective can be captured in five interconnected principles that provide conceptual handles to investigate individuals' behaviour (Elder, Johnson, & Crosnoe, 2003). First, the principle of *time and place* highlights that life courses are embedded in and shaped by the historical times and places they experience. Second, the principle of *agency* points out that individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstances, which others have called "bounded agency" (Evans, 2007). This dynamic interplay of structure and agency over time is a key feature of the life course perspective. Third, the principle of *path-dependency* refers to the cumulative process in which prior life course experiences condition positions and transitions in later stages of the life course. Fourth, the principle of *linked lives* stresses that individuals' live courses do not occur in a social vacuum, but are embedded in networks of social relations and shaped by significant others. Finally, the principle of *timing* argues that consequences of life transitions, events and behavioural patterns vary according to their timing in a person's life. This section adopts these life course principles as conceptual framework to incorporate various established economic and sociological theories that have proven fruitful to understand (potential) differentials by migration background in the interlinkage between parenthood and employment, as well as in the uptake of formal childcare in Belgium.

Time and place

How parents organise the combination of work and family is influenced by the context they experience. In this respect, economic theories have argued that in a context of women's increasing labour market participation, but also of increasing labour market uncertainty and a declining ability of men to serve as the family's single breadwinner, role specialisation within couples – as suggested by Becker's New Home Economics (Becker, 1991) - may no longer yield the most favourable work-family strategy (Liefbroer & Corijn, 1999; Oppenheimer, 1994). In contrast, the dual-breadwinner model lowers parents' income uncertainty and limits opportunity costs, due to the increasing availability of work-family reconciliation policies since the mid-1980s in most European countries. Particularly access to formal childcare lowers opportunity costs as it supports parents' (and especially women's) labour market participation and diminishes the jeopardy of career paths. In addition to these economic considerations, sociological theories highlight societal norms in shaping parents' work-family combination. The transition to parenthood implies that individuals develop new social roles as mothers and fathers and these roles are influenced by prevailing parenting

norms. Sociological approaches argue that individuals conform to and reproduce societal norms regarding the employment of mothers and fathers, as well as formal childcare (Blumberg, 1984; West & Zimmerman, 1987). Whereas the male-breadwinner/female-caregiver model was the dominant norm in most Western European countries throughout the first half of the 20th century, the dual-breadwinner model is the prevalent norm in most contemporary Western countries such as Belgium, also when couples have children. The use of formal childcare for young children has also become generally accepted in Western European countries (Goldscheider, Bernhardt, & Lappegård, 2015; Grunow & Evertsson, 2016).

Adopting a life course perspective implies acknowledging that (the interplay between) economic, institutional and normative contexts structure individuals' work-family trajectories, but also emphasises that individuals occupy specific positions and make choices within the opportunities and constraints they experience. Individuals on specific intersections between gender and migration background are likely to face different opportunity structures, as suggested by the concept of intersectionality (Crenshaw, 1990). Belgium is characterised by a rigid labour market with stark differentials in labour market opportunities and outcomes between insiders and outsiders (Doerflinger, Pulignano, & Lukac, 2020), mostly affecting outsiders such as groups—and particularly women—with a non-European migration background. In this respect, research for Belgium consistently shows that second generation women (particularly of non-European origin) display lower employment rates compared to women without a migration background and are overrepresented in lower segments of the labour market (i.e. part-time employment, temporary contracts and employment sectors with low wages and irregular working hours) (FOD WASO & UNIA, 2019). In addition, the second generation finds themselves in an intermediate position between two normative contexts and has to synthesise potentially opposing parenting norms and childcare ideals (Idema & Phalet, 2007; Pessin & Arpino, 2018). On the one hand, the parents, family networks and the wider migrant community of second generation Southern European, Turkish and Moroccan migrants may stimulate the gender norms from their origin countries. On the other hand, the second generation is socialised within the norms of the majority population through their school environment and the broader society.

Agency

Stressing the importance of agency, micro-economic theories assume that individuals are rational actors and aim to maximise their utility (Becker, 1991). The birth of a child is associated with direct costs as well as opportunity costs, and maternal employment therefore depends on the balance of costs and (expected) benefits. As a result, micro-

economic theories predict that women with higher levels of human capital will be more likely to be employed after the transition to parenthood, because the opportunity costs of leaving the labour market are relatively high. Similarly, women with a higher wage potential will be more likely to use formal childcare as the net income gains from employment are substantial. Following sociological approaches, individuals' work-family trajectories are shaped by their personal preferences regarding the combination of work and family, as well as their childcare ideals, which are both influenced by the social context in which a person is embedded. This can occur through parents' transmission of norms and values, but also through role modelling in individuals' social networks and socialisation within the broader societal context (Davis & Greenstein, 2009).

Following these considerations, differences may occur between native and second generation women in their employment trajectories around the transition to parenthood, as well as in their uptake of formal childcare due to differential opportunity costs and wage potentials, and/or differential work-family attitudes and childcare preferences (de Valk, 2008; de Valk & Milewski, 2011; Güngör & Bornstein, 2009; Khoudja & Fleischmann, 2015; Seibel & Hedegaard, 2017; Wood, 2022). Considering their migration histories, which entail specific socio-economic and ideational contexts, differences with native women may in this respect be more pronounced among Turkish and Moroccan origin women compared to Southern European women. The life course concept of agency implies that individuals actively construct their own work-family trajectories by making choices, but also states that individual characteristics such as migration background influence the capacities and skills people have to shape their own life course (Wingens et al., 2011). For instance, migrant origin women may have a more limited knowledge of the complex Belgian childcare system and enrolment procedures compared to native parents (e.g. as a result of lower human capital or different social networks), which induces more difficulties to secure a childcare slot in time and may in turn constrain their agency in work-family strategies (Elloukmani & Ou-Salah, 2018; Vandenbroeck et al., 2008). In addition, the life course approach argues that work-family attitudes and childcare preferences may be adjusted over the life course. In this respect, research among general populations indicates that the transition to parenthood is associated with the emergence of more traditional gender role attitudes among both men and women (Baxter, Buchler, Perales, & Western, 2015; Schober & Scott, 2012). However, based on available literature on gender role attitudes in migrant populations, it is unfortunately unclear whether and to what extent gender role expectations change around parenthood, and whether this differs from natives (de Valk, 2008).

From a life course perspective, acknowledging time-related interdependencies may enhance our understanding of women's work-family behaviour. Since actors prefer current activities that entail certain (positive) consequences, their present decisions and actions are affected by what they anticipate in the future (Bernardi et al., 2019). In this respect, women may limit their investment in education and employment in anticipation of reduced labour force participation after the transition to parenthood (Bass, 2015). This 'shadow of the future' is also reflected in the 'theory of the value of children' which asserts that rational actors will always seek to reduce uncertainty, but that the path to uncertainty reduction depends strongly on the opportunities available (Friedman et al., 1994). Parenthood as a means for uncertainty reduction will be relatively more important for actors who find their pathways to reduced uncertainty through stable careers blocked. In this view, if second generation women (especially of Turkish or Maghreb origin) have limited labour market prospects, they may consider family formation as an alternative career and limit their investment in education and employment. Hence, while gender role attitudes shape labour market outcomes, limited labour market opportunities may also foster traditional work-family attitudes.

Path-dependency

Both economic and sociological approaches suggest that employment and family trajectories are conditioned by prior life course experiences. On the one hand, economic approaches indicate that individuals' labour market outcomes are influenced by their accumulated human capital (e.g. level of education, early work experience) (Becker, 2009), which in turn shape their work-family trajectories by entailing specific opportunity costs and net income gains from using formal childcare. On the other hand, individuals are embedded and socialised in specific socio-economic and ideational contexts which affect their work and family trajectories by inducing particular social networks and gender role expectations (Gracia, Vázquez-Quesada, & Van de Werfhorst, 2016; Verhaeghe, Li, & Van de Putte, 2013).

From a life course perspective, path-dependencies in work-family trajectories that result from interactions with the policy context are also considered. Early labour market (dis)advantages are likely to shape work-family trajectories since women's labour market attachment (e.g. in terms of employment stability or working hours) prior to the birth of their first child has implications for the practical challenges to combine work and family. In the Belgian context of supply shortages and long waiting lists in formal childcare, migrant origin women (particularly of Turkish or Maghreb origin) may face more barriers in accessing formal childcare compared to natives, since the higher instability of their labour market trajectories makes their demand for care more difficult to predict (Biegel, Wood, & Neels, 2021; MAS, 2007; Vandenbroeck et

al., 2008). In addition, second generation women are overrepresented in jobs with atypical working hours, which may be incompatible with the opening hours of most childcare services (Wall & José, 2004). This may in turn induce varying employment trajectories around the transition to parenthood by migration background, since parents with a lower access to formal childcare may have to develop alternative work-family strategies, such as a (partial) retreat from the labour market by one partner.

Linked lives

Given that work-family strategies are typically developed at the household-level, the couple is a key unit of analysis for understanding individuals' work-family behaviour. A review of the literature indicates that economic and sociological theories provide complementary insights regarding couples' division of paid and unpaid work around the transition to parenthood. Economic theories, such as the New Home Economics (Becker, 1991) and bargaining theories (Lundberg & Pollak, 1996), assume that partners aim to maximise their (joint) utility through specialisation. Also in contemporary (dual-earner) societies, micro-economic mechanisms are useful to understand couples' work-family strategies as these imply that the partner with the best negotiation position (e.g. highest wage potential or job security) will take up more paid work whereas the other partner will reduce working hours in order to take up more household work and childcare. Hence, according to the micro-economic perspective, couples' role specialisation is not related to gender, but to partners' comparative advantages and negotiation positions. In contrast, sociological theories highlight that couples confirm to societal expectations about how fathers and mothers should behave to display their cultural identity as men and women. Deviating from the dominant gender role expectations may entail social penalties (e.g. negative reactions, social exclusion) (Heilman, Wallen, Fuchs, & Tamkins, 2004) or compensation behaviour (e.g. 'doing gender' by engaging in stereotypically female/male activities) (Brines, 1993).

Since partners' relative labour market opportunities and/or gender role expectations are likely to vary depending on the origin group and migrant generation of both partners within a couple, differences in couples' division of paid and unpaid work may emerge among couples with different migration backgrounds. By adopting a life course perspective, dynamics over time become more prominent and the question emerges how the division of paid and unpaid work among migrant origin couples unfolds around the transition to parenthood. For instance, to the extent that migrant origin couples already adopt a male-breadwinner employment strategy before the transition to parenthood, changes in their division of (un)paid work after the transition to parenthood are likely to be more limited compared to dual-earner couples. In this respect, prior research for Belgium indicates that whereas native and European origin

women (couples) are most likely to have a first child in case they (both partners) are employed, non-European origin women (couples) are most likely to have their first child when they are not employed (or only the male partner is employed) (Wood & Neels, 2017; Wood, Van den Berg, & Neels, 2017).

Furthermore, the life course perspective highlights that besides institutional contexts, social and family networks can take up (a part of) the caring responsibilities and thus shape the setting in which parents develop their work-family strategies. Parents can rely on informal childcare to combine work and family, which may be particularly relevant in case formal childcare is not accessible, unaffordable or insufficiently flexible. In addition, parents may also prefer informal childcare as primary care source over formal childcare. Whereas first generation migrants (particularly those who migrated recently) may lack social networks in Belgium on which they can rely for combining work and family (Wall & José, 2004), second generation migrants may have more access to grandparents as informal care providers compared to native parents, given the generally low labour market participation of first generation migrant women, particularly of Turkish or Maghreb origin (Biegel et al., 2021).

Timing

Regarding the timing of family formation, economic theories suggest that sufficient financial means and a certain degree of labour market certainty are preconditions for the transition to parenthood as this is a long term commitment (Becker, 1991; Oppenheimer, 1994). Having a child at a young age hampers the accumulation of necessary resources to handle the cost of family formation. Moreover, age norms regarding the transition to parenthood, so-called "social clocks", schedule events in particular life phases and make family formation on-time or off-time (Wingens et al., 2011). This timing may result in specific socially (dis)advantageous consequences.

The life course perspective highlights the interplay between the timing of family formation and the policy context. Having a first child at a younger age is likely to have a differential impact on women's employment trajectories compared to women who make the transition to parenthood at a later age, as this may imply that women have a first child before being (firmly) established in the labour market. In the Belgian context where access to work-family reconciliation policies is to a large extent conditioned on stable employment, this may entail practical difficulties for combining motherhood and employment, as suggested in the section on path-dependency. Since second generation Turkish and Moroccan origin women generally start family formation at a younger age compared to native women (Corijn & Lodewijckx, 2009), this may induce varying work-family trajectories.

1.3 Contributions to the literature

Adopting the life course perspective as conceptual framework, this dissertation investigates work-family trajectories of women in Belgium and contributes to available literature in three ways. First, addressing the interplay between structure and agency, the first contribution of this dissertation is that it examines differences between native and second generation women in their employment trajectories around the transition to parenthood, as well as in their uptake of formal childcare. Even though research on women's employment patterns around family formation is widely available among general populations (Gutierrez-Domenech, 2005; Kreyenfeld, 2015; Wood et al., 2016), our understanding of the interlinkage between the transition to parenthood and employment trajectories among migrant origin groups is limited. Although longitudinal microdata is increasingly adopted to address the impact of family formation on employment among migrant populations (e.g. Kil, Neels, Wood, and de Valk (2018) for Belgium and Vidal-Coso (2019) for Switzerland), available studies are mainly based on cross-sectional data (Bevelander & Groeneveld, 2006; Holland & de Valk, 2017; Rubin et al., 2008). Using cross-sectional data is, however, cumbersome to disentangle the effect of family formation on employment from the effect of employment on family formation or to control for general factors affecting employment positions such as lower human capital or social capital (Heath et al., 2008; Verhaeghe et al., 2013). Therefore, this dissertation uses longitudinal microdata to examine changes in employment trajectories from one year before up to three years after the birth of the first child among native and second generation women in Belgium. Research addressing differentials by migration background in the uptake of formal childcare is limited in Europe as well and although this body of literature is growing, available studies have mainly focussed on parents of the first generation (Biegel et al., 2021; Driessen, 2004; Schober & Spiess, 2013). In addressing differences by migration background, this dissertation distinguishes between migrant origin groups and compares women without a migration background to second generation women of Southern European, Turkish and Maghreb origin to take their specific socio-economic and ideational contexts into account. Distinguishing specific origin groups has often not been possible due to data limitations.

Second, this dissertation explores path-dependencies in work-family trajectories by first examining women's early employment trajectories upon graduation and subsequently addressing whether migrant-native differentials in women's labour market attachment prior to family formation can explain differential employment trajectories around the transition to parenthood. In addition, specific attention is paid to path-dependencies in work-family trajectories through the interaction with the Belgian formal childcare context. Although prior research has identified that a limited

availability of formal childcare entails unequal access to childcare for native and migrant origin parents due to a more limited knowledge of the complex childcare system and/or a lower employment stability among the latter (Vandenbroeck et al., 2008; Vandenbroeck & Lazzari, 2014), longitudinal research on the impact of increasing availability on inequalities in formal childcare uptake over time is limited, especially with respect to differentials by migration background (Farfan-Portet et al., 2011; Jessen, Schmitz, & Waights, 2020; Sibley, Dearing, Toppelberg, Mykletun, & Zachrisson, 2015). This dissertation therefore explores whether and to what extent increasing childcare availability can narrow migrant-native uptake differentials in Belgium.

Third, in line with the life course principle of linked lives, this dissertation not only focusses on women, but also takes their partner's characteristics into account such as his migration background. This is likely to entail specific socio-economic and ideational contexts which may in turn shape women's employment trajectories around the transition to parenthood and their uptake of formal childcare. Previous studies have also indicated that omitting partners' characteristics in research on maternal employment may yield biased results (Abroms & Goldscheider, 2002; Matysiak & Vignoli, 2008). Moreover, Chapter 4 adopts a household perspective and uses couples as research units to examine gender dynamics in couples' division of paid work around the transition to parenthood. Whereas couples' gender division of (un)paid work around the transition to parenthood has been well-documented in general populations (Baxter et al., 2008; Kuhhirt, 2011; Schober, 2013; Wood, Kil, & Marynissen, 2018; Wood et al., 2016), variation by couples' migration background has hitherto only been examined to a limited extent due to the limited availability of large-scale longitudinal data at the household-level. While a limited number of studies have assessed how first and second generation migrants divide (un)paid work at a particular moment in time, controlling for the presence of children, these have not addressed how this division unfolds around the transition to parenthood and has not fully acknowledged heterogeneity by origin within and between couples (Diehl, Koenig, & Ruckdeschel, 2009; Goldscheider, Goldscheider, & Bernhardt, 2011).

1.4 Outline of the dissertation

The contributions presented in the previous section are addressed in four empirical chapters. Chapter 2 first examines migrant-native differentials in women's labour market entry upon graduation since early labour market (dis)advantages are likely to shape their employment trajectories around the transition to parenthood as well as their uptake of formal childcare. This chapter not only distinguishes between origin groups (i.e. native, Turkish and Maghreb origin women), but also between generation 1.5 (i.e. migrant origin women who immigrated before the age of 18) and the second

generation (i.e. migrant origin women who are born in Belgium), to take differences in terms of socialisation, language development and educational opportunities into account. More specifically, the chapter focuses on differentials in acquiring stable employment and examines the following research questions: *"Do the entry into and exit out a first stable employment spell upon graduation, as well as the job characteristics in this employment spell vary by migration background? To what extent can these differences be explained by individual, household and parental characteristics?"*.

To address these research questions, I use data from the Flemish administrative panel on Migration, Integration and Activation (MIA Panel) covering the period 2005-2016, which links longitudinal microdata from the Belgian Social Security Registers (KSZ/CBSS) to data from the public employment service of Flanders (VDAB). The MIA Panel provides information on a sample of i) individuals without a migration background, ii) individuals of Southern European origin (i.e. Italy, Spain, Portugal or Greece) and iii) individuals of non-European origin (i.e. predominantly Turkey and Maghreb, and to a lesser extent other Africa, Asia, Oceania, and North-, South- or Central-America) aged 18-65 and legally residing in Flanders on January 1st 2005, with additional annual samples of 18-year-olds in the period 2006-2016. Sampled individuals are followed until the age of 65, death/emigration or reaching the end of the observation period on December 31st 2016. This data infrastructure has four features that are necessary for these research questions. First, the MIA Panel provides detailed longitudinal information on labour market positions of individuals on a quarterly basis, which allows examining transitions between employment positions and taking the duration of employment spells into account. Second, household members of sampled individuals on the first of January of each observation year are also included in the data. As a result, the MIA Panel provides detailed annual information on household composition, as well as detailed information on the socio-demographic characteristics and labour market positions of all household members on a quarterly basis. This combined availability of individual and household-level information allows simultaneously examining explanatory factors at the individual, household and parental level. Third, the linkage with data from the public employment service of Flanders provides additional information on educational credentials as well as information on individuals' language skills, which has largely remained empirically untested due to data limitations. Fourth, the MIA Panel is disproportionately stratified by age and migration background, with an overrepresentation of the younger age groups (i.e. 18–35 year olds) and individuals of Southern European and non-European origin. This provides sufficiently large sample sizes to study the labour market entry among specific origin groups and generations. The results of this chapter indicate that migrant origin women display lower

probabilities of entering stable employment, in tandem with higher probabilities of exiting stable employment compared to native women. In addition, migrant origin women are also less likely to start in white-collar jobs, with a full-time contract or with a wage similar to natives. Although migrant-native differentials diminish after controlling for individual, household and parental characteristics, substantial gaps remain. Hence, this chapter shows that the employment trajectories of migrant origin women are less stable from the onset of their career than is the case among native women, which is in turn likely to induce migrant-native differentials in women's subsequent work-family trajectories.

Chapter 3 investigates employment trajectories around the transition to parenthood among native and second generation women of Southern European and Turkish/Moroccan origin. In line with the life course principle of path-dependency, the following research questions are addressed: "*Does the birth of the first child have a stronger impact on the labour market trajectories of migrant origin women than those of native women? To what extent can these differences be explained by the differential pre-birth labour market attachment of migrant origin and native women?"*. This chapter uses the Belgian Administrative Socio-Demographic Panel (BASD Panel) covering the period 1999-2010, which links longitudinal microdata from the National Register and the Belgian Social Security Registers (KSZ/CBSS). The data infrastructure provides information on a sample of women aged 15–50 years legally residing in Belgium on January 1st 1999, with supplementary annual samples in the period 2000-2010 of 15-year-olds and women aged 16–50 years who settled in Belgium in the preceding year. Sampled women are followed until the age of 50, death/emigration or reaching the end of the observation period on December 31st 2010. Four features make the BASD Panel particularly useful to address the outlined research questions. First, the BASD Panel provides quarterly information on contractual working hours and the date of birth of all children. This allows investigating changes in women's working hours around the transition to parenthood by using fixed-effects models that only exploit variation within individuals over time. Second, the BASD Panel is disproportionally stratified by nationality, with an overrepresentation of women with a foreign nationality, making it possible to investigate differentials by migration background in the effect of family formation on employment. Third, the detailed and large-scale information on socio-demographic characteristics, employment position and income allows to estimate women's employment probabilities and their wage potential which provides an indicator of women's pre-birth labour market attachment that is not affected by their position at an arbitrary point in time. This is particularly relevant for migrant origin women as their employment trajectories are less stable (cf. Chapter 2). Fourth, household members of sampled individuals are included, which allows taking

fathers' migration background and his pre-birth labour market attachment into account. The results indicate that instability of employment trajectories that already emerges before the start of family formation (cf. Chapter 2) is key to understand migrant-native differentials in employment trajectories around the transition to parenthood. Differences between native and second generation Southern European and Turkish/Moroccan women in their employment trajectories around the transition to parenthood can (largely) be traced back to women's differential pre-birth labour market attachment. This indicates that there is a strong path-dependency of employment trajectories around parenthood for migrant women and natives alike, but that second generation women generally have a lower pre-birth labour market attachment than native women, which accounts for the frequently observed migrant-native differentials in maternal employment.

Following the principle of linked lives, Chapter 4 adopts a household perspective and uses couples as research units to investigate variation by migration background in couples' gender division of paid work around the transition to parenthood. By considering the origin group (i.e. native, Southern European, Turkish/Maghreb) and migrant generation (i.e. first or second) of both partners, I distinguish ten types of couples to explore the following research questions: "*How do native and migrant origin couples divide paid work? Is there a differential impact of the transition to parenthood on couples' gender division of paid work by migration background?"*. This chapter again uses the MIA Panel (cf. Chapter 2), as this data infrastructure has two necessary features to address the outlined research questions. First, it provides longitudinal information at the couple-level on both partners' contractual working hours on a quarterly basis and the date of birth of all children. This allows documenting couples' division of paid work around the transition to parenthood and to estimate couple-level fixed-effects models that assess the impact of the transition to parenthood on couples' gender division of paid work. Second, the MIA Panel provides sufficiently large sample sizes to distinguish specific types of couples as a result of being disproportionally stratified by migration background. The results of this chapter indicate that the majority of native couples (i.e. two partners without a migration background) adopt an equal division of paid work, but that gender inequality in paid work increases after the birth of the first child. Comparing native couples' gender dynamics around family formation with those of couples where at least one partner is of migrant origin, four patterns can be identified. These four patterns emerge from (dis)similarities with native couples with respect to their pre-birth division of paid work on the one hand and their changes in this division around the transition to parenthood on the other hand. These results highlight that combining an account of couples' division of paid work prior to the birth of a first child with a perspective focussing on how the division of paid work

changes around the transition to parenthood is necessary for a thorough understanding of variation by migration background, but more research is required to disentangle the underlying mechanisms behind these varying gender dynamics.

Chapter 5 of this dissertation addresses the second dimension of work-family trajectories and investigates differentials in the uptake of formal childcare between households where the mother has no migration background, versus a second generation Southern European, Maghreb or Turkish background. More specifically, I explore whether and to what extent increasing childcare availability within municipalities can reduce migrant-native uptake gaps and address the following research question: "*Does increasing local childcare availability have a larger positive effect on the uptake of formal childcare among households with a second generation mother compared to households with a native mother, resulting in decreasing migrant-native uptake gaps?"*. This chapter uses data from the 2011 Belgian Census that covers the entire population legally residing in Belgium on January 1st 2011. The 2011 Census has been linked to i) longitudinal microdata on household composition and place of residence from the population registers for the period 2000-2015, ii) longitudinal microdata on income and childcare expenses from the tax return register for the period 2000-2015, and iii) municipality-level contextual data on the availability of formal childcare services for children aged 0-3 in the period 2000-2015. Two features make this data infrastructure necessary to answer the research question. First, since this data infrastructure provides annual information on individuals' formal childcare uptake and their place of residence, we can use municipality-level fixed-effects models that only exploit variation in childcare availability within municipalities over time to estimate the effect of childcare availability on parents' formal childcare uptake. This is particularly relevant since Belgium is characterised by substantial variation in childcare availability between municipalities and the considered origin groups display different settlement patterns compared to the native Belgian population as a result of their migration history. Second, the data infrastructure covers the entire population legally residing in Belgium, which entails sufficiently large sample sizes to distinguish second generation mothers of Southern European, Turkish and Maghreb origin. The results show that households with a second generation mother are less likely to use formal childcare than households with a native mother and that the uptake gap is most pronounced among Maghreb and particularly Turkish origin groups. Further, the analyses indicate that although Southern European and Turkish origin mothers become more likely to use formal childcare when local childcare availability increases, the uptake gap with native mothers remains unchanged since there is no differential effect of increasing local childcare coverage. On the other hand, increasing childcare availability within municipalities has a stronger positive effect on the uptake of formal childcare among

Maghreb origin mothers compared to native mothers, in turn reducing uptake gaps. Since this is only a slightly stronger positive effect, considerable uptake gaps remain nevertheless.

Finally, in Chapter 6 I discuss the main findings of this dissertation regarding variation by migration background in the light of the second and third contribution. This chapter concludes with a discussion on the limitations of this research and a reflection on potential fruitful paths for future research on work-family trajectories in migrant populations.

Chapter 2

Early labour market trajectories of intermediate and second generation Turkish and Maghreb women

Abstract

This study focuses on early labour market trajectories of Turkish and Maghreb origin women who graduated in Belgium (Flanders) between 2005 and 2016. In contrast to available literature that largely focuses on employment positions at one point, we assess whether there are migrant-native differentials in entering a sustainable employment spell, operationalised as an employment spell of at least four consecutive quarters, leading to a gross monthly wage of at least 82% of the gross Belgian minimum wage and a work intensity of at least 40% of a full-time position in the fourth quarter of the employment spell. Subsequently, we consider migrant-native differentials in the characteristics of the first sustainable employment spell (type of employment, type of contract and gross wage quintile), as well as the length of the first sustainable employment spell. Using longitudinal microdata, we examine how and to what extent these differentials can be explained by individual, previous employment, household and parental characteristics. Results indicate that, compared to native women, Turkish and Maghreb origin women are less likely to enter and more likely to exit a first sustainable employment spell. These differentials with natives are largest for the intermediate generation and are reproduced and reinforced over labour market careers. Although migrant-native differentials diminish after controlling for individual, previous employment, household and parental characteristics, substantial differences remain.

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2.1 Introduction

Over the past few decades, female labour force participation has increased strongly in most Western European countries, gradually resulting in a shift from a male-breadwinner to a dual-earner model. Female labour participation differs strongly, however, by migration background, with particularly high inactivity and unemployment rates for women with a non-European background (De Klerck et al., 2016; Khoudja & Fleischmann, 2014). Belgium has the largest employment gap between natives and women of non-European origin in the EU-15, reaching 35% (FOD WASO & UNIA, 2017; OECD, 2008; Rendall, Tsang, Rubin, Rabinovich, & Janta, 2010)[9]. Although the migrant-native employment gap is most articulated among non-European origin women of the first generation, the labour market position of the second generation remains considerably worse compared to natives, and previous research has indicated that these employment gaps already emerge during early stages of the life course (Baert, Heiland, & Korenman, 2016).

Popular explanations for the weaker labour market outcomes of the second generation frequently refer to lower human capital (Becker, 2009). Research has demonstrated, however, that substantial ethnic penalties remain when controlling for differences in educational attainment (Corluy, 2014; Neels & Stoop, 2000). Alternatively, labour market disadvantages of the second generation have been linked to their social background: non-European origin children are disproportionately raised in working-class and low income families, which affects their labour market outcomes both directly (e.g. through social networks, economic resources) and indirectly through educational outcomes, language skills and labour market orientations (de Valk, 2008; Phalet, Deboosere, & Bastiaenssen, 2007; Verhaeghe et al., 2013). Qualitative research for Belgium has also identified the lack of support and role models during education, school drop-out due to a precarious income situation and low self-esteem as factors shaping labour market prospects and positions of the second generation (Elloukmani & Ou-Salah, 2018). Lower participation of migrant origin women has further been related to cultural differences with respect to traditional gender role attitudes, such as female responsibilities to take care of their children and the household (de Valk, 2008; Khoudja & Fleischmann, 2014). Longitudinal research for Belgium suggest, however, that lower maternal employment and uptake of parental leave among migrant origin women largely reflect their unfavourable pre-birth labour market positions. Since migrant origin women are already overrepresented in unstable labour market trajectories

[9] Migrant origin women are defined as women who have a foreign nationality, who are born with a foreign nationality or who have at least one foreign born parent. Native women are defined as women whose parents are both born in Belgium.

characterised by low incomes before motherhood, they face practical and financial challenges to combine motherhood and employment (e.g. affordability and availability of formal childcare) and fail to meet the eligibility criteria for parental leave[10] (Kil et al., 2018; Kil, Wood, & Neels, 2017). Finally, there is consistent evidence of different types of discrimination in the Belgian labour market (Baert, Cockx, Gheyle, & Vandamme, 2013; Vandezande, Fleischmann, Baysu, Swyngedouw, & Phalet, 2008). Particularly non-European origin women face often discrimination related to the veil (CGKR, 2012; Mescoli, 2016).

Although a wide range of explanations for migrant-native employment differentials have been suggested in the literature, previous research has not been able to fully explain ethnic penalties and many potential determinants have hitherto not been considered. More specifically, the empirical relevance of factors such as field of education, language skills and previous work experience has remained empirically untested due to the limited availability of large-scale longitudinal data. In addition, existing research on labour market participation of migrant origin women focuses mainly on their employment positions at a single point in time, hereby failing to acknowledge that individuals typically change jobs multiple times, shift between part-time and full-time employment, experience multiple unemployment spells and gradually increase their earnings across their careers. As a result, employment status at any point is conditioned by previous (dis)advantages in terms of education, unemployment spells and work experience.

Given the path-dependent and incremental nature of labour market trajectories, this study focuses on early labour market trajectories of Turkish and Maghreb origin women who graduated in Belgium (Flanders) between 2005 and 2016. In contrast to the available literature that has largely focused on employment regardless of employment stability and associated income, we assess whether the likelihood to enter sustainable employment differs between natives and women with a migration background by considering employment spells that meet three conditions related to duration of the employment spell, wage and work intensity. First, since the likelihood to become unemployed decreases with the length of the employment spell (VDAB, 2014), four consecutive quarters are considered to denote stable employment. Second, we consider employment spells that lead to the Belgian minimum wage being attained in the fourth quarter of the employment spell. Third, a condition for work intensity is adopted, indicating that the employment spell has to lead a work intensity of at least 40% of a full-time position in the fourth quarter of the employment spell. Subsequently,

[10] In order to be entitled to parental leave in Belgium, an employee needs to have worked for the current employer for 12 out of 15 months prior to the application.

we additionally consider migrant-native differentials in the characteristics of the first sustainable employment spell (i.e. type of contract, type of employment and gross wage quintile) and the duration of the first sustainable employment spell. Using longitudinal microdata from the Belgian crossroads bank for social security that have been linked to longitudinal data from the employment office (VDAB), we examine how and to what extent migrant-native differentials in i) entering/exiting the first sustainable employment spell and ii) characteristics of the first sustainable employment spell, can be explained by individual characteristics (e.g. level and field of education, Dutch language skills), previous employment experience (e.g. cumulated quarters work experience), household characteristics (e.g. number of children) and parental characteristics (parental income). Finally, we not only distinguish between origin groups, but also between the intermediate generation (migrant origin women who immigrated before the age of 18) and the second generation (migrant origin women who are born in Belgium), to take differences in terms of (gender role) socialisation, language development and educational opportunities into account (Hermansen, 2017; Neels, 2000).

2.2 The Belgian context

2.2.1 Turkish and Moroccan migration to Belgium

The presence of Turkish and Maghreb origin groups in Belgium is the result of three subsequent migration waves: the initial recruitment of guest workers, subsequent family reunification and finally marriage migration. After the Second World War, Belgium recruited guest workers for mining and heavy industries, who originally originated from Italy (Van den Broucke et al., 2015). After the mine disaster of Marcinelle in 1956, but also because of an increasing demand for labour during a period of economic growth, the government recruited new guest workers outside Europe from Turkey and Morocco during the early sixties (Reniers, 1999). Following the oil shocks and economic recession in the early 1970s, all immigration of non-EU guest workers was stopped in 1974. Given the growing uncertainty on how possibilities of family members to migrate would evolve, many Turkish and Moroccan guest workers decided to settle permanently in Belgium and bring over their spouses and family members. In subsequent decades, and in contrast to second generation migrants from European origin, a substantial share of second generation Turkish and Moroccan migrants continued to marry a partner from their parents' country of origin (Corijn & Lodewijckx, 2009). This form of migration, in which brides and grooms are 'imported', had become the only available form of legal migration to Belgium for Turks and Moroccans (Reniers, 1999). As a result of these three migration waves, Turkish and Maghreb origin groups account for a substantive share of the Belgian population: in

2014, 4.8% of the Belgian population had a Maghreb origin (16% of the population of foreign origin[11]) and 2.2% had an origin of a EU-candidate country, which includes Turkey (7.5% of the population of foreign origin) (FOD WASO & UNIA, 2017).

2.2.2 Gradual labour market entry

Labour market entry is no longer a one-time event from graduation to first employment, but rather a gradual process throughout young adulthood. Work experience is often already gained during education, as part-time education can be combined with part-time employment in Belgium from the age of sixteen onwards and can also be acquired during full-time education as part of a study program (e.g. internships) or other work experience outside school times (Baert, Neyt, Omey, & Verhaest, 2017; Lucassen, 2003; Termote & Van Trier, 2011). The Labour Force Survey of 2009, for instance, shows that the transition from school to work is no longer single or unidirectional transition, as 13.5% of the 15-25 year olds had ever left education for more than a year before returning to education. In addition, most school leavers change jobs multiple times, experience unemployment and start their career with interim jobs, temporary contracts and lower wages than the rest of the working population and gradually acquire more sustainable employment conditions over their career (Elchardus & Te Braak, 2014; Göbel & Verhofstadt, 2008; Stevens, 2009; Termote & Van Trier, 2011; Tielens & Herremans, 2009). However, results for the total Belgian working population seem to suggest that whereas natives often access a permanent contract, higher wages and full-time employment over their career, individuals with a non-European background face more difficulties in establishing a stable employment spell and more often remain employed in the secondary segment of the labour market, characterised by unstable labour market trajectories, temporary contracts, low wages and part-time employment (FOD WASO & UNIA, 2017; Kogan, 2004; Van Dooren, Struyven, & Sam, 2014; Vanduynslager, Wets, Noppe, & Doyen, 2013). Whereas the larger part of the literature has adopted a cross-sectional perspective on employment positions, this study uses longitudinal microdata to analyse whether Turkish and Maghreb origin women who graduate in Belgium face more difficulties than native women to enter the labour market and to acquire sustainable employment.

[11] Individuals with a foreign origin are defined as individuals who have a foreign nationality, who are born with a foreign nationality or who have at least one foreign born parent.

2.3 Explaining labour market outcomes of migrant origin women

To explain the labour market outcomes of migrant origin women, and the differences with natives, scholars have addressed both factors external to a particular origin group (such as discrimination, segmented labour markets and spatial segregation), and factors intrinsic to the group, including social and human capital, socio-economic and cultural background, and country of origin (Baert et al., 2013; Glorieux, Laurijssen, & Van Dorsselaer, 2009; Heath et al., 2008; Khattab, 2009; Kogan, 2004; Pichler, 2011; Platt, 2005; Verhaeghe et al., 2013; Zhou, 1997). Over time and subsequent generations, these disadvantages are expected to weaken as migrants and their children learn the majority language and acquire local education (Chiswick, 1978).

As these theories have mainly focused on employment status, rather than how these different factors affect entry into and exit from employment spells, this section considers whether and how these theoretical frameworks can be used to understand transitions leading to sustainable employment. More specifically, we assess to what extent human capital, household characteristics and social background can explain differentials between natives, and women of Turkish and Maghreb origin with respect to i) entries into and exists from sustainable employment, ii) characteristics of employment spells, and iii) how the impact of these factors differs between natives, the intermediate and second generation.

Human capital

Despite the fact that intermediate and second generation Turkish and Maghreb women (have partially) enrolled in the same educational system as native women, they are more likely to exit the educational system without obtaining a degree of secondary education, they less often have tertiary qualifications and they are typically enrolled in fields of education which offer poorer employment prospects such as textile, food and secretariat (Baert & Cockx, 2013; FOD WASO & UNIA, 2017; Glorieux et al., 2009; VDAB, 2004). Research has shown that highly educated school leavers (ISCED 5-6) not only have a shorter unemployment spell before finding a first job than low educated school leavers (ISCED 0-2), they are also more likely to enter a stable employment spell (Baert et al., 2016; Mazrekaj, De Witte, & Vansteenkiste, 2017; Uhlendorff & Zimmermann, 2006; VDAB, 2014, 2017). In addition, empirical evidence shows that level of education has a positive impact on wages and that highly educated are more likely than less educated individuals to have white collar and high autonomy jobs, as well as indefinite and full-time contracts (Fabra & Camisón, 2009; Vansteenkiste & Sourbron, 2016; Verhofstadt, 2007). Research has demonstrated, however, that substantial ethnic penalties remain when controlling for differences in educational attainment (Corluy,

2014; Neels & Stoop, 2000). In addition, many potential determinants of human capital, such as field of education, language skills and previous work experience have hitherto remained empirically untested due to the limited availability of large-scale longitudinal data. Once a spell of employment has been entered or several spells have been accumulated, work experience may gain importance to evaluate skills and productivity rather than the level of education initially obtained. However, since research has shown that lower educated are more likely than highly educated individuals to experience a transition from employment into unemployment or inactivity, as a result of an increased demand for highly educated individuals and their overrepresentation in occupations and economic branches that are particularly vulnerable during economic restructuring (Gesthuizen & Wolbers, 2010; Kogan, 2004; Lauer, 2003), we expect that educational credentials nevertheless offer an important explanation for migrant-native differences in sustainable employment spell exits.

Apart from education, there is considerable evidence that proficiency in the host country's language strongly affects the likelihood to become employed (Heath et al., 2008; Van Tubergen, Maas, & Flap, 2004; VDAB, 2008), earnings (Chiswick & Miller, 1995), and other employment characteristics, although the relevance of linguistic skills and communication varies over sectors and occupational activities (Esser, 2006). Since Turkish and Maghreb origin youngsters often do not speak Dutch at home and generally have lower Dutch language skills than natives (UNIA, 2016; Vanduynslager et al., 2013), we expect that a lack of Dutch language skills is an important factor in explaining migrant-native differentials in entering a sustainable employment spell and in the characteristics of the employment spell. As migrant origin women who have entered a sustainable employment spell have already proven their Dutch language skills, we expect that language skills are less important in explaining the exit out of a sustainable employment spell.

Since Turkish and Maghreb women of the intermediate generation are not born in Belgium, they have had less exposure to the Belgian educational system than the second generation and natives. As children who arrive at older ages, for example after primary school, often miss out on important lessons on numeracy and literacy, age at arrival has a negative impact on educational attainment (Hermansen, 2017; Neels, 2000). In addition, as younger children learn new languages with greater ease and success than adolescents, Dutch language proficiency of the intermediate generation is expected to be lower than that of the second generation. In sum, we expect that various aspects of human capital are more relevant to explain differentials between natives and the intermediate generation - especially for women who immigrated at later ages - than they are to account for differences between natives and the second generation.

Household characteristics

Women of Turkish or Maghreb origin are characterised by younger ages at marriage and childbearing than native women (Corijn & Lodewijckx, 2009), which may imply that these women marry before being (firmly) established in the labour market. For women in unstable labour market positions with low incomes and/or irregular working hours, however, family formation may hamper the entry into a sustainable employment spell, as a result of practical and financial difficulties associated with combining motherhood and employment (Kil et al., 2018). On the other hand, women with rather traditional values of gender roles may prefer to stay at home full-time or work only part-time to take care of their children and the household, and may be thus not looking for a sustainable employment spell. Women of Turkish or Maghreb origin also frequently marry a partner of the same origin who was born in Belgium or a partner from the parents' country of origin. Whereas marrying a co-ethnic of the second generation often results in the endorsement of rather traditional gender roles, the choice of second-generation women to marry an 'imported groom' may allow to avoid the traditional habit of moving in with their husbands' parents and thus bend traditional gendered power relations, given that their recently arrived husband has no or limited networks, does not know the country and the language, while frequently being higher educated themselves (Khoudja & Platt, 2016). In the literature there is no consensus on whether and to witch extent there are differences between native and migrant origin women in gender role attitudes, however, since gender values are subject to early socialisation processes (Khoudja & Platt, 2016), we expect gender role attitudes to vary across origin groups and between the intermediate and second generation. In addition, it is also important to stress that household conditions, human capital and female labour force participation are highly interrelated, as women with low ambitions and opportunities on the labour market may invest less in their education and may choose full-time parenthood as an alternative career (Khoudja & Fleischmann, 2014).

Social background

Due to the specific migration background of their parents, Turkish and Maghreb origin children are disproportionately raised in working-class and low income families by low educated parents who have limited Dutch language skills. Research suggests that socio-economic background affects early labour market outcomes both directly, through networks, economic resources and job advice, and indirectly, through educational outcomes and language skills (Glorieux et al., 2009; Gracia et al., 2016; Heath et al., 2008; Verhaeghe, Van der Bracht, & Van de Putte, 2015; Zuccotti, 2015). However, there is also considerable evidence that first generation parents have higher aspirations for their children's education and labour market outcomes as part of a social mobility

project for their family (Modood, 2004; Van de Werfhorst & Van Tubergen, 2007; Zhou, 2005). Further, parents' employment status and gender roles may influence directly and indirectly (through women's own employment status) the gender roles attitudes of their children, which in the case of Turkish and Maghreb origin women may result in the endorsement of rather traditional gender roles (de Valk, 2008; Moen, Erickson, & Dempster-McClain, 1997). However, there might be an important difference between the intermediate and second generation. Whereas the former has experienced early-childhood socialisation in the country of origin, the latter has grown up in an intermediate position between a more egalitarian host society and a more traditionally oriented family of origin (de Valk & Milewski, 2011). We therefore expect that parental characteristics influence the probability of entering a sustainable employment spell, as well as the employment characteristics. However, if women have entered a sustainable employment spell, we hypothesise that parental characteristics only indirectly influence the probability to exit the employment spell through the employment characteristics (Kogan, 2004).

2.4 Data and Methods

2.4.1 Data

The analyses use data from the administrative panel on Migration, Integration and Activation (MIA Panel) from 2005-2016, which links longitudinal microdata from the Belgian Social Security Registers (KSZ/CBSS) to data from the public employment service of Flanders (VDAB). The data infrastructure provides information on a sample of individuals of i) Southern European origin, ii) non-European origin and iii) individuals without a migration background, aged 18-65 and legally residing in Flanders on January 1st 2005. Sampled individuals are subsequently followed until i) the age of 65, ii) emigration/death, or iii) the end of the observation period on December 31st 2016. To maintain cross-sectional representativeness, supplementary annual samples of 18-year-olds were drawn to guarantee the presence of the youngest age group in the data. For each observation year, household members of sampled individuals on the first of January are also included in the data. The data set is disproportionately stratified by age and migration background, with sampling fractions ranging from 0.5% for individuals without a migration background to 20% for individuals of Southern European origin and 15% for non-European origin groups for 18-35 year olds. The sampling fractions for the group aged 36-65 years are half of the fractions used to sample 18-35 year olds.

The analysis of the transition into a first spell of sustainable employment is based on data for 5526 women who have reached the earliest possible age of graduation, given

their highest level of education, in Flanders between 2005 and 2016[12]. The Crossroads Bank for Social Security provides data on first nationality of both women and their (grand)parents, allowing us to identify women of the intermediate and second generation. A woman is considered to be of migrant origin when she herself (intermediate generation) or one of her parents (second generation) has a first nationality that is not Belgian. When both parents have a different first foreign nationality, origin reflects the first nationality of the father[13]. The analysis includes 1676 women of Belgian origin, 1781 women of Turkish origin (289 intermediate and 1492 second generation), as well as 2069 women of Maghreb origin (314 intermediate and 1755 second generation). The analyses on the characteristics and the duration of the first spell of sustainable employment only include women who have entered a spell of sustainable employment and who have not been censored before the fifth quarter of the spell. We observe these women until they become unemployed or inactive, or censoring. These analyses include 2595 women in total, consisting of 1033 women without a migration background, 852 women of Maghreb origin (119 intermediate and 733 second generation) and 710 women of Turkish origin (116 intermediate and 594 second generation).

2.4.2 Methods

Entering a first sustainable employment spell

The first set of analyses focuses on the transition into the first spell of sustainable employment, which requires that three conditions are fulfilled. First, since the likelihood to become unemployed decreases with the length of the employment spell and becomes stable after twelve months (VDAB, 2014), an employment spell of four consecutive quarters is used as an indicator for stable employment. The second condition implies that the gross monthly wage in the fourth quarter of the employment spell is at least 82% of the minimum wage in Belgium, as women can be observed from the age of 18 onwards, and individuals younger than 21 earn a certain percentage of the minimum wage[14]. Finally, because women with a non-European background are overrepresented in part-time employment of maximum 40% of a full-time equivalent (FOD WASO & CGKR, 2013), the third condition implies that the employment spell has

[12] If the level of education is unknown, which is the case for 41% of the sample, women are observed from the age of 18.

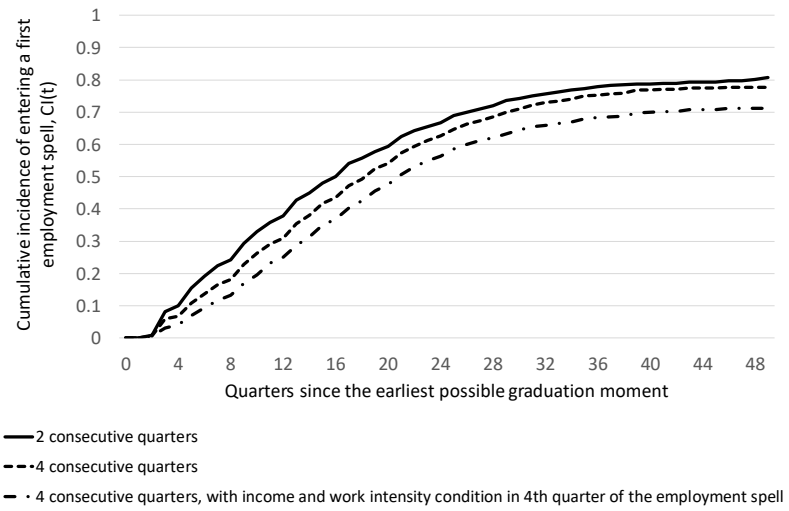
[13] In the analyses on sustainable employment spell entry 1.6% of the observed women has two parents with a different first foreign nationality.

[14] Individuals of 18, 19 and 20 year old earn respectively 82%, 88% and 94% of the minimum wage. For example, in the second semester of 2016, the Belgian gross minimum monthly wage was €1532, resulting in a minimum monthly wage of €1256 for 18 year olds.

to lead to a work intensity of at least 40% of the standard number of working hours for a full-time position in the sector of employment by the fourth quarter of the employment spell. We do not have information about income and work intensity for the self-employed, but since self-employment is a considerable step in Belgium, this is assumed as employment with at least 82% of the minimum wage and a work intensity of at least 40%.

Figure 2.1 shows the cumulative incidence of ever having entered a first spell of employment, contrasting different definitions of sustainable employment: i) employment of two consecutive quarters, ii) employment of four consecutive quarters, with iii) employment of four consecutive quarters with a at least 82% of the Belgian minimum wage and a minimum work intensity of 40% in the fourth quarter. The cumulative incidence curve starts at 0 when no one has yet entered a first spell of employment and gradually increases over time (quickly if the discrete-time hazard or risk of entering is high) with a maximum value of 1. Clearly, the conditions on stability, income and work intensity result in a slower tempo of entering a first spell of sustainable employment and lowers proportions ultimately making the transition in the observation window, suggesting that women frequently experience short spells of work before entering what is considered here as sustainable employment.

Figure 2.1: Cumulative incidence of entering a first employment spell under different definitions of sustainable employment by duration since leave education.



Note: The income condition implies a gross monthly wage of at least 82% of the gross Belgian minimum monthly wage. The condition of work intensity implicates a work intensity of at least 40% of a full-time position in the activity sector. The hazard models are based on a sample of 5526 Belgian, Turkish and Maghreb origin women who reached the earliest possible graduation moment between 2005 and 2016.
Source: MIA Panel, 2005- 2016, calculations by authors.

In order to assess whether and to what extent the differences between native women and women of Turkish or Maghreb origin in entering a first sustainable employment spell can be accounted for by individual, previous employment, household and parental characteristic, four nested discrete-time hazard models using a complementary log-log link function are estimated to analyse how the probability of entering a first spell of sustainable employment in a given quarter depends on time since leaving education and covariates. The overall time dependence of the hazard is estimated as follows:

$$ln[-ln(1-q(t))] = \hat{\alpha} + \sum \hat{\beta}_k t_{ki} \tag{2.1}$$

$$[-\ln(1-q(t)] = \int_t^{t+\Delta t} h(t)dt = H(t) = e^{\hat{\alpha}+\sum \hat{\beta} t_{ki}} \tag{2.2}$$

Where q(t) represents the (discrete-time) probability of entering a spell of sustainable employment in quarter t, $h(t)$ the unobserved (continuous-time) hazard of entering an employment spell and $H(t)$ the hazard that is accumulated within the quarter observed. The overall survivor function, $S(t)$, and the overall cumulative incidence function of entering a first spell of sustainable employment, $CI(t)$, can be derived as follows:

$$S(t) = e^{-\int_0^t h(t)dt} = e^{-\sum_0^t H(t)} \tag{2.3}$$

$$CI(t) = 1 - e^{-\sum_0^t H(t)} \tag{2.4}$$

To estimate gross migrant-native differentials in the tempo and incidence of entering a spell of sustainable employment within the observation window, *Model 0* includes i) number of quarters since the earliest possible graduation moment, given the highest level of education (exposure), both linear and quadratic, ii) a time-varying dummy variable indicating whether someone is entitled to child benefits, which is an indicator for being a student[15], iii) origin group (native, intermediate and second generation Turkish and Maghreb women), iv) the interaction between exposure and origin group, and v) the interaction between exposure and entitlement to child benefits. Entitlement to child benefits is included as a time-varying dummy, since women are observed from the earliest possible graduation moment, but can have had delays in their study

[15] Until 31 August of the year in which a child turns 18, she is unconditional entitled to child benefits. From 1 September of the year in which a child turns 18 until the month in which she turns 25, a child is entitled to child benefits if she is i) in secondary education, or ii) in tertiary education, with a study programme of at least 27 credits a year.

programme, enrol in an educational program without completing it or leave education temporarily before resuming at a later stage. Also, if the level of education is unknown we observe women from the age of 18, but have an indicator for their educational participation by using this variable.

Three additional models are estimated to assess migrant-native differentials in entering a first spell of sustainable employment net of individual, household and parental characteristics. *Model 1* additionally controls for individual-level characteristics (age, highest level and field of education and Dutch language skills[16]) and previous employment (cumulated quarters work experience and activity status in the previous quarter). A dummy indicating whether someone is ever registered in the public employment service of Flanders (VDAB) is also included, as information on educational credentials and language skills are derived from VDAB data and contact with VDAB is also related to entry in a sustainable employment spell. In addition to the interactions already included in Model 0, Model 1 includes interaction terms between exposure and i) level and field of education, ii) age, and iii) quarters work experience. *Model 2* additionally controls for household characteristics, which are i) the number of children, ii) the presence and iii) income of the partner. In addition to the interactions included in Models 0 and 1, Model 2 includes interactions terms between exposure and the number of children. Finally, *Model 3* additionally includes a time-varying covariate reflecting income of the parents[17]. Tables 2.1 and 2.2 provide the categories and distribution of the covariates, and the sample sizes for the analyses on entry in a first sustainable employment spell. As the baseline cumulative hazard function (reference) differs across models as a result of adding covariates – making it difficult to compare migrant-native differentials across models - the parameter estimates representing the time-varying ethnic differentials in Models 0 through 3 have been applied to the overall survivor and cumulative incidence functions (equations 2.1-2.4) for the sake of representation.

Characteristics of the first job in the sustainable employment spell

For women who entered a first spell of sustainable employment in the observation window, a second set of analyses focuses on migrant-native differentials in the type of employment, type of contract and gross wage quintile of the first job of the sustainable

[16] For women who were ever registered in the public employment service of Flanders (VDAB), we have information on Dutch language knowledge, which is self-reported. Other women are in the category 'unknown'.

[17] For women who leave the parental home during the observation period, the variable becomes time-constant in the quarters after leaving the parental home, reflecting the last observed income of the parents.

employment spell. Type of employment consists of four categories: i) white collar and civil servant, ii) blue collar, iii) self-employment, and iv) unknown type of employment. Type of contract distinguishes between i) full-time contracts, ii) part-time contracts, iii) temporary contracts (interim, seasonal employment, flexible employment), iv) self-employment, and v) unknown types of contract. Finally, also the gross wage quintile is taken into account[18]. For each job characteristic, a similar set of four nested multinomial logit regression models are estimated. *Model 0* only includes origin group and generation, whereas *Models 1-3* assess migrant-native differentials after additionally controlling for (1) individual characteristics (age, level and field of education and Dutch language skills) and previous employment characteristics (cumulated quarters work experience and activity status in the previous quarter), (2) household characteristics (number of children and the presence and income of the partner), and (3) parental characteristics (parental income). For each employment characteristic, we estimate migrant-native differentials in predicted probabilities.

Exiting a first sustainable employment spell

Using four nested discrete-time hazard models similar to equations 2.1-2.4, we finally assess whether there are differentials between women of Turkish and Maghreb origin and native women in the likelihood of becoming unemployed or inactive after a first spell of sustainable employment. If women are incapable to work or take up leave or time credit for one, two or three consecutive quarters this is not considered as an exit out of the employment spell. Women who are incapable to work for one year or longer are censored, and women who take up leave or time credit for one year or longer are considered as exiting of the employment spell[19]. Similar to previous models, *Model 0* considers the gross migrant-native differentials and only includes i) the number of quarters since the first sustainable employment spell of four quarters (exposure), ii) origin group (native women versus intermediate and second generation Turkish and Maghreb women), and iii) an interaction between exposure and origin group. *Model 1* additionally controls for individual characteristics (age, level and field of education and Dutch language skills) and previous employment experience (cumulated work experience, and type of contract and gross wage quintile in the previous quarter). *Model 2* additionally controls the number of children and the presence and income of the partner. Finally, *Model 3* additionally includes parental income. Variation across models in the migrant-native differentials of exiting a sustainable employment spell

[18] Since we do not have information about the income for the self-employed, we exclude the self-employed in the analyses on gross wage quintile.

[19] As a result of being incapable to work for one year or longer, 10 women are censored and 38 women are considered as exiting for taking up leave or time credit for one year or longer.

over subsequent models, is illustrated by applying the parameter estimates that represent time-varying migrant-native differentials to the overall survivor and cumulative incidence curves as before (equations 2.1-2.4).

Table 2.1: Distribution over key covariates by origin group (in %) in the analyses on sustainable employment spell entry.

	Belgium	Maghreb G1.5	Maghreb G2	Turkey G1.5	Turkey G2	Total
Level of education						
Max 2nd grade secondary	6.4	31.9	17.1	35.0	18.0	15.9
3th grade general & arts	3.0	1.9	3.2	1.4	2.9	2.9
3th grade technical	6.5	4.1	8.2	3.8	6.7	6.8
3th grade vocational	3.2	6.1	6.3	8.0	6.9	5.6
Post-secondary	8.5	16.6	16.0	15.6	19.2	14.6
Higher education, PhD	24.3	4.1	9.7	4.5	7.6	13.0
Unknown	48.1	35.4	39.5	31.8	38.8	41.3
Field of education						
Basic qualifications	3.6	12.1	5.1	13.2	6.1	5.7
Education	6.4	0.3	1.7	1.0	1.3	2.9
Arts, humanities, social sciences, journalism	9.6	3.5	4.1	3.1	2.6	5.3
Business, administration, law	8.8	13.7	22.6	18.0	25.2	18.4
Technical studies, science	5.4	10.2	3.4	2.8	4.4	4.6
Health, welfare, services	18.1	24.8	23.7	30.1	21.7	21.8
Unknown	48.2	35.4	39.6	31.8	38.8	41.3
Dutch language knowledge						
No or limited knowledge	0.5	6.7	2.2	5.2	1.5	1.9
Good knowledge	1.6	17.2	3.7	18.3	9.6	6.2
Very good knowledge	62.5	44.0	63.1	46.7	58.5	59.7
Unknown	35.4	32.2	31.0	29.8	30.4	32.2
Ever in contact with VDAB						
No	23.9	22.9	21.7	22.1	19.6	21.9
Yes	76.1	77.1	78.3	77.9	80.4	78.1
N Persons	1676	314	1755	289	1492	5526

Note: The sample is restricted to native women and women of Turkish and Maghreb origin who reached the earliest possible graduation age, between 2005 and 2016 in Flanders.
Source: MIA Panel, 2005-2016, calculations by authors.

Table 2.2: Distribution over key covariates by origin group (in %) in the analyses on sustainable employment spell entry.

	Belgium	Maghreb G1.5	Maghreb G2	Turkey G1.5	Turkey G2	Total
Mean exposure	9	14	11	14	11	11
Mean age	21.0	22.0	21.0	22.0	21.0	21.0
Entitled to child benefits						
No	21.8	55.2	31.9	61.7	32.4	33.1
Yes	78.2	44.8	68.1	38.3	67.6	66.9
Number of quarters work experience						
No work experience	77.9	71.7	69.2	65.7	69.9	71.7
1 to 2 quarters	10.6	11.5	14.0	13.7	15.5	13.3
3 to 4 quarters	4.8	5.2	7.9	8.6	5.80	6.3
5 to 6 quarters	2.5	3.3	3.7	4.4	3.3	3.3
7 to 8 quarters	1.6	2.3	1.9	3.5	2.0	1.9
9 or more quarters	2.7	6.0	3.3	4.2	3.4	3.4
Activity status in the previous quarter						
Entitled to child benefits	76.4	42.9	65.4	36.9	64.8	64.6
Employed, not entitled to child benefits	7.7	8.9	7.4	9.9	8.1	7.9
Looking for a job	2.6	7.7	7.2	9.4	7.7	6.3
Inactive, not entitled to child benefits	7.9	35.9	14.6	39.1	13.8	15.8
Unknown	5.4	4.5	5.4	4.7	5.6	5.4
Number of children						
No children	95.9	60.9	87.8	64.0	89.2	86.8
1 child	2.8	15.4	7.4	17.5	7.0	7.4
2 or more children	1.2	23.7	4.8	18.5	3.8	5.9
Income partner						
Unemployed/ inactive	1.0	10.8	4.8	7.6	5.2	4.5
Quintile 1	0.5	3.6	1.8	4.7	2.1	1.9
Quintile 2	0.6	5.9	1.6	5.3	2.3	2.1
Quintile 3	0.9	6.8	2.0	4.9	2.5	2.4
Quintile 4	0.6	5.1	2.0	4.1	1.5	1.9
Quintile 5	0.6	2.4	1.1	0.6	0.4	0.8
Unknown income	0.5	3.0	1.0	4.9	1.4	1.4
No partner	95.2	62.4	85.7	67.8	84.7	85.0

Table 2.2 (continued).

	Belgium	Maghreb G1.5	Maghreb G2	Turkey G1.5	Turkey G2	Total
Parental income						
No working parents	8.3	37.6	46.5	29.4	35.2	31.6
Quintile 1	6.9	6.7	9.1	8.2	11.0	8.8
Quintile 2	8.4	6.9	9.9	11.2	10.6	9.6
Quintile 3	9.5	5.9	10.2	8.5	12.8	10.3
Quintile 4	16.6	1.8	8.5	2.5	7.7	9.5
Quintile 5	28.9	0.9	3.8	0.1	2.5	9.6
Not living in parental home	4.1	29.7	2.7	28.3	3.5	6.9
Unknown	17.4	10.37	9.5	11.9	16.6	13.7
N Person Quarters	23658	6634	29335	5940	24473	90040

Note: The sample is restricted to native women and women of Turkish and Maghreb origin who reached the earliest possible graduation age, between 2005 and 2016 in Flanders. As entitlement to child benefits, work experience, number of children, partner's income and parental income are time-varying variables they are expressed in number of Person Quarters.
Source: MIA Panel, 2005-2016, calculations by authors

2.5 Results

2.5.1 Descriptive results

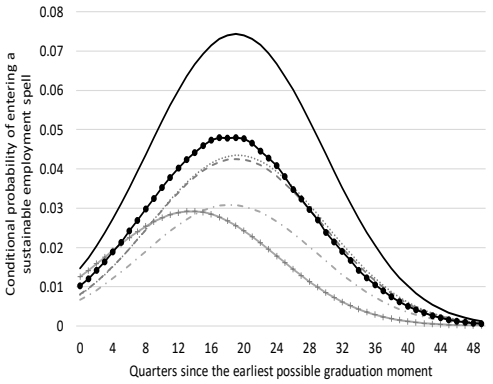
Migrant-native differentials in labour market positions already emerge at the beginning of the professional career, as women of Turkish or Maghreb origin face more difficulties in establishing themselves in the labour market. Figure 2.2a shows that women without a migration background are substantially more likely in each quarter to enter a sustainable employment spell than women of Turkish or Maghreb origin. These differences in transition rates cumulate over the life course, resulting in considerable differences between origin groups and generations in the proportion of women that ultimately enters a first sustainable employment spell in the observation window (Figure 2.2b). Whereas 86% of the native women have ever entered a first sustainable employment spell in twelve years since leaving education, this is limited to 51% and 54% for intermediate generation Turkish and Maghreb woman respectively, and 67% for the second generation. Since 60% of our sample consists of second generation women, the baseline largely reflects their labour market outcomes.

Focussing on women who effectively entered a sustainable employment spell, Figures 2.3a-c show for each origin group and generation the type of employment, type of contract and gross wage quintile of the first job in the sustainable employment spell. The distribution of these three job characteristics differs significantly by origin group and generation. Women of Turkish or Maghreb origin are less likely than natives to start

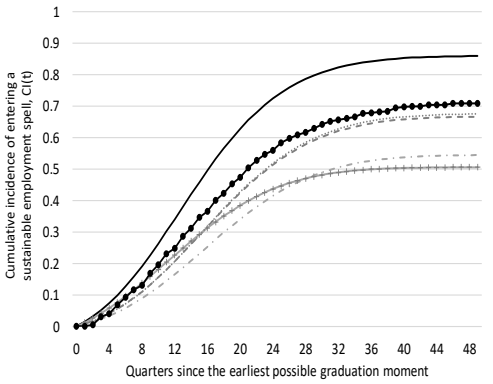
their sustainable employment spell with i) a white collar or civil servant job (differences range from 3 to 27 percentage points), ii) a full-time contract (differences ranging from 10 to 17 percentage points), and iii) a higher wage (differential proportions of women in the fifth income quintile ranging from 5 to 9 percentage points).

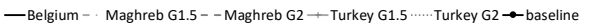
Figure 2.2: Conditional probability (a) and cumulative incidence (b) of entering a first sustainable employment spell by duration since leaving education, origin group and generation.

a: Conditional probability of entering a first sustainable employment spell



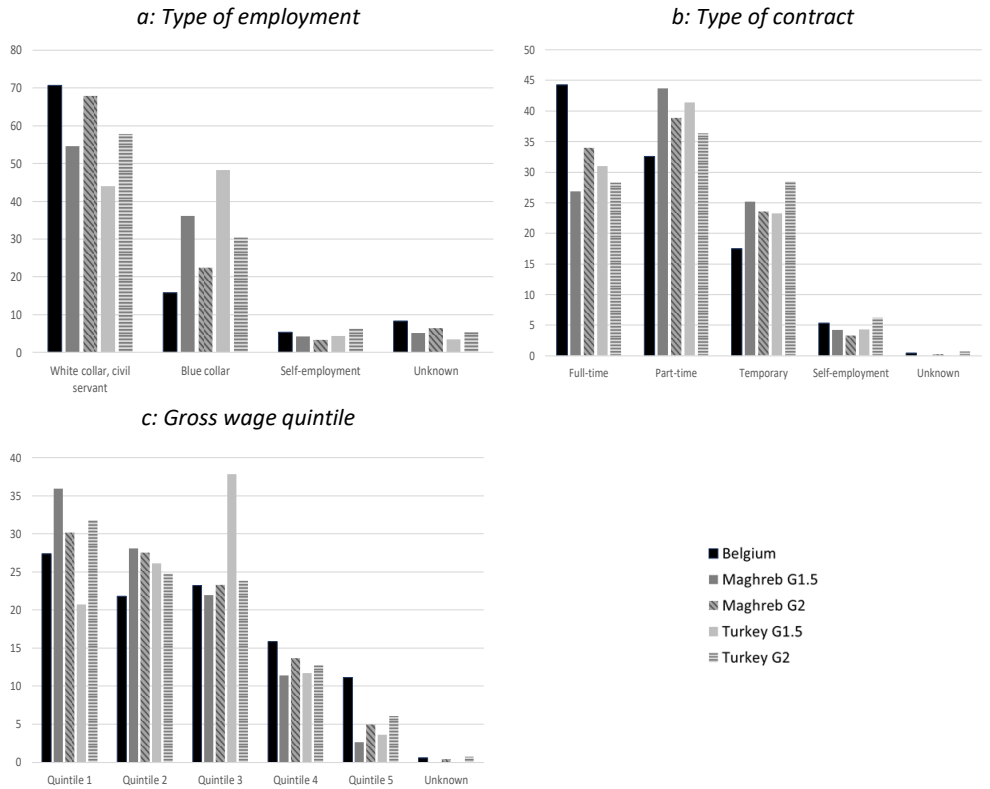
b: Cumulative incidence of ever entering a first sustainable employment spell





Note: The transition into a first sustainable employment spell is operationalised as the first quarter of an employment spell of 4 consecutive quarters leading to a gross monthly wage of at least 82% of the minimum wage and a work intensity of at least 40% of a full-time position in the fourth quarter of the employment spell.
Source: MIA Panel, 2005-2016, calculations by authors.

Figure 2.3: Characteristics of first job in the first sustainable employment spell by origin group and generation.

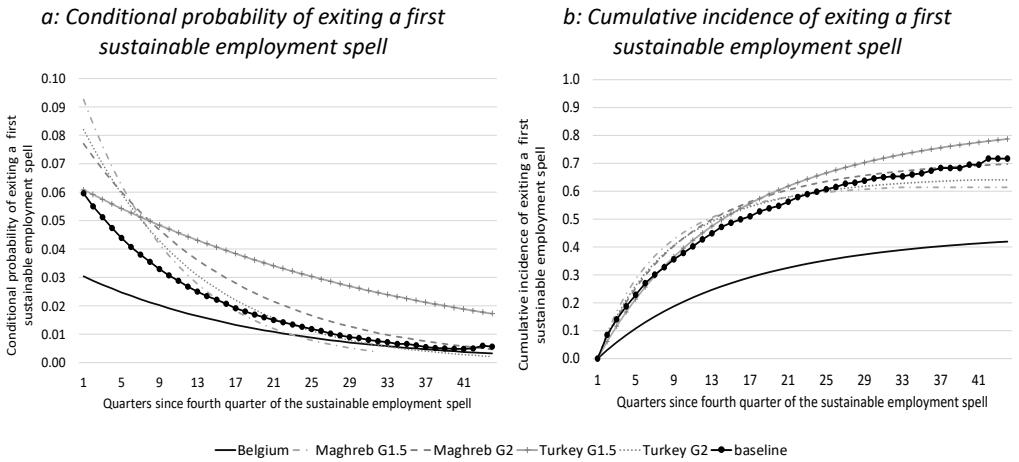


*Note: The sample is restricted to native women and women of Turkish and Maghreb origin who entered a first sustainable employment spell between 2005 and 2016. The distribution of type of employment (Cramer's V=0.12***), type of contract (Cramer's V=0.08***) and gross wage quintile (Cramer's V=0.08***) differs significantly by origin group and generation.*
Source: MIA Panel, 2005-2016, calculations by authors.

Turkish or Maghreb origin women are not only less likely than native women to enter a sustainable employment spell, they are also more likely to become unemployed or inactive afterwards. In line with previous research Figure 2.4a shows that the probability to become unemployed or inactive decreases quickly as individuals have a longer employment spell (VDAB, 2014). However, women of Turkish or Maghreb origin are more likely to become unemployed or inactive after a spell of sustainable employment than native women, with differences being particularly large in the first two years. The likelihood to become unemployed or inactive in the first quarter immediately following a sustainable employment spell of four consecutive quarters amounts to 3% for native women, but ranges from 6% to 9% for women of Turkish and Maghreb origin respectively. These differences result in considerable migrant-native

differentials in the proportion of women that becomes unemployed or inactive after a sustainable employment spell in the observation window (Figure 2.4b). Whereas 41% of native women has become unemployed or inactive eleven year after a sustainable employment spell of four quarters, this ranges from 61% to 78% among women of Turkish and Maghreb origin respectively.

Figure 2.4: Conditional probability (a) and cumulative incidence (b) of exiting a first sustainable employment spell by duration since fourth quarter of the spell, origin group and generation.



Note: The sample is restricted to native women and women of Turkish and Maghreb origin who entered a first sustainable employment spell and who have not been censored before the fifth quarter of the spell between 2005 and 2016. If women are incapable to work or take up leave or time credit for one to three consecutive quarters this is not considered as an exit out of the employment spell. Women who are incapable to work for one year or longer are censored, women who take up leave or time credit for one year or longer are considered as exiting the employment spell.
Source: MIA Panel, 2005-2016, calculations by authors.

2.5.2 Multivariate results

As the descriptive findings do not control for confounding factors, multivariate models are used to assess whether these ethnic disadvantages can be accounted for individual characteristics, previous employment experience, household characteristics and parental characteristics. Section 2.5.2.1 focuses on the entry into a first sustainable employment spell. Subsequently, for women who effectively entered a sustainable employment spell, section 2.5.2.2 considers migrant-native differentials in the characteristics of the first job in their spell, whereas section 2.5.2.3 finally focuses on the likelihood of becoming unemployed or inactive following the initial spell of sustainable employment spell of four quarters.

2.5.2.1 Entering a first sustainable employment spell

For intermediate and second generation women of Turkish and Maghreb origin, Figures 2.5a-d show the gross and net migrant-native differentials in the cumulative incidence of entering a first sustainable employment spell over subsequent models. Model 0 represents the gross migrant-native differentials. Initially, the gap between women of Turkish or Maghreb origin and natives is relatively small, amounting to approximately 5 percentage points one year after leaving education. However, since Turkish and Maghreb origin women are also less likely to enter a sustainable employment spell in subsequent quarters, the differentials increase over the early life course, resulting in substantial gaps with native women. For intermediate generation Turkish women, the gross migrant-native gap increases quickly, up to 47 percentage points from quarter 25 onwards. For intermediate generation Maghreb women, the gross migrant-native gap reaches a maximum of 44 percentage points around quarter 20, which subsequently diminishes to 37 percentage points twelve years after the earliest possible graduation moment. Gross differentials with natives are smaller for the second generation, but still substantial, reaching a maximum of 25 percentage points around five years since leaving education.

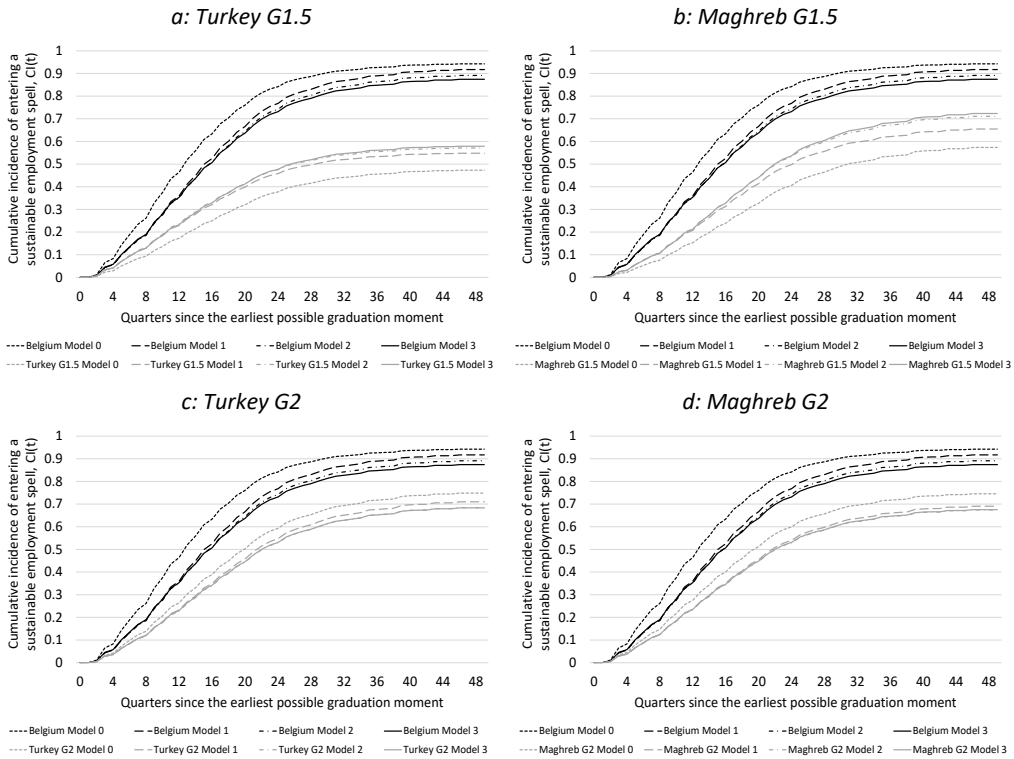
Controlling for individual characteristics (age, educational level and field, Dutch language skills and ever contact with VDAB) and previous employment experience (cumulated quarters work experience and activity status in the preceding quarter) in Model 1, the likelihood of entering a sustainable employment spell decreases for native women and increases for the intermediate generation, resulting in a reduction of the ethnic penalty. This is due to the fact that intermediate generation Turkish and Maghreb women are, compared to native women, overrepresented in lower educational levels and suffer more limited Dutch language skills (Table 2.1). In addition, during the observation period 36% to 39% of intermediate generation women were inactive while not being entitled to child benefits in the preceding quarter (Table 2.2), which may be an indicator that these women are not actively looking for a sustainable employment spell. For the second generation, the likelihood of entering a sustainable employment spell decreases in Model 1. This is due to the fact that, as a group, they are situated in positions that are characterised by relatively good chances to enter a sustainable employment spell (e.g. technical and post-secondary education, combined with good Dutch language skills). As a result, when controlling for their differential profile for these characteristics, we see that their likelihood to enter a sustainable employment spell decreases, but since there is a larger decrease for native women, the ethnic penalty is also reduced for the second generation. Additionally controlling for number of children and the partner's income in Model 2, further reduces ethnic disadvantages for the intermediate generation, which is largely explained by the

number of children. Whereas only 4% of native women started family formation before having entered a sustainable employment spell, this ranges from 36% to 40% for intermediate generation women of Turkish and Maghreb origin (Table 2.2). For the second generation, controlling for household characteristics results only in a small additional decrease (approximately 1 percentage point) in the migrant-native gap. Finally, controlling for parental income significantly improves the model. Table 2.2 shows that women of Turkish or Maghreb origin are overrepresented in households with no working parents. Model 3 suggest that parental income adds little explanatory power, however, parental characteristics have mainly an indirect effect on labour market entry through individual characteristics (e.g. resources to support education), that are already included in Model 1, and have only a small direct effect.

Overall, we see that individual, previous employment, household and parental characteristics play an important role in explaining differences between Turkish and Maghreb origin women and native women in entering a sustainable employment spell. For intermediate generation Turkish women, the decrease in the migrant-native gap reaches a maximum around five years after leaving education, as it decreases from 45 percentage points in Model 0 to 24 percentage points in Model 3. For intermediate generation Maghreb women, the migrant-native gap decreases from 43 percentage points in Model 0 to 20 percentage points in Model 3 five years after leaving education. Results further show that these factors have more explanatory power for the intermediate generation than for second generation Turkish and Maghreb women, as the gap with native women decreases for second generation maximum with 7 percentage points.

Age at migration has an important impact on language development, educational opportunities and socialisation processes. As a result, we repeated the same analyses, but now additionally distinguishing between women of the intermediate generation that migrated to Belgium before and after the age of twelve. In our sample, respectively 53% and 67% of the intermediate generation Turkish and Maghreb women migrated after the age of twelve. The results (not shown) indicate that women who migrated before the age of twelve largely follow the same pattern as the second generation, whereas women migrated after the age of twelve are characterised by large gaps with native women that have decreased strongly in Model 3. Finally, although the migrant-native gap diminishes after controlling for individual, previous employment, household and parental characteristics, there is still a substantial difference between women of Turkish and Maghreb origin and native women in the likelihood to enter a sustainable employment spell. The maximum gap ranges from 20 percentage points for intermediate generation Maghreb women and the second generation to 30 percentage points for intermediate generation Turkish women.

Figure 2.5: Cumulative incidence of entering a first spell of sustainable employment: gross (Model 0) and net (Models 1-3) differentials between natives and intermediate and second generation women of Turkish or Maghreb origin.

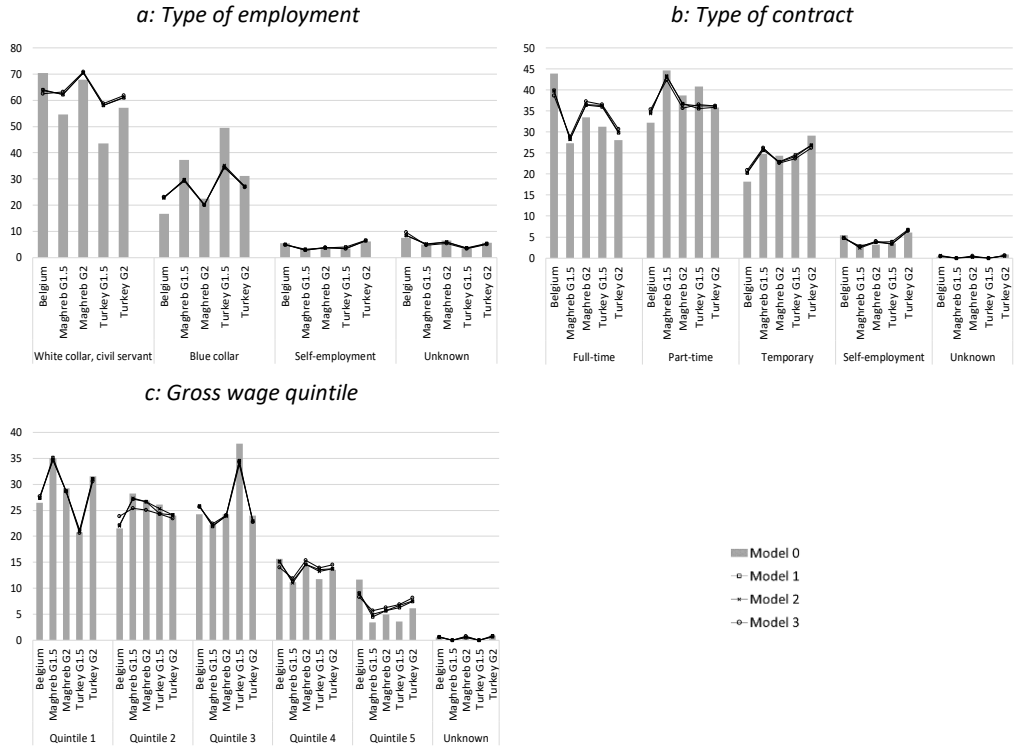


Note: Cumulative incidence curves of discrete-time hazard models of entering a first sustainable employment spell (equations 1-4). Model 0 reflects gross migrant-native differentials. Model 1 controls for individual characteristics (age, level and field of education, Dutch language skills, ever contact with VDAB) and previous employment experience (cumulated quarters work experience, activity status in the previous quarter), Model 2 additionally controls for household characteristics (number of children and income partner) and Model 3 additionally controls for parental income.
Source: MIA Panel, 2005-2016, calculations by authors.

2.5.2.2 Characteristics of the first job in the sustainable employment spell

Focussing on women who effectively entered a sustainable employment spell, Figures 2.6 a-c show the gross predicted probabilities by origin group and generation for a) the type of employment, b) type of contract and c) gross wage quintile of the first job in the sustainable employment spell (Model 0), as well as the predicted probabilities controlling for individual and previous employment characteristics (Model 1), household characteristics (Model 2) and parental characteristics (Model 3). In line with Figure 2.3, Model 0 shows that, compared to native women, women of Turkish and Maghreb origin are less likely to start their sustainable employment spell i) in a white collar or civil servant job, ii) with a full-time contract, and iii) a gross wage similar to natives. They are also 7% to 11% more likely to enter the employment spell with a temporary contract (interim, seasonal or flexible employment). After individual and previous employment characteristics are taken into account, the migrant-native differentials shift considerably. The likelihood to start the employment spell with a white collar or civil servant job, a full-time contract and a higher wage, increases for women of Turkish or Maghreb origin and decreases for native women. The difference with native women of entering a sustainable employment spell with a white collar job, decreases by 21, 14 and 10 per cent for Turkish G1.5, Maghreb G1.5 and Turkish G2 women respectively. Controlling for these characteristics, second generation Maghreb women are even 7 per cent more likely than native women to start the spell in a white collar job. The decrease of migrant-native differences is smaller for entering a sustainable employment spell with a full-time contract, amounting to 9 and 5 per cent for intermediate generation Turkish and Maghreb women respectively and 6 per cent for the second generation. The difference with native women in starting the sustainable employment spell with a job in the two highest wage quintiles has decreased with 4 to 8 per cent. Additionally controlling for household and parental characteristics significantly improves the models, but these characteristics have only a small direct effect on the type of employment, type of contract and wage quintile, resulting an additional decrease in the migrant-native differences of only 1 to 3 per cent. Overall, migrant-native differences strongly diminish after controlling for individual, previous employment, household and parental characteristics and range from 1% to 4% for type of employment, from 2% to 14% for type of contract and from 0% to 5% in the two highest wage quintiles.

Figure 2.6: Predicted probabilities of the characteristics of the first job in the sustainable employment spell by origin group and generation, Models 0-3.



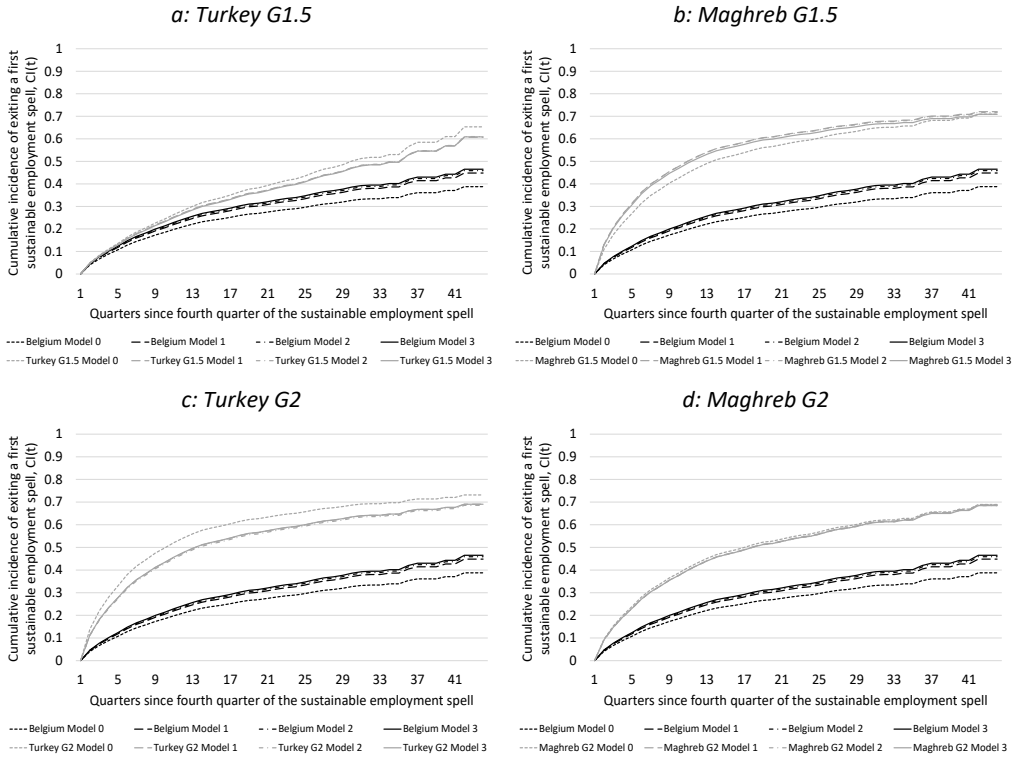
Note: Model 0 reflects gross migrant-native differentials. Model 1 controls for individual characteristics (age, level and field of education and Dutch language skills) and previous employment experience (cumulated quarters work experience, activity status in the previous quarter), Model 2 additionally controls for household characteristics (number of children and income partner) and Model 3 additionally controls for parental income.
Source: MIA Panel, 2005-2016, calculations by authors.

2.5.2.3 Exiting a first sustainable employment spell

Among women who have entered an employment spell of four consecutive quarters, leading to at least the Belgian minimum wage and a work intensity of 40%, Figures 2.4a-b show that women of Turkish and Maghreb origin are more likely than native women to exit the sustainable employment spell. Figures 2.7a-d show for intermediate and second generation Turkish and Maghreb women whether these differentials with natives in the cumulative incidence of exiting a sustainable employment spell can be explained by individual and previous employment characteristics (Model 1), household characteristics (Model 2) and parental characteristics (Model 3).

The gross migrant-native differentials in exit incidence after one year (Model 0) range from 2 percentage points for Turkish G1.5 women to 19 percentage points for Turkish G2 women. Differences with native women subsequently increase, resulting in a gap that ranges from 27 to 34 percentage points by the end of the observation period. After controlling for individual and employment characteristics in Model 1, the likelihood to exit the sustainable employment spell increases for natives and decreases for Turkish and Maghreb origin women, except for intermediate generation Maghreb women. As a result, the gap with native women decreases by 6 percentage points for women of Maghreb origin (G1.5 and G2) and by 11 percentage points for women of Turkish origin (G1.5 and G2). This is largely explained by the previous employment characteristics, as women of Turkish or Maghreb origin are underrepresented in full-time employment and the higher wage quintiles. Additionally controlling for household characteristics significantly improves the model and the gap with native women slightly declines with approximately 1 percentage point. Finally, additionally including parental income in Model 3 offers no significant improvement of the model. Overall, the migrant-native gap in exiting the first sustainable employment spell decreased with 8 percentage points for women of Maghreb origin (G1.5 and G2) and by 12 percentage points for women of Turkish origin (G1.5 and G2).

Figure 2.7: Cumulative incidence of exiting a first spell of sustainable employment: gross (Model 0) and net (Models 1-3) differentials between natives and intermediate and second generation women of Turkish or Maghreb origin.



Note: Cumulative incidence curves of discrete-time hazard models of exiting the first sustainable employment spell (equations 1-4). Model 0 reflects gross migrant-native differentials. Model 1 controls for individual characteristics (age, level and field of education and Dutch language skills) and previous employment experience (cumulated quarters work experience, type of contract and gross wage in the previous quarter), Model 2 additionally controls for household characteristics (number of children and income partner) and Model 3 additionally controls for parental income.
Source: MIA Panel, 2005-2016, calculations by authors.

2.6 Discussion

Existing research on the labour market participation of migrant origin women has predominantly focused on their employment positions at a single point in time, hereby failing to acknowledge that most individuals start their career with interim jobs and low wages, change jobs multiple times, experience multiple unemployment spells, and gradually acquire more stable and sustainable employment positions across early adulthood. For most Western-European countries, cross-sectional research suggests that migrant origin women, and especially non-European origin women, remain employed in the secondary segment of the labour market, characterised by unstable

labour market trajectories, low wages and part-time employment (FOD WASO & UNIA, 2017; Pichler, 2011). Focussing on employment status, however, misses out on an important part of migrant-native differentials, as the question is not only whether there are migrant-native differentials in employment positions, but also whether migrant origin women have the same probabilities as natives to acquire a stable employment spell with a sufficient income over their career. Moreover, prior longitudinal research on employment trajectories of migrant women has shown that early disadvantages in acquiring stable labour market trajectories with low incomes affect labour market positions and opportunities (e.g. maternal employment) and social security (e.g. pensions) at later stages of the life course (Goos, Manning, & Salomons, 2009; Kil et al., 2018; Neels et al., 2018; Peeters et al., 2017). Finally, successful labour market integration of migrant origin women has become increasingly important in a context of population ageing and is important to prevent the polarisation of households and inequalities in poverty risks (De Klerck et al., 2016; OECD, 2008).

Building on previous work, this study uses longitudinal microdata to study early labour market trajectories of Turkish and Maghreb origin women who graduated in Belgium (Flanders). We first assess whether the likelihood to enter a sustainable employment spell differs between natives and women with a migration background, operationalising a sustainable employment spell as an employment spell of at least four consecutive quarters, leading to a gross monthly wage of at least 82% of the gross Belgian minimum wage and a work intensity of at least 40% of a full-time position in the fourth quarter of the employment spell. For women who effectively entered a spell of sustainable employment in the observation period, we additionally consider migrant-native differentials in the characteristics of the first sustainable employment spell (type of employment, type of contract and gross wage quintile), as well as the length of the sustainable employment spell. In doing so, we not only distinguish between origin groups, but also between the intermediate and second generation to take differences in (gender role) socialisation, language development and educational opportunities into account (Hermansen, 2017).

Our analyses show that women of Turkish and Maghreb origin who graduated in Belgium are not only less likely than native women to enter a sustainable employment spell, but are also more likely to exit the sustainable employment spell into unemployment or inactivity. These differentials with natives are larger for the intermediate generation - particularly for women who migrated after the age of twelve - than for the second generation, and are reproduced and reinforced over labour market careers, as (dis)advantages cumulate over the early life course. To explain the weaker labour market outcomes of the second generation, the literature has frequently referred to lower human capital (Becker, 2009). Consistent with earlier studies, our

results indicate that level of education only partially explains migrant-native differentials in entering and exiting a first sustainable employment spell and the characteristics of the sustainable employment spell, and that substantial ethnic penalties remain as a result (Baert et al., 2016; Corluy, 2014; Mazrekaj et al., 2017; Neels & Stoop, 2000). In addition to earlier studies, we also included field of education, Dutch language skills and previous work experience as potential determinants. As expected, lower Dutch language skills offer an additional explanation for migrant-native differentials in i) entering sustainable employment and ii) the characteristics of the employment spell (Esser, 2006; Heath et al., 2008). However, in line with Kogan (2004) we find that employment characteristics (work experience, lower wages and part-time employment) play the most important role in explaining migrant-native differentials in the risk of exiting the sustainable employment spell. Our results further demonstrate that women of Turkish or Maghreb origin, and particularly of the intermediate generation, more often started family before having entered a sustainable employment spell, which partially explains migrant-native differentials in entering sustainable employment. It is unclear from our analyses, however, whether migrant origin women hold more traditional gender roles regarding female responsibilities to take care of the children and the household, and no longer actively look to enter a sustainable employment spell after the start of family formation (de Valk, 2008; Khoudja & Fleischmann, 2014), or whether migrant origin women more often than natives face financial and practical obstacles in combining motherhood and employment, such as affordability of formal childcare, due to unstable labour market positions and low incomes (Kil et al., 2018; Kil et al., 2017). In line with the former, our first models controlled whether women are inactive without being entitled to child benefits, which may be an indicator that these women are not (actively) looking for a sustainable employment spell. However, considerable migrant-native gaps remain, which may support the latter interpretation as also previous longitudinal research has pointed to a strong socio-economic and ethnic gradient in the use of childcare and parental leave in Belgium, resulting in a lock-in effect or inactivity trap for women who start family formation before they are firmly established in the labour market (Kil et al., 2018; Kil et al., 2017; Van Lancker & Ghysels, 2012). As non-European origin children are disproportionately raised in working-class and low income families, we finally also controlled for parental characteristics. Our results suggest, however, that parental income mostly has an indirect effect on entering a sustainable employment spell and the characteristics of the employment spell, through children's individual and previous employment characteristics. Regarding the exit from a sustainable employment spell, parental income offers no significant improvement of our model.

Although migrant-native differentials diminish after controlling for individual, previous employment, household and parental characteristics - particularly for women who immigrated after the age of twelve - women of Turkish or Maghreb origin who graduated in Belgium remain disadvantaged compared to natives in i) entering and exiting a sustainable employment spell, and ii) the characteristics of the sustainable employment spell. In addition, whereas native women enter a sustainable employment spell often directly after education, migrant origin women are more frequently looking for a job or employed without fulfilling the conditions on stability, income and work intensity, suggesting that the labour market consists of insiders on the one hand who enjoy greater job stability, and outsiders on the other hand who tend to move from one temporary contract to another (Van Dooren et al., 2014). Since difficulties in acquiring sustainable employment have long-lasting implications and social rights are in Belgium tied to the occupational position and conditioned on long and uninterrupted professional careers, future research should assess whether activation policies succeed in helping migrant origin women to enter employment, and more importantly, sustainable employment. In this line, for women who are ever registered in the public employment service of Flanders (VDAB) between 2005 and 2016, our data infrastructure includes information on trainings and courses, allowing future research to assess whether and to what extent language courses, internships and other interventions improve the likelihood to enter a sustainable employment spell.

The Belgian social security registers provide unique longitudinal microdata on the labour market position of women with and without a migration background, but data limitations remain. First, due to a lack of information about first nationality of the grandparents, we were not able to distinguish the third generation from native women. Second, our data does not allow to distinguish Maghreb origin women by country of origin, while previous research has demonstrated that the culture of women and work is rather different across the Maghreb countries (Moghadam, 2003). Third, information on educational credentials is not fully documented, resulting in unknown levels and fields of education of approximately 40% of the sampled women and making it impossible to assess the educational levels of the parents. Finally, our data does not provide direct information on gender role attitudes, informal networks and discrimination, which are also likely to account for part of the remaining variation (Baert et al., 2013; de Valk, 2008; Djait, 2014).

Chapter 3

Path-dependencies in employment trajectories around parenthood: comparing native and second generation women

Abstract

A sizeable body of literature has shown that the migrant-native employment gap is larger among women with children than among childless women, suggesting that the transition to parenthood has a stronger impact on the employment trajectories of migrant origin women compared to those of native women. However, due to the limited use of longitudinal data, our understanding of the mechanisms generating differential employment trajectories around the transition to parenthood remains limited. This study adopts a life course perspective to address path-dependencies in employment trajectories around the transition to motherhood. Longitudinal microdata and fixed-effects models are used to compare within-individual changes in contractual working hours around the transition to parenthood between natives and second generation migrants of Southern European and Turkish or Moroccan origin in Belgium. We find no migrant-native differentials among women with low employment rates before the birth of their first child and only limited differentials in employment trajectories around parenthood among women with medium and high employment rates before parenthood. This indicates that there is a strong path-dependency of employment trajectories around parenthood for migrant women and natives alike, but that second generation migrant women generally have a lower pre-birth labour market attachment than native women, which accounts for the frequently observed migrant-native differentials in maternal employment.

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3.1 Introduction

A substantial and increasing share of the population born in Belgium are second generation women having at least one foreign born parent. Research consistently shows that second generation migrant women - and particularly women of non-European origin - have higher inactivity and unemployment rates compared to native women (i.e. women whose parents are both born in Belgium[20]) (FOD WASO & UNIA, 2017; Heath et al., 2008). Moreover, the migrant-native employment gap is larger among women with children than among childless women (FOD WASO & UNIA, 2017; Holland & de Valk, 2017; Rubin et al., 2008). Hence, the question emerges whether the transition to parenthood has a stronger impact on the employment trajectories of migrant origin women compared to native women.

While men's labour market trajectories are relatively stable over the life course, the transition to parenthood strongly affects women's employment trajectories. The literature on women's employment patterns around childbirth is extensive and indicates that although maternal employment has increased over the last 50 years, many women reduce their working hours after the birth of a first child (Gutierrez-Domenech, 2005; Kreyenfeld, 2015; Kuhhirt, 2011; Wood et al., 2016). Research specifically focussing on differences in maternal employment between native and migrant origin women is limited and mainly based on cross-sectional data (Bevelander & Groeneveld, 2006; Holland & de Valk, 2017; Rubin et al., 2008). Using cross-sectional data is cumbersome, however, to disentangle the effect of family formation on employment from the effect of employment on family formation, and the cross-sectional comparison of employment positions between women with and without children also includes the selective subset of women who will never enter parenthood. Recent studies have therefore increasingly turned to longitudinal data and find that migrant origin women - particularly of non-European origin - are more likely than native women to leave employment after the birth of their first child (Kil et al., 2018; Vidal-Coso, 2019). However, unless accounted for, comparing employment positions of women entering motherhood over time pools between- and within-subject variation, implying that unobserved individual-level differences between migrants and natives may still bias the estimated effects of childbearing on employment. Although fixed-effects models using longitudinal microdata have been identified as a tool to overcome bias due to the inclusion of between-subject variation (Anderson, Binder, & Krause, 2003; Budig & England, 2001; Myrskylä & Margolis, 2014), this approach has hitherto not been used in research on migrant-native differentials in the motherhood-

[20] In this study, women of the third generation (whose parents are born in Belgium, but who have at least one foreign born grandparent) are considered as natives.

employment link. As a result, our understanding of the underlying dynamics (potentially) leading to diverging employment trajectories around motherhood between migrant origin and native women has been hampered. By adopting a life course perspective, this study identifies path-dependency as a mechanism potentially generating migrant-native differentials in employment trajectories around motherhood, referring to the key principle in which past states or events affect future life outcomes.

Given the large employment gap between native and second generation migrant women in Belgium, this study investigates migrant-native differentials in women's employment trajectories around the transition to parenthood using longitudinal microdata for Belgium (1999-2010). More specifically, native women's changes in contractual working hours in the 4-year interval from one year before until three years after the birth of their first child are compared to corresponding patterns among second generation Southern European and Turkish or Moroccan origin women. We contribute to the existing literature in three ways. First, exploiting within-individual changes in employment over time has been put forward as a more convincing tool to approximate the causal effects of family formation on employment, compared to cross-sectional analyses or longitudinal set-ups that confound within-subject variation in employment trajectories with unobserved heterogeneity between women (Anderson et al., 2003; Budig & England, 2001). This study therefore uses fixed-effects models that control for time-constant (un)observed heterogeneity across native and migrant origin women (Allison, 2009; Stock & Watson, 2015). Second, this study is innovative in unpacking the path-dependency of women's employment trajectories around the transition to parenthood by investigating whether and to what extent migrant-native differentials can be explained by women's differential pre-birth labour market attachment and wage potential. Third, since previous research indicates that omitting partners' characteristics in research on maternal employment may yield biased results (Abroms & Goldscheider, 2002; Matysiak & Vignoli, 2008), we also take partners' migration background and pre-birth employment and wage potential into account.

3.2 The Belgian context

3.2.1 Southern European, Turkish and Moroccan origin groups

A substantial share of the Belgian population is foreign born or born in Belgium having at least one foreign born parent (20% and 10% in 2016, respectively) (Noppe et al., 2018). Southern European, Turkish and Maghreb origin groups account for an important share of the Belgian population and constitute - after neighbouring countries - the largest groups in the population of foreign origin. In 2016, 5.9% of the Belgian

population had a Southern European origin, 5.2% a Maghreb origin and 2.1% a Turkish origin (constituting 19.8%, 17.4% and 7.2% of the population of foreign origin, respectively). Similar to many other Western European countries, the presence of these origin groups in Belgium is the result of three subsequent migration waves. After the Second World War, Belgium recruited guest workers for mining and heavy industries originating from Southern-Europe, Turkey and Morocco. Turkish immigration had a pronounced rural character, and a large proportion of Moroccan guest workers were also predominantly recruited from low-educated rural areas, resulting in a very selective profile of non-European guest workers in Belgium. In response to the 'migration stop' of non-European guest workers in 1974, many Turkish and Moroccan guest workers decided to settle permanently in Belgium and bring over their spouses and family members. In contrast to the close link between migration and labour market participation among men, their female partners migrated in the context of family reunification, which resulted in low employment rates among these women and which may also have shaped work-family behaviours of their descendants. In subsequent decades, a substantial share of second-generation Turkish and Moroccan migrants continued to marry a partner from their parents' country of origin (Corijn & Lodewijckx, 2009). Since this link between family formation and migration is largely absent among Southern European migrant groups, the latter are considered to be less selective in terms of socio-economic positions and gender role attitudes.

Although the migrant-native employment gap is more pronounced among the first generation, studies have repeatedly shown that second generation migrant women - and particularly women of non-European origin - have lower employment rates than natives and are overrepresented in part-time employment, temporary contracts and employment sectors with low wages and irregular working hours (FOD WASO & UNIA, 2017; Heath et al., 2008). These disadvantages compared to natives already emerge at the beginning of their professional career, particularly for Turkish or Moroccan origin women (Baert et al., 2016; Maes, Wood, & Neels, 2019).

3.2.2 Family policies

In Belgium, all employees and women benefiting from unemployment benefits are entitled to 15 weeks of maternity leave, with women being obliged to take leave from at least one week before until nine weeks after the birth of the child[21] (Koslowski et al., 2016). Women on maternity leave receive a benefit which is calculated as a percentage

[21] Self-employed mothers have a separate system. They are entitled to twelve weeks of maternity leave, one week before and two weeks after the birth of the child are obligatory, and receive a flat-rate benefit (€485 per week in 2019).

of their previous wage[22]. In addition, parents can take up parental leave until the child is 12 years old[23] and can reduce their working hours by i) 100% for 4 months[24], ii) 50% for 8 months, iii) 20% for 20 months, or (iv) 10% for 40 months, or combine periods of full-time and part-time leave, while receiving a relatively low flat-rate benefit[25]. In contrast to the universal entitlement to maternity leave, parental leave is only available for private sector employees who have been working with their current employer for 12 out of 15 months preceding the application and for public sector employees with an employment contract at the time of the application, regardless the duration of employment (Koslowski et al., 2016). Research for Belgium has shown that these non-universal eligibility criteria result in a strong ethnic gradient in the uptake of parental leave (Kil et al., 2017).

For children under the age of 3, subsidised formal childcare services are available with fees that are income-related and tax deductible. Although Belgium is characterised by a high availability of formal childcare, it has at the same time one of the most articulated socio-economic gradients in the uptake of formal childcare within Europe (Pavolini & Van Lancker, 2018; Van Lancker, 2018; Van Lancker & Ghysels, 2012). Since the income-related fees appear to work properly for most users, this socio-economic gradient has been associated with unequal access to subsidised childcare rather than with problems of affordability (Ghysels & Van Lancker, 2009). In a context of supply shortages of subsidised formal childcare and long waiting lists, households with unstable labour force participation face more barriers to access formal childcare services as their demand cannot be planned well in advance. Some low-income households are also forced to rely on private childcare services (which are generally more expensive) due to unstable employment positions (Ghysels & Van Lancker, 2009).

3.3 Employment trajectories around the transition to motherhood of native and migrant origin women

3.3.1 Previous research on family formation and employment

Cross-sectional studies have shown that the migrant-native employment gap is larger among women with children than among childless women (Bevelander & Groeneveld,

[22] Employees receive 75–82% of their previous income and unemployed mothers receive their unemployment benefits plus 15-19% of their previous wages.
[23] Age limit of 4 years from its introduction in 1997 until 2005 and of 6 years from 2005 until 2009.
[24] Three months until 01.06.2012.
[25] In 2018 the net benefit for 100%, 50% and 20% leave amounted to €750.33, €345.85 and €117.34 respectively.

2006; Holland & de Valk, 2017; Rubin et al., 2008). However, using cross-sectional data is cumbersome to disentangle the effect of family formation on employment from the effect of employment on family formation, or to control for general factors affecting employment positions such as lower human capital, a weaker social network and discrimination on the labour market (Baert et al., 2013; Heath et al., 2008; Verhaeghe et al., 2013). Although Kil et al. (2018) and Vidal-Coso (2019) have used longitudinal microdata for Belgium and panel data from the Swiss Labour Force Survey respectively to investigate migrant-native differentials in the effect of family formation on employment, their estimates of this effect may be biased in several ways. First, individual characteristics of native and migrant origin women which affect both fertility and employment positions (e.g. educational level, value-based preferences) may entail a partially spurious relation between family formation and employment. To account for time-constant (un)observed characteristics that could be responsible for diverging employment trajectories between migrant origin and native women around parenthood, this study uses fixed-effects models to focus on within-individual changes in working hours around the birth of the first child (Allison, 2009; Stock & Watson, 2015). Second, the selection into motherhood and the timing of this transition may differ between migrant origin and native women. In this respect, Wood and Neels (2017) show for Belgium that the employment-fertility link differs between origin groups. While native women perceive a stable foothold in the labour market as a precondition to childbearing and consequently postpone the transition until this condition is fulfilled, non-European origin women are more likely to have a first child in response to unemployment or inactivity. Hence, the selection into parenthood is different across origin groups, which is again likely to bias the comparison of the effect of childbearing on employment across groups. When we compare a woman who is employed before the birth of her first child with a woman who is unemployed after the birth of her first child, for instance, it is impossible to disentangle whether this association reflects a negative effect of family formation on employment, or a positive effect of unemployment on family formation (among particular groups) since two different women are being compared. The bias can again be reduced by exploiting variation of working hours within individuals over time, and fixed-effects models are considered a more suitable approach than pooled regression strategies where part of the estimated effects reflects variation between women.

Apart from the uncertainty surrounding previous estimates of the differential effect of parenthood on the employment trajectories of migrant origin women and natives, our understanding of the mechanisms that could potentially generate such diverging trajectories also remains limited. Several studies have argued that the extent to which maternal employment differs between native and migrant origin women depends on

the social policy context (Holland & de Valk, 2017; Rubin et al., 2008), but other studies have emphasised differential socio-economic positions (Vidal-Coso, 2019) or differential norms and preferences regarding the timing of family formation and parent roles (de Valk, 2008; Khoudja & Fleischmann, 2014) to explain migrant-native differentials in the motherhood-employment link. The increasing availability of longitudinal data allows us to explore path-dependency as a potential underlying life course dynamic explaining differential employment trajectories around the transition to motherhood.

3.3.2 Path-dependency: hypotheses on migrant-native differentials

Second generation migrant women - particularly of Turkish or Moroccan origin - are disadvantaged compared to native women from the start of their professional career (Baert et al., 2016; Maes et al., 2019), which is likely to entail migrant-native differentials in women's employment trajectories around first childbirth due to three mechanisms of path-dependency. First, the Belgian labour market consists of insiders on the one hand who enjoy high job stability as a result of strong job protection, and outsiders on the other hand who tend to move between temporary contracts (Van Dooren et al., 2014). Whether or not women have a stable foothold in the labour market prior to family formation has implications for their access to family policies. Due to long waiting lists, migrant origin women (particularly of non-European origin) with unpredictable working hours and temporary contracts often face difficulties to secure a childcare arrangement in time (Vandenbroeck et al., 2008; Wall & José, 2004; Wood, 2019). This may lead to lock-in effects after the transition to parenthood to a larger extent than is the case among natives with more stable employment positions. Similarly, migrant origin women with unstable employment trajectories face more barriers to meet the eligibility criteria for parental leave, which may further hinder the reconciliation of motherhood and employment (Kil et al., 2017).

Second, the birth of a child is associated with direct costs as well as opportunity costs (Becker, 1991). Hence, not only women's labour market attachment, but also their wage potential prior to family formation shapes employment trajectories around the transition to parenthood. Since native women face stronger opportunity costs compared to migrant origin women (particularly of non-European origin) as a result of a higher wage potential, economic theories suggest that they are more likely to postpone family formation until stable employment has been secured and to subsequently stay (full-time) employed after the birth of a first child. In contrast, limited net income gains given the cost associated with formal childcare (particularly when relying on private childcare services) in combination with organisational issues (e.g.

transport, working hours), may create disincentives for (continued) labour force participation among migrant origin mothers with a low wage potential.

Third, migrant-native differentials in women's pre-birth labour market outcomes may also entail different employment trajectories around the transition to parenthood due to varying work-family attitudes. The exact role of attitudes is, however, difficult to identify. On the one hand, if migrant origin women have limited labour market prospects and lack role models, they may become demotivated and consider family formation as an alternative career, resulting in family formation at an early age (Elloukmani & Ou-Salah, 2018; Friedman et al., 1994). In this view, weaker pre-birth labour market outcomes may thus foster traditional work-family attitudes that subsequently shape employment trajectories around parenthood. On the other hand, there may also be a self-selection of women with more traditional work-family attitudes in less stable employment positions and low wage jobs before family formation. Although second generation Southern European, Turkish and Moroccan origin women have been socialised in a generally egalitarian family context in Belgium (Esping-Andersen, 1999; Lück, 2005), parental attitudes, family networks and the wider migrant community may act as a source for origin-specific attitudes as well (de Valk, 2008; de Valk & Milewski, 2011; Holland & de Valk, 2017; Khoudja & Fleischmann, 2014). To the extent that women limit their investment in education and employment in anticipation of reduced labour force participation after the transition to parenthood (Bass, 2015), work-family attitudes may entail a spurious relation between women's pre-birth labour market outcomes and employment trajectories around parenthood.

Considering the aforementioned mechanisms of path-dependency, the following hypotheses on migrant-native differentials in women's employment trajectories around the transition to parenthood are put forward in this study:

H1: The birth of the first child has a stronger impact on the working hours of migrant origin women than those of native women, particularly for Turkish or Moroccan origin women.

H2: Migrant-native differentials in women's changes in working hours over the transition to parenthood are associated with the differential pre-birth labour market attachment of migrant origin and native women.

H3: Migrant-native differentials in women's changes in working hours over the transition to parenthood are further reduced when considering native and migrant origin women's differential wage potential, particularly for Turkish or Moroccan origin women.

3.4 Data and Methods

3.4.1 Data

We use data from the Belgian Administrative Socio-Demographic Panel (BASD Panel) that links longitudinal microdata from the National Register and the Crossroads Bank for Social Security. The data infrastructure provides information on a sample of women aged 15-50 years legally residing in Belgium on January 1, 1999 using sampling fractions of 2.5% (1/40) for the female population with a Belgian nationality and 5% (1/20) for the female population with a foreign nationality. Sampled women are subsequently followed until i) the age of 50, ii) emigration/death, or iii) the end of the observation period on December 31, 2010. To maintain cross-sectional representativeness in the 1999-2010 period, supplementary annual samples of 15-year-olds, as well as women aged 16–50 years who settled in Belgium in the preceding year were drawn. For each observation year, household members of sampled women on the first of January are also included in the data.

The analyses investigate the change in contractual working hours around the transition to parenthood among women who i) had a first child between the first quarter of 2000 and the third quarter of 2010, ii) were not enrolled in education, iii) cohabited with their partner in the year preceding the first birth[26], and iv) had known contractual working hours[27]. In our dataset, contractual working hours reflect the percentage of working hours compared to a full-time position in the employment sector considered, which has the advantage of capturing differences in working hours that are not related to differences between sectors[28]. Part-time jobs are combined to determine the total working hours. The possible values range from 0% to 100%, where 0% reflects unemployment or inactivity and 100% full-time employment[29]. If women are on maternity leave, their working hours amount to 0% and the working hours of women

[26] Women without an identifiable partner were excluded from the analyses. As a result of this, 999 native, 142 Southern European and 65 Turkish/Moroccan origin women were excluded.

[27] Self-employed women were excluded, as we have no information on their working hours. As a result of unknown working hours (i.e. missing values), 864 native, 48 Southern European and 34 Turkish/Moroccan origin women were excluded (of which respectively 476, 18 and 3 self-employed women).

[28] For instance, while a full-time position implies working 38 hours per week in most employment sectors in Belgium, the contractual working hours for a full-time position are in some sectors less than 38 hours (e.g. education sector).

[29] For example, 80% reflects working 30 hours per week if a full-time positions in the sector considered implies working 38 hours per week. The working hours of individuals whose working hours exceed the standard number of working hours for a full-time position, were considered to be 100%.

on parental leave reflect their reduction in working hours. We follow women from one year before the birth of their first child until i) two quarters before their second child is born[30], ii) the first child reaches the age of three, or iii) censoring as a result of death, emigration or the end of the observation period. Women who had their first child in the last quarter they were observed were excluded from the analyses since we are interested in the change in working hours following parenthood. This results in a sample of 7897 women: 6890 native women, 538 second generation Southern European origin women, and 469 second generation Turkish or Moroccan origin women. Since prior research for Belgium has only shown limited differences in the motherhood-employment link between second generation Turkish and Moroccan origin women (Kil et al., 2018) and in order to obtain robust estimations, this study combines Turkish and Moroccan origin women into one group.

3.4.2 Methods

This study uses individual-level fixed-effects regression models to compare changes in native women's working hours around the birth of their first child to changes observed among second generation women of Southern European origin and Turkish or Moroccan origin (hereafter, G2 South-EU women and G2 Turkish/Moroccan women). Since fixed-effects models consider differences within individuals over time, the analyses account for time-constant (un)observed heterogeneity between native and migrant origin women (Allison, 2009; Stock & Watson, 2015). However, since spuriousness may still result from time-varying confounding factors, time-varying individual-level covariates can be included in the fixed-effects model. Equation 3.1 shows the general equation for a fixed-effects model where Y_{it} is the dependent variable for individual i at time t, X_{it} a vector of time-varying independent variables, β the parameter estimates for these independent variables, α_i the time-invariant individual effect and u_{it} the error term.

$$Y_{it} = \beta X_{it} + \alpha_i + u_{it} \quad (3.1)$$

Documenting employment trajectories around the transition to parenthood

The first part of the analyses compares changes in working hours around the transition to parenthood among native and migrant origin women (H1). Similar to the approach developed by Kil et al. (2018), a fixed-effects model is estimated separately for women who were employed and not employed one year before family formation, considering

[30] Descriptive results show that women frequently decrease their working hours or take maternity leave in the quarter preceding the birth of a child.

i) time relative to the first birth (distinguishing quarters -4, -3, -2, -1, 0, 1, 2, 3, 4-7, 8-11), and ii) the interaction between time and origin group (native, G2 South-EU and G2 Turkish/Moroccan). The fourth quarter before the birth of the first child is used as reference point, so each quarter, women's working hours are compared to their working hours one year before the first birth.

Explaining migrant-native differentials in employment trajectories around the transition to parenthood

Based on the aforementioned theoretical mechanisms, we expect that migrant-native differentials in women's changes in working hours around the transition parenthood can be explained by women's differential labour market attachment before the transition to parenthood. To have a more robust reflection of women's pre-birth labour market attachment than the observed position they happen to occupy in the fourth quarter preceding the birth of their first child, each quarter, we estimated the probability of being employed for women in the BASD Panel who did not (yet) have children and were no longer enrolled in education as a function of their i) age (centred at age 18, quadratic specification), ii) highest educational level (low, medium, high, unknown), iii) origin group and generation (native, G1 neighbouring countries, G2 neighbouring countries, G1 South-EU, G2 South-EU, G1 Turkey, G2 Turkey, G1 Morocco, G2 Morocco), iv) region (Flanders, Wallonia, Brussels), v) LIPRO household position[31] (child, single, married, cohabiting, other), as well as vi) the interaction between origin group and age, vii) the interaction between origin group and educational level, viii) the interaction between origin group and LIPRO position, ix) the interaction between educational level and age, and x) the interaction between LIPRO position and age. Equation 3.2 shows the equation for women's employment probabilities where A_i denotes age, E_i the dummy variables reflecting highest educational level, O_i the dummy variables reflecting origin group and generation, R_i the dummy variables reflecting region, L_i the dummy variables reflecting the LIPRO household position, and the product terms denote the two-way interactions (model estimates are included in Appendix Table 3.4).

$$\hat{p}(employed)_i = \frac{\left[e^{\hat{\alpha}}.e^{\hat{\beta}A_i+\hat{\beta}A_i^2}.e^{\sum\hat{\beta}E_i}.e^{\sum\hat{\beta}O_i}.e^{\sum\hat{\beta}R_i}.e^{\sum\hat{\beta}L_i}.e^{\sum\hat{\beta}O_iA_i}.e^{\sum\hat{\beta}O_iA^2{}_i}.e^{\sum\hat{\beta}O_iE_i}.e^{\sum\hat{\beta}O_iL_i}.e^{\sum\hat{\beta}E_iA_i}.e^{\sum\hat{\beta}E_iA^2{}_i}e^{\sum\hat{\beta}L_iA_i}.e^{\sum\hat{\beta}L_iA^2{}_i}\right]}{1+\left[e^{\hat{\alpha}}.e^{\hat{\beta}A_i+\hat{\beta}A_i^2}.e^{\sum\hat{\beta}E_i}.e^{\sum\hat{\beta}O_i}.e^{\sum\hat{\beta}R_i}.e^{\sum\hat{\beta}L_i}.e^{\sum\hat{\beta}O_iA_i}.e^{\sum\hat{\beta}O_iA^2{}_i}.e^{\sum\hat{\beta}O_iE_i}.e^{\sum\hat{\beta}O_iL_i}.e^{\sum\hat{\beta}E_iA_i}.e^{\sum\hat{\beta}E_iA^2{}_i}e^{\sum\hat{\beta}L_iA_i}.e^{\sum\hat{\beta}L_iA^2{}_i}\right]} \quad (3.2)$$

Subsequently, each quarter of observation, women in our sample were assigned the probability of being employed of women who do not have children (yet), but who

[31] "LIfestyle PROjections" (Van Imhoff & Keilman, 1991).

otherwise have an identical profile in terms of the aforementioned characteristics. Using the estimated employment probabilities of women who do not have children (yet) is not problematic since we consider first-time mothers and just before childbearing, they were likely to have similar labour market prospects. This would not be the case if we would focus on higher-order births.

For the second part of the analyses, women are no longer stratified in terms of the observed employment position in the fourth quarter before the birth of their first child, but in terms of the probability of being employed at that time[32] (hereafter referred to as their pre-birth employment rate). We distinguish women with low, medium and high pre-birth employment rates, corresponding to employment rates one year prior to parenthood that range from 0 to 0.33, from 0.33 to 0.66 and from 0.66 to 1, respectively. In contrast to observed labour market positions, estimated employment rates offer a more robust indicator of women's pre-birth labour market attachment which is not affected by an arbitrary time point. For example, Kil et al. (2018) differentiated their analyses by women's employment positions observed one year before the birth of their first child (working full-time, working part-time, unemployed and inactive) to investigate migrant-native differentials in employment positions after parenthood. However, this observed pre-birth employment position disregards variation in employment positions over time that occurs regardless of parenthood, and therefore induces bias for women with the least stable labour market trajectories. As the likelihood to leave employment, unemployment or inactivity differs by migration background – regardless of the transition to parenthood – stratification in terms of observed positions at an arbitrary time point makes it difficult to compare the effect of family formation by migration background, as it may partially reflect differential stability of employment positions.

For women with low, medium and high pre-birth employment rates, four models are subsequently estimated to explore migrant-native differentials in employment trajectories around the transition to parenthood (full model estimates available in Appendix, Tables 3.7, 3.8 and 3.9). *Model 0* considers i) time relative to the first birth, and ii) the interaction between time and origin group to assess whether there are migrant-native differentials among women with similar pre-birth employment rates (H2). Since women's pre-birth employment rates may also differ within the low, medium and high employment rates group, *Model 1* additionally includes the interaction between time and women's pre-birth employment rates. *Model 2*

[32] Since women's pre-birth employment rates depend on their age, migrant-native differentials in women's pre-birth labour market attachment due to an earlier timing of family formation are captured.

additionally controls for women's time-varying parental leave uptake (no uptake, part-time uptake, full-time uptake) and LIPRO household position (child, single, married, cohabiting, other).

In line with economic theories, we expect that migrant-native differentials in women's pre-birth wage potential also account for part of the differential change in working hours around parenthood (H3). To have a robust indicator for women's pre-birth wage potential, a multinomial logit model was used to estimate the probability of being employed with a low, medium or high hourly wage for women in the BASD Panel who did not have children (yet), were employed but not self-employed, and not enrolled in education as a function of their i) age (quadratic specification), ii) highest educational level, iii) origin group and generation, iv) region, v) LIPRO household position, vi) the interaction between origin group and age, vii) the interaction between origin group and educational level, viii) the interaction between origin group and LIPRO position, and ix) the interaction between educational level and age (model estimates are provided in Appendix, Table 3.5). Subsequently, each quarter of observation, all women in our sample were assigned what their wage potential would be if they would have no children and would be employed, based on the aforementioned characteristics. In *Model 3* we include the interaction between time since first birth and i) a dummy variable indicating a high pre-birth wage potential (i.e. probability to have a high hourly wage exceeding 0.50 in the fourth quarter before the birth of the first child), and ii) a dummy variable indicating a low pre-birth wage potential (i.e. probability to have a low hourly wage exceeding 0.50 in the fourth quarter before family formation) to assess whether women's change in working hours around motherhood differs for women with a high and low pre-birth wage potential.

Since omitting partners' characteristics in research on maternal employment may yield biased results (Matysiak & Vignoli, 2008), this study also takes partners' pre-birth employment and wage potential and migration background into account. To have an indicator of the employment and wage potential of women's partners, we use a multinomial logit model to estimate the probability of being i) not employed, ii) employed with a low hourly wage, iii) employed with a medium hourly wage and iv) employed with a high hourly wage for all men in the BASD Panel who were not enrolled in education nor self-employed as a function of their i) age (quadratic specification), ii) highest educational level, iii) origin group and generation, iv) region, v) LIPRO household position, vi) the interaction between origin group and age, vii) the interaction between origin group and educational level, viii) the interaction between origin group and LIPRO position, and ix) the interaction between educational level and age (model estimates are provided in Appendix, Table 3.6). Subsequently, each quarter of observation, all partners of women in our sample were assigned what their

employment and wage probabilities would be based on the aforementioned characteristics. *Model 4* additionally controls for i) the interaction between time and the partner's pre-birth employment and wage potential (i.e. the estimated employment and wage probabilities in the fourth quarter before the birth of the first child) and ii) the presence and migration background of the partner (no partner in the household, native, G1 South-EU, G2 South-EU, G1/G2 other EU countries[33], G1 Turkey/Morocco, G2 Turkey/Morocco).

3.5 Results

3.5.1 Employment trajectories around the transition to parenthood

Figure 3.1 shows the change in women's working hours compared to the working hours one year before the birth of their first child for women who were employed (Figure 3.1a) and unemployed or inactive (Figure 3.1b) one year before family formation. Considering women who were employed, the same overall pattern can be observed: women's working hours decrease in the quarters preceding birth, drop to low values in the quarter of birth and recover as the child becomes older[34], but to a level below the level observed one year before motherhood. There are, however, strong differences between origin groups. Native women reduce their working hours in the first two quarters after the transition to motherhood on average by 24 and 17 percentage points respectively, and by 13 percentage points from the third quarter onwards. The decrease in the working hours of G2 South-EU women ranges from 24 percentage points in the first quarter to 19 percentage points three years after motherhood. G2 Turkish/Moroccan women show the strongest decrease in their working hours, ranging from 38 percentage points in the first quarter after the child is born to 27 percentage points after three years. Hence, G2 South-EU and G2 Turkish/Moroccan women reduce their working hours to a significantly stronger extent than native women in the three years following family formation (gaps ranging from 0 to 6 and from 14 to 17 percentage points respectively). Regarding women who were not employed one year before motherhood (working hours amounting to 0 per cent), Figure 3.1b shows that the working hours for all origin groups increase in the three years following the birth of their first child. However, G2 South-EU and G2 Turkish/Moroccan women increase their working hours to a significantly lesser extent than native women. This difference with

[33] The other European countries include neighbouring countries, Northern European and Eastern European countries.

[34] It should be noted that the sample becomes increasingly selective and small as the child approaches the age of three since women are excluded from the analyses two quarters before their second child is born.

native women's trajectories ranges from 7 to 10 percentage points for G2 South-EU women and from 10 to 15 percentage points for G2 Turkish/Moroccan women.

The results in Figure 3.1 seem to confirm our first hypothesis. After the transition to parenthood, migrant origin women decrease their working hours to a stronger extent (if they were employed) and increase their working hours to a lesser extent (if they were not employed) compared to native women, with the largest difference emerging among Turkish/Moroccan origin women. However, as women's observed employment positions one year before motherhood are only a snapshot at an arbitrary point in time, the migrant-native differentials in Figure 3.1 may partially conceal differential stability in employment trajectories across groups, regardless of parenthood. The fact that there is already a stronger decrease in the three quarters preceding the first birth in the working hours of G2 Turkish/Moroccan women among women who were employed one year before motherhood (Figure 3.1a) and a stronger increase in the working hours of native and G2 South-EU women among women who were not employed (Figure 3.1b) seems to provide empirical support for this line of thought.

Figure 3.1: Change in working hours around first birth compared to working hours 1 year before first birth by origin group.

Source: BASD Panel, 1999-2010, calculations by authors.

Table 3.1: Distribution of the explanatory variables by origin group (in %).

	All women			Low pre-birth employment rates			Medium pre-birth employment rates			High pre-birth employment rates		
	Native	**G2 South-EU**	**G2 Tur/Mor**	**Native**	**G2 South-EU**	**G2 Tur/Mor**	**Native**	**G2 South-EU**	**G2 Tur/Mor**	**Native**	**G2 South-EU**	**G2 Tur/Mor**
Pre-birth employment position												
Employed	88.28	79.18	53.30	38.38	30.00	30.95	57.35	53.25	45.49	91.08	84.70	79.58
Unemployed or inactive	11.71	20.82	46.69	61.62	70.00	69.05	42.65	46.75	54.50	8.92	15.30	20.42
Pre-birth working hours (mean)	81.63	70.59	46.14	30.30	22.00	21.37	47.11	43.05	39.01	84.67	76.37	72.99
Pre-birth employment rates (mean)	0.88	0.80	0.54	0.21	0.25	0.26	0.53	0.54	0.49	0.91	0.86	0.81
Low pre-birth wage potential												
Probability < 0.5	82.51	63.01	41.36	7.07	0.00	0.00	22.17	9.09	25.51	87.61	73.61	92.96
Probability > 0.5	17.49	36.99	58.64	92.93	100.00	100.00	77.83	90.91	74.49	12.39	26.39	7.04
High pre-birth wage potential												
Probability < 0.5	93.83	91.26	98.93	98.99	100.00	100.00	99.52	93.51	100.00	93.38	90.69	96.48
Probability > 0.5	6.17	8.74	1.07	1.01	0.00	0.00	0.48	6.49	0.00	6.62	9.31	3.52
Partner's pre-birth employment and wage potential (mean)												
Not employed	0.13	0.20	0.39	0.24	0.39	0.45	0.21	0.26	0.40	0.13	0.19	0.34
Employed, low hourly wage	0.32	0.35	0.36	0.37	0.38	0.36	0.36	0.36	0.38	0.32	0.35	0.34
Employed, medium hourly wage	0.34	0.29	0.18	0.27	0.18	0.14	0.29	0.26	0.17	0.34	0.30	0.22
Employed, high hourly wage	0.20	0.15	0.06	0.12	0.05	0.05	0.13	0.12	0.05	0.21	0.16	0.10
Parental leave uptake*												
No leave	90.11	92.09	95.78	96.48	100.00	98.84	96.91	96.74	96.82	89.57	91.08	92.20
Part-time leave	8.02	6.55	2.12	2.74	0.00	0.00	2.22	1.44	1.36	8.48	7.60	4.66
Full-time leave	1.86	1.36	2.10	0.78	0.00	1.16	0.87	1.82	1.82	1.94	1.31	3.14
Partner's migration background*												
No partner in the household	4.99	7.05	6.95	28.38	33.11	10.23	16.42	15.90	7.56	3.86	4.87	3.98
Native	82.36	42.39	3.76	54.81	23.65	0.58	64.51	41.38	1.95	83.96	43.02	8.75
G1 South-EU	0.42	5.21	0.22	1.41	0.00	0.00	0.69	5.17	0.00	0.38	5.34	0.73
G2 South-EU	2.73	34.35	0.66	0.63	22.30	0.87	5.02	22.41	0.00	2.61	36.72	1.68
G1 Other EU or G2 other EU	8.57	7.64	5.12	12.90	2.03	3.09	11.87	9.39	4.12	8.28	7.47	8.02
G1 Turkey or G1 Morocco	0.57	1.65	60.58	0.78	18.92	61.78	0.93	3.07	65.51	0.55	0.98	51.37
G2 Turkey or G2 Morocco	0.37	1.72	22.71	1.09	0.00	23.46	0.57	2.68	20.86	0.35	1.60	25.46
LIPRO household position*												
Living with parents	2.18	3.78	2.61	17.59	4.05	4.63	8.33	2.78	2.41	1.53	3.94	2.24
Single	3.03	4.82	4.90	9.77	20.95	8.40	8.17	11.59	4.83	2.59	3.24	2.97
Married	52.11	56.98	83.34	14.46	22.30	78.96	23.94	48.56	87.99	54.54	59.29	77.85
Cohabiting	41.86	32.90	6.73	54.18	44.59	4.25	57.36	33.33	3.08	40.66	32.54	14.47
Other	0.82	1.53	2.42	3.99	8.11	3.76	2.20	3.74	1.95	0.68	0.98	2.47
N Persons	6890	538	469	99	10	84	415	77	243	6376	451	142
N Person Quarters	84750	7203	5901	1279	148	1036	5080	1044	3082	78391	6011	1783

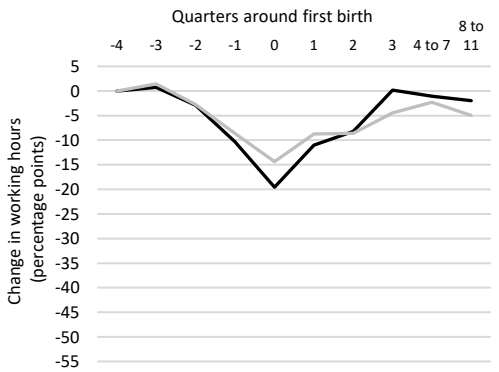
** Since parental leave uptake, the partner's migration background and LIPRO household position are time varying, they are expressed in number of Person Quarters.*
Notes: Pre-birth variables are measured in the fourth quarter before the birth of the first child. Working hours reflect the percentage of working hours compared to a full-time position in the employment sector considered. Source: BASD Panel, 1999-2010.

3.5.2 Explaining migrant-native differentials

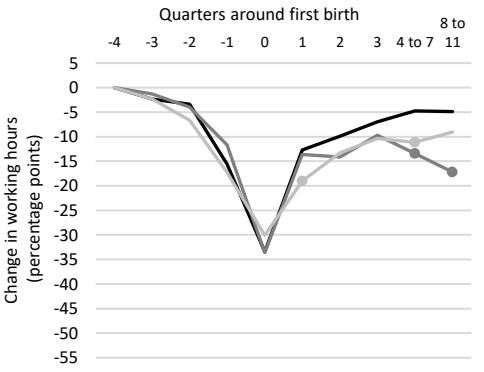
If we compare women with similar pre-birth employment rates, and thus consider women's average employment positions, we find only limited differentials between the trajectories of native women and second generation women of Southern European and Turkish or Moroccan origin. Figure 3.2 shows employment trajectories around family formation by origin group for women with low, medium and high pre-birth employment rates separately. Among women with low pre-birth employment rates (Figure 3.2a), a likelihood ratio test (Δ-2LL: 5.6; Δdf: 9; p: 0.78) indicates that there is no significant difference between native and G2 Turkish/Moroccan women in their employment trajectories around parenthood (G2 South-EU women are excluded from the analysis due to the small sample size). Further, although the likelihood ratio tests among women with medium and high pre-birth employment rates indicate that including the interaction between time and origin group is a significant improvement compared to the model only including time, differences between origin groups are small. Among women with medium pre-birth employment rates (Figure 3.2b), the differentials with native women's trajectories in the three years following the birth of the first child range from 1 to 12 percentage points for G2 South-EU women and from 3 to 6 percentage points for G2 Turkish/Moroccan women. Among women with high pre-birth employment rates (Figure 3.2c), the differential change compared to native women after the transition to motherhood ranges from 0.6 to 3 percentage points for G2 South-EU women. G2 Turkish/Moroccan women reduce their working hours to a stronger extent than native women with high pre-birth employment rates in the first two years following motherhood (gaps ranging from 1 to 6 percentage points), but to a lesser extent in the third year after family formation. This differential change in working hours compared to native women is, however, not statistically significant. Hence, we can largely confirm our second hypothesis that migrant-native differentials in women's employment trajectories around parenthood can be largely explained by their differential pre-birth employment rates.

Figure 3.2: Change in working hours around first birth compared to working hours 1 year before fist birth by origin group and pre-birth employment rates (Model 0).

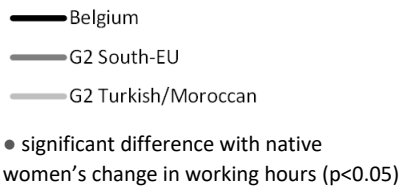
a: Women with low pre-birth employment rates (0-0.33)*



b: Women with medium pre-birth employment rates (0.33-0.66)



c: Women with high pre-birth employment rates (0.66-1)



** Among women with low pre-birth employment rates, G2 South-EU women are excluded from the analysis due to the small sample size (N: 10).*
Source: BASD Panel, 1999-2010, calculations by authors.

We also investigate whether and to what extent migrant-native differentials in employment trajectories after family formation can be further explained by differences in i) women's parental leave uptake and variation in LIPRO household positions (*Model 2*), ii) women's pre-birth wage potential (*Model 3*), and iii) the migration background and pre-birth employment and wage potential of women's partners (*Model 4*). As Model 0 indicated no significant differentials by origin group among women with low pre-birth employment rates, we only focus on women with medium and high pre-birth employment rates. For G2 South-EU and G2 Turkish/Moroccan women, Table 3.2 shows the differential change in working hours after the transition to motherhood

compared to native women over the subsequent models[35]. Since women's employment rates also vary within the medium and high pre-birth employment rates group, Model 1 takes women's estimated pre-birth employment rates into account. Additionally controlling for parental leave uptake and LIPRO household positions in Model 2 significantly improves our models. Due to migrant-native differentials in (full-time) parental leave uptake (Table 3.1), the difference with native women's trajectories after family formation decreases in Model 2. This decrease ranges from 0.05 percentage points to 4 percentage points for G2 South-EU and G2 Turkish/Moroccan women with medium pre-birth employment rates respectively.

Additionally including women's pre-birth wage potential in Model 3 again significantly improves our models. The results indicate that among women with medium pre-birth employment rates, women with a high pre-birth wage potential decrease their working hours to a significantly lesser extent in the second and third year after the birth of their first child than women without a high wage potential. By contrast, there is no significant difference in the change in working hours after family formation between women with and without a low pre-birth wage potential. Among women with high pre-birth employment rates, there is no significant difference in the change in working hours after family formation between women with and without a high wage potential. On the other hand, women with a low pre-birth wage potential decrease their working hours by an additional 4 percentage points in the second and third quarter after family formation compared to women without a low pre-birth wage potential. Although migrant-native differentials in women's pre-birth wage potential become less pronounced when comparing women with similar pre-birth employment rates, there are still differences among women with medium and high pre-birth employment rates (Table 3.1). However, controlling for women's pre-birth wage potential results in almost no change in the difference with native women's change in working hours after family formation for G2 South-EU and G2 Turkish/Moroccan women (difference with natives is maximum 1.5 percentage points smaller compared to Model 2)[36]. Hence, we must reject our third hypothesis since differences between native and migrant origin women's pre-birth wage potential do not substantially reduce migrant-native differentials in women's changes in working hours after family formation when already controlling for differential pre-birth employment probabilities.

Finally, the likelihood ratio tests indicate that women's employment trajectories around the transition to parenthood are also shaped by their partners' migration

[35] Detailed results for all explanatory variables available in Appendix.

[36] If we change the order of the models and additionally control for women's pre-birth wage potential, but not for parental leave uptake and LIPRO position, we find the same results.

background and pre-birth employment and wage potential. Despite differences between native and migrant origin women's partners among women with medium and high employment rates, there is almost no change in migrant-native differentials after controlling for these differences (changes of maximum 2 percentage points compared to Model 3).

Table 3.2: Differential change in working hours after first birth compared to native women by origin group and pre-birth employment rates (in percentage points), Models 0-4.

	1: Women with medium pre-birth employment rates (0.33-0.66)									
	Model 0	Sig.	Model 1	Sig.	Model 2	Sig.	Model 3	Sig.	Model 4	Sig.
	a: G2 South-EU women (N: 77)									
Quarter 1	-0.914		0.625		0.468		-1.048		-1.329	
Quarter 2	-4.241		-2.892		-0.618		-2.130		-2.168	
Quarter 3	-2.729		-1.257		0.888		-0.717		0.112	
Quarters 4-7	-8.670	*	-6.676		-5.670		-7.060		-6.248	
Quarters 8-11	-12.361	**	-9.874	*	-9.932	*	-10.720	**	-10.368	*
	b: G2 Turkish/Moroccan women (N: 243)									
Quarter 1	-6.315	*	-7.246	*	-3.227		-3.045		-5.491	
Quarter 2	-3.423		-4.242		-1.309		-1.271		-3.128	
Quarter 3	-3.361		-4.297		-1.513		-1.518		-1.682	
Quarters 4-7	-6.413	*	-7.794	*	-6.259	*	-6.436	*	-6.008	*
Quarters 8-11	-4.194		-6.642	*	-5.901	*	-6.090	*	-7.263	*
	48.2		44.1		471.4		76.2		52.8	
Δ -2LL (Δdf)	(18)	***	(9)	***	(6)	***	(19)	***	(33)	***
	2: Women with high pre-birth employment rates (0.66-1)									
	Model 0	Sig.	Model 1	Sig.	Model 2	Sig.	Model 3	Sig.	Model 4	Sig.
	a: G2 South-EU women (N: 451)									
Quarter 1	1.601		0.797		-0.073		-0.105		-0.005	
Quarter 2	-0.777		-1.007		-0.705		-0.856		-0.724	
Quarter 3	-2.505		-2.099		-1.684		-1.753		-1.714	
Quarters 4-7	-3.081	*	-3.496	*	-2.963	*	-3.041	*	-3.011	*
Quarters 8-11	-0.608		-1.480		-1.045		-1.026		-1.336	
	b: G2 Turkish/Moroccan women (N: 142)									
Quarter 1	-1.385		-2.523		0.258		-0.398		-0.057	
Quarter 2	-5.594		-5.908		-2.321		-3.292		-2.770	
Quarter 3	-3.741		-3.167		0.055		-1.015		-0.900	
Quarters 4-7	-3.796		-4.343		-2.105		-2.467		-2.552	
Quarters 8-11	4.048		2.858		3.501		4.000		2.694	
	50.3		140.4		13346.9		95.5		80.6	
Δ -2LL (Δdf)	(18)	***	(9)	***	(6)	***	(18)	***	(33)	***

*Notes: Model 0 includes i) time around first birth and ii) time*origin group; Model 1 additionally includes women's pre-birth employment rates; Model 2 additionally includes i) parental leave uptake and ii) LIPRO position; Model 3 additionally includes time*women's pre-birth wage potential; Model 4 additionally includes i) time*partner's pre-birth employment and wage potential, and ii) the presence and migration background of the partner.*

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors.

3.5.3 Sensitivity analyses

In the main analyses, women's reduced working hours can be either the result of i) staying employed, but working less hours per week, ii) becoming unemployed, or ii) becoming inactive. This distinction is, however, particularly important in the Belgian context of a rigid labour market. Whereas some women enjoy a great job security and can choose to work part-time after the birth of their child, outsiders may not find a job and get 'locked' in unemployment after the transition to parenthood. In addition, becoming unemployed can be interpreted as an involuntary reduction of working hours, while becoming inactive as a voluntary decision of women, but both have been treated as working hours of 0%. To gain more insights in the mechanisms behind women's reduced working hours, the analyses of Model 0 have been replicated three times, but successively excluding quarters in which women are i) inactive, ii) unemployed and iii) both inactive or unemployed.

Tables 3.3.1a and 3.3.2a show that the gap with natives generally becomes smaller for both G2 South-EU women with medium and high pre-birth employment rates when unemployed quarters are excluded. This suggests that G2 South-EU women overall show a stronger reduction of their working hours than natives because they are more likely to become unemployed after the transition to parenthood. For G2 Turkish/Moroccan women with medium pre-birth employment rates, Table 3.3.1b shows that part of the difference with native women's trajectories after family formation is due to a shift into inactivity, as the gap with native women is smaller from the third quarter onwards after excluding inactive quarters. Excluding both inactive and unemployed quarters leads, however, to an increased difference with native women, indicating that G2 Turkish/Moroccan women with medium pre-birth employment rates reduce their working hours to a stronger extent than native women if they stay employed after family formation. Among G2 Turkish/Moroccan women with high pre-birth employment rates the gap with native women becomes slightly smaller when unemployed and inactive quarters are excluded (except for quarters 4-7 after family formation), suggesting that the strong decrease in working hours of G2 Turkish/Moroccan women after family formation is due to inactivity or unemployment being more prevalent than is the case among native women.

Table 3.3: Differential change in working hours after first birth compared to native women by origin group and pre-birth employment rates (in percentage points), sensitivity analyses of Model 0.

	1: Women with medium pre-birth employment rates (0.33-0.66)							
	Inactive and unemployed quarters included	Sig.	Inactive quarters excluded	Sig.	Unemployed quarters excluded	Sig.	Inactive and unemployed quarters excluded	Sig.
	a: G2 South-EU women							
Quarter 1	-0.914		-1.138		2.306		1.670	
Quarter 2	-4.241		-7.927		-3.105		-10.426	*
Quarter 3	-2.729		-5.283		3.165		-2.290	
Quarters 4-7	-8.670	*	-11.429	**	-3.141		-5.467	
Quarters 8-11	-12.361	**	-10.319	*	-5.151		-0.559	
N persons	77		61		57		41	
	b: G2 Turkish/Moroccan women							
Quarter 1	-6.315	*	-7.673	*	-13.790	**	-17.049	***
Quarter 2	-3.423		-3.933		-9.194	*	-12.227	***
Quarter 3	-3.361		-1.356		-10.695	*	-10.433	**
Quarters 4-7	-6.413	*	-4.264		-11.773	***	-6.833	*
Quarters 8-11	-4.194		-2.718		-6.306		-5.516	
N persons	243		209		145		111	
	2: Women with high pre-birth employment rates (0.66-1)							
	Inactive and unemployed quarters included	Sig.	Inactive quarters excluded	Sig.	Unemployed quarters excluded	Sig.	Inactive and unemployed quarters excluded	Sig.
	a: G2 South-EU women							
Quarter 1	1.601		1.819		2.766		3.904	*
Quarter 2	-0.777		-1.134		-0.049		0.388	
Quarter 3	-2.505		-3.372	*	-1.239		-0.761	*
Quarters 4-7	-3.081	*	-3.035	*	-2.114		-1.093	
Quarters 8-11	-0.608		-0.930		-0.649		-0.321	*
N persons	451		416		417		382	
	b: G2 Turkish/Moroccan women							
Quarter 1	-1.385		-1.702		-2.212		-0.701	**
Quarter 2	-5.594		-5.255	*	-6.475	*	-4.945	
Quarter 3	-3.741		-4.712		-3.729		-2.437	
Quarters 4-7	-3.796		-4.853	*	-4.339		-4.172	
Quarters 8-11	4.048		2.636		1.560		0.645	
N persons	142		130		125		113	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors.

3.6 Discussion

Belgium has one of the largest employment gaps between native and second generation migrant women in Europe (Heath et al., 2008; OECD, 2010). In a context of accelerated population ageing and increasing diversity, understanding the factors that generate differences between the employment trajectories of native and migrant origin women stands high on the academic and policy agenda. Since a sizeable body of literature has shown that the migrant-native employment gap is especially large among

women with children (FOD WASO & UNIA, 2017; Holland & de Valk, 2017; Rubin et al., 2008), this study investigates whether the transition to parenthood has a stronger impact on the employment trajectories of second generation women of Southern European and Turkish or Moroccan origin compared to native women, using longitudinal micro-data for Belgium. In addition to the societal importance of migrant origin mothers' labour force participation, a reduced labour force participation after family formation has also implications for women's financial independence, future labour market trajectories and social security (e.g. pensions) (Koelet et al., 2015; Neels et al., 2018).

By considering within-individual changes in women's contractual working hours from 1 year before the transition to parenthood to 3 years after, we control for time-constant (un)observed heterogeneity between native and migrant origin women, in a way more rigorous than previous studies (Holland & de Valk, 2017; Kil et al., 2018; Rubin et al., 2008; Vidal-Coso, 2019). In line with prior research for Belgium (Kil et al., 2018), the stratification in terms of observed pre-birth labour market positions seems to suggest that the birth of a first child has a stronger impact on the labour market participation of migrant origin women compared to native women, with the largest difference for Turkish or Moroccan origin women (which would seemingly confirm H1). Employed second generation migrant women reduce their working hours to a larger extent compared to natives and are also less likely to substantially increase their working hours in case they were not employed before childbirth, but this may reflect differential employment stability rather than a differential impact of parenthood on employment trajectories.

In contrast, the stratification in terms of employment rates - which reflects women's predicted or average employment intensity - suggests that migrant-native differentials in the adjustment of working hours after the birth of the first child can be largely explained by native and migrant origin women's differential pre-birth labour market attachment (thus largely confirming H2). As indicator for women's pre-birth labour market attachment, we use estimated employment rates of women who do not (yet) have children, but otherwise have similar age and socio-economic characteristics. Estimated pre-birth employment rates offer a more representative and robust indicator of women's pre-birth labour market attachment than observed pre-birth employment positions measured at a specific time point as the latter disregard variation in employment stability, which may differ between migrants and natives. Using an indicator that is robust to such differential stability in pre-birth employment trajectories, we find no migrant-native differentials among women with low pre-birth employment rates and only limited differentials among women with medium and high pre-birth employment rates. This indicates that there is a strong path-dependency of

both native and migrant women's employment trajectories around the transition to parenthood, but that migrant origin women generally have lower pre-birth employment rates compared to native women.

In line with economic theories, our results indicate that women's pre-birth wage potential significantly affects their changes in working hours after the transition to parenthood. Migrant-native differentials in women's pre-birth wage potential appear to be less pronounced among women with similar pre-birth employment rates and additionally controlling for women's pre-birth wage potential results in (almost) no change in the difference with native women's employment trajectories after the transition to parenthood (H3 rejected). This suggests that it is mostly the differential pre-birth labour market attachment that accounts for the migrant-native gap in employment trajectories around the transition to parenthood, which may reflect the rigidity of the Belgian labour market consisting of insiders and outsiders (Van Dooren et al., 2014).

Since omitting partners' characteristics in research on maternal employment may yield biased results, this study also takes the migration background and pre-birth employment and wage potential of women's partners into account. Additionally controlling for these partner characteristics results, however, in almost no change in migrant-native differentials. In addition to absolute labour market positions of women and their partners, micro-economic and bargaining theories suggest that women's relative position in the household also potentially determines their employment trajectories around family formation (Becker, 1991; Lundberg & Pollak, 1996; Wood et al., 2018). To get more insight on the couple dynamics and gender impact of family formation among native and migrant origin couples, future research could focus in more detail on partners' relative household positions using couples as research units.

Some limitations of this study should be mentioned. First, despite the fact that fixed-effects models provide a more convincing tool to approximate the causal effects of family formation on employment trajectories compared to cross-sectional or pooled regression strategies by accounting for time-constant (un)observed heterogeneity between women, spuriousness may still result from time-varying individual-level characteristics that are not captured in our models (e.g. gender-role attitudes may not be stable over the life course [37]) and potential biases remain due to reverse causality. Second, although the Belgian social security registers provide longitudinal microdata on the labour market positions of women and their partners, it does not allow us to

[37] Research indicates that the transition to parenthood results in more traditional gender-role attitudes among both men and women (Baxter et al., 2015; Schober & Scott, 2012).

consider i) the flexibility and irregularity of working hours, ii) involuntary part-time employment and iii) gender-role attitudes. Third, the focus of this study was limited to employment trajectories around first births, resulting in increasingly selective and small sample sizes as the firstborn approaches the age of three due to potentially selective higher-order childbearing patterns. As migrant-native differentials in employment trajectories around first births may be different than around second and higher-order births, and the wage potential of both partners may be more important among higher-order births, it would be worthwhile to investigate employment trajectories over subsequent births in future research. Fourth, we only considered women who cohabited with their partner before the birth of the first child. Although we took into account whether women are no longer cohabiting with their partner, employment trajectories around parenthood may differ among lone mothers (Milewski, Struffolino, & Bernardi, 2018). Fifth, small sample sizes for migrant origin women may have affected the precision of the estimates and significance levels. In addition, due to small sample sizes we did not obtain robust estimates for Turkish and Moroccan origin women separately. Although prior research for Belgium indicates only limited differences in the motherhood-employment link of second generation Turkish and Moroccan origin women (Kil et al., 2018), future research could elaborate more on the potentially different trajectories of Turkish and Moroccan origin women.

Despite these limitations, this study highlights the importance of a longitudinal and path-dependent life course perspective in research on and policy development for migrant origin women's labour force participation. In addition, our analyses advocate the use of more robust proxies of women's pre-birth labour market attachment by estimating pre-birth employment rates of women who do not (yet) have children, but otherwise similar age and socio-economic characteristics, over observed employment positions at an arbitrary moment before family formation as the latter potentially confound the effect of parenthood with differential stability of employment trajectories. As the results point out, migrant-native differentials in employment trajectories around the transition to parenthood can (largely) be traced back to women's differential pre-birth labour market attachment. From a policy point of view it is therefore vital to invest in improving employment positions of migrant origin women by tackling inequalities prior to childbearing to avoid unemployment and inactivity traps after motherhood. In addition, precarious pre-birth employment positions of migrant origin women appear to be reinforced by family policies that primarily support women who are firmly established in the labour market, since access to formal childcare and parental leave in Belgium are conditioned on stable employment positions (Kil et al., 2017; Van Lancker & Ghysels, 2012; Vandenbroeck et al., 2008). Universal access to flexible family policies is therefore likely to support

migrant origin women with a low labour market attachment to combine motherhood with spells of employment. Future research should assess whether the same patterns arise in other contexts characterised by i) universal access to childcare and parental leave (e.g. Nordic countries), resulting in small migrant-native differentials in the uptake of family policies (Mussino & Duvander, 2016), or ii) family policies in favour of the one-and-a-half-earner model (e.g. Germany).

3.7 Appendix

Table 3.4: Logit model to estimate the probability of being employed for women without children who are not in education, odds ratio's.

	M0		M1		M2		M3		M4		M5		M6	
	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.
Age (centered at 18)	1.837	***	1.644	***	1.637	***	1.619	***	1.645	***	1.285	***	1.306	***
Age² (centered at 18)	0.973	***	0.980	***	0.980	***	0.981	***	0.980	***	0.987	***	0.985	***
Educational level (ref. low)														
Medium			1.805	***	2.053	***	2.185	***	2.190	***	0.895	**	0.898	**
High			1.112	***	1.171	***	1.277	***	1.255	***	0.158	***	0.146	***
Unknown			2.980	***	3.505	***	3.879	***	3.853	***	1.653	***	1.600	***
Region (ref. Flanders)														
Wallonia			0.441	***	0.433	***	0.421	***	0.419	***	0.413	***	0.414	***
Brussels			0.596	***	0.600	***	0.604	***	0.601	***	0.583	***	0.584	***
LIPRO position (ref. child)														
Single			2.850	***	2.936	***	3.824	***	3.786	***	3.726	***	4.060	***
Married			2.966	***	2.982	***	4.606	***	4.557	***	4.167	***	7.941	***
Cohabiting			4.276	***	4.328	***	5.329	***	5.263	***	4.812	***	5.092	***
Other			2.123	***	2.138	***	2.422	***	2.401	***	2.259	***	2.058	***
Origin group (ref. native)														
Neighbouring Countries G1			0.190	***	0.333	***	2.297	***	3.619	***	3.640	***	3.478	***
Neighbouring Countries G2			0.852	***	0.845	*	1.669	***	1.916	***	1.718	***	1.711	***
South-EU G1			0.330	***	0.606	***	2.066	***	4.633	***	4.663	***	4.348	***
South-EU G2			1.038		0.719	***	1.704	***	1.530	***	1.589	***	1.542	***
East-EU G1			0.112	***	0.273	***	2.086	***	3.192	***	2.952	***	2.705	***
Turkey G1			0.099	***	0.227	***	2.190	***	2.916	***	1.758	***	1.601	***
Turkey G2			0.392	***	1.055		1.478	***	1.296	**	1.048		1.019	
Morocco G1			0.056	***	0.047	***	0.445	***	0.784	*	0.895		0.736	**
Morocco G2			0.696	***	0.974		2.742	***	2.691	***	2.051	***	1.952	***
Origin group* educational Level														
Neighbouring Countries G1*Medium					1.294	*	0.799	*	0.802	*	0.704	***	0.701	***
Neighbouring Countries G1* High					1.047		0.834	*	1.033		0.507	***	0.507	***
Neighbouring Countries G1*Unknown					0.370	***	0.309	***	0.382	***	0.288	***	0.287	***
Neighbouring Countries G2*Medium					0.793	*	0.663	***	0.661	***	0.700	***	0.694	***
Neighbouring Countries G2*High					1.398	***	1.107		1.153		0.987		0.982	
Neighbouring Countries G2*Unknown					0.981		0.747	***	0.769	**	0.783	**	0.780	**
South-EU G1*Medium					0.864		0.684	**	0.754	*	0.789		0.833	
South-EU G1*High					0.783	*	0.732	**	0.882		0.313	***	0.309	***
South-EU G1*Unknown					0.348	***	0.308	***	0.349	***	0.213	***	0.208	***
South-EU G2*Medium					1.245	**	0.911		0.915		0.725	***	0.718	***
South-EU G2*High					2.071	***	1.364	***	1.359	***	0.898		0.882	
South-EU G2*Unknown					1.594	***	1.054		1.049		0.822	**	0.810	***
East-EU G1*Medium					2.193	***	1.108		1.051		0.711		0.669	
East-EU G1*High					0.480	***	0.420	***	0.445	***	0.148	***	0.144	***
East-EU G1*Unknown					0.286	***	0.286	***	0.296	***	0.184	***	0.178	***
Turkey G1*Medium					0.776		0.517	***	0.507	***	0.439	***	0.441	***
Turkey G1*High					1.606	*	1.067		1.291		0.616	*	0.619	*
Turkey G1*Unknown					0.201	***	0.204	***	0.225	***	0.192	***	0.193	***
Turkey G2*Medium					0.240	***	0.214	***	0.234	***	0.262	***	0.268	***
Turkey G2*High					1.062		0.928		0.822		0.874		0.881	
Turkey G2*Unknown					0.551	***	0.458	***	0.460	***	0.520	***	0.505	***
Morocco G1*Medium					4.682	***	2.215	***	2.143	***	1.303	**	1.274	**
Morocco G1*High					3.941	***	2.922	***	3.286	***	0.928		0.883	
Morocco G1*Unknown					0.953		0.661	***	0.679	***	0.347	***	0.334	***
Morocco G2*Medium					0.569	***	0.456	***	0.466	***	0.476	***	0.478	***
Morocco G2*High					1.144		0.818	*	0.806	*	0.735	**	0.741	**
Morocco G2*Unknown					0.629	***	0.464	***	0.459	***	0.464	***	0.464	***

Table 3.4 (continued).

	M0		M1		M2		M3		M4		M5		M6	
	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.
Origin group*LIPRO position														
Neighbouring Countries G1*Single							0.258	***	0.371	***	0.357	***	0.349	***
Neighbouring Countries G1*Married							0.081	***	0.121	***	0.121	***	0.114	***
Neighbouring Countries G1*Cohabiting							0.114	***	0.169	***	0.175	***	0.158	***
Neighbouring Countries G1*Other							0.187	***	0.243	***	0.261	***	0.240	***
Neighbouring Countries G2*Single							0.349	***	0.365	***	0.337	***	0.338	***
Neighbouring Countries G2*Married							0.479	***	0.506	***	0.511	***	0.506	***
Neighbouring Countries G2*Cohabiting							0.443	***	0.468	***	0.469	***	0.466	***
Neighbouring Countries G2*Other							0.499	***	0.520	***	0.537	***	0.531	***
South-EU G1*Single							0.223	***	0.362	***	0.376	***	0.376	***
South-EU G1*Married							0.226	***	0.348	***	0.351	***	0.330	***
South-EU G1*Cohabiting							0.239	***	0.376	***	0.389	***	0.353	***
South-EU G1*Other							0.310	***	0.451	***	0.440	***	0.393	***
South-EU G2*Single							0.252	***	0.235	***	0.233	***	0.230	***
South-EU G2*Married							0.363	***	0.338	***	0.353	***	0.345	***
South-EU G2*Cohabiting							0.398	***	0.375	***	0.401	***	0.389	***
South-EU G2*Other							0.315	***	0.297	***	0.302	***	0.286	***
East-EU G1*Single							0.190	***	0.240	***	0.252	***	0.239	***
East-EU G1*Married							0.078	***	0.100	***	0.117	***	0.113	***
East-EU G1*Cohabiting							0.113	***	0.143	***	0.168	***	0.151	***
East-EU G1*Other							0.113	***	0.142	***	0.163	***	0.145	***
Turkey G1*Single							0.128	***	0.152	***	0.170	***	0.158	***
Turkey G1*Married							0.052	***	0.061	***	0.065	***	0.057	***
Turkey G1*Cohabiting							0.351	***	0.397	***	0.453	**	0.419	**
Turkey G1*Other							0.075	***	0.077	***	0.086	***	0.084	***
Turkey G2*Single							0.550	***	0.436	***	0.458	***	0.435	***
Turkey G2*Married							0.455	***	0.340	***	0.356	***	0.308	***
Turkey G2*Cohabiting							2.086	**	2.192	**	1.878	*	1.717	*
Turkey G2*Other							0.850		0.657	**	0.649	**	0.644	**
Morocco G1*Single							0.084	***	0.089	***	0.123	***	0.125	***
Morocco G1*Married							0.087	***	0.102	***	0.120	***	0.108	***
Morocco G1*Cohabiting							0.229	***	0.268	***	0.317	***	0.279	***
Morocco G1*Other							0.269	***	0.310	***	0.360	***	0.321	***
Morocco G2*Single							0.168	***	0.149	***	0.156	***	0.148	***
Morocco G2*Married							0.169	***	0.161	***	0.173	***	0.153	***
Morocco G2*Cohabiting							0.268	***	0.214	***	0.229	***	0.208	***
Morocco G2*Other							0.486	***	0.474	***	0.505	***	0.500	***
Origin Group*Age														
Neighbouring Countries G1									0.828	***	0.886	***	0.918	***
Neighbouring Countries G2									0.934	***	0.962	**	0.966	*
South-EU G1									0.770	***	0.838	***	0.872	***
South-EU G2									1.025		1.078	***	1.092	***
East-EU G1									0.846	***	0.934	*	0.980	
Turkey G1									0.923	**	1.083	**	1.120	***
Turkey G2									1.115	***	1.139	***	1.161	***
Morocco G1									0.824	***	0.882	***	0.950	**
Morocco G2									0.973		1.021		1.039	*
Origin Group*Age²														
Neighbouring Countries G1									1.007	***	1.004	***	1.002	***
Neighbouring Countries G2									1.004	***	1.003	***	1.003	***
South-EU G1									1.011	***	1.008	***	1.005	***
South-EU G2									1.000		0.998	**	0.997	***
East-EU G1									1.008	***	1.004	**	1.002	
Turkey G1									1.001		0.995	**	0.993	***
Turkey G2									0.994	***	0.994	***	0.993	***
Morocco G1									1.010	***	1.008	***	1.004	***
Morocco G2									1.004	***	1.005	***	1.004	***
Educational Level*Age														
Medium											1.348	***	1.352	***
High											1.684	***	1.721	***
Unknown											1.236	***	1.253	***

Table 3.4 (continued).

	M0		M1		M2		M3		M4		M5		M6	
	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.	OR	Sig.
Educational Level*Age²														
Medium											0.986	***	0.985	***
High											0.983	***	0.982	***
Unknown											0.995	***	0.994	***
LIPRO Position*Age														
Single													0.968	**
Married													0.846	***
Cohabiting													0.954	***
Other													0.995	
LIPRO Position*Age²														
Single													1.003	***
Married													1.009	***
Cohabiting													1.005	***
Other													1.003	**
Constant	0.172	***	0.118	***	0.106	***	0.092	***	0.090	***	0.232	***	0.230	***
N	366627		366627		366627		366627		366627		36667		366627	
Δ -2LL			60660		2419		4338		584		4105		325	
(Δdf)			(18)	***	(27)	***	(36)	***	(18)	***	(6)	***	(8)	***

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*
Source: BASD Panel, 1999-2010, calculations by authors.

Table 3.5: Multinomial logit model to estimate the probability of being employed with a low, medium or high hourly wage for women who have no children, are employed and not in education.

	M0		M1		M2		M3		M4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Low hourly wage	BASE OUTCOME									
Medium hourly wage										
Age (centered at 18)	0.653	***	0.580	***	0.576	***	0.580	***	9.380	***
Age² (centered at 18)	-0.026	***	-0.022	***	-0.022	***	-0.022	***	-6.700	***
Educational level (ref. low)										
Medium			0.813	***	1.059	***	1.066	***	6.120	***
High			2.052	***	2.305	***	2.311	***	9.000	***
Unknown			1.348	***	1.509	***	1.512	***	-10.320	***
Region (ref. Flanders)										
Wallonia			-0.048	***	-0.039	**	-0.042	**	-3.970	***
Brussels			0.108	***	0.110	***	0.102	***	3.320	***
LIPRO position (ref. child)										
Single			0.262	***	0.381	***	0.369	***	12.190	***
Married			0.304	***	0.376	***	0.361	***	13.500	***
Cohabiting			0.424	***	0.449	***	0.438	***	19.910	***
Other			0.170	***	0.194	***	0.183	***	2.100	*
Origin group (ref. native)										
Neighbouring Countries G1			-0.492	***	0.152		0.507	*	0.780	
Neighbouring Countries G2			-0.446	***	-0.562	*	-0.506	*	-2.460	*
South-EU G1			-0.884	***	-0.386		-0.476		-1.640	
South-EU G2			-0.362	***	-0.273		-0.024		0.680	
East-EU G1			-1.058	***	1.541	***	1.892	***	5.270	***
Turkey G1			-0.411	***	1.367	***	2.068	***	4.170	***
Turkey G2			0.253	***	1.125	***	0.796	***	0.490	
Morocco G1			-1.182	***	0.277		0.293		0.770	
Morocco G2			0.060		-0.031		0.230		-1.680	
Origin group*Educational level										
Neighbouring Countries G1*Medium					-0.569	**	-0.559	**	-2.490	*
Neighbouring Countries G1* High					-0.895	***	-0.840	***	-3.620	***
Neighbouring Countries G1*Unknown					-0.509	**	-0.481	**	-4.320	***
Neighbouring Countries G2*Medium					0.220		0.210		0.840	

Table 3.5 (continued).

	M0		M1		M2		M3		M4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Neighbouring Countries G2*High					0.086		0.078		0.350	
Neighbouring Countries G2*Unknown					0.573	**	0.571	**	1.830	
South-EU G1*Medium					-0.589	**	-0.642	**	-2.090	*
South-EU G1*High					-0.547	*	-0.552	*	-2.480	*
South-EU G1*Unknown					-0.382	*	-0.386	*	-4.900	***
South-EU G2*Medium					-0.611	***	-0.619	***	-3.640	***
South-EU G2*High					0.199		0.176		0.600	
South-EU G2*Unknown					0.402	**	0.405	**	1.410	
East-EU G1*Medium					-0.176		-0.272		-0.870	
East-EU G1*High					-2.225	***	-2.175	***	-8.530	***
East-EU G1*Unknown					-1.298	***	-1.312	***	-9.050	***
Turkey G1*Medium					-2.400	***	-2.490	***	-5.050	***
Turkey G1*High					-3.318	***	-2.652	***	-6.020	***
Turkey G1*Unknown					-1.825	***	-1.384	***	-4.870	***
Turkey G2*Medium					-0.698	**	-0.671	**	-2.730	**
Turkey G2*High					-0.915	***	-0.954	***	-2.570	**
Turkey G2*Unknown					-0.363		-0.443		-0.460	
Morocco G1*Medium					-0.429	*	-0.434	*	-2.330	*
Morocco G1*High					-2.150	***	-2.158	***	-9.910	***
Morocco G1*Unknown					-0.362	*	-0.364	**	-5.740	***
Morocco G2*Medium					0.152		0.088		0.900	
Morocco G2*High					-0.419	*	-0.473	*	-2.150	*
Morocco G2*Unknown					0.212		0.173		1.410	
Origin group*LIPRO position										
Neighbouring Countries G1*Single					-0.397	*	-0.320		-0.920	
Neighbouring Countries G1*Married					-0.160		-0.092		0.260	
Neighbouring Countries G1*Cohabiting					0.001		0.051		1.670	
Neighbouring Countries G1*Other					-0.056		-0.037		0.660	
Neighbouring Countries G2*Single					-0.762	***	-0.737	***	-5.860	***
Neighbouring Countries G2*Married					-0.366	***	-0.341	***	-2.460	*
Neighbouring Countries G2*Cohabiting					-0.235	*	-0.217	*	-1.540	
Neighbouring Countries G2*Other					-0.469	*	-0.450	*	-1.170	
South-EU G1*Single					0.095		0.049		0.560	
South-EU G1*Married					-0.393	*	-0.434	*	-1.750	
South-EU G1*Cohabiting					0.053		0.018		0.030	
South-EU G1*Other					-0.730	*	-0.767	*	-2.040	*
South-EU G2*Single					-0.431	***	-0.328	***	-3.240	***
South-EU G2*Married					-0.534	***	-0.456	***	-5.530	***
South-EU G2*Cohabiting					-0.440	***	-0.363	***	-4.090	***
South-EU G2*Other					0.070		0.117		1.460	
East-EU G1*Single					-1.769	***	-1.517	***	-3.560	***
East-EU G1*Married					-1.481	***	-1.191	***	-2.670	**
East-EU G1*Cohabiting					-1.168	***	-0.885	**	-1.470	
East-EU G1*Other					-1.333	***	-1.202	**	-1.640	
Turkey G1*Single					-0.610		-0.130		0.970	
Turkey G1*Married					-0.482		-0.029		0.330	
Turkey G1*Cohabiting					1.565	***	1.726	***	4.830	***
Turkey G1*Other					-1.602	**	-1.353	**	-1.920	
Turkey G2*Single					-1.501	***	-1.859	***	-6.160	***
Turkey G2*Married					-0.435	**	-0.681	***	-2.500	*
Turkey G2*Cohabiting					0.166		-0.250		-0.510	
Turkey G2*Other					-0.704	*	-0.933	**	-2.140	*
Morocco G1*Single					-1.225	***	-1.210	***	-4.910	***
Morocco G1*Married					-1.065	***	-1.044	***	-4.140	***
Morocco G1*Cohabiting					-0.953	***	-0.949	***	-2.540	*
Morocco G1*Other					-0.876	***	-0.866	***	-2.520	*
Morocco G2*Single					-0.403	**	-0.331	**	-1.710	
Morocco G2*Married					-0.003		0.039		1.360	
Morocco G2*Cohabiting					0.740	***	0.818	***	4.430	***
Morocco G2*Other					0.177		0.193		1.840	
Origin group*Age										
Neighbouring Countries G1							-0.046	***	-1.180	

Table 3.5 (continued).

	M0		M1		M2		M3		M4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Neighbouring Countries G2							-0.008		0.510	
South-EU G1							0.011		2.020	*
South-EU G2							-0.035	***	-4.900	***
East-EU G1							-0.059	**	-2.200	*
Turkey G1							-0.160	***	-3.130	**
Turkey G2							0.092	***	6.170	***
Morocco G1							-0.003		1.240	
Morocco G2							-0.033	**	1.920	
Educational level*Age										
Medium									2.670	**
High									10.780	***
Unknown									22.260	***
Educational level*Age²										
Medium									-2.260	*
High									-9.470	***
Unknown									-16.090	***
Constant	-3.230	***	-4.430	***	-4.641	***	-4.666	***	-28.770	***
High hourly wage										
Age (centered at 18)	0.935	***	0.845	***	0.848	***	0.854	***	2.060	***
Age² (centered at 18)	-0.031	***	-0.026	***	-0.026	***	-0.027	***	-1.110	***
Educational level (ref. low)										
Medium			1.139	***	2.231	***	2.236	***	5.740	***
High			4.118	***	5.398	***	5.399	***	-0.990	***
Unknown			2.975	***	4.085	***	4.087	***	-3.990	***
Region (ref. Flanders)										
Wallonia			0.522	***	0.521	***	0.518	***	28.360	***
Brussels			0.443	***	0.475	***	0.468	***	15.670	***
LIPRO position (ref. child)										
Single			1.304	***	1.536	***	1.528	***	52.500	***
Married			0.519	***	0.601	***	0.593	***	19.160	***
Cohabiting			0.556	***	0.566	***	0.561	***	19.440	***
Other			0.216	***	0.195	***	0.190	***	1.860	
Origin group (ref. native)										
Neighbouring Countries G1			-0.475	***	0.619		0.072		-0.500	
Neighbouring Countries G2			-0.794	***	1.262	**	1.239	**	2.330	*
South-EU G1			-0.935	***	-0.138		-0.783		-0.620	
South-EU G2			-1.293	***	0.342		0.414		0.760	
East-EU G1			-1.248	***	2.357	***	2.947	***	4.860	***
Turkey G1			-1.203	***	2.249	***	3.514	***	2.710	**
Turkey G2			-0.581	***	2.856	***	2.635	***	2.320	*
Morocco G1			-2.592	***	1.557	***	2.772	***	4.000	***
Morocco G2			-0.513	***	0.975	**	1.317	***	1.460	
Origin group*Educational level										
Neighbouring Countries G1*Medium					-2.176	***	-2.207	***	-4.440	***
Neighbouring Countries G1* High					-2.820	***	-2.828	***	-8.270	***
Neighbouring Countries G1*Unknown					-1.389	***	-1.332	***	-5.390	***
Neighbouring Countries G2*Medium					-0.570		-0.573		-1.030	
Neighbouring Countries G2*High					-2.123	***	-2.122	***	-5.080	***
Neighbouring Countries G2*Unknown					-1.170	**	-1.171	**	-3.220	***
South-EU G1*Medium					-2.599	***	-2.695	***	-5.280	***
South-EU G1*High					-2.291	***	-2.205	***	-7.040	***
South-EU G1*Unknown					-1.240	***	-1.153	***	-6.100	***
South-EU G2*Medium					-0.766		-0.777		-1.030	
South-EU G2*High					-1.449	**	-1.484	***	-3.270	***
South-EU G2*Unknown					-0.799		-0.825		-2.110	*
East-EU G1*Medium					-14.141		-16.017		-0.020	
East-EU G1*High					-3.016	***	-3.041	***	-7.250	***
East-EU G1*Unknown					-1.709	***	-1.813	***	-5.570	***
Turkey G1*Medium					-2.428	**	-2.495	**	-2.550	*
Turkey G1*High					-5.930	***	-5.280	***	-6.110	***
Turkey G1*Unknown					-3.288	***	-2.857	***	-3.950	***

Table 3.5 (continued).

	M0		M1		M2		M3		M4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Turkey G2*Medium					-2.470	***	-2.426	***	-3.610	***
Turkey G2*High					-3.006	***	-2.973	***	-3.550	***
Turkey G2*Unknown					-2.620	***	-2.662	***	-3.010	***
Morocco G1*Medium					-2.833	***	-3.098	***	-5.950	***
Morocco G1*High					-5.642	***	-5.772	***	-16.330	***
Morocco G1*Unknown					-3.341	***	-3.378	***	-15.350	***
Morocco G2*Medium					-0.621		-0.717	*	-1.930	
Morocco G2*High					-1.389	***	-1.499	***	-4.020	***
Morocco G2*Unknown					-1.116	***	-1.207	***	-3.710	***
Origin group*LIPRO position										
Neighbouring Countries G1*Single					-0.193		-0.197		-0.270	
Neighbouring Countries G1*Married					0.796	**	0.792	**	3.360	***
Neighbouring Countries G1*Cohabiting					0.968	***	0.986	***	4.410	***
Neighbouring Countries G1*Other					0.502		0.574		2.030	*
Neighbouring Countries G2*Single					-1.762	***	-1.760		-12.030	***
Neighbouring Countries G2*Married					-0.586	***	-0.584	***	-3.790	***
Neighbouring Countries G2*Cohabiting					-0.399	**	-0.400	**	-2.560	**
Neighbouring Countries G2*Other					0.284		0.288		2.350	*
South-EU G1*Single					0.252		0.041		0.060	
South-EU G1*Married					0.593		0.336		0.820	
South-EU G1*Cohabiting					0.952	*	0.736		1.560	
South-EU G1*Other					1.235	**	1.035	*	2.250	*
South-EU G2*Single					-1.499	***	-1.464	***	-11.650	***
South-EU G2*Married					-0.933	***	-0.903	***	-7.640	***
South-EU G2*Cohabiting					-0.463	***	-0.435	***	-3.280	***
South-EU G2*Other					-0.887	**	-0.883	**	-2.760	**
East-EU G1*Single					-2.637	***	-2.336	***	-4.430	***
East-EU G1*Married					-2.072	***	-1.712	***	-3.190	***
East-EU G1*Cohabiting					-0.603		-0.275		0.070	
East-EU G1*Other					-1.342	*	-1.168	*	-1.340	
Turkey G1*Single					-1.269		-0.813		-0.470	
Turkey G1*Married					-0.289		0.417		0.680	
Turkey G1*Cohabiting					1.250		1.528	*	2.480	*
Turkey G1*Other					0.902		1.143		1.870	
Turkey G2*Single					-2.112	***	-2.404	***	-5.010	***
Turkey G2*Married					-0.811	*	-1.044	**	-1.960	*
Turkey G2*Cohabiting					-0.499		-0.779		-1.140	
Turkey G2*Other					-0.726		-0.917		-0.590	
Morocco G1*Single					-1.803	***	-1.392	**	-2.060	
Morocco G1*Married					-0.681		-0.305		0.240	
Morocco G1*Cohabiting					0.276		0.675		2.130	*
Morocco G1*Other					-0.531		-0.222		0.410	
Morocco G2*Single					-1.356	***	-1.293	***	-5.960	***
Morocco G2*Married					-0.551	***	-0.520	**	-2.500	*
Morocco G2*Cohabiting					0.791	**	0.870	***	3.660	***
Morocco G2*Other					0.181		0.179		1.050	
Origin group*Age										
Neighbouring Countries G1							0.038	***	6.690	***
Neighbouring Countries G2							0.001		2.550	*
South-EU G1							0.061	***	4.830	***
South-EU G2							-0.011		-0.480	
East-EU G1							-0.073	**	-2.050	*
Turkey G1							-0.218	***	-2.220	*
Turkey G2							0.065	*	3.170	*
Morocco G1							-0.111	***	-1.800	
Morocco G2							-0.033		2.680	**
Educational level*Age										
Medium									0.180	
High									18.520	***
Unknown									16.900	***

Table 3.5 (continued).

	M0		M1		M2		M3		M4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Educational level*Age²										
Medium									0.630	
High									-15.260	***
Unknown									-11.780	***
Constant									-21.810	***
N	178669		178669		178669		178669		178669	
Δ -2LL			22318.1	***	2206.8	***	184.9	***	3543.3	***
(Δdf)			(36)		(126)		(18)		(12)	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors.

Table 3.6: Multinomial logit model to estimate the probability of being not employed, employed with a low hourly wage, employed with a medium hourly wage or employed with a high hourly wage for men who are not in education.

	M0		M1		M2		M3		M4		M5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Not employed	BASE OUTCOME											
Employed, low hourly wage												
Age (centered at 18)	0.352	***	0.325	***	0.326	***	0.352	***	0.180	***	0.532	***
Age² (centered at 18)	-0.005	***	-0.005	***	-0.005	***	-0.005	***	-0.003	***	-0.008	***
Educational Level (ref. low)												
Medium			0.566	***	0.664	***	0.700	***	-0.929	***	0.240	*
High			-0.528	***	-0.566	***	-0.537	***	-6.410	***	-4.802	***
Unknown			0.811	***	0.896	***	0.918	***	-2.534	***	-2.385	***
Region (ref. Flanders)												
Wallonia			-0.521	***	-0.524	***	-0.525	***	-0.511	***	-0.510	***
Brussels			-0.625	***	-0.628	***	-0.623	***	-0.609	***	-0.611	***
LIPRO Position (ref. child)												
Single			0.352	***	0.348	***	0.339	***	0.351	***	4.263	***
Married			0.597	***	0.591	***	0.578	***	0.586	***	6.316	***
Cohabiting			0.531	***	0.528	***	0.513	***	0.533	***	8.694	***
Other			0.065	***	0.054	***	0.036	**	0.044	***	6.167	***
Origin Group (ref. native)												
Neighbouring Countries G1			-1.765	***	-0.779	***	4.077	***	4.018	***	3.512	***
Neighbouring Countries G2			-0.168	***	-0.178	***	-0.038		-0.148		-0.267	*
South-EU G1			-0.308	***	0.071	**	-0.258		-0.233		-0.807	***
South-EU G2			0.033	***	-0.039		0.089		-0.172		0.412	***
East-EU G1			-0.914	***	-0.781	***	2.014	***	1.936	***	1.435	***
Turkey G1			-0.910	***	-0.754	***	0.898	***	0.463	**	0.122	
Turkey G2			-0.352	***	-0.170	***	-1.039	***	-1.921	***	1.176	***
Morocco G1			-0.678	***	-0.764	***	-0.690	***	-0.819	***	-1.421	***
Morocco G2			-0.548	***	-0.528	***	-1.209	***	-1.596	***	2.130	***
Origin Group*Educational Level												
Neighbouring Countries G1*Medium					-0.419	***	-0.699	***	-0.599	***	-0.543	***
Neighbouring Countries G1* High					0.006		-0.031		-0.221	**	-0.098	
Neighbouring Countries G1*Unknown					-1.168	***	-1.236	***	-1.312	***	-1.313	***
Neighbouring Countries G2*Medium					-0.099	*	-0.054		0.011		0.023	
Neighbouring Countries G2*High					0.378	***	0.423	***	0.379	***	0.417	***
Neighbouring Countries G2*Unknown					0.008		-0.054		-0.041		-0.022	
South-EU G1*Medium					-0.533	***	-0.521	***	-0.232	***	-0.227	***
South-EU G1*High					-0.105		-0.066		-0.355	***	-0.220	*
South-EU G1*Unknown					-0.450	***	-0.505	***	-0.610	***	-0.594	***
South-EU G2*Medium					-0.113	**	-0.163	***	-0.104	**	-0.121	**
South-EU G2*High					0.494	***	0.441	***	0.374	***	0.396	***
South-EU G2*Unknown					0.102	***	0.074	***	0.084	**	0.059	*

Table 3.6 (continued).

	M0		M1		M2		M3		M4		M5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
East-EU G1*Medium					0.052		-0.073		0.076		0.090	
East-EU G1*High					-0.070		-0.040		-0.251		-0.140	
East-EU G1*Unknown					-0.168	***	-0.284	***	-0.340	***	-0.352	***
Turkey G1*Medium					-0.013		-0.222	***	-0.092		-0.065	
Turkey G1*High					0.498	***	0.277	**	-0.036		0.121	
Turkey G1*Unknown					-0.229	***	-0.147	***	-0.280	***	-0.289	***
Turkey G2*Medium					-0.407	***	-0.552	***	-0.473	***	-0.554	***
Turkey G2*High					0.255	*	0.176		0.169		0.185	
Turkey G2*Unknown					-0.188	***	-0.264	***	-0.081	*	-0.142	***
Morocco G1*Medium					-0.230	***	-0.237	***	-0.014		0.023	
Morocco G1*High					0.845	***	0.836	***	0.449	***	0.656	***
Morocco G1*Unknown					0.139	***	0.095	***	-0.032		-0.033	
Morocco G2*Medium					-0.122	**	-0.200	***	-0.117	**	-0.180	***
Morocco G2*High					0.588	***	0.517	***	0.495	***	0.532	***
Morocco G2*Unknown					-0.020		-0.082	*	0.090	**	0.027	
Origin Group*Age												
Neighbouring Countries G1							-0.277	***	-0.271	***	-0.245	***
Neighbouring Countries G2							-0.019	**	-0.013	*	-0.009	
South-EU G1							0.004		0.008		0.035	***
South-EU G2							-0.001		0.015	*	-0.025	***
East-EU G1							-0.186	***	-0.179	***	-0.154	***
Turkey G1							-0.052	***	-0.021	*	-0.011	
Turkey G2							0.128	***	0.173	***	-0.048	*
Morocco G1							-0.015	*	-0.001		0.024	***
Morocco G2							0.082	***	0.093	***	-0.176	***
Origin Group*Age ²												
Neighbouring Countries G1							0.004	***	0.004	***	0.003	***
Neighbouring Countries G2							0.000	***	0.000	***	0.000	**
South-EU G1							0.000		0.000		0.000	**
South-EU G2							0.000		0.000	**	0.000	**
East-EU G1							0.003	***	0.003	***	0.002	***
Turkey G1							0.000		0.000	*	0.000	**
Turkey G2							-0.003	***	-0.004	***	0.000	
Morocco G1							0.000	***	0.000		0.000	
Morocco G2							-0.002	***	-0.002	***	0.003	***
Educational Level*Age												
Medium									0.107	***	0.039	***
High									0.362	***	0.260	***
Unknown									0.197	***	0.192	***
Educational Level*Age²												
Medium									-0.002	***	-0.001	***
High									-0.005	***	-0.004	***
Unknown									-0.003	***	-0.003	***
LIPRO Position*Age												
Single											-0.340	***
Married											-0.384	***
Cohabiting											-0.520	***
Other											-0.411	***
LIPRO Position*Age²												
Single											0.006	***
Married											0.006	***
Cohabiting											0.008	***
Other											0.006	***
Constant	-5.682	***	-5.445	***	-5.526	***	-5.980	***	-3.028	***	-8.055	***
Employed, medium hourly wage												
Age (centered at 18)		0.558	***	0.520	***	0.521	***	0.548	***	0.280	***	0.867	***
Age² (centered at 18)		-0.007	***	-0.007	***	-0.007	***	-0.007	***	-0.004	***	-0.013	***
Educational Level (ref. low)												
Medium				1.380	***	1.594	***	1.621	***	1.028	***	3.670	***
High				1.213	***	1.365	***	1.384	***	-6.377	***	-3.311	***
Unknown				1.914	***	2.115	***	2.141	***	-3.472	***	-3.303	***

Table 3.6 (continued).

	M0		M1		M2		M3		M4		M5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Region (ref. Flanders)												
Wallonia			-0.645	***	-0.646	***	-0.649	***	-0.631	***	-0.629	***
Brussels			-0.879	***	-0.880	***	-0.870	***	-0.852	***	-0.850	***
LIPRO Position (ref. child)												
Single			0.435	***	0.434	***	0.425	***	0.474	***	4.944	***
Married			0.894	***	0.891	***	0.876	***	0.920	***	11.056	***
Cohabiting			0.824	***	0.823	***	0.805	***	0.871	***	13.244	***
Other			-0.014		-0.020		-0.035	*	0.011		9.671	***
Origin Group (ref. native)												
Neighbouring Countries G1			-2.296	***	-0.625	***	6.701	***	6.561	***	5.808	***
Neighbouring Countries G2			-0.309	***	0.085	*	-0.005		-0.151		-0.519	***
South-EU G1			-0.863	***	-0.260	***	-0.818	***	-0.549	*	-1.733	***
South-EU G2			-0.112	***	-0.092	*	-0.039		-0.160		0.537	***
East-EU G1			-1.345	***	-0.962	***	1.058	***	1.126	***	0.158	
Turkey G1			-1.845	***	-1.398	***	1.441	***	1.244	***	0.476	*
Turkey G2			-0.454	***	-0.180	***	-3.383	***	-4.802	***	0.298	
Morocco G1			-1.369	***	-1.214	***	-0.983	***	-0.916	***	-2.183	***
Morocco G2			-0.495	***	-0.409	***	-5.764	***	-6.419	***	-0.237	
Origin Group*Educational Level												
Neighbouring Countries G1*Medium					-1.098	***	-1.454	***	-1.329	***	-1.257	***
Neighbouring Countries G1* High					-1.271	***	-1.310	***	-1.225	***	-1.087	***
Neighbouring Countries G1*Unknown					-1.827	***	-1.893	***	-1.937	***	-1.940	***
Neighbouring Countries G2*Medium					-0.599	***	-0.503	***	-0.346	***	-0.337	***
Neighbouring Countries G2*High					-0.178	*	-0.068		-0.059		-0.018	
Neighbouring Countries G2*Unknown					-0.409	***	-0.473	***	-0.456	***	-0.439	***
South-EU G1*Medium					-0.608	***	-0.602	***	-0.089		-0.088	
South-EU G1*High					-1.171	***	-1.084	***	-1.126	***	-0.952	***
South-EU G1*Unknown					-0.664	***	-0.761	***	-0.848	***	-0.822	***
South-EU G2*Medium					-0.334	***	-0.343	***	-0.233	***	-0.261	***
South-EU G2*High					0.307	***	0.305	***	0.220	**	0.231	**
South-EU G2*Unknown					0.008		-0.021		-0.031		-0.054	
East-EU G1*Medium					0.084		-0.009		0.284	*	0.271	*
East-EU G1*High					-0.353	*	-0.260		-0.359	*	-0.199	
East-EU G1*Unknown					-0.433	***	-0.564	***	-0.630	***	-0.626	***
Turkey G1*Medium					-0.356	***	-0.545	***	-0.272	**	-0.247	*
Turkey G1*High					-0.533	***	-0.785	***	-1.054	***	-0.876	***
Turkey G1*Unknown					-0.530	***	-0.476	***	-0.617	***	-0.627	***
Turkey G2*Medium					-0.362	***	-0.477	***	-0.453	***	-0.646	***
Turkey G2*High					-0.262	*	-0.347	**	-0.415	***	-0.421	***
Turkey G2*Unknown					-0.296	***	-0.378	***	-0.130	*	-0.216	***
Morocco G1*Medium					-0.403	***	-0.397	***	0.049		0.109	
Morocco G1*High					-0.045		-0.036		-0.198	***	0.077	
Morocco G1*Unknown					-0.132	***	-0.194	***	-0.322	***	-0.317	***
Morocco G2*Medium					-0.178	**	-0.243	***	-0.184	**	-0.333	***
Morocco G2*High					0.395	***	0.300	***	0.179	*	0.205	*
Morocco G2*Unknown					-0.100		-0.161	**	0.033		-0.065	
Origin Group*Age												
Neighbouring Countries G1							-0.390	***	-0.383	***	-0.344	***
Neighbouring Countries G2							-0.017	*	-0.010		0.007	
South-EU G1							-0.001		-0.012		0.045	***
South-EU G2							-0.007		0.004		-0.043	***
East-EU G1							-0.157	***	-0.157	***	-0.110	***
Turkey G1							-0.116	***	-0.097	***	-0.065	***
Turkey G2							0.283	***	0.364	***	0.015	
Morocco G1							-0.029	***	-0.026	**	0.032	***
Morocco G2							0.399	***	0.429	***	0.000	
Origin Group*Age ²												
Neighbouring Countries G1							0.005	***	0.005	***	0.004	***
Neighbouring Countries G2							0.000	***	0.000	***	0.000	*
South-EU G1							0.000	**	0.000	***	0.000	
South-EU G2							0.000		0.000		0.001	***
East-EU G1							0.003	***	0.003	***	0.002	***

Table 3.6 (continued).

	M0		M1		M2		M3		M4		M5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Turkey G1							0.001	***	0.001	***	0.000	**
Turkey G2							-0.006	***	-0.007	***	-0.001	**
Morocco G1							0.001	***	0.000	***	0.000	
Morocco G2							-0.007	***	-0.007	***	0.000	
Educational Level*Age												
Medium									0.047	***	-0.100	***
High									0.489	***	0.302	***
Unknown									0.312	***	0.307	***
Educational Level*Age²												
Medium									-0.001	***	0.001	***
High									-0.007	***	-0.005	***
Unknown									-0.004	***	-0.004	***
LIPRO Position*Age												
Single											-0.448	***
Married											-0.648	***
Cohabiting											-0.764	***
Other											-0.622	***
LIPRO Position*Age²												
Single											0.008	***
Married											0.010	***
Cohabiting											0.011	***
Other											0.009	***
Constant	-9.958	***	-10.579	***	-10.790	***	-11.231	***	-6.560	***	-15.443	***
Employed, high hourly wage												
Age (centered at 18)	0.708	***	0.639	***	0.641	***	0.674	***	0.254	***	0.818	***
Age² (centered at 18)	-0.008	***	-0.008	***	-0.008	***	-0.008	***	-0.003	***	-0.011	***
Educational Level (ref. low)												
Medium			1.864	***	2.170	***	2.203	***	0.730	*	2.996	***
High			3.295	***	3.612	***	3.647	***	-7.545	***	-5.246	***
Unknown			3.387	***	3.716	***	3.743	***	-4.839	***	-4.908	***
Region (ref. Flanders)												
Wallonia			-0.715	***	-0.716	***	-0.718	***	-0.708	***	-0.705	***
Brussels			-0.357	***	-0.358	***	-0.354	***	-0.345	***	-0.343	***
LIPRO Position (ref. child)												
Single			1.103	***	1.101	***	1.093	***	1.129	***	-1.364	
Married			1.576	***	1.574	***	1.561	***	1.595	***	11.954	***
Cohabiting			1.336	***	1.337	***	1.324	***	1.371	***	12.206	***
Other			0.102	***	0.096	***	0.073	***	0.103	***	9.162	***
Origin Group (ref. native)												
Neighbouring Countries G1			-2.140	***	-0.222	**	6.569	***	6.566	***	5.764	***
Neighbouring Countries G2			-0.511	***	-0.204	*	1.882	***	1.754	***	1.544	***
South-EU G1			-1.996	***	-0.953	***	2.705	***	2.831	***	1.779	***
South-EU G2			-0.557	***	-0.095		2.048	***	1.721	***	2.371	***
East-EU G1			-1.787	***	-1.832	***	1.617	***	1.817	***	0.882	
Turkey G1			-3.472	***	-2.105	***	5.399	***	4.967	***	3.912	***
Turkey G2			-0.945	***	-0.152		0.809		-1.275		2.618	***
Morocco G1			-2.799	***	-1.899	***	1.680	***	1.667	***	0.381	
Morocco G2			-1.066	***	-0.443	***	0.851		-0.352		5.668	***
Origin Group*Educational Level												
Neighbouring Countries G1*Medium					-1.459	***	-1.706	***	-1.509	***	-1.457	***
Neighbouring Countries G1* High					-2.063	***	-2.112	***	-2.146	***	-1.987	***
Neighbouring Countries G1*Unknown					-1.998	***	-2.052	***	-2.084	***	-2.071	***
Neighbouring Countries G2*Medium					-0.675	***	-0.621	***	-0.455	***	-0.462	***
Neighbouring Countries G2*High					-0.580	***	-0.566	***	-0.510	***	-0.482	***
Neighbouring Countries G2*Unknown					-0.302	***	-0.356	***	-0.278	**	-0.259	**
South-EU G1*Medium					-0.095		-0.129		0.221		0.225	
South-EU G1*High					-0.978	***	-1.071	***	-1.209	***	-1.053	***
South-EU G1*Unknown					-1.111	***	-1.163	***	-1.231	***	-1.202	***
South-EU G2*Medium					-0.390	***	-0.412	***	-0.283	**	-0.309	**
South-EU G2*High					-0.131		-0.188		-0.229	*	-0.218	*
South-EU G2*Unknown					-0.454	***	-0.491	***	-0.483	***	-0.495	***

Table 3.6 (continued).

	M0		M1		M2		M3		M4		M5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
East-EU G1*Medium					-0.321		-0.477		-0.331		-0.370	
East-EU G1*High					0.253		0.275		0.185		0.342	
East-EU G1*Unknown					0.017		-0.082		-0.086		-0.068	
Turkey G1*Medium					-1.099	***	-1.312	***	-1.032	***	-1.002	***
Turkey G1*High					0.139		-0.310	*	-0.444	**	-0.301	*
Turkey G1*Unknown					-1.512	***	-1.453	***	-1.507	***	-1.496	***
Turkey G2*Medium					-0.527	**	-0.712	***	-0.616	***	-0.794	***
Turkey G2*High					-1.437	***	-1.565	***	-1.415	***	-1.381	***
Turkey G2*Unknown					-0.822	***	-0.974	***	-0.560	***	-0.610	***
Morocco G1*Medium					-0.884	***	-0.945	***	-0.549	***	-0.510	***
Morocco G1*High					-1.169	***	-1.248	***	-1.492	***	-1.260	***
Morocco G1*Unknown					-0.884	***	-0.895	***	-0.990	***	-0.974	***
Morocco G2*Medium					-0.419	**	-0.533	***	-0.428	**	-0.573	***
Morocco G2*High					-0.989	***	-1.108	***	-1.054	***	-1.011	***
Morocco G2*Unknown					-0.614	***	-0.742	***	-0.433	***	-0.488	***
Origin Group*Age												
Neighbouring Countries G1							-0.331	***	-0.332	***	-0.293	***
Neighbouring Countries G2							-0.122	***	-0.119	***	-0.110	***
South-EU G1							-0.171	***	-0.175	***	-0.127	***
South-EU G2							-0.118	***	-0.099	***	-0.141	***
East-EU G1							-0.212	***	-0.222	***	-0.179	***
Turkey G1							-0.327	***	-0.304	***	-0.260	***
Turkey G2							0.012		0.118	**	-0.143	***
Morocco G1							-0.156	***	-0.151	***	-0.095	***
Morocco G2							-0.038		0.015		-0.392	***
Origin Group*Age ²												
Neighbouring Countries G1							0.004	***	0.004	***	0.003	***
Neighbouring Countries G2							0.002	***	0.002	***	0.002	***
South-EU G1							0.002	***	0.002	***	0.001	***
South-EU G2							0.002	***	0.001	***	0.002	***
East-EU G1							0.003	***	0.003	***	0.003	***
Turkey G1							0.003	***	0.003	***	0.003	***
Turkey G2							-0.001	*	-0.003	***	0.001	
Morocco G1							0.002	***	0.002	***	0.001	***
Morocco G2							0.000		-0.001		0.006	***
Educational Level*Age												
Medium									0.078	***	-0.042	*
High									0.629	***	0.491	***
Unknown									0.450	***	0.454	***
Educational Level*Age²												
Medium									-0.001	***	0.000	
High									-0.008	***	-0.006	***
Unknown									-0.006	***	-0.006	***
LIPRO Position*Age												
Single											-0.182	***
Married											-0.635	***
Cohabiting											-0.665	***
Other											-0.566	***
LIPRO Position*Age²												
Single											0.005	***
Married											0.009	***
Cohabiting											0.009	***
Other											0.008	***
Constant	-14.216	***	-16.046	***	-16.405	***	-17.014	***	-9.087	***	-17.888	***
N	2104551		2104551		2104551		2104551		2104551		2104551	
Δ -2LL			412265.4	***	4720.7	***	9226.9	***	11395.9	***	15048.9	***
(Δdf)			(54)		(81)		(54)		(18)		(24)	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors

Table 3.7: Fixed-effects models for the change in work intensity around first childbirth among women with low pre-birth employment rates (in percentage points), Model 0.

		Sig.	M0	Sig.
Time around first birth (ref. -4Q)				
-3 Q	1.065		0.737	
-2 Q	-2.802		-2.857	
-1 Q	-9.501	***	-10.307	**
0 Q	-17.191	***	-19.560	***
1 Q	-9.942	***	-11.026	**
2 Q	-8.380	***	-8.185	*
3 Q	-1.920		0.158	
4-7 Q	-1.621		-1.074	
8-11 Q	-3.229		-1.989	
Time* origin group (ref. native)				
-3Q* G2 Tur/Mor			0.719	
-2Q* G2 Tur/Mor			0.136	
-1Q* G2 Tur/Mor			1.718	
0 Q* G2 Tur/Mor			5.200	
1Q* G2 Tur/Mor			2.290	
2Q* G2 Tur/Mor			-0.439	
3Q* G2 Tur/Mor			-4.594	
4-7Q* G2 Tur/Mor			-1.223	
8-11Q* G2 Tur/Mor			-3.002	
Constant	26.713	***	26.711	***
N Persons	183		183	
N Person Quarters	2,315		2,315	
Δ -2LL (Δdf)			5.6 (9)	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*
Source: BASD Panel, 1999-2010, calculations by authors

Table 3.8: Fixed-effects models for the change in work intensity around first childbirth among women with medium pre-birth employment rates (in percentage points), Model 0-4.

		Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
Time around first birth (ref. -4Q)												
-3 Q	-2.217		-2.333		1.290		0.938		-0.510		15.074	
-2 Q	-4.518	**	-3.361		-3.949		-5.372		-2.839		10.106	
-1 Q	-15.72	***	-15.58	***	-7.765		-9.475		-15.34	*	-22.79	
0 Q	-32.33	***	-33.44	***	-10.53		-13.17	*	-28.01	***	-26.59	
1 Q	-14.92	***	-12.71	***	-1.783		-7.645		-11.15		-8.936	
2 Q	-11.45	***	-9.860	***	-0.242		-2.998		-3.465		-6.489	
3 Q	-8.410	***	-6.990	***	3.762		1.471		1.392		-14.10	
4-7 Q	-7.911	***	-4.747	**	10.240	*	7.170		10.684		8.196	
8-11 Q	-7.859	***	-4.844	**	17.063	**	15.388	**	20.189	***	15.638	
Time* origin group (ref. native)												
-3Q*G2 South-EU			1.034		1.512		1.775		1.317		0.926	
-3Q* G2 Tur/Mor			0.016		-0.283		0.001		0.081		-0.227	
-2Q*G2 South-EU			-0.610		-0.568		0.306		0.629		0.469	
-2Q* G2 Tur/Mor			-3.296		-3.228		-2.484		-2.641		-3.494	
-1Q*G2 South-EU			3.953		5.135		6.271		5.110		4.356	
-1Q* G2 Tur/Mor			-1.675		-2.341		-1.413		-1.111		-4.417	
0 Q*G2 South-EU			-0.155		3.031		3.621		0.884		-0.296	
0 Q* G2 Tur/Mor			3.373		1.432		2.282		3.035		-1.759	
1Q*G2 South-EU			-0.914		0.625		0.468		-1.048		-1.329	
1Q* G2 Tur/Mor			-6.315	*	-7.246	*	-3.227		-3.045		-5.491	
2Q*G2 South-EU			-4.241		-2.892		-0.618		-2.130		-2.168	
2Q* G2 Tur/Mor			-3.423		-4.242		-1.309		-1.271		-3.128	
3Q*G2 South-EU			-2.729		-1.257		0.888		-0.717		0.112	
3Q* G2 Tur/Mor			-3.361		-4.297		-1.513		-1.518		-1.682	
4-7Q*G2 South-EU			-8.670	*	-6.676		-5.670		-7.060		-6.248	
4-7Q* G2 Tur/Mor			-6.413	*	-7.794	**	-6.259	*	-6.436	*	-6.008	*
8-11Q*G2 South-EU			-12.36	**	-9.874	*	-9.932	*	-10.72	**	-10.39	*

Table 3.8 (continued).

	Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
8-11Q* G2 Tur/Mor		-4.194		-6.642	*	-5.901	*	-6.090	*	-7.263	*
Time*pre-birth employment rates											
-3 Q*employment rates				-6.534		-6.514		-5.969		-1.303	
-2 Q*employment rates				0.986		2.428		1.292		4.434	
-1 Q*employment rates				-13.99		-12.44		-9.756		-5.553	
0 Q*employment rates				-41.02	***	-36.69	***	-30.22	**	-24.84	*
1 Q*employment rates				-19.57		-5.956		-4.880		-1.180	
2 Q*employment rates				-17.23		-10.98		-11.61		-8.088	
3 Q*employment rates				-19.22		-14.38		-15.19		-14.63	
4-7 Q*employment rates				-26.70	**	-20.93	**	-23.39	**	-21.39	*
8-11 Q*employment rates				-38.79	***	-35.96	***	-38.69	***	-34.71	***
LIPRO household position (ref. child)											
Single						0.338		0.721		-0.485	
Married						1.988		1.945		10.251	**
Cohabiting						2.280		2.345		13.095	***
Other						-0.839		-0.301		-0.762	
Leave uptake (ref. no leave)											
Part-time leave						-5.952	*	-6.795	***	-7.043	**
Full-time leave						-62.42	***	-62.25	***	-62.44	***
Time* pre-birth wage potential (ref. no low/high wage potential)											
-3Q*low wage potential								1.480		0.383	
-3Q*high wage potential								3.850		2.417	
-2Q*low wage potential								-2.398		-3.461	
-2Q*high wage potential								1.128		-0.191	
-1Q*low wage potential								5.671		4.898	
-1Q*high wage potential								3.733		2.792	
0 Q*low wage potential								14.431	***	13.482	***
0 Q*high wage potential								5.523		4.386	
1Q*low wage potential								3.725		2.855	
1Q*high wage potential								14.729		13.518	
2Q*low wage potential								1.018		0.311	
2Q*high wage potential								22.188		21.148	
3Q*low wage potential								0.691		0.606	
3Q*high wage potential								27.620		27.512	
4-7Q*low wage potential								-2.778		-3.183	
4-7Q*high wage potential								31.064	*	30.774	*
8-11Q*low wage potential								-4.132		-4.833	
8-11Q*high wage potential								30.790	*	29.742	*
Origin of the partner (ref. native)											
No partner in the household										12.835	***
EU G1/G2										6.726	*
South-EU G1										11.636	
South-EU G2										-2.330	
Non-EU G1										3.798	
Non-EU G2										2.568	
Time*partner's pre-birth employment outcome (ref. employed, low wage)											
-3Q*not employed										-29.08	
-3Q*employed, medium wage										-19.49	
-3Q*employed, high wage										-39.19	*
-2Q*not employed										-21.78	
-2Q*employed, medium wage										-15.76	
-2Q*employed, high wage										-31.36	
-1Q*not employed										17.72	
-1Q*employed, medium wage										20.918	
-1Q*employed, high wage										-27.60	
0 Q*not employed										9.071	
0 Q*employed, medium wage										-6.332	
0 Q*employed, high wage										-24.61	

Table 3.8 (continued).

		Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
1Q*not employed											-0.102	
1Q*employed, medium wage											2.833	
1Q*employed, high wage											-28.74	
2Q*not employed											5.408	
2Q*employed, medium wage											18.388	
2Q*employed, high wage											-33.13	
3Q*not employed											20.840	
3Q*employed, medium wage											48.891	
3Q*employed, high wage											-23.03	
4-7Q*not employed											-3.062	
4-7Q*employed, medium wage											26.782	
4-7Q*employed, high wage											-38.62	
8-11Q*not employed											3.969	
8-11Q*employed, medium wage											30.967	
8-11Q*employed, high wage											-49.78	**
Constant	43.986	***	44.007	***	44.008	***	42.523	***	42.473	***	31.015	***
N Persons	735		735		735		735		735		735	
N Person Quarters	9206		9206		9206		9206		9206		9206	
Δ -2LL			48.2		44.1		471.4		76.2		52.8(3	
(Δdf)			(18)	***	(9)	***	(6)	***	(18)	***	3)	***

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors

Table 3.9: Fixed-effects models for the change in work intensity around first childbirth among women with high pre-birth employment rates (in percentage points), Model 0-4.

		Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
Time around first birth (ref. -4Q)												
-3 Q	-0.202		-0.100		-1.542		-1.883		-1.789		-1.129	
-2 Q	-1.545	***	-1.414	**	-12.49	**	-12.84	**	-10.91	*	-9.683	
-1 Q	-14.53	***	-14.44	***	-36.42	***	-37.10	***	-34.83	***	-38.09	***
0 Q	-53.91	***	-54.05	***	-29.43	**	-27.44	***	-37.73	***	-29.80	*
1 Q	-19.68	***	-19.75	***	-10.95	*	-24.29	***	-19.94	**	-19.69	**
2 Q	-12.85	***	-12.68	***	-10.19	*	-19.75	***	-12.95	*	-13.71	
3 Q	-10.06	***	-9.823	***	-14.29	**	-18.87	***	-11.78	*	-14.04	
4-7 Q	-8.710	***	-8.415	***	-4.034		-8.913	*	-6.266		-14.37	*
8-11 Q	-8.335	***	-8.395	***	0.763		-5.118		-7.847		-7.796	
Time* origin group (ref. native)												
-3Q*G2 South-EU			-0.575		-0.445		-0.445		-0.466		-0.490	
-3Q* G2 Tur/Mor			-3.195		-2.997		-2.981		-2.983		-2.851	
-2Q*G2 South-EU			-1.123		-0.142		-0.039		-0.108		-0.095	
-2Q* G2 Tur/Mor			-2.860		-1.418		-1.506		-1.764		-1.580	
-1Q*G2 South-EU			0.478		2.384		2.594		2.494		2.301	
-1Q* G2 Tur/Mor			-6.045		-3.169		-3.259		-3.555		-4.582	
0 Q*G2 South-EU			2.254		0.023		-0.882		-0.855		-1.496	
0 Q* G2 Tur/Mor			0.142		-3.021		-4.277		-2.732		-5.238	
1Q*G2 South-EU			1.601		0.797		-0.073		-0.105		-0.005	
1Q* G2 Tur/Mor			-1.385		-2.523		0.258		-0.398		-0.057	
2Q*G2 South-EU			-0.777		-1.007		-0.705		-0.856		-0.724	
2Q* G2 Tur/Mor			-5.594		-5.908		-2.321		-3.292		-2.770	
3Q*G2 South-EU			-2.505		-2.099		-1.684		-1.753		-1.714	
3Q* G2 Tur/Mor			-3.741		-3.167		0.055		-1.015		-0.900	
4-7Q*G2 South-EU			-3.081	*	-3.496	*	-2.963	*	-3.041	*	-3.011	*
4-7Q* G2 Tur/Mor			-3.796		-4.343		-2.105		-2.467		-2.552	
8-11Q*G2 South-EU			-0.608		-1.480		-1.045		-1.026		-1.336	
8-11Q* G2 Tur/Mor			4.048		2.858		3.501		4.000		2.694	

Table 3.9 (continued).

	Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
Time*pre-birth employment rates											
-3 Q*employment rates				1.638		2.021		1.888		1.951	
-2 Q*employment rates				12.596	*	13.030	*	10.877	*	10.164	
-1 Q*employment rates				25.003	**	25.782	***	23.220	***	23.832	**
0 Q*employment rates				-28.03	***	-29.18	***	-18.32	***	-12.71	*
1 Q*employment rates				-10.02	*	16.776	**	12.151	*	9.987	
2 Q*employment rates				-2.835		14.360	**	7.007		5.083	
3 Q*employment rates				5.068		14.702	**	7.246		6.808	
4-7 Q*employment rates				-4.977		4.069		1.193		0.764	
8-11 Q*employment rates				-10.38	*	-0.831		1.930		5.905	
LIPRO household position (ref. child)											
Single						-0.113		-0.008		-0.209	
Married						1.270		1.273		0.972	
Cohabiting						0.191		0.239		-0.019	
Other						-1.215		-1.147		-1.211	
Leave uptake (ref. no leave)											
Part-time leave						-14.89	***	-14.96	***	-14.95	***
Full-time leave						-77.19	***	-77.09	***	-77.11	***
Time* pre-birth wage potential (ref. no low/high wage potential)											
-3Q*low wage potential								-0.043		-0.077	
-3Q*high wage potential								0.459		0.463	
-2Q*low wage potential								-1.069		-0.972	
-2Q*high wage potential								1.426		1.267	
-1Q*low wage potential								-1.234		-1.024	
-1Q*high wage potential								2.000		1.554	
0 Q*low wage potential								5.842	***	5.664	***
0 Q*high wage potential								0.406		0.016	
1Q*low wage potential								-2.466		-2.195	
1Q*high wage potential								0.253		-0.123	
2Q*low wage potential								-3.755	**	-3.526	*
2Q*high wage potential								2.125		1.932	
3Q*low wage potential								-3.966	**	-3.826	**
3Q*high wage potential								-0.605		-0.662	
4-7Q*low wage potential								-1.431		-1.256	
4-7Q*high wage potential								1.132		1.097	
8-11Q*low wage potential								1.409		1.384	
8-11Q*high wage potential								1.439		1.406	
Origin of the partner (ref. native)											
No partner in the household										-0.751	
EU G1/G2										-3.848	*
South-EU G1										-5.190	
South-EU G2										0.277	
Non-EU G1										-7.720	
Non-EU G2										0.440	
Time*partner's pre-birth employment outcome (ref. employed, low wage)											
-3Q*not employed										-1.085	
-3Q*employed, medium wage										-1.313	
-3Q*employed, high wage										-0.595	
-2Q*not employed										-0.549	
-2Q*employed, medium wage										-4.095	
-2Q*employed, high wage										4.152	
-1Q*not employed										10.142	
-1Q*employed, medium wage										-0.988	
-1Q*employed, high wage										8.425	
0 Q*not employed										-5.354	
0 Q*employed, medium wage										-34.98	***
0 Q*employed, high wage										-0.298	
1Q*not employed										2.355	

Table 3.9 (continued).

		Sig.	M0	Sig.	M1	Sig.	M2	Sig.	M3	Sig.	M4	Sig.
1Q*employed, medium wage											-2.101	
1Q*employed, high wage											9.782	
2Q*not employed											2.477	
2Q*employed, medium wage											1.874	
2Q*employed, high wage											6.987	
3Q*not employed											4.355	
3Q*employed, medium wage											3.908	
3Q*employed, high wage											3.449	
4-7Q*not employed											13.566	
4-7Q*employed, medium wage											17.091	
4-7Q*employed, high wage											4.088	
8-11Q*not employed											1.850	
8-11Q*employed, medium wage											-8.788	
8-11Q*employed, high wage											-3.587	
Constant	84.177	***	84.181	***	84.183	***	83.519	***	83.496	***	84.260	***
N Persons	6969		6969		6969		6969		6969		6969	
N Person Quarters	86185		86185		86185		86185		86185		86185	
Δ -2LL			50.3	***	140.4	***	13346.	***	95.5	***	80.6	***
(Δdf)			(18)		(9)		9 (7)		(18)		(33)	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*

Source: BASD Panel, 1999-2010, calculations by authors

Chapter 4

The gender division of paid work around the transition to parenthood: variation by couples' migration background

Abstract

Although the gender gap in labour force participation has narrowed considerably in many European countries, life course scholars have shown that the transition to parenthood exacerbates gender inequality in couples' division of paid work. Hitherto, variation by migration background has received limited attention in research on the effect of parenthood on couples' gender division of paid work. This is remarkable given that such heterogeneity is theoretically informative on differential interconnectedness of life course events, but may also inform policy makers on the life course transitions that induce migrant-native differentials in women's labour force participation. This study adopts a life course perspective and uses longitudinal microdata from Belgian social security registers to examine variation in couples' gender division of paid work around family formation by migration background. Taking into account couples' migration background - by considering the origin group and migrant generation of both partners – we identify four patterns of gender dynamics around family formation in couples where at least one partner is of migrant origin. These four patterns emerge from (dis)similarities with native couples with respect to their pre-birth division of paid work on the one hand and their changes in this division around family formation on the other hand. These results highlight that combining an account of couples' division of paid work prior to the birth of a first child with a perspective focussing on how the division of paid work changes around family formation is necessary for a thorough understanding of variation by migration background.

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4.1 Introduction

In the second half of the 20th century, European countries experienced a massive increase in women's labour force participation, resulting in a gradual shift in couples' work-family organisation from a male-breadwinner to a dual-earner model. The gender revolution is, however, incomplete as women still display lower rates of labour force participation compared to men and still do most of the household and childcare tasks (Goldscheider et al., 2015). Previous studies have shown that couples' division of paid and unpaid work is not stable over the life course and that particularly the transition to parenthood exacerbates gender inequality in (un)paid work. While men's labour market participation remains relatively stable, women are more likely to reduce their working hours after the birth of the first child (Baxter et al., 2008; Gutierrez-Domenech, 2005; Kreyenfeld, 2015; Kuhhirt, 2011; Schober, 2013; Wood et al., 2016).

Hitherto, population heterogeneity in terms of migration background[38] has received limited attention in literature on couples' gender division of (un)paid work around family formation. A limited number of studies have assessed how first and second generation migrants divide (un)paid work at a particular moment in time, controlling for the presence of children, rather than adopting a longitudinal perspective on variation in the gender division of work over the life course. Studies for Germany (Diehl et al., 2009) and Sweden (Goldscheider et al., 2011) indicate that natives are more likely to have an equal division of household tasks than first and second generation Turks. Further, Huschek, de Valk, and Liefbroer (2011) find that the division of (un)paid work of second generation Turkish men and women in six European countries is strongly influenced by the institutional context and the origin and generation of the partner. The degree to which changes in the gender division of paid work around the transition to parenthood vary by couples' migration background has hitherto not been addressed, which is remarkable given the theoretical and societal relevance. A large body of research indicates that labour market positions (Corluy, 2014; Heath et al., 2008), as well as gender role attitudes (de Valk, 2008; Kretschmer, 2018; Röder & Mühlau, 2014) differ considerably by origin group, migrant generation and gender. Considering micro-economic theories (Becker, 1991; Lundberg & Pollak, 1996) and socio-cultural theories (Blumberg, 1984; West & Zimmerman, 1987), gender dynamics around family

[38] In this study, Belgian natives are defined as individuals whose first registered nationality is Belgian and of whom the first registered nationality of both parents is Belgian as well. Due to a lack of information on the first nationality of the grandparents, we cannot distinguish the third generation from natives. By extension, native couples refer to couples where both partners are Belgian natives. Migrant origin couples refer to couples where at least one partner has a migration background (first or second generation).

formation are therefore likely to differ by couples' migration background due to variation in partners' pre-birth relative wage potential and/or differential parenting norms. In addition, the impact of economic and cultural mechanisms on couples' gender dynamics around family formation may also vary by migration background. From a societal perspective it is important to understand whether and why the gender division of paid work around family formation changes in a different way in migrant origin couples compared to native couples. European countries are becoming increasingly diverse and are challenged by high welfare state costs connected to population ageing (e.g. health care, pensions) and increasing labour force participation of migrant origin women has become an important policy goal (FOD WASO & UNIA, 2019; Holland & de Valk, 2017; Rubin et al., 2008). Moreover, gender inequality in paid work has long-term implications for women's financial independence, future labour market opportunities and social security protection (e.g. pensions) (Koelet et al., 2015; Neels et al., 2018).

Using longitudinal microdata from Belgian Social Security registers, this paper aims to unpack variation by migration background in couples' gender division of paid work in early family trajectories around parenthood. We contribute to the existing literature in two ways. First and foremost, whereas the effect of parenthood on couples' gender division of (un)paid work has been well-documented among majority populations (Baxter et al., 2008; Kuhhirt, 2011; Schober, 2013; Wood et al., 2018; Wood et al., 2016), variation of this link by couples' migration background has hitherto only been examined to a limited extent due to the limited availability of large-scale longitudinal data. In addition, previous research focussing on migrants' gender division of (un)paid work has not addressed how this division unfolds over the life course and has not fully acknowledged heterogeneity by origin within and between couples (Diehl et al., 2009; Goldscheider et al., 2011). In this exploratory study, we therefore combine these two strands of research to compare the gender division of paid work around the transition to parenthood among couples with different migration backgrounds. We distinguish ten types of couples considering the origin group and migrant generation of both partners and document how the division of paid work differs between native and migrant origin couples from one year before up to three years after the transition to parenthood. Subsequently, to further enhance our understanding of couples' reorganisation of paid work around family formation, we estimate couple-level fixed-effects models that only exploit variation within couples over time to assess whether the impact of the transition to parenthood on couples' division of paid work differs by migration background in couples where at least one partner was employed before the birth of the first child (Allison, 2009; Stock & Watson, 2015).

Second, the Belgian setting provides an interesting case to explore variation in couples' division of paid work around the transition to parenthood by migration background. Belgium is characterised by low employment gaps between mothers and childless women and is, alongside France and Nordic countries, considered as a context with extensive work-family reconciliation policies. Belgium is also an old immigration country with a substantial and increasing share of the population having a migration background. As a result of their long migration history, Southern European (mainly Italian), Turkish and Maghreb (with the overwhelming majority originating from Morocco) origin groups constitute - after neighbouring countries - the largest foreign origin groups in Belgium with a large second generation. However, the Belgian labour market is characterised by stark differentials in labour market opportunities and outcomes between insiders and outsiders (Doerflinger et al., 2020), mostly affecting outsiders such as groups—and particularly women—with a non-European migration origin (Maes et al., 2019; Rubin et al., 2008). Belgium also exhibits one of the largest employment rate gaps between natives and migrant origin groups across Europe (Corluy, 2014; OECD, 2008; Rubin et al., 2008). Available research indicates that these labour market inequalities result in strong migrant-native differences in the uptake of reconciliation policies since access to childcare and parental leave are – in contrast to Nordic countries - strongly conditioned on stable employment (Kil et al., 2017; Marynissen, Wood, & Neels, 2021; Vandenbroeck et al., 2008). Migrant-native differences in the access to reconciliation policies may therefore induce varying gender dynamics in couples' division of paid work around family formation by migration background since couples with limited access are more likely to resort to alternative work-family strategies that involve a higher degree of gender inequality. The findings for Belgium are relevant to other conservative and liberal European countries that also have large migrant groups and face similar challenges in improving the labour market integration of migrant origin women.

4.2 Couples' gender division of (un)paid work around the transition to parenthood

In line with the principle of parallel biographies in the life course paradigm, a large body of literature investigates the recursive interlinkage between parenthood and employment, also taking into account the division of paid and unpaid work within couples. A review of the literature indicates that micro-economic and socio-cultural theories provide complementary insights regarding couples' gender division of (un)paid work around the transition to parenthood. Micro-economic theories, such as the New Home Economics (Becker, 1991) and bargaining theories (Lundberg & Pollak, 1996), assume that couples are rational actors and that partners aim to maximise their (joint)

utility through specialisation. The birth of a child requires financial resources as well as time availability and these are inherently interrelated since the more time is spent in labour market activities, the less time remains for childcare. Micro-economic theories therefore argue that couples have to find a balance between income and time availability and that couples' decision making on whether and when to become parents is in turn influenced by both considerations on partners' current employment positions and considerations on the anticipated changes in these labour market positions after the transition to parenthood. In a context of women's increasing labour market participation, but also of increasing labour market uncertainty and a declining ability of men to serve as the family's single breadwinner, role specialisation within couples may however no longer yield the most favourable labour market precondition to parenthood (Oppenheimer, 1994). In contrast, the dual-breadwinner model lowers income uncertainty whereas opportunity costs are limited due to the increasing availability of work-family reconciliation policies since the mid-1980s in most European countries. Empirical evidence indicates that both female and male labour force participation have become preconditions for the transition to parenthood in contemporary Western countries (Vignoli, Drefahl, & De Santis, 2012; Winkler-Dworak & Toulemon, 2007). Regarding couples' division of (un)paid work after the transition to parenthood, micro-economic theories imply that the partner with the highest wage potential[39] will take up more paid work whereas the other partner will reduce working hours in order to take up more household work and childcare. Hence, according to the micro-economic perspective, couples' role specialisation is not related to gender, but to partners' comparative advantages and negotiation positions. In this respect, previous studies - predominantly pertaining to majority populations - have shown that female main earner couples have a significantly larger probability to adopt female-oriented parental employment strategies (i.e. the female partner works more hours than the male partner after childbirth) than couples where the male partner has the highest income (Kuhhirt, 2011; Schober, 2013; Wood et al., 2018).

Although women's pre-birth relative earnings moderate the impact of parenthood on gender inequality in paid work, male-oriented employment strategies remain dominant after childbirth even in couples where women exhibit a higher income than their male partner (Kuhhirt, 2011; Schober, 2013; Wood et al., 2018; Wood & Marynissen, 2019). Other studies also indicate that changes in partners' earnings around the transition to parenthood differ by couples' educational constellation, but that women's share of couple earnings decreases after first childbirth, even among couples where the female

[39] Partners' comparative advantages and negotiation positions are also based on other employment characteristics such as job security and other (non-monetary) benefits.

partner exhibits a higher level of education (Bergsvik, Kitterød, & Wiik, 2020; Nylin, Musick, Billingsley, Duvander, & Evertsson, 2021). These findings suggests that other factors, such as gender norms, potentially hamper more egalitarian divisions of work. The transition to parenthood implies that couples develop new social roles as mothers and fathers and these roles are influenced by prevailing parenting norms. Socio-cultural theories argue that couples conform to and reproduce societal gender norms, even when this division does not maximise couples' joint utility (Blumberg, 1984; West & Zimmerman, 1987). Deviating from the dominant gender-role expectations may entail social penalties (e.g. negative reactions, social exclusion) (Heilman et al., 2004) or compensation behaviour (e.g. 'doing gender' by engaging in stereotypically female/male activities) (Brines, 1993). Although the dual-breadwinner model is the prevalent norm in contemporary Western countries, also when couples have children, research indicates that the transition to parenthood is associated with the emergence of more traditional gender role attitudes among both men and women (Baxter et al., 2015; Schober & Scott, 2012).

Countries' work-family reconciliation policies furthermore shape the degree to which work and family are (in)compatible and in turn affect couples' gender division of paid work around the transition to parenthood (Liefbroer & Corijn, 1999). However, not all work-family reconciliation policies have the same effect on mothers' labour market outcomes and countries vary in the degree to which they rely on work-reducing policies such as parental leave versus work-facilitating policies such as formal childcare (Ciccia & Bleijenbergh, 2014; Mandel & Semyonov, 2006; Pettit & Hook, 2009). Whereas (especially long) maternity and parental leave can hinder an egalitarian division of paid work by reinforcing male breadwinner/female caregiver roles in addition to limiting women's financial resources and long-term labour market opportunities, the availability of affordable formal childcare reduces women's family demands and thus supports both women's labour force participation and gender equality in terms of working hours. In addition, the (long-term) effects of such policies on gender equality within households depend on the specific policy designs, which also vary between countries. Regarding Belgium, Saxonberg (2013) considers the leave system to be genderising, whereas the formal childcare system is considered de-genderising. While mothers are entitled to 15 weeks of maternity leave[40], fathers only have 15 days of paternity leave after the birth of a child (10 days until 01.01.2021). In addition, parents can take up parental leave until the child is 12 years old and reduce their working hours by (i) 100% for 4 months (3 months until 01.06.2012), (ii) 50% for 8 months, (iii) 20%

[40] Self-employed mothers have a separate system and are entitled to 12 weeks of maternity leave (1 week before and 2 weeks after the birth of the child are obligatory).

for 20 months, or (iv) 10% for 40 months, or combine periods of full-time and part-time leave, while receiving a relatively low flat-rate benefit. Although parental leave is an individual right conditioned by parents' labour market position, it is primarily used by mothers. In contrast, Belgium exhibits a high availability of subsidised formal childcare services for children under the age of three and all children are legally entitled to pre-primary education from the age of 2.5, which is free of charge and part of the Belgian educational system. Hence, particularly access to de-genderising reconciliation policies such as formal childcare is crucial to enable gender equality in paid work among parents in Belgium. In addition to formal childcare, parents may also rely on informal childcare to combine their work and family life. Therefore, not only the institutional context, but also parents' social and family networks can take up a part of the caring responsibilities and thus shape the setting in which couples develop their work-family reconciliation strategies.

4.3 Migration history of Southern European, Turkish and Moroccan origin groups

Although Southern European, Turkish and Moroccan origin groups were initially recruited in the context of labour migration after the Second World War, they differ considerably regarding their subsequent migration mechanisms. This has shaped the socio-economic and ideational contexts of these origin groups in Belgium and may entail diverging gender dynamics around family formation by couples' migration background. Considering differences in the migration history of these origin groups, we expect variation between couples in terms of partners' (relative) labour market positions and gender role attitudes, depending on the origin group and migrant generation of both partners within a couple. Following micro-economic and socio-cultural theories (cf. section 2), we expect that these differences in turn induce different dynamics in couples' gender division of paid work around the transition to parenthood. In addition, also parents' access to (in)formal childcare shapes how couples with different migration backgrounds organise their work and family life.

Turkish and Moroccan origin groups

The presence of Turkish and Moroccan origin groups in Belgium can be traced back to the large-scale migration of guest workers from 1964 onwards who were recruited to address labour shortages in sectors such as industry, mining and construction (Reniers, 1999; Van Mol & De Valk, 2016). These Turkish and Moroccan guest workers were predominantly recruited from low-educated rural areas characterised by rigid gender roles and since their stay in Belgium was considered to be temporary, there were very few civic integration and language programmes at that time (Höhne, 2013). Many

Turkish and Moroccan guest workers decided however to settle permanently in Belgium and to bring over their spouses and family members in anticipation of or following the "migration stop" related to the oil crises in the early 1970s. In contrast to the close link with labour market participation among male Turkish and Moroccan guest workers, the migration of their female partners was not related to employment. This may have affected the labour market opportunities for Turkish and Moroccan women since the social networks within their community were predominantly rooted in male-oriented secondary labour market sectors. In addition, besides the fact that they predominantly originated from low-educated rural areas, the specifically gendered migration patterns of these first generation migrants may have entailed favourable attitudes toward the male-breadwinner model among Turkish and Moroccan origin groups, which may have continued to affect the gender division of labour in younger generations.

As a result of the specific migration history of their parents, second generation Turkish and Moroccan migrants have been disproportionately raised in working-class and low-income families by low educated parents with limited Dutch language skills. This affects their labour market outcomes both directly, through social networks, economic resources and job advice, and indirectly, through educational outcomes and language skills (Gracia et al., 2016; Verhaeghe et al., 2013; Zuccotti, 2015). Although migrant-native differentials in labour market positions are most pronounced among the first generation, research for Belgium consistently shows that second generation Turkish and Moroccan migrants (particularly women) still display lower employment levels than native Belgians and are overrepresented in part-time employment, temporary contracts and employment sectors with low wages and irregular working hours (Baert et al., 2016; FOD WASO & UNIA, 2019; Maes et al., 2019). Moreover, the gender gap in employment is significantly larger among Turkish and Maghreb origin groups compared to native Belgians, particularly when there are children in the household (FOD WASO & UNIA, 2019). Further, although second-generation Turkish and Moroccan migrants have grown up in a generally egalitarian family context in Belgium (Esping-Andersen, 1999; Lück, 2005) and may have partially assimilated to Belgian behavioural patterns, it is also likely that parental attitudes, family networks and the wider migrant community stimulate more traditional gender role attitudes (de Valk, 2008; de Valk & Milewski, 2011; Khoudja & Fleischmann, 2015). As a result, second generation migrants may have developed a transnational identity by synthesising the culture of Belgium and that of their origin country (Erdal & Oeppen, 2013). Studies on the gender role attitudes of the Turkish and Moroccan second generation in Belgium (Güngör & Bornstein, 2009), the Netherlands (de Valk, 2008; Maliepaard & Alba, 2016) and Germany (Idema & Phalet, 2007) indicate that second generation women have fairly similar attitudes

compared to natives, whereas Turkish and Moroccan origin men have a stronger preference for a traditional male-breadwinner household. While gender role attitudes shape labour market outcomes, limited labour market opportunities may also foster traditional work-family attitudes. If Turkish and Moroccan origin women have limited labour market prospects, they may limit their investment in education and employment and consider family formation as an alternative career (Elloukmani & Ou-Salah, 2018; Friedman et al., 1994). This interplay between specific labour market opportunities and gender role attitudes of second-generation Turkish and Moroccan migrants is in turn likely to entail differential gender dynamics around the transition to parenthood compared to native couples.

Due to restrictive migration policies towards non-European migrants, family reunification and formation have become and remain major migration channels for Turkish and Moroccan origin groups. A substantial share of second generation Turkish and Moroccan migrants continues to marry a partner from their country of origin, which is associated with specific socio-economic and ideational contexts (Corijn & Lodewijckx, 2009; Hartung et al., 2011; Heyse et al., 2006; Timmerman et al., 2009). For second generation men this is a way to ensure a male-breadwinner household, as many consider second generation Turkish or Moroccan women as too liberal in their attitudes, whereas these first generation women frequently originate from low-educated rural areas and have limited country-specific human capital. In contrast, marrying a partner from their origin country provides second generation Turkish or Moroccan women with the opportunity to bend traditionally gendered power relations as they avoid the traditional habit of moving in with their husbands' parents. Also, given that their recently arrived husband has no or limited country-specific human capital and social networks, while frequently being higher educated themselves, second generation women are likely to have better labour market opportunities than their partner. Besides partnerships with a marriage migrant or a second generation migrant from the own community, relationships with a native partner increasingly occur among second generation Moroccan migrants, particularly among men, but remain low among Turkish origin groups (Hannemann et al., 2018). Previous research suggests that the choice for a native partner is associated with generally better socio-economic positions and more egalitarian gender role attitudes (Dribe & Lundh, 2008; Hooghiemstra, 2001; Huschek et al., 2011). Given these diverging socio-economic and ideational contexts depending on women's own migration background as well as the migration background of their partner, varying gender dynamics around the transition to parenthood are likely to emerge among couples with different migration backgrounds.

Southern European origin groups

In contrast to Turkish and Moroccan origin groups in Belgium, the migration history of Southern Europeans resulted in a more heterogenous origin group in terms of socio-economic positions and gender role attitudes. Since Southern Europeans could move within Europe without legal restrictions since the 1960s and due to economic growth in their origin countries during that period, there was a larger extent of return migration among Southern European guest workers. Compared to the predominantly male and low-educated migration flows after WWII, more recent Southern European migrants are characterised by a more diverse profile in terms of their socio-economic position and gender, and display a mainly urban background (Myria, 2016). Besides, the close link between migration and family formation that is typical for Turkish and Moroccan origin groups is absent among Southern European origin groups given the free mobility within Europe and also relationships with a native partner are common among both first and second generation Southern Europeans (Hannemann et al., 2018; Koelet & De Valk, 2014). Regarding their labour market outcomes, Southern European origin groups hold an intermediate position between the labour market positions of native Belgians on the one hand and those of Turkish and Moroccan origin groups on the other hand (FOD WASO & UNIA, 2019). Yet, in contrast to Turkish and Moroccan origin groups, the gender gap in employment among this population subgroup is more similar to the corresponding gender difference among native Belgians. Given that Southern European countries are characterised by relatively rigid gender roles (Esping-Andersen, 1999; Lück, 2005), we could also expect more traditional gender role attitudes among Southern European origin groups than native Belgians. Unfortunately, less is known about the gender role attitudes of Southern European origin groups in West-European countries.

Variation in couples' gender dynamics around the transition to parenthood by migration background

The migration histories of Turkish, Moroccan and Southern European origin groups resulted in specific socio-economic and ideational contexts, which in turn are likely to entail diverging gender dynamics around the transition to parenthood depending on the origin group and migrant generation of both partners within a couple. Following micro-economic and socio-cultural theories (cf. section 2), variation in labour market positions and gender role attitudes may result in differential employment-fertility links by couples' migration background. In this respect, prior research for Belgium indicates that whereas native and European origin women (couples) are most likely to have a first child in case they (both partners) are employed, non-European origin women (couples) are most likely to have their first child when they are not employed (or only

the male partner is employed) (Wood & Neels, 2017; Wood et al., 2017). To the extent that couples already adopt a male-breadwinner employment strategy before the transition to parenthood, changes in their gender division of (un)paid work after the transition to parenthood are expected to be more limited compared to dual-earner couples. Besides differential selection into parenthood, couples may also differ to the extent that partners' labour market opportunities and gender role attitudes change with the transition to parenthood, which is in turn an additional source for varying gender dynamics around family formation. Regarding the latter, based on available literature on gender role attitudes in migrant populations it is unfortunately unclear whether and to what extent gender role expectations change around parenthood, and whether this differs from natives (de Valk, 2008). Although there are hitherto no specific quantitative studies for Belgium, there are some qualitative indications for more traditional gender norms after family formation among Turkish and Moroccan origin groups. For instance, research among the Turkish and Moroccan second generation in Belgium indicates that once women are married, and particularly when they have children, it is no longer considered desirable to work within the Turkish or Moroccan community (Adam & Torrekens, 2015). In addition, the impact of partners' relative labour market opportunities and parenting norms on couples' gender dynamics around family formation may also vary by migration background.

Finally, we expect that couples with different migration backgrounds also vary regarding their access to affordable formal childcare as well as to informal childcare providers. This may in turn again induce varying gender dynamics in couples' division of paid work around family formation by migration background since couples with a lower access to (in)formal childcare may have to develop alternative work-family strategies, such as a (partial) retreat from the labour market of one partner. In the Belgian context of supply shortages in subsidised formal childcare and long waiting lists, migrant origin groups may face more barriers to the access of affordable formal childcare services compared to natives, since the greater instability of their labour market trajectories makes their demand for care more difficult to predict (Biegel et al., 2021; MAS, 2007; Vandenbroeck et al., 2008). Hence, in the Belgian labour market context characterised by insiders and outsiders, commodified work-family reconciliation policies that condition access on stable employment positions may particularly exclude first generation migrants (especially if they migrated recently), non-European origin groups and women, and in turn perpetuate their precarious labour market outcomes. With respect to informal childcare, first generation migrants (particularly those who migrated recently) may lack social networks in Belgium on which they can rely for combining a job and children (Wall & José, 2004). In contrast, given the generally low labour market participation of first generation migrant women,

particularly of Turkish or Maghreb origin, second generation migrants may have more access to grandparents as informal care providers compared to natives.

Based on the aforementioned considerations, two working hypotheses regarding variation in couples' gender dynamics around family formation are put forward in this study. Section 2 highlighted the importance of i) partners' (relative) labour market opportunities, ii) parenting norms, and iii) the access to formal as well as informal childcare for shaping parents' work-family organisation. Since the migration histories of Turkish, Moroccan and Southern European origin groups suggest that couples are likely to differ in terms of (some of) these aspects depending on the origin group and migrant generation of both partners within a couple, the first working hypothesis is the following:

H1: We expect variation by couples' migration background in both the gender division of paid work prior to the birth of the first child and the changes in this division around family formation.

Considering the migration history of Turkish, Moroccan and Southern European origin groups that have shaped specific socio-economic and ideational contexts, the second working hypothesis guiding the analyses is therefore:

H2: We expect that the differences with native couples' gender dynamics around family formation are more pronounced among non-European origin couples than Southern European origin couples.

4.4 Data and Methods

4.4.1 Data

We use data from the Flemish administrative panel on Migration, Integration and Activation (MIA Panel) from 2005-2016, which provides longitudinal microdata from the Social Security Registers (KSZ/CBSS)[41]. The MIA Panel provides information on a sample of individuals without a migration background (i.e. natives), individuals of Southern European origin (i.e. Italy, Spain, Portugal or Greece) and individuals of non-European origin (i.e. predominantly Turkey and Maghreb, and to a lesser extent other Africa, Asia, Oceania, and North-, South- or Central-America), aged 18-65 and legally residing in Flanders on January 1st 2005. Natives are defined as individuals whose first registered nationality is Belgian and of whom the first registered nationality of both

[41] The Crossroads Bank for Social Security (CBSS) links information from the National Register and 3.000 different institutions that are responsible for the execution of the Belgian social security.

parents is Belgian as well. An individual is considered to be of migrant origin when the person himself or one of the parents has a first nationality that is not Belgian. Individuals with a migration background who are not born in Belgium are defined as the first generation and individuals with a migration background who are born in Belgium are defined as the second generation[42]. Sampled individuals are followed until i) the age of 65, ii) emigration[43] or death, or iii) the end of the observation period on the 31st of December 2016. To maintain cross-sectional representation, supplementary annual samples of 18-year-olds were drawn to guarantee the presence of the youngest age group in the data throughout the observation period. For each observation year, household members of sampled individuals on the first of January are also included in the data. The dataset is disproportionately stratified by age and migration background (i.e. overrepresentation of the younger age groups and individuals with a migration background), which allows us to analyse variation in couples' gender division of paid work around the transition to parenthood by migration background.

4.4.2 Sample

The analysis of couples' gender division of paid work around parenthood is based on data for 3014 couples who had their first child between 2006 and 2016 and restricted to couple quarters where both partners live in the same household and are not enrolled in education. In addition, we only include couples for which we have information on both partners' work intensity in the fourth quarter before the birth of the child and exclude couple quarters in case of missing work intensity for at least one partner during the observation period[44]. In our dataset, work intensity reflects the percentage of working hours compared to a full-time position in the sector considered. Although working hours differ between employment sectors[45], work intensities provide an indication of variation in working hours around family formation. Unfortunately, the absolute number of working hours is not available in the data, which prevents sensitivity checks in this respect. The possible values range from 0% to 100%, where 0%

[42] When both parents of second generation individuals have a different first foreign nationality, origin reflects the first nationality of the mother. In our analyses, only 1.7% of second generation individuals has two parents with a different first foreign nationality.

[43] Individuals who move from Flanders to Wallonia or Brussels are followed-up further.

[44] Couples where one or both partners are self-employed are excluded, since we have no information on the work intensity of self-employed individuals. During our observation period, 5% of all couple quarters were excluded due to missing work intensity for at least one partner.

[45] For instance, while a full-time position implies working 38 h per week in most employment sectors in Belgium, the contractual working hours for a full-time position are in some sectors less than 38 h (e.g. education sector).

reflects unemployment or inactivity and 100% full-time employment[46]. Part-time jobs are combined to determine the total work intensity. Since our data do not provide the exact number of working hours, the work intensity of individuals that exceeds the standard number of working hours for a full-time position is considered 100%. The work intensity of women on maternity leave amounts to 0% and that of women on parental leave reflects their reduction in working hours. Couples are followed from one year before the birth of their first child until i) two quarters before their second child is born[47], ii) the first child reaches the age of three, iii) the couple is no longer in a co-residential union, iv) reaching the end of the observation period, or v) death or emigration of either partner.

Based on both partners' origin group (native, South-EU, non-EU[48]) and migrant generation (first, second), ten types of couples are distinguished in this study based on prevalence (Table 4.1). Regarding mixed origin couples in our dataset (i.e. couples where one partner has a native background and one partner either a South-EU or non-EU origin), the vast majority of migrant origin partners is of the second generation and the majority of first generation migrant origin partners is residing in Belgium for at least five years at first childbirth (Table 4.3 in Appendix). With respect to intergenerational non-EU origin couples in our dataset, the vast majority of first generation partners migrated after the age of 18, which in many cases can reflect marriage migration. In line with the literature (Wolf, 2016), we see that intergenerational non-EU origin couples have their first child shortly after arrival of the first generation partner: 55% to 60% has their first child within four years after arrival. Finally, first generation non-EU origin couples are relatively heterogeneous in terms of partners' duration of residence and age at migration. As our dataset only includes couples where at least one partner was legally residing in Flanders on January 1st 2005, only 4% of first generation non-EU origin couples consist of two partners residing less than 5 years in Belgium at the birth of their first child. Furthermore, while both partners migrated after the age of 18 among 37% of first generation non-EU origin couples, one partner migrated before the age of 18 among 50% and both partners migrated before the age of 18 among 7% of first generation non-EU origin couples[49].

[46] For example, 80% reflects working 30 hours per week if a full-time position in the sector considered implies working 38 hours per week.

[47] Descriptive results show that women frequently decrease their work intensity or take maternity leave in the quarter preceding the birth of a child.

[48] Regarding non-European origin partners, we focus only on individuals originating from Turkey or Maghreb countries.

[49] One or both partners have an unknown age at migration among 7% of first generation Non-EU origin couples.

Table 4.1: Typology of couples considering the origin group and migrant generation of both partners.

	Woman's origin	Man's origin	N couples in descriptive analyses	N couple quarters in descriptive analyses	N couples in fixed-effects analyses	N couple quarters in fixed-effects analyses
Native couples	Belgium	Belgium	913	11,249	903	11,054
Mixed South-EU origin couples	Belgium	1G/2G South-EU	223	2,778	221	2,703
	1G/2G South-EU	Belgium	241	2,980	241	2,910
Mixed non-EU origin couples	Belgium	1G/2G Non-EU	106	1,280	104	1,243
	1G/2G Non-EU	Belgium	68	885	67	860
Second generation couples	2G South-EU	2G South-EU	149	1,929	146	1,867
	2G Non-EU	2G Non-EU	447	5,326	406	4,694
Intergenerational non-EU origin couples	2G Non-EU	1G Non-EU	380	4,630	329	3,760
	1G Non-EU	2G Non-EU	226	2,650	181	1,938
First generation non-EU origin couples	1G Non-EU	1G Non-EU	261	3,227	218	2,495

Notes: 1G refers to first generation, 2G refers to second generation. Regarding non-EU origin partners, we focus only on individuals originating from Turkey or Maghreb.
Source: MIA Panel, 2005-2016.

4.4.3 Methods

First, we present for all couples in our sample a descriptive account of their gender division of paid work from one year before up to three years after the transition to parenthood, and address how this division differs between native and migrant origin couples. Subsequently, to improve our understanding of couples' reorganisation of paid work following family formation, we examine whether and to what extent the gender division of paid work changes around the transition to parenthood within couples where at least one partner is employed one year before first childbirth by using couple fixed-effects models. Hence, the couple-level fixed-effects analyses exclude couples where both partners are not employed one year before first childbirth (6.6% of all couples in our sample) as well as couple quarters in which both partners are not employed[50].

[50] Among 15% of all couples where at least one partner is employed one year before first childbirth, both partners are not employed during at least one quarter in the observation period.

$$Y_{it} = \sum \beta_t X_{it} + \sum \beta_t Z_i X_{it} + \alpha_i + u_{it} \quad (4.1)$$

Equation 4.1 shows the equation of the fixed-effects model where Y_{it} denotes the dependent variable for couple i at time t. The dependent variable reflects women's relative work intensity, calculated as the ratio of the female partner's work intensity to the sum of the male and female partner's work intensity. The possible values range from 0% to 100%, where 0% refers to a situation in which only the male partner is employed, 50% reflects equal work intensity among both partners and 100% implies that only the female partner is employed. Further, X_{it} denotes time relative to the first birth (distinguishing quarters -4, -3, -2, -1, 0, 1, 2, 3, 4 to 7, 8 to 11) and β_t the parameter estimates for these time varying independent variables. The fourth quarter before the birth of the child is used as reference category, implying that women's relative work intensity in each quarter is compared to their relative work intensity one year before the birth of their first child. In addition, the model includes the interaction between time relative to the first birth (X_{it}) and couples' migration background (Z_i) to assess whether the change in women's relative work intensity around the transition to parenthood differs by migration background. Native couples are used as reference category. Finally, α_i denotes the time-invariant couple fixed effects and u_{it} the couple-level residual at time t. Hence, since the couple-level fixed-effects models only consider variation of relative work intensity within couples over time, the analyses account for time-constant (un)observed heterogeneity between couples (Allison, 2009; Stock & Watson, 2015).

4.5 Results

For couples who had their first child between 2006 and 2016, Figures 4.1a, 4.2 and 4.4 show the gender division of paid work from one year before up to three years after the transition to parenthood by couples' migration background. Four broad employment strategies are distinguished: i) both partners not employed, ii) a male-oriented employment strategy (female partner works 0-20% or 20-45% of the total household work intensity), iii) an equal division of paid work (female partner works 45-55% of the total household work intensity), and iv) a female-oriented employment strategy (female partner works 55-80% or 80-100% of the total household work intensity). In 98.5% of all situations where women work 0-20% of the total household work intensity, women are not employed. Similarly, when women work 80-100% of the total household work intensity, their partner is not employed in 97.8% of the couples.

In addition to this descriptive account of couples' division of paid work before and after the transition to parenthood, Figures 4.1b, 4.3 and 4.5 display the results of the couple-

level fixed-effects analyses and show women's average relative work intensity one year before first childbirth and the average change in women's relative work intensity around the transition to parenthood within couples where at least one partner is employed. Table 4.2 shows for each migrant origin couple the differential change in women's relative work intensity after first childbirth compared to native couples. As changes in the division of paid work may occur due to changes in both male and female partners' work intensity, Figure 4.8 in Appendix displays the changes in work intensity compared to one year before first childbirth for men and women separately to show the underlying gender dynamics.

Since couples' gender division of paid work one year before first childbirth differs significantly by migration background (Cramer's V = 0.22***) and the likelihood ratio test indicates that changes in couples' division of paid work over around the transition to parenthood differ significantly by migration background (Δ-2LL=656; Δdf=81; $p< 0.001$), we can confirm our first hypothesis. The following sections discuss the gender dynamics around the transition to parenthood for each type of couple and whether these patterns differ between native and migrant origin couples.

Native couples

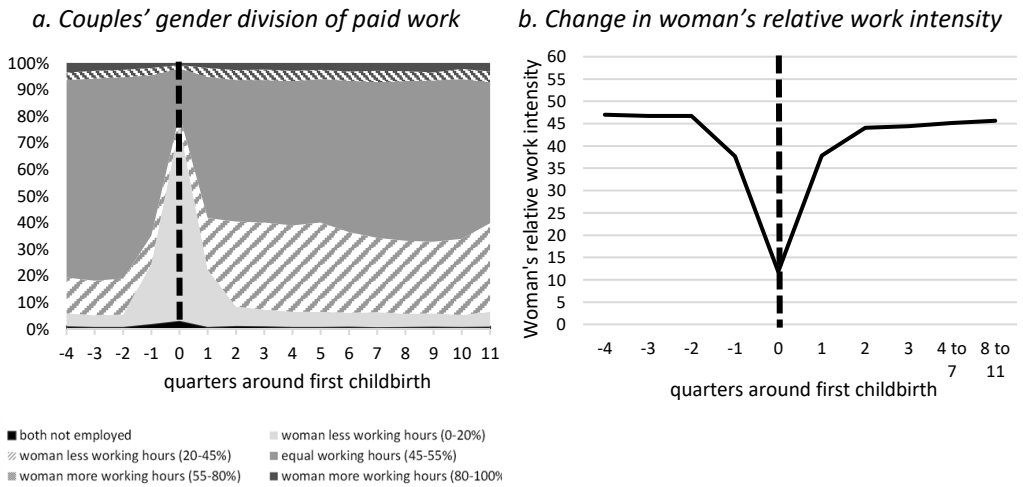
Figure 4.1a shows that the vast majority of native couples (74%) adopt an equal division of paid work before the birth of their first child. A male-oriented employment strategy is adopted among 18% of the couples and there is only a small proportion of native couples where women work more hours than their male partner (6%). During the quarter of first childbirth (but also slightly during the quarter before and after childbirth) there is a large proportion of couples where only the male partner is employed, since most women are on maternity leave (see Figure 4.6 in Appendix). After the transition to parenthood[51], the majority of native couples still display an equal division of paid work, but this proportion is substantially lower than before first childbirth (amounting to 54% at t+4), while the proportion of couples adopting a male-oriented employment strategy is higher (38% at t+4). The latter is particularly due to the fact that women are working less hours than their male partner, rather than being not employed (see also Figure 4.6 in Appendix).

While Figure 4.1a shows the prevalence of native couples' employment strategies before and after the transition to parenthood, Figure 4.1b displays the average development of women's relative work intensity within a couple where at least one

[51] It should be noted that our samples become increasingly selective at higher ages of the first child, due to potentially selective higher-order childbearing patterns, but also due to selective separation risks, emigration and mortality.

partner is employed and indicates how native couples' gender division of paid work changes around family formation. Compared to the relative work intensity one year before the birth of the first child (on average 47%), women's relative work intensity is on average reduced by 9 percentage points in the first quarter after parenthood, while there is only a small but significant decrease from the second quarter onwards (ranging from 3 to 1 percentage points). Figure 4.8 in Appendix indicates that this decrease in women's relative work intensity after the transition to parenthood is primarily due to a decrease in women's work intensity rather than an increase in men's work intensity. We find that women's work intensity slightly decreases in the quarter preceding birth, drops sharply during the quarter of birth and increases as the child grows older, yet does not recover to the work intensity one year before the birth of their first child. In contrast, men's work intensity remains stable around the transition to parenthood.

Figure 4.1: (a) Couples' gender division of paid work around the transition to parenthood and (b) Change in women's relative work intensity around the transition to parenthood among couples where at least one partner is employed, **native couples**.

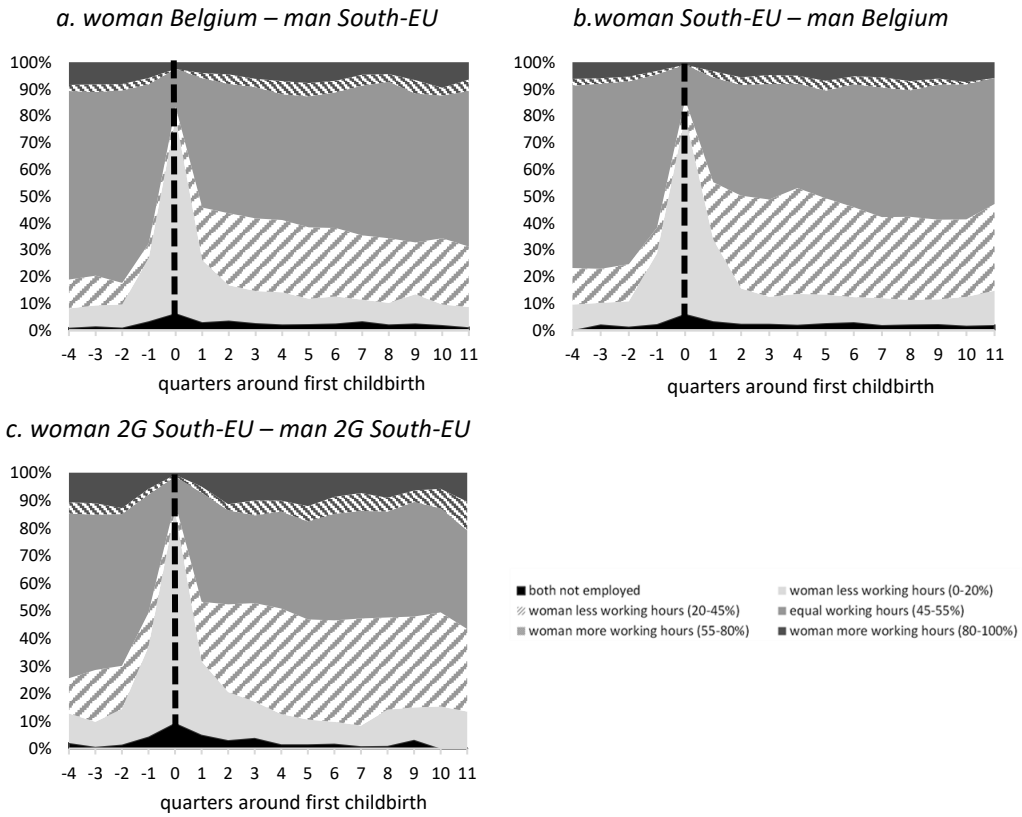


Sample: Figure 4.1a includes all native couples in our sample. Figure 4.1b excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results of Figure 4.1b are based on a couple fixed-effects model for the change in women's relative work intensity around first childbirth including i) time relative to the first birth and ii) the interaction between time relative to the first birth and couples' migration background (Eq. 4.1).
Source: MIA Panel, 2005-2016, calculations by authors.

South-EU origin couples

Similar to native couples, Figures 4.2a and 4.2b indicate that around 70% of ***mixed South-EU origin couples*** adopt an equal division of paid work before the birth of their first child and around 20% a male-oriented employment strategy. Also after family formation, mixed South-EU origin couples display a gender division of paid work that is similar to native couples, with less couples dividing paid work equally than before the entry into parenthood. Figure 4.2c shows that there is a smaller proportion of ***second generation South-EU origin couples*** with an equal division of paid work compared to native and mixed South-EU origin couples (60% at t-4 and 35% at t+4), which implies a somewhat larger proportion of couples with either a male- or female-oriented employment strategy.

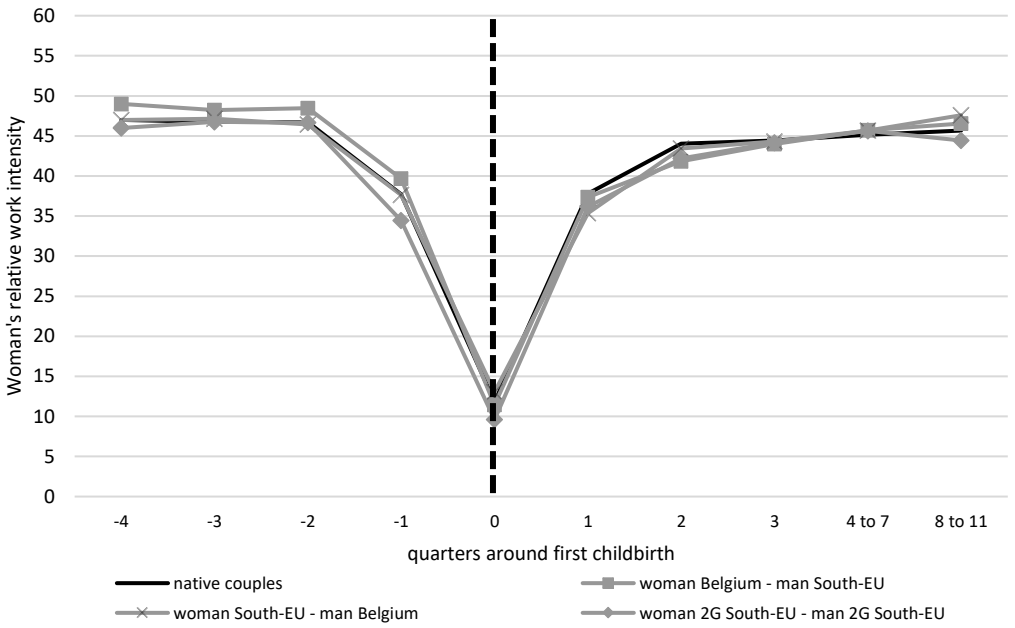
Figure 4.2: Couples' gender division of paid work around the transition to parenthood, **South-EU origin couples**.



Sample: Figure 4.2 includes all South-EU origin couples in our sample (Table 4.1).
Source: MIA Panel, 2005-2016, calculations by authors.

When we focus for ***South-EU origin couples*** where at least one partner is employed on the changes in women's relative work intensity around family formation (Figure 4.3), we find virtually no differences with native couples' gender dynamics. Table 4.2 shows that the differences compared to native couples in the decrease in women's relative work intensity after family formation range from 0 to 4 percentage points for South-EU origin couples and are overall not statistically significant (full model results available in Table 4.4 in Appendix). In sum, the pre-birth gender division of paid work as well as the changes in this gender division around first childbirth of South-EU origin couples are very similar to those of native couples.

Figure 4.3: Change in woman's relative work intensity around the transition to parenthood among couples where at least one partner is employed, **native and South-EU origin couples**.



Sample: Figure 4.3 excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results based on a couple fixed-effects model for the change in women's relative work intensity around first childbirth including i) time relative to the first birth and ii) the interaction between time relative to the first birth and couples' migration background (Eq. 4.1).
Source: MIA Panel, 2005-2016, calculations by authors.

Table 4.2: Differential change in women's relative work intensity after first childbirth compared to native couples (in percentage points), couples where at least one partner is employed.

Origin woman – Origin man	Quarter 1	Sig.	Quarter 2	Sig.	Quarter 3	Sig.	Quarters 4-7	Sig.	Quarters 8-11	Sig.
Native couples	Ref.		Ref.		Ref.		Ref.		Ref.	
Belgium – South-EU	-2.44		-4.21	*	-2.43		-1.47		-1.12	
(t-4: 49%)	*(-6.17; 1.30)*		*(-7.95; -0.46)*		*(-6.19; 1.34)*		*(-4.46; 1.52)*		*(-4.34; 2.11)*	
South-EU – Belgium	-2.43		-0.63		-0.11		0.50		1.93	
(t-4: 47%)	*(-6.06; 1.20)*		*(-4.24; 2.99)*		*(-3.75; 3.52)*		*(-2.39; 3.39)*		*(-1.18; 5.05)*	
2G South-EU – 2G South-EU	-0.65		-0.85		0.71		1.46		-0.21	
(t-4: 46%)	*(-5.05; 3.74)*		*(-5.28; 3.58)*		*(-3.75; 5.18)*		*(-2.04; 4.96)*		*(-3.94; 3.51)*	
Belgium - Non-EU	-3.57		-5.54	*	-1.02		-4.40	*	-2.93	
(t-4: 57%)	*(-8.77; 1.63)*		*(-10.75; -0.32)*		*(-6.27; 4.24)*		*(-8.58;-0.22)*		*(-7.40; 1.53)*	
Non-EU – Belgium*	4.52		4.06		6.24		5.94	*	6.83	*
(t-4: 40%)	*(-1.71; 10.74)*		*(-2.18; 10.29)*		*(-0.02; 12.51)*		*(0.98; 10.91)*		*(1.56; 12.10)*	
2G Non-EU – 2G Non-EU	-8.47	***	-6.55	***	-5.96	***	-4.42	***	-3.16	*
(t-4: 40%)	*(-11.44; -5.49)*		*(-9.53; -3.57)*		(-8.96; -2.97)		*(-6.81; -2.04)*		*(-5.81; -0.52)*	
1G Non-EU – 1G Non-EU	-6.96	***	-7.73	***	-5.01	*	-4.49	**	-6.14	***
(t-4: 35%)	*(-10.82; -3.11)*		*(-11.57; -3.89)*		*(-8.86; -1.17)*		*(-7.54; -1.43)*		*(-9.43; -2.86)*	
2G Non-EU – 1G Non-EU	-7.85	***	-7.40	***	-6.64	***	-3.61	**	-4.10	***
(t-4: 43%)	*(-11.10; -4.60)*		*(-10.70; -4.10)*		*(-9.95; -3.33)*		*(-6.21; -1.02)*		*(-6.89; -1.32)*	
1G Non-EU – 2G Non-EU	0.87		-2.20		-2.42		-1.48		2.89	
(t-4: 19%)	*(-3.29; 5.03)*		*(-6.36; 1.96)*		*(-6.61; 1.77)*		*(-4.82; 1.86)*		*(-0.84; 6.61)*	

** Less than 100 couples: 67 mixed non-EU origin couples with a migrant origin woman.*
Sample: Table 4.2 excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results based on a couple fixed-effects model for the change in women's relative work intensity around first childbirth including i) time relative to the first birth and ii) the interaction between time relative to the first birth and couples' migration background (Eq. 4.1).
*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*
Source: MIA Panel, 2005-2016, calculations by authors.

Non-EU origin couples

In contrast to mixed South-EU origin couples, the division of paid work among ***mixed non-EU origin couples*** depends on whether the female or male partner is of migrant origin. The descriptive figures show that mixed non-EU origin couples with a native woman divide paid work largely similar to native couples, both before and after family formation, with a larger proportion of couples where only the female partner is employed (18% at t-4 and 11% at t+4) (Fig. 4.4a). In contrast, mixed non-EU origin

couples with a migrant origin woman less often display an equal division of paid work than native couples and more often exhibit a male-oriented employment strategy (40% at t-4 and 45% at t+4) (Fig. 4.4b), but the difference with native couples' division of paid work is less pronounced after the birth of the first child.

Compared to all aforementioned couple types, our results show that ***first and second generation non-EU origin couples*** as well as ***intergenerational non-EU origin couples*** are more frequently jobless (ranging from 10% among second generation non-EU origin couples up to 20% among non-EU origin couples with a first generation woman and second generation man). Additional descriptive figures in Appendix (Figure 4.7) indicate that jobless couples also vary in terms of partners' employment positions (i.e. being inactive or unemployed). Whereas the (overwhelming) majority of women are inactive before first childbirth among jobless first generation non-EU couples as well as jobless non-EU origin couples with a first generation woman and second generation man, which could be interpreted as a voluntary decision, most women are unemployed among jobless second generation non-EU couples as well as jobless non-EU origin couples with a second generation woman and first generation man, which could be interpreted as an involuntary labour market situation. After family formation, the majority of women are however inactive among all jobless non-EU origin couples. In addition to the fact that these couple types are more often jobless, they also exhibit a higher degree of gender inequality in paid work compared to native couples, both before and after the transition to parenthood. In line with the literature (Huschek et al., 2011; Timmerman, 2006), we find that when ***second generation non-EU men have a first generation partner***, this results in the endorsement of a traditional gender division of paid work. Figure 4.4e shows that these couples exhibit, both before and after the transition to parenthood, the most gender unequal division of paid work of all couple types considered in this study as the male partner is the only employed partner among the majority of couples (52% at t-4, 60% at t+4). ***First generation non-EU origin couples*** exhibit the second most gender unequal division of paid work, with very few couples dividing paid work equally (18% at t-4, 10% at t+4). Only the male partner is employed among most first generation non-EU origin couples (39% at t-4, 50% at t+4), but there is also a substantial share of couples where only the female partner is employed, which may reflect the heterogeneity of first generation non-EU origin couples in terms of partners' age at migration. Figure 4.6 in Appendix indicates that the overwhelming majority of women are inactive rather than unemployed in case only the male partner is employed among these two couple types.

Further, Figures 4.4c and 4.4f indicate that the gender division of paid work is relatively similar among ***second generation non-EU origin couples*** and ***intergenerational non-EU origin couples with a second generation woman and first generation man***, but the

proportion of couples where only the female partner is employed is twice as large among the latter. Both couple types less often divide paid work equally before the transition to parenthood compared to native couples (40% and 30% respectively) and it more often occurs that only the male partner is employed, amounting to 23% among both couple types. After the birth of the first child, particularly the difference with native couples in the proportion of couples where only the male partner is employed is more pronounced than before, which is mainly the result of a larger share of inactive women following family formation (Figure 4.6 in Appendix).

Figure 4.4: Couples' gender division of paid work around the transition to parenthood, **non-EU origin couples**.

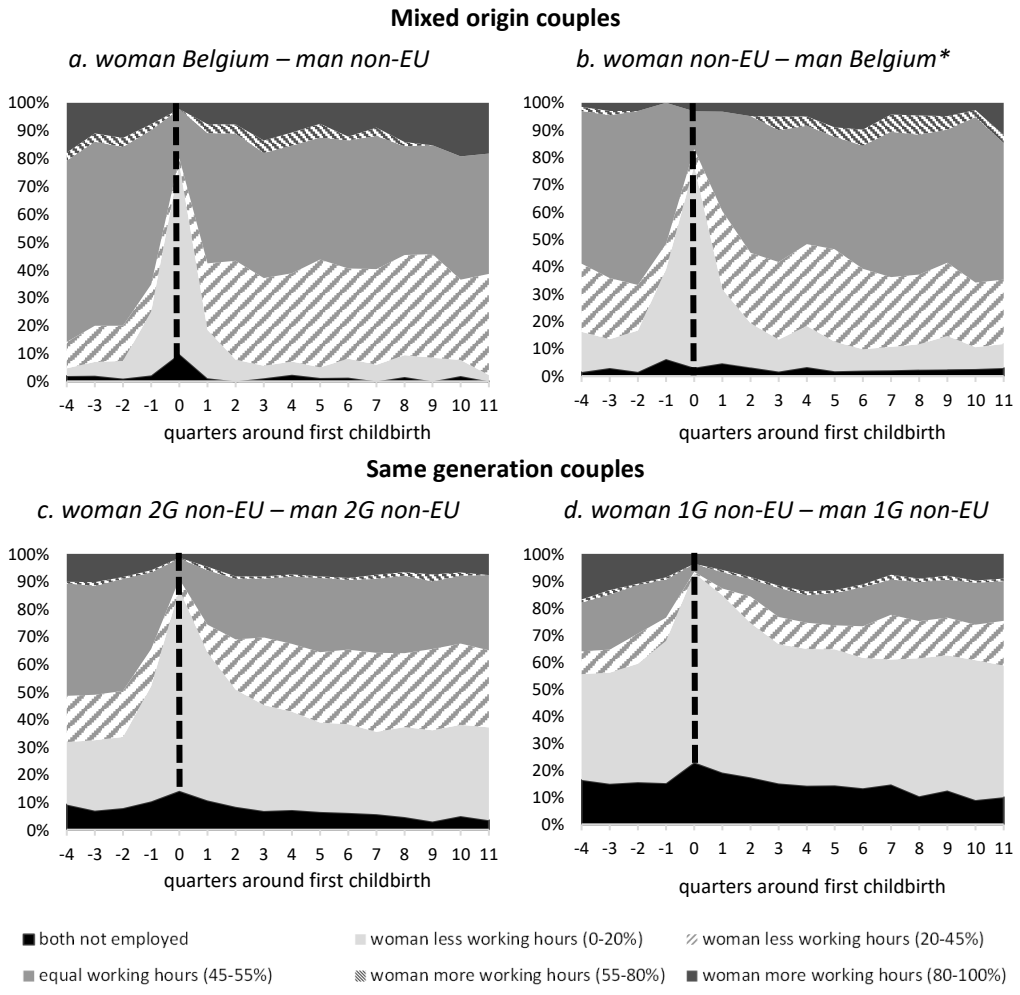
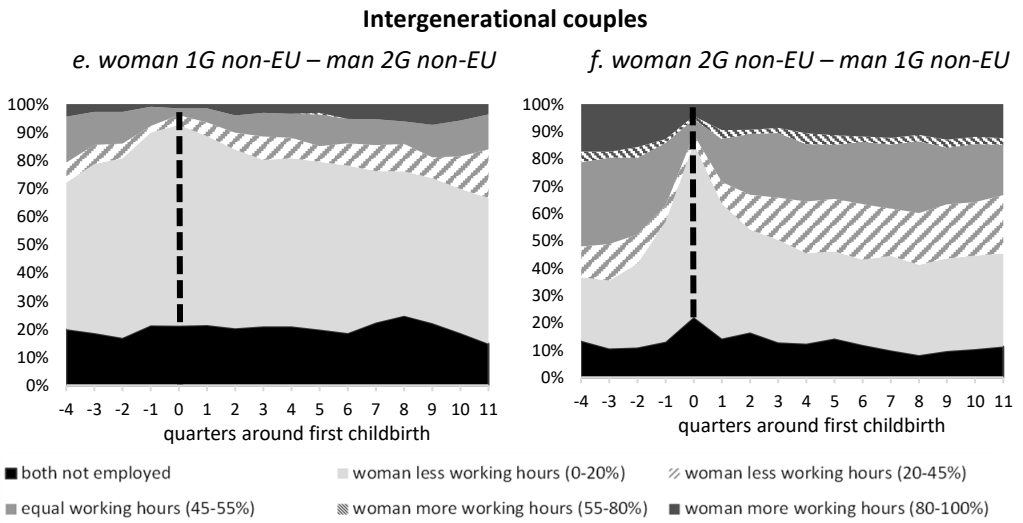


Figure 4.4 (continued).



** Less than 100 couples: 67 mixed non-EU origin couples with a migrant origin woman.*
Notes: 1G refers to first generation, 2G refers to second generation. Regarding non-EU origin partners, we focus only on individuals originating from Turkey or Maghreb.
Sample: Figure 4.2 includes all non-EU origin couples in our sample (Table 4.1).
Source: MIA Panel, 2005-2016, calculations by authors.

Next we consider the changes in the gender division of paid work around the transition to parenthood among non-EU origin couples where at least one partner is employed. Figure 4.5 shows that although women's relative work intensity is relatively high among ***mixed non-EU origin couples with a native woman*** before first childbirth (on average 57%) and also remains higher than among native couples afterwards, it decreases to a significantly stronger extent following the transition to parenthood compared to native couples. This differential decrease ranges from 1 to 5.5 percentage points (Table 4.2). In contrast, while women's relative work intensity is lower among ***mixed non-EU origin couples with a migrant origin woman*** and particularly ***intergenerational non-EU origin couples with a first generation woman and second generation man*** compared to native couples before the transition to parenthood (on average 40% and 19% respectively), the changes in their division of paid work after family formation do not significantly differ from native couples' gender dynamics (Table 4.2)[52].

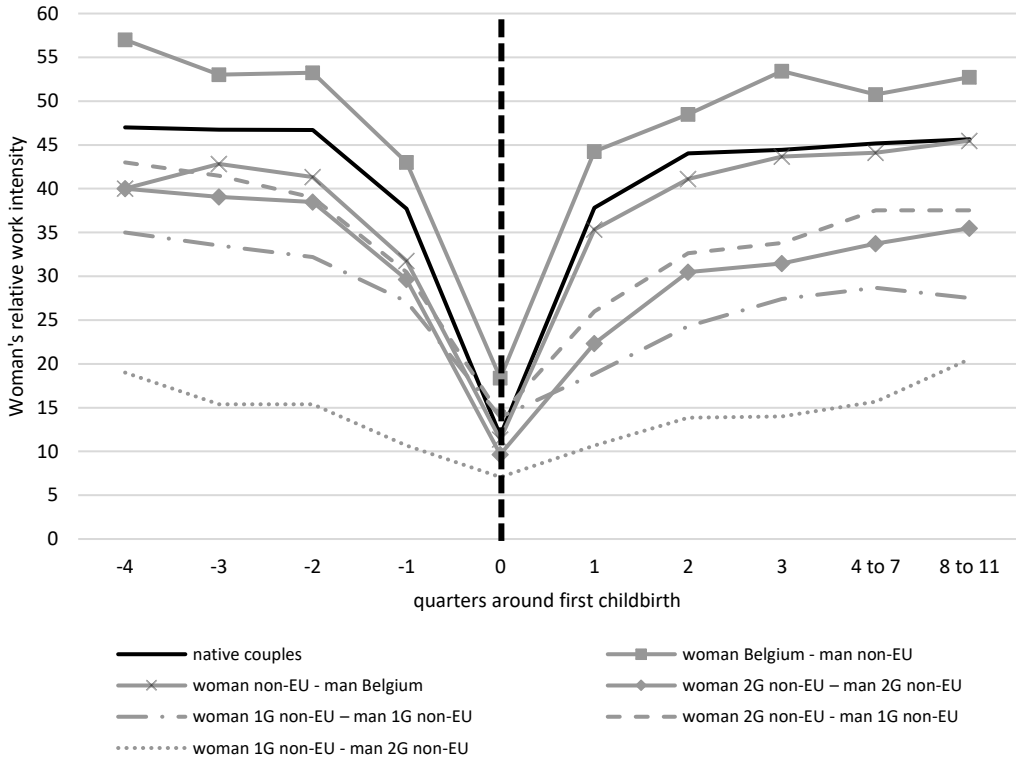
Finally, first and second generation non-EU origin couples as well as intergenerational non-EU origin couples with a second generation woman and first generation man not

[52] The small sample size for mixed non-EU origin couples with a migrant origin woman may have affected the precision of the estimates and as a result the significant levels.

only display a higher degree of gender inequality before family formation than native couples, but also a stronger increase in gender inequality after the transition to parenthood. Regarding ***first generation non-EU origin couples***, Figure 4.5 shows that women's pre-birth relative work intensity (on average 35%) decreases by 16 to 6 percentage points after the transition to parenthood, which is a significantly stronger decrease compared to native couples (difference ranging from 4 to 8 percentage points, Table 4.2). With respect to ***second generation non-EU origin couples*** and ***non-EU origin couples with a second generation woman and first generation man***, the decrease in women's relative work intensity (on average 40% and 43% at t-4 respectively) amounts to 18 and 10 percentage points in the first two quarters after family formation and ranges from 9 to 4 percentage points from the third quarter onwards. This is a significantly stronger decrease compared to native couples (difference ranging from 3 to 8 percentage points, Table 4.2). Moreover, Figure 4.8 in Appendix indicates that the increasing gender inequality in paid work following family formation among first generation non-EU origin couples and non-EU origin couples with a second generation woman and first generation man is not only the result of a significant decrease in women's work intensity, but also due to a significant increase in men's work intensity.

Hence, we can also confirm our second hypothesis since the differences with native couples' gender dynamics around family formation are more pronounced among non-European origin couples than Southern European origin couples.

Figure 4.5: Change in woman's relative work intensity around the transition to parenthood among couples where at least one partner is employed, **native and non-EU origin couples**.



Notes: 1G refers to first generation, 2G refers to second generation. Regarding non-EU origin partners, we focus only on individuals originating from Turkey or Maghreb.
Sample: Figure 4.5 excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results based on a couple fixed-effects model for the change in women's relative work intensity around first childbirth including i) time relative to the first birth and ii) the interaction between time relative to the first birth and couples' migration background (Eq. 1).
Source: MIA Panel, 2005-2016, calculations by authors.

4.6 Discussion

In tandem with women's rising labour force participation in European countries from the 1960s onwards, couples increasingly divide paid work equally (Grunow & Evertsson, 2016; Kil, Neels, & Vergauwen, 2016; Tsang, Rendall, Rohr, & Hoorens, 2014). However, women still exhibit lower employment levels than men and studies have established that particularly the transition to parenthood introduces gender inequality in couples' division of paid work (Kuhhirt, 2011; Schober, 2013; Wood et al., 2018). While life course scholars have increasingly acknowledged population heterogeneity in various

life course dynamics, such as the employment-fertility link (Kreyenfeld & Andersson, 2014; Wood & Neels, 2017), the childcare-fertility link (Wood, 2019) and the motherhood-employment link (Kil et al., 2018), research on the effect of parenthood on couples' gender division of paid work has hitherto not addressed subgroup variation in terms of migration background. In contrast to the growing body of literature that addresses changes in couples' gender division of (un)paid work around the transition to parenthood in majority populations, available empirical evidence on variation in couples' division of (un)paid work by migration background has largely focussed on the gender division at a particular moment in time, rather than addressing (potentially) different changes in this division around family formation. This is remarkable since differential gender dynamics around first childbirth can be expected between native and migrant origin couples as a result of differences in partners' (relative) labour market opportunities, as suggested by micro-economic theories (Becker, 1991; Lundberg & Pollak, 1996), and/or due to differences in parenting norms, as suggested by socio-cultural theories (Blumberg, 1984; West & Zimmerman, 1987). Therefore, using administrative panel data for Belgium (Flanders), this paper distinguishes ten types of couples considering the origin group (native, South-EU, non-EU) and migrant generation (first, second) of both partners to assess whether couples' gender division of paid work differs by migration background before the onset of family formation, and to what extent changes in couples' gender division of paid work around family formation vary by migration background.

Our results show that although the majority of native couples adopt an equal division of paid work in Belgium, gender inequality in paid work increases after the birth of the first child. In accordance with studies for West-Germany (Kuhhirt, 2011) and the UK (Schober, 2013), which predominantly reflect the patterns of the majority population, we find that women significantly reduce their work intensity after the transition to parenthood, while men's work intensity remains stable. Comparing native couples' gender dynamics around family formation with those of couples where at least one partner is of migrant origin, this study shows that combining an account of couples' division of paid work before the onset of family formation with a perspective focussing on changes in couples' division of paid work during family formation provides a more thorough understanding of variation by migration background. Since fixed effects models only exploit changes within couples over time and control for time-constant (un)observed heterogeneity between couples, they are a suitable tool to estimate the effect of parenthood on couples' division of (un)paid work. However, this approach has to be combined with the descriptive results to gain insight in variation by migration background in couples' division of paid work prior to the transition to parenthood. In case couples already display a very unequal gender division of paid work before family

formation, women's relative work intensity cannot decrease to the same extent after the transition to parenthood compared to couples with a stronger degree of gender equality before first childbirth. Combining both perspectives, we identified four patterns of gender dynamics in the division of paid work around the transition to parenthood. First, migrant origin couples whose pre-birth division of paid work as well as gender dynamics around family formation are similar to native couples. Second, migrant origin couples where women's pre-birth relative work intensity is largely similar to native couples, but where gender inequality in paid work increases to a significantly stronger extent after first childbirth. Third, migrant origin couples who exhibit a stronger degree of gender inequality in paid work before family formation than native couples, but no significant differences with native couples' changes in the division of paid work around the transition to parenthood. Fourth, migrant origin couples who display a higher degree of gender inequality in paid work before first childbirth than native couples and also a significantly stronger increase in gender inequality after family formation. Furthermore, this study advocates the use of different types of couples. Whereas prior studies for Belgium indicate that the gender gap in employment is significantly larger among Turkish and Maghreb origin groups compared to natives, particularly when there are children in the household (FOD WASO & UNIA, 2019), our results corroborate previous findings that patterns of gender dynamics in the division of paid work are also associated with partner choice patterns of non-European origin men and women (Huschek et al., 2011; Wood et al., 2017).

Considering the first pattern of gender dynamics in the division of paid work around parenthood, our results show that South-EU origin couples display a gender division of paid work similar to that of native couples and also exhibit similar changes in this division around family formation. This is consistent with previous studies indicating that the gender gap in employment is relatively similar between Southern European origin groups and native Belgians (FOD WASO & UNIA, 2019).

In line with the second pattern of couples' gender division of paid work around family formation, we find that the pre-birth gender division of paid work of mixed non-EU origin couples consisting of a native woman and a non-EU origin man is relatively similar to that of native couples, but that the transition to parenthood results in a stronger increase in gender inequality compared to native couples. More research is required to identify the underlying factors for these varying gender dynamics over family formation.

With respect to the third pattern of gender dynamics around parenthood, our results indicate that mixed non-EU origin couples with a migrant origin female partner less often divide paid work equally than native couples before the onset of family formation

and that particularly couples consisting of a first generation non-EU woman and a second generation non-EU man display the most gender unequal division of paid work of all couple types considered in this study. The latter is in line with previous research for Belgium (Lievens, 1999; Timmerman, 2006) indicating that the choice of second generation Turkish and Moroccan men for a partner from their origin country is a way to ensure a traditional male-breadwinner household. Considering the changes in their division of paid work around family formation, we find that the gender dynamics of these two couple types are not significantly different to those of native couples. Prior studies suggest that preconditions for the transition to parenthood vary by migration background (Wood & Neels, 2017; Wood et al., 2017), but more research is needed to address the mechanisms behind this varying employment-fertility link and how partner's pre-birth labour market positions affect migrant origin couples' gender dynamics over family formation.

Considering the fourth pattern of couples' gender division of paid work around family formation, we find that first generation non-EU origin couples exhibit the second most gender unequal division of paid work and that also second generation non-EU origin couples and intergenerational non-EU origin couples with a second generation female partner less often divide paid work equally compared to mixed non-EU origin and native couples. These couples not only display a higher degree of gender inequality in paid work than native couples before first childbirth, but also a significantly stronger increase in gender inequality after family formation. In addition, among non-EU origin couples with a first generation non-EU male partner, we find not only a decrease in women's work intensity, but also a significant increase in men's work intensity after first childbirth. Hence, while previous research for Belgium suggests that marrying a partner from their origin country is for second generation Turkish and Moroccan origin women a way to bend traditionally gendered power relations (Lievens, 1999; Timmerman, 2006), our results show that the transition to parenthood results - similar to second generation non-EU women with a second generation partner - in a strong increase in gender inequality.

Addressing variation in couples' gender dynamics in the division of paid work over family formation by migration background is relevant for policies at both the macro- and micro-level. With respect to the macro-level, in a context of accelerated population ageing and shrinking working age populations, the successful labour market integration of migrant origin groups is gaining importance in European countries. Knowing couples' gender division of paid work in different stages of the life course and understanding which life course transitions induce migrant-native differences in gender dynamics in households is important for policy makers. In order to develop specific policies that enhance the labour market participation of migrant origin women, a life course

perspective is required, as different policies are relevant in different stages in the life course. With respect to the micro-level, increasing gender inequality in couples' division of paid work following the transition to parenthood can jeopardise women's financial independence, future employment opportunities and social security protection given that labour market trajectories are path-dependent and social rights (e.g. pensions) are in Belgium strongly tied to (recent) work experience (Koelet et al., 2015; Neels et al., 2018).

Finally, we identify five avenues for future research. First, although this study recognises heterogeneity in couples' migration background by distinguishing ten types of couples, we did not investigate Turkish and Maghreb origin groups separately due to small sample sizes among some types of couples. Future research could therefore elaborate more on the potentially different gender dynamics in paid work for Turkish and Maghreb origin couples. In addition, it would also be worthwhile to examine gender dynamics among other origin groups, including groups that are expected to be more similar to the native population such as migrants from neighbouring countries. Second, follow-up research could consider the exact working of partners in addition to the relative measurement of work intensity considered in this paper (i.e. the percentage of working hours compared to a full-time position in the sector considered). Since our data do not provide absolute working hours, the work intensity of individuals that exceeds the standard number of working hours for a full-time position is considered 100%, which may have affected our results. For instance, it may appear that a partner's work intensity does not change and remains 100%, while working hours were in practice reduced from working overtime to working full-time (e.g. from 110% to 100%).

Third, this study indicates that the effect of parenthood on couples' gender division of paid work varies by migration background, but more research is required to disentangle the underlying mechanisms behind these varying gender dynamics. It is however very difficult to distinguish the role of micro-economic and socio-cultural mechanisms as they are strongly interrelated (differential labour market outcomes may occur as a result of differential gender role attitudes or vice versa). Moreover, although register data provides rich information, it does not allow us to consider partners' gender role attitudes. Yet, in order to elaborate our understanding of how gender role attitudes shape couples' division of paid work around the transition to parenthood, a longitudinal measurement of attitudes is required to address whether and to what extent attitudes change after family formation. Also additional mixed-method research could provide valuable insights in this respect. Assuming rational decision making in the work-family combination, a fruitful path would be to examine whether and to what extent variation in couples' gender dynamics around family formation by migration background can be

explained by variation in women's pre-birth relative labour market characteristics. More specifically, as research for majority populations has identified that the relative distribution of earnings, job stability, time availability, as well as access to flexible work arrangements in partners' employment sectors (e.g. parental leave) within couples shape couple-level gender dynamics in the employment-fertility link (Marynissen, Neels, Wood, & Van de Velde, 2020) as well as the fertility-employment link (Wood et al., 2018), we argue these factors could be especially informative in this follow-up research as well. In addition, also whether the impact of these relative labour market characteristics on couples' gender dynamics around the transition to parenthood varies between native and migrant origin couples should be addressed. Since Southern European, Turkish and Moroccan origin groups display different settlement patterns compared to the native Belgian population, it would also be interesting to examine whether and to what extent different settlement patterns induce varying gender dynamics by migration background.

Fourth, future studies could examine whether similar gender patterns can be found in other European countries. Since countries vary in the extent to which policy designs challenge particular gender norms and imply subgroup differences in the access to these policies (Mussino & Duvander, 2016; Sainsbury, 2019), comparing different countries will also provide more information on the impact of policy designs on subgroup variation in couples' gender dynamics around family formation. In Belgium, precarious pre-birth employment positions of migrant origin women may be reinforced by unequal access to work-family reconciliation policies that primarily support women who are firmly established in the labour market, since access to both formal childcare and parental leave is – in contrast to Nordic countries - conditioned on stable employment positions. These specific labour market and institutional contexts shape how couples with different migration backgrounds organise their work and family life and are likely to be crucial for the interpretation of our results. For instance, studies for Sweden have found similar employment-fertility patterns for natives and migrants (Lundström & Andersson, 2012; Scott & Stanfors, 2011), which has been associated with the universal and inclusive Swedish welfare regime. Yet, it remains unclear whether and to what extent changes in couples' gender division of paid work around family formation vary by migration background in Nordic countries and European countries with more flexible labour markets such as the UK. Finally, it would be worthwhile to investigate variation in couples' gender dynamics by migration background around second- and higher-order births in future research and to address how the interplay between path-dependencies in labour market trajectories and work-family policies further unfolds over subsequent childbearing patterns.

4.7 Appendix

Table 4.3: Descriptive statistics by couples' migration background (in %).

	Native	Belgium - South-EU	South-EU - Belgium	Belgium - non-EU	Non-EU - Belgium	2G South-EU	2G non-EU	2G non-EU - 1G non-EU	1G non-EU - 2G non-EU	1G non-EU
Woman's origin										
Belgium	100	100	0	100	0	0	0	0	0	0
G1 South-EU	0	0	12.03	0	0	0	0	0	0	0
G2 South-EU	0	0	87.97	0	0	100	0	0	0	0
G1 Maghreb	0	0	0	0	23.53	0	0	0	51.33	58.24
G2 Maghreb	0	0	0	0	54.41	0	53.91	51.84	0	0
G1 Turkey	0	0	0	0	7.35	0	0	0	48.67	41.76
G2 Turkey	0	0	0	0	14.71	0	46.09	48.16	0	0
Man's origin										
Belgium	100	0	100	0	100	0	0	0	0	0
G1 South-EU	0	13.45	0	0	0	0	0	0	0	0
G2 South-EU	0	86.55	0	0	0	100	0	0	0	0
G1 Maghreb	0	0	0	24.53	0	0	0	51.84	0	58.24
G2 Maghreb	0	0	0	50.00	0	0	53.91	0	51.33	0
G1 Turkey	0	0	0	13.21	0	0	0	48.16	0	41.76
G2 Turkey	0	0	0	12.26	0	0	46.09	0	48.67	0
Woman's duration of residence at first childbirth										
1 year	0	0	0	0	0	0	0	0	17.70	8.43
2 years	0	0	0.83	0	0	0	0	0	18.14	16.48
3 years	0	0	0.83	0	1.47	0	0	0	13.27	6.51
4 years	0	0	0.41	0	4.41	0	0	0	10.62	7.28
5 to 10 years	0	0	3.73	0	7.35	0	0	0	12.83	20.69
10 years or more	0	0	4.98	0	17.65	0	0	0	18.58	35.63
Missing	0	0	1.24	0	0	0	0	0	8.85	4.98
Born in Belgium	100	100	87.97	100	69.12	100	100	100	0	0
Man's duration of residence at first childbirth										
1 year	0	0	0	0	1.47	0	0	8.16	0	6.90
2 years	0	0.45	0	1.89	0	0	0	20.79	0	12.64
3 years	0	0.90	0	1.89	0	0	0	15.79	0	8.81
4 years	0	0.00	0	3.77	0	0	0	10.00	0	3.83
5 to 10 years	0	4.48	0	16.04	0	0	0	20.79	0	23.75
10 years or more	0	6.73	0	13.21	0	0	0	16.84	0	40.61
Missing	0	0.90	0	0.94	0	0	0	7.63	0	3.45
Born in Belgium	100	86.55	100	62.26	100	100	100	0	100	0
Woman's age at migration										
0 to 5	0	0	2.90	0	10.29	0	0	0	4.87	13.79
6 to11	0	0	0.83	0	4.41	0	0	0	7.96	7.28
12 to 17	0	0	0	0	1.47	0	0	0	7.08	17.24
18 to 25	0	0	3.32	0	5.88	0	0	0	63.27	41.76
26 to 30	0	0	3.32	0	7.35	0	0	0	7.08	9.58
30+	0	0	0.41	0	1.47	0	0	0	0.88	5.36
Missing	0	0	1.24	0	0	0	0	0	8.85	4.98
Born in Belgium	100	100	88.00	100	69.12	100	100	100	0	0
Man's age at migration										
0 to 5	0	1.79	0	6.60	0	0	0	6.84	0	12.26
6 to11	0	2.24	0	1.89	0	0	0	2.89	0	7.28
12 to 17	0	1.35	0	1.89	0	0	0	3.68	0	8.05
18 to 25	0	4.48	0	15.09	0	0	0	42.37	0	32.95
26 to 30	0	1.79	0	8.49	0	0	0	28.42	0	21.46
30+	0	0.90	0	2.83	0	0	0	8.16	0	14.56
Missing	0	0.90	0	0.94	0	0	0	7.63	0	3.45
Born in Belgium	100	87.44	100	62.00	100	100	100	0	100	0

Table 4.3 (continued).

	Native	Belgium - South-EU	South-EU - Belgium	Belgium - non-EU	Non-EU - Belgium	2G South-EU	2G non-EU	2G non-EU - 1G non-EU	1G non-EU - 2G non-EU	1G non-EU
Woman's age at first childbirth										
Younger than 22	0.55	1.85	1.66	3.92	0	0.68	3.62	5.80	13.49	7.51
22 to 24	7.58	7.41	7.47	10.78	8.82	10.27	27.83	29.29	36.28	26.48
25 to 27	28.35	23.15	17.43	14.71	19.12	30.14	40.72	31.40	30.70	22.92
28 to 30	36.59	32.41	39.42	34.31	25.00	30.14	19.91	21.64	11.63	17.00
30 to 35	22.86	30.09	27.80	25.49	39.71	24.66	7.24	9.50	4.65	18.58
36 to 40	3.52	2.78	4.98	9.80	4.41	3.42	0.68	1.32	2.33	5.93
40+	0.55	2.31	1.24	0.98	2.94	0.68	0	1.06	0.93	1.58
Man's age at first childbirth										
Younger than 22	0.11	0.90	0	0	0	0	0.67	0.79	1.78	0.39
22 to 24	2.74	4.04	3.81	4.72	0	3.38	8.97	8.18	11.11	7.34
25 to 27	15.77	14.35	13.14	9.43	11.94	22.30	30.04	23.75	23.11	16.99
28 to 30	33.63	26.46	28.81	33.96	14.93	24.32	32.06	27.70	32.89	15.06
30 to 35	35.60	38.57	38.56	38.68	32.84	33.78	23.99	30.08	22.22	31.27
36 to 40	9.97	13.45	10.17	12.26	16.42	14.19	3.81	6.86	6.67	14.67
40+	2.19	2.24	5.51	0.94	23.88	2.03	0.45	2.64	2.22	14.29
N couples	913	223	241	106	68	149	447	380	226	261

Notes: Mixed origin couples and intergenerational non-EU origin couples are labelled as 'origin woman - origin man'.
Source: MIA Panel, 2005-2016, calculations by authors.

Figure 4.6: Partners' employment positions around the transition to parenthood by couples' migration background.

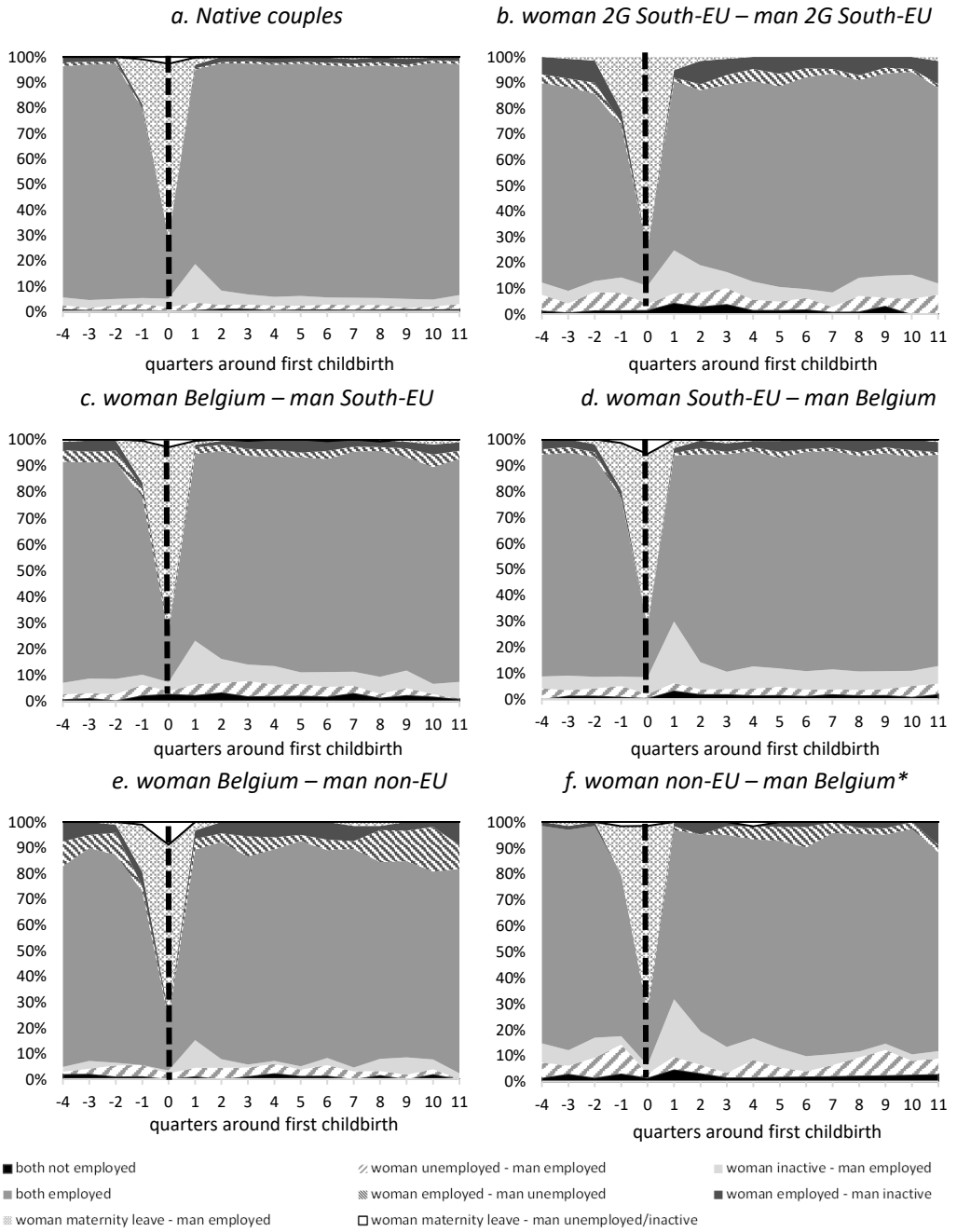
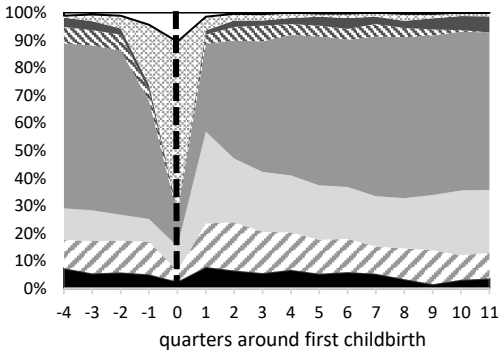
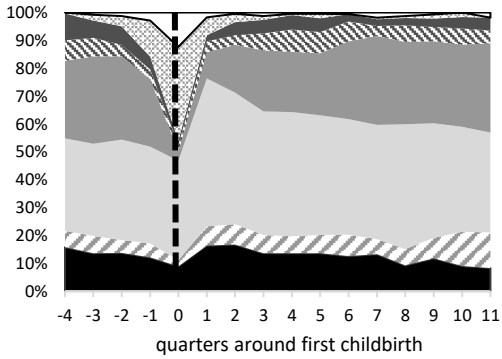


Figure 4.6 (continued).

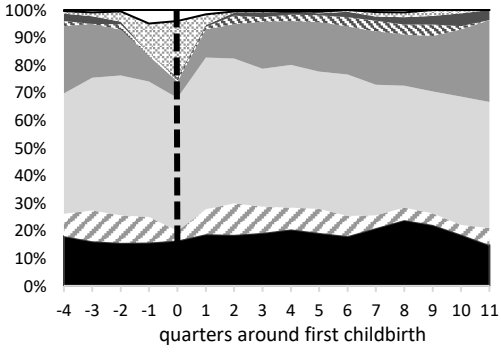
g. woman 2G non-EU – man 2G non-EU



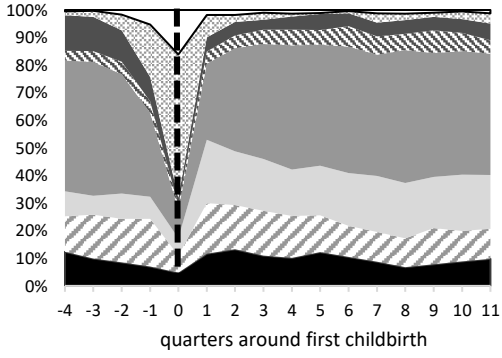
h. woman 1G non-EU – man 1G non-EU

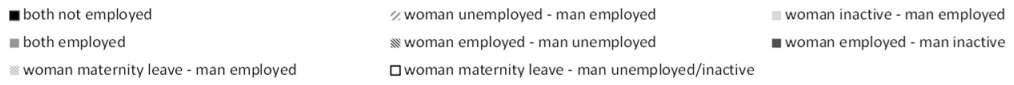


i. woman 1G non-EU – man 2G non-EU



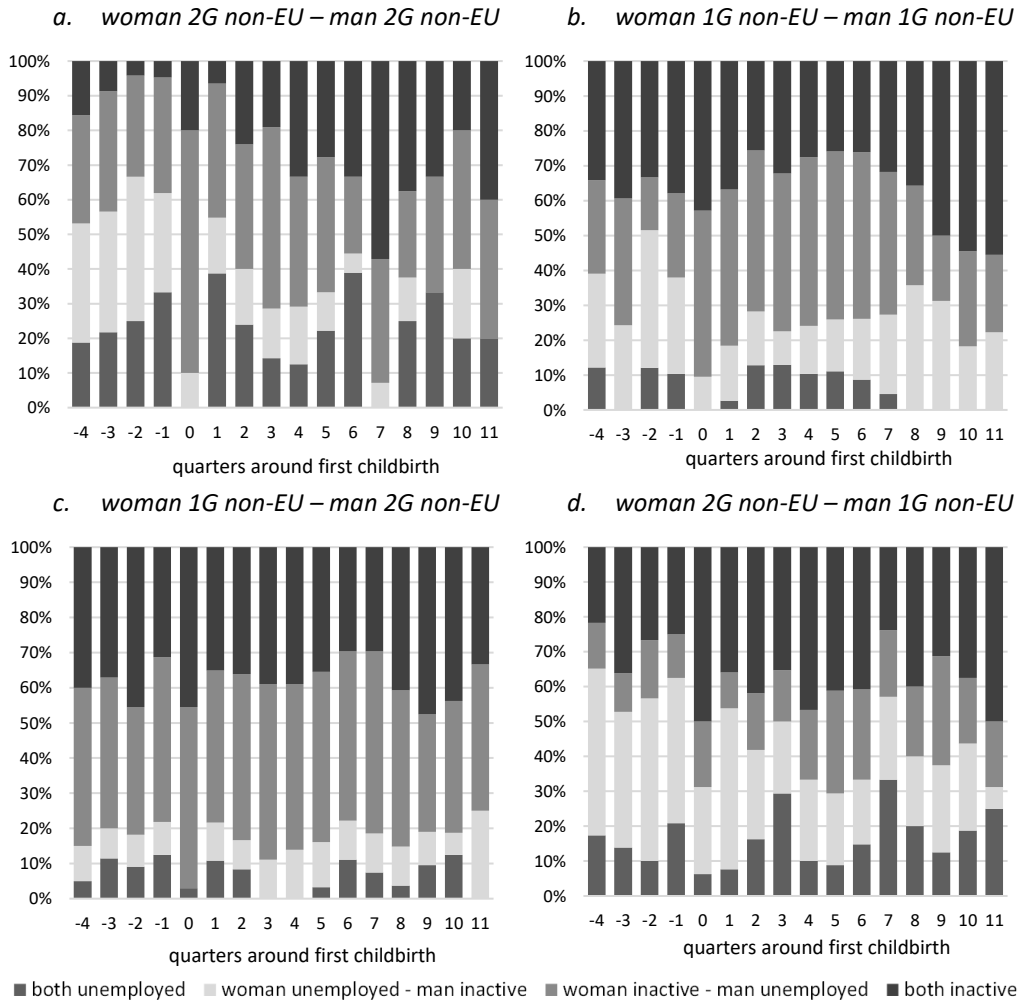
j. woman 2G non-EU – man 1G non-EU





** Less than 100 couples: 68 mixed non-EU origin couples with a migrant origin woman.*
Source: MIA Panel, 2005-2016, calculations by authors.
Sample: Figure 4.6 inlcudes all couples in our sample (Table 4.1).

Figure 4.7: Partners' employment positions around the transition to parenthood among jobless non-EU origin couples.



Sample: Figure 4.7 only includes jobless non-EU origin couples.
Source: MIA Panel, 2005-2016, calculations by authors.

Figure 4.8: Change in (relative) work intensity compared to the (relative) work intensity one year before first birth among couples where at least one partner is employed.

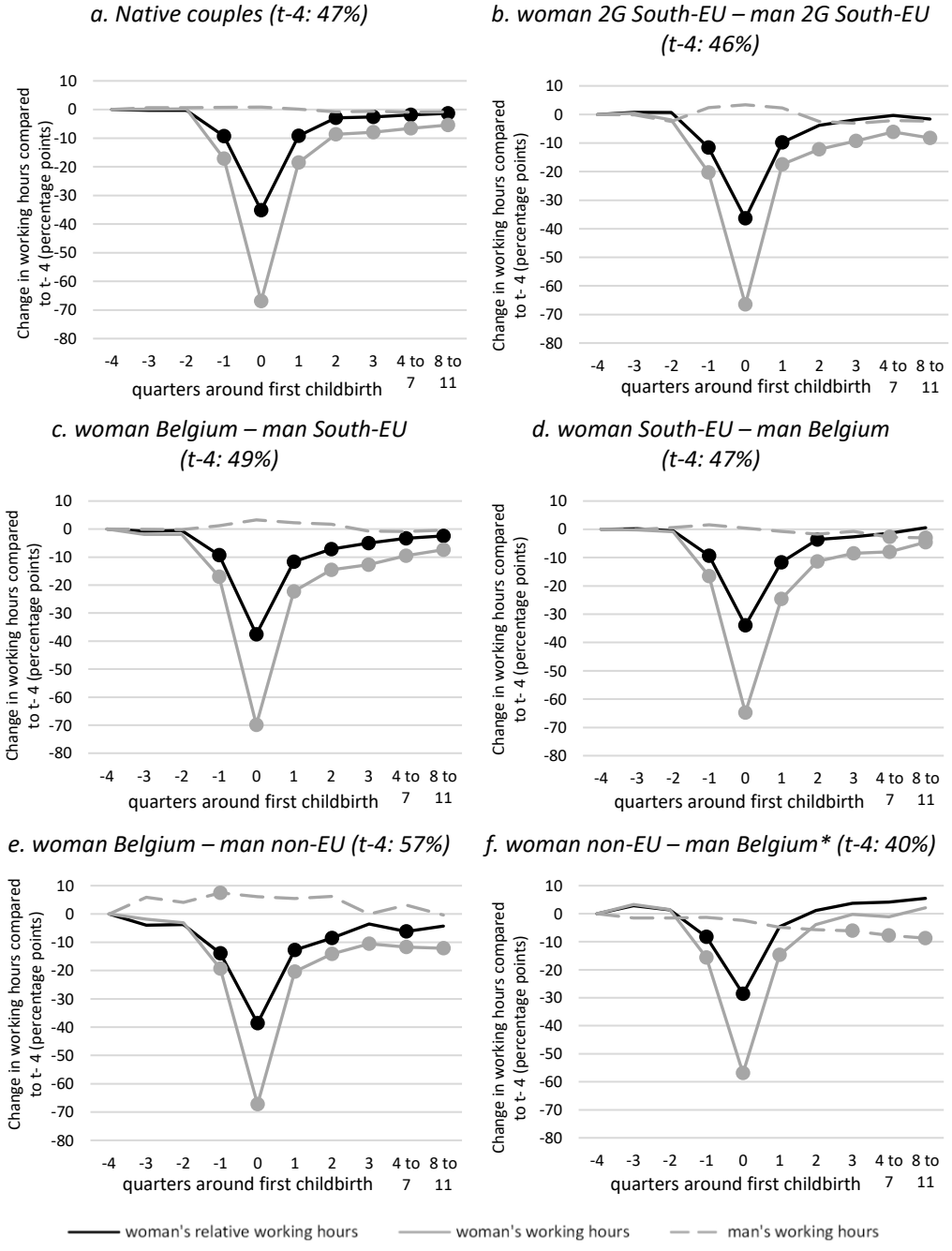
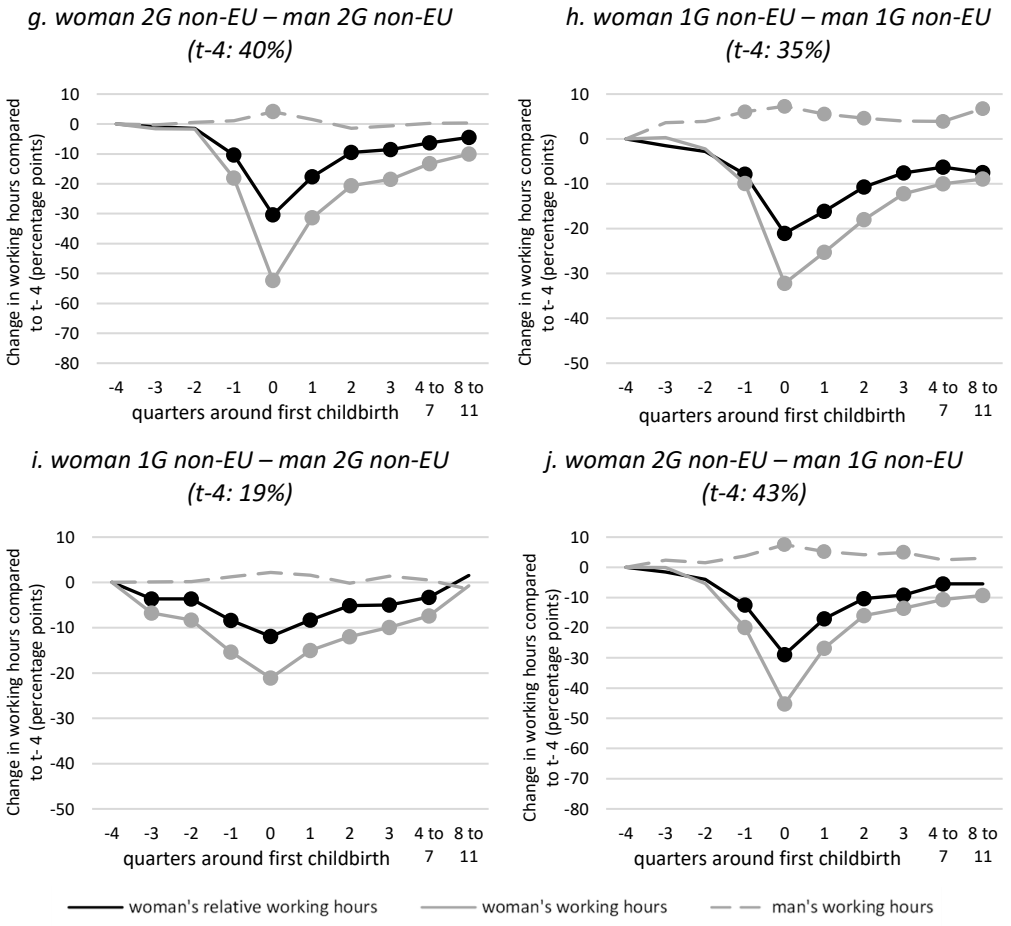


Figure 4.8 (continued).



** Less than 100 couples: 67 mixed non-EU origin couples with a migrant origin woman.*
Sample: Figure 4.8 excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results based on couple fixed-effects models for each couple type seperatly on the change in partners' (relative) work intensity around first childbirth including only time relative to the first birth.
Source: MIA Panel, 2005-2016, calculations by authors.

Table 4.4: Couple fixed-effects model on changes in women's relative work intensity around the transition to parenthood.

	Coef.	Sig.	95% Conf. Interval
Time around first childbirth (ref. -4Q)			
-3Q	-0.25		(-1.85; 1.36)
-2Q	-0.30		(-1.91; 1.31)
-1Q	-9.29	***	(-10.90;-7.67)
0 Q	-35.18	***	(-36.81; -33.55)
1Q	-9.19	***	(-10.81; -7.56)
2 Q	-2.96	***	(-4.59; -1.32)
3 Q	-2.57	**	(-4.21; -0.92)
4-7 Q	-1.84	**	(-3.16; -0.52)
8-11 Q	-1.35		(-2.82; 0.11)
Time * couples' migration background (ref. native couples)			
-3Q*Belgium-non-EU	-3.72		(-8.79; 1.35)
-3Q*non-EU-Belgium	3.06		(-3.02; 9.13)
-3Q*2G non-EU-2G non-EU	-0.70		(-3.59; 2.19)
-3Q*2G non-EU-1G non-EU	-1.27		(-4.39; 1.86)
-3Q*1G non-EU-2G non-EU	-3.37		(-7.34; 0.61)
-3Q*1G non-EU-1G non-EU	-1.26		(-4.95; 2.44)
-3Q*Belgium-South-EU	-0.54		(-4.16; 3.09)
-3Q*South-EU-Belgium	0.41		(-3.09; 3.91)
-3Q*2G South-EU-2G South-EU	1.00		(-3.29; 5.29)
-2Q*Belgium-non-EU	-3.46		(-8.59; 1.67)
-2Q*non-EU-Belgium	1.62		(-4.46; 7.70)
-2Q*2G non-EU-2G non-EU	-1.21		(-4.13; 1.70)
-2Q*2G non-EU-1G non-EU	-3.69	*	(-6.87; -0.52)
-2Q*1G non-EU-2G non-EU	-3.31		(-7.33; 0.70)
-2Q*1G non-EU-1G non-EU	-2.49		(-6.22; 1.24)
-2Q*Belgium-South-EU	-0.23		(-3.89; 3.43)
-2Q*South-EU-Belgium	-0.25		(-3.80; 3.30)
-2Q*2G South-EU-2G South-EU	0.98		(-3.36; 5.32)
-1Q*Belgium-non-EU	-4.68		(-9.88; 0.51)
-1Q*non-EU-Belgium	1.03		(-5.19; 7.25)
-1Q*2G non-EU-2G non-EU	-1.09		(-4.03; 1.85)
-1Q*2G non-EU-1G non-EU	-3.22	*	(-6.45; 0.00)
-1Q*1G non-EU-2G non-EU	0.95		(-3.18; 5.07)
-1Q*1G non-EU-1G non-EU	1.42		(-2.33; 5.17)
-1Q*Belgium-South-EU	-0.05		(-3.75; 3.65)
-1Q*South-EU-Belgium	-0.07		(-3.65; 3.50)
-1Q*2G South-EU-2G South-EU	-2.27		(-6.66; 2.12)
-0Q*Belgium-non-EU	-3.44		(-8.79; 1.90)
-0Q*non-EU-Belgium	6.55	*	(0.41; 12.69)
-0Q*2G non-EU-2G non-EU	4.84	***	(1.86; 7.81)
-0Q*2G non-EU-1G non-EU	6.27	***	(2.97; 9. 58)
-0Q*1G non-EU-2G non-EU	23.25	***	(19.15; 27.34)

Table 4.4 (continued).

	Coef.	Sig.	95% Conf. Interval
-0Q*1G non-EU-1G non-EU	14.12	***	(10.26; 17.98)
-0Q*Belgium-South-EU	-2.39		(-6.13; 1.34)
-0Q*South-EU-Belgium	1.23		(-2.41; 4.87)
-0Q*2G South-EU-2G South-EU	-1.22		(-5.66; 3.23)
1Q*Belgium-non-EU	-3.57		(-8.77; 1.63)
1Q*non-EU-Belgium	4.52		(-1.71; 10.74)
1Q*2G non-EU-2G non-EU	-8.47	***	(-11.44; -5.49)
1Q*2G non-EU-1G non-EU	-7.85	***	(-11.10;-4.60)
1Q*1G non-EU-2G non-EU	0.87		(-3.29; 5.03)
1Q*1G non-EU-1G non-EU	-6.96	***	(-10.82; -3.11)
1Q*Belgium-South-EU	-2.44		(-6.17; 1.30)
1Q*South-EU-Belgium	-2.43		(-6.06; 1.20)
1Q*2G South-EU-2G South-EU	-0.65		(-5.05; 3.74)
2Q*Belgium-non-EU	-5.54	*	(-10.75; -0.32)
2Q*non-EU-Belgium	4.06		(-2.18; 10.29)
2Q*2G non-EU-2G non-EU	-6.55	***	(-9.53; -3.57)
2Q*2G non-EU-1G non-EU	-7.40	***	(-10.70; -4.10)
2Q*1G non-EU-2G non-EU	-2.20		(-6.36; 1.96)
2Q*1G non-EU-1G non-EU	-7.73	***	(-11.57; -3.89)
2Q*Belgium-South-EU	-4.21	*	(-7.95; -0.46)
2Q*South-EU-Belgium	-0.63		(-4.24; 2.99)
2Q*2G South-EU-2G South-EU	-0.85		(-5.28; 3.58)
3Q*Belgium-non-EU	-1.02		(-6.27; 4.24)
3Q*non-EU-Belgium	6.24		(-0.02; 12.51)
3Q*2G non-EU-2G non-EU	-5.96	***	(-8.96; -2.97)
3Q*2G non-EU-1G non-EU	-6.64	***	(-9.95; -3.33)
3Q*1G non-EU-2G non-EU	-2.42		(-6.61; 1.77)
3Q*1G non-EU-1G non-EU	-5.01	*	(-8.86; -1.17)
3Q*Belgium-South-EU	-2.43		(-6.19; 1.34)
3Q*South-EU-Belgium	-0.11		(-3.75; 3.52)
3Q*2G South-EU-2G South-EU	0.71		(-3.75; 5.18)
4-7Q*Belgium-non-EU	-4.40	*	(-8.58; -0.22)
4-7Q*non-EU-Belgium	5.94	*	(0.98; 10.91)
4-7Q*2G non-EU-2G non-EU	-4.42	***	(-6.81; -2.04)
4-7Q*2G non-EU-1G non-EU	-3.61	**	(-6.21; -1.02)
4-7Q*1G non-EU-2G non-EU	-1.48		(-4.82; 1.86)
4-7Q*1G non-EU-1G non-EU	-4.49	**	(-7.54; -1.43)
4-7Q*Belgium-South-EU	-1.47		(-4.46; 1.52)
4-7Q*South-EU-Belgium	0.50		(-2.39; 3.39)
4-7Q*2G South-EU-2G South-EU	1.46		(-2.04; 4.96)
8-11Q*Belgium-non-EU	-2.93		(-7.40; 1.53)
8-11Q*non-EU-Belgium	6.83	*	(1.56; 12.10)

Table 4.4 (continued).

	Coef.	Sig.	95% Conf. Interval
8-11Q*2G non-EU-2G non-EU	-3.16	*	(-5.81; -0.52)
8-11Q*2G non-EU-1G non-EU	-4.10	**	(-6.89; -1.32)
8-11Q*1G non-EU-2G non-EU	2.89		(-0.84; 6.61)
8-11Q*1G non-EU-1G non-EU	-6.14	***	(-9.43; -2.86)
8-11Q*Belgium-South-EU	-1.12		(-4.34; 2.11)
8-11Q*South-EU-Belgium	1.93		(-1.18; 5.05)
8-11Q*2G South-EU-2G South-EU	-0.21		(-3.94; 3.51)
Constant	43.42	***	(42.78; 44.07)
N couples	33.524		
N couple quarters	2.816		

Sample: Table 4.4 excludes couples where both partners are not employed one year before first childbirth as well as couple quarters in which both partners are not employed (Table 4.1).
Methods: Results based on couple fixed-effects models for each couple type seperatly on the change in partners' (relative) work intensity around first childbirth including only time relative to the first birth.
Source: MIA Panel, 2005-2016, calculations by authors.

Chapter 5

Formal childcare uptake of native and second generation mothers: do local childcare expansions narrow migrant-native uptake gaps?

Abstract

Research indicates that the uptake of formal childcare is lower among migrant origin parents than among native parents in most European countries, and that these differentials extend to the second generation. Prior studies have identified the sheer availability of formal childcare places as a potential supply-side explanation for migrant-native differentials in uptake since this entails unequal access. Despite considerable investments in formal childcare availability in many European countries, it remains unclear whether increasing childcare availability effectively narrows uptake gaps for parents with a migration background. Using longitudinal microdata from the 2011 Belgian census and the population register which have been linked to longitudinal tax return data on childcare expenses and municipality-level data on childcare coverage for children aged 0-3, this study explores the relationship between increasing local childcare availability in the period 2010-2014 and migrant-native differences in formal childcare uptake. Municipality-level fixed-effects models are used to investigate the uptake of formal childcare among two-parent households with a native mother or a second generation mother of Southern European, Maghreb or Turkish origin.

Our results show that increasing childcare availability within municipalities has no differential effect on the uptake of formal childcare among Southern European and Turkish origin mothers compared to native mothers, but has a stronger positive effect on the uptake of formal childcare among Maghreb origin mothers compared to native mothers, in turn reducing uptake gaps. Hence, increasing local childcare availability can partially remediate cumbersome access to childcare among Maghreb origin women, but considerable migrant-native uptake gaps remain. These results suggest that the positive effect of childcare availability on reducing migrant-native uptake gaps may be moderated by several (complementary) demand-side and supply-side factors, but more research is required in this respect.

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5.1 Introduction

Over the past decades, European countries have progressively adopted a social investment perspective, which implies a shift in social policy from solely protecting against social risks to also supporting labour market integration and human capital accumulation (Cantillon & Van Lancker, 2013; Hemerijck, 2018). In this view, many countries have increasingly invested in the provision of formal childcare services for children aged 0-3 since it plays a crucial role in enabling parents' - and especially mothers'- labour market participation (Hegewisch & Gornick, 2011) and benefits children's cognitive development and their later school careers, which may in turn improve labour market outcomes and reduce poverty risks in later life (Burger, 2010; Camilli, Vargas, Ryan, & Barnett, 2010). Moreover, as these benefits are presumably larger for disadvantaged families, formal childcare has the potential to mitigate social inequalities over the life course. Research indicates, however, that the uptake of formal childcare is lower among parents with a migration background than among parents without a migration background (i.e. native parents)[53] in most European countries, and that these differentials extend to the second generation (Biegel et al., 2021; Driessen, 2004; Schober & Spiess, 2013; Teppers, Schepers, & Van Regenmortel, 2019).

The limited but growing body of literature on migrant-native differences in formal childcare uptake in Europe identifies both demand-side and supply-side factors as complementary explanations. On the one hand, researchers attribute the lower uptake of migrant origin parents to a lower demand for formal childcare compared to native parents as a result of differential work-family preferences, a weaker labour market attachment, and more frequent use of informal childcare (Biegel et al., 2021; Seibel & Hedegaard, 2017; Wall & José, 2004). On the other hand, empirical work has also highlighted supply-side explanations such as a limited availability of formal childcare places entailing unequal access, difficulties regarding the affordability of formal childcare, or the incompatibility between the opening hours of childcare services and the working hours of migrant origin parents (Vandenbroeck et al., 2008; Vandenbroeck & Lazzari, 2014; Wall & José, 2004). This study focuses on the supply-side, and more specifically explores how formal childcare availability affects the uptake of formal childcare among households with native and second generation migrant mothers in

[53] In this study, natives are defined as individuals who have a Belgian nationality at birth and with two parents that have a Belgian nationality at birth. Due to a lack of information on nationality at birth of the grandparents, we were not able to distinguish the third generation from natives.

Belgium, hereby considering origin groups related to the large post-WWII labour migration.

While cross-national studies indicate that socio-economic gradients in formal childcare uptake are smaller in countries with a higher availability of childcare places (Pavolini & Van Lancker, 2018), longitudinal research on the impact of increasing availability on inequalities in formal childcare uptake over time is limited, especially with respect to uptake differentials by migration background. This is remarkable since the availability of formal childcare services has increased substantially in most European countries from the late 1990s onwards and further expanding formal childcare availability is an explicit European policy target (Daly & Ferragina, 2018). Belgium is, alongside France and Nordic countries, a vanguard country with respect to formal childcare and the provision has continuously increased over the past decades. Available longitudinal research suggests that expansions in childcare availability increase parents' formal childcare use and particularly improve access for parents with a lower socio-economic background, resulting in decreasing socio-economic gradients in childcare uptake (Farfan-Portet et al., 2011; Jessen et al., 2020; Sibley et al., 2015). Regarding differentials by migration background, Jessen et al. (2020) find for Germany that reducing regional childcare shortages does not diminish uptake gaps between native-born parents and migrant parents, with the latter defined as both parents (or the single parent) being born in a non-Western European and non-North American country. Hitherto, it remains unclear, however, whether and to what extent increasing childcare availability effectively narrows uptake gaps between native and second generation migrant parents.

This study therefore explores the impact of changes in childcare availability in the period 2010-2014 on the uptake of formal childcare among two-parent households in which the mother has no migration background, or a second generation Southern European, Maghreb or Turkish background. We contribute to the literature on migrant-native gaps in formal childcare uptake in four ways. First, by using longitudinal microdata from the 2011 Belgian census and the population register which have been linked to longitudinal tax return data on childcare expenses and municipality-level data on childcare coverage for children aged 0-3, we examine whether increasing childcare coverage over time has a stronger positive effect on the formal childcare uptake of households with a second generation migrant mother compared to households with a native mother, resulting in decreasing migrant-native uptake gaps. This study is largely explorative and the descriptive analyses provide a first indication of whether and to what extent increasing childcare availability can narrow migrant-native differentials in formal childcare uptake, which is extremely valuable for policy makers since many European countries have made considerable investments in formal childcare

availability. Second, since Belgium is characterised by substantial variation in childcare coverage between municipalities and the origin groups considered display different settlement patterns compared to the native Belgian population as a result of their migration history, they are subject to a different local availability of formal childcare. In order to avoid biased estimates of the effect of childcare availability on parents' formal childcare uptake by confounding between-municipality variation in availability and within-municipality variation, we use municipality-level fixed effects models that only exploit variation within municipalities over time. Third, while available research mainly focusses on migrant origin parents of the first generation, this study analyses differences in the uptake of formal childcare between households with a native versus second generation mother, hereby distinguishing different origin groups. It is increasingly important to address the factors that induce lower uptake among second generation migrant mothers in the European context characterised by an increasingly large second generation and an employment gap between native and second generation women which is larger among women with children than among childless women (Holland & de Valk, 2017). Since European countries are challenged by high welfare state costs connected to accelerated population ageing and shrinking working age populations (e.g. health care, pensions), increasing the labour force participation of migrant origin women stands high on both academic and policy agendas. Fourth, the Belgian setting provides an interesting case to examine how changes in childcare availability over time affect uptake differentials by migration background. Although Belgium was already included in the short list of countries that meet the Barcelona target of 33% childcare coverage for children aged 0–3 since the early 2000s, supply does not yet meet demand and Belgium exhibits larger socio-economic differences in the uptake of formal childcare compared to other European countries (Ghysels & Van Lancker, 2009; Pavolini & Van Lancker, 2018). Furthermore, Belgium is an old immigration country with a large share of second generation migrants, but also exhibits one of the largest employment gaps between native and second generation migrant women across Europe (Heath et al., 2008).

5.2 The Belgian context

5.2.1 Formal childcare system

Belgium is characterised by a long history of reconciliation policies and is, alongside France and Nordic countries, considered as a context in which work and family are relatively compatible (Leitner, 2003; Matysiak & Węziak-Białowolska, 2016; Saxonberg,

2013). All mothers are entitled to 15 weeks of maternity leave[54] (1 week before and 9 weeks after the birth of the child are obligatory), which is a relatively short period compared to other European countries. In addition, parents can take up parental leave until the child is 12 years old - which is an individual right conditioned by parents' recent labour market trajectories – while receiving a relatively low flat-rate benefit. The Belgian parental leave system is relatively flexible and parents can reduce their working hours by (i) 100% for 4 months (3 months until 01.06.2012), (ii) 50% for 8 months, (iii) 20% for 20 months, or (iv) 10% for 40 months, or combine periods of full-time and part-time leave. Further, Belgium exhibits a relatively widespread formal childcare system for children under age 3 (since mothers have 3 months of maternity leave, children can enrol from the age of 3 months) and all children are legally entitled to pre-primary education from the age of 2.5, which is free of charge and part of the Belgian educational system.

The provision of formal childcare for young children is very fragmented in Belgium. As formal childcare falls under the responsibility of the Communities[55], it is regulated by three institutions: the Bureau of Birth and Childhood (Office de la Naissance et de l'Enfance - ONE) for the French Community, Child and Family (Kind en Gezin - K&G) for the Flemish Community and Kaleido for the German-speaking Community[56]. Formal childcare can be provided centre-based (i.e. crèches) or home-based (i.e. childminders), with the majority of childcare places being centre-based. During the observation period considered in this paper, the share of centre-based childcare places has increased from 65% of all places in 2010 to 68% of all childcare places in 2014 in the French Community and from 57% to 62% of all places in the Flemish Community (Kind en Gezin, 2020a; ONE, 2020). Within each Community, there is considerable variation between municipalities, however, in the share of each childcare type and its evolution in the period 2010-2014. Further, childcare services can be subsidised or non-subsidised by ONE/K&G[57], which implies specific conditions regarding e.g. their prices and opening

[54] Self-employed mothers have a separate system and are entitled to 12 weeks of maternity leave (1 week before and 2 weeks after the birth of the child are obligatory).

[55] The Flemish Community covers Flanders and the Dutch language area of the Brussels-Capital Region, the French Community covers the French language area of Wallonia and of the Brussels-Capital Region, and the German-speaking Community covers the German language area, which is a small part of the province of Liège in Wallonia.

[56] Since the inhabitants of the German-Speaking Community represent approximately 0.70 percent of the Belgian population, we only discuss the childcare system in the French and Flemish Community.

[57] Since 01.04.2014, the Flemish Community adopts different subsidy levels and in 2014, 16% of all available places was not subsidised (level 0), 12% received only the basic subsidy implying

hours. Whereas the majority of all childcare places is subsidised in both Communities during our observation period, municipalities vary considerably regarding the share of subsidised childcare places and its evolution in 2010-2014.

The availability, price, flexibility and quality are considered as important characteristics of childcare provision that affect parents' use of formal childcare. In contrast to the legal entitlement to formal childcare in Nordic countries, supply does not meet demand in Belgium (European Commission, 2014). In 2010, childcare coverage rates for children aged 0-3 amounted on average to 27% and 37% in the French and Flemish Community respectively (Kind en Gezin, 2010; ONE, 2020). Besides this differential availability of childcare in the Communities, there is also considerable variation between municipalities, with a generally higher supply in more affluent municipalities (Van Lancker & Vandenbroeck, 2019). Since childcare markets are geographically very small (Cleveland & Krashinsky, 2009), it is crucial that childcare places are located where parents with young children reside. Variation between municipalities aside, the availability of formal childcare has increased substantially within most municipalities from the early 2000s onwards, but municipalities vary in the degree to which childcare coverage rates have changed (Dujardin, Fonder, & Lejeune, 2018; Van Lancker & Vandenbroeck, 2019). As a result of these supply shortages, long waiting lists occur and parents have to arrange childcare almost as soon as the pregnancy is known (MAS, 2007). To ensure inclusiveness, subsidised childcare services[58] have to adopt priority criteria depending on parents' employment status, family status or socio-economic status such as priority to working parents[59], single parents or low-income parents (European Commission, 2014; Kind en Gezin, 2010). However, since the heads of childcare services have large autonomy in applying these criteria, priority is in practice predominantly given to working parents, to parents who register early on waiting lists or to siblings of children who are already enrolled (Vandenbroeck & Bauters, 2016; Vandenbroeck et al., 2008). Giving priority to these parents with a more stable demand for care is more convenient for childcare providers since subsidised childcare services need to ensure a 75% occupancy rate each year.

conditions regarding opening days (level 1), and 72% received income-related subsidies on top of the basic subsidy implying additional conditions regarding fees, opening hours, priority criteria and occupancy rates (level 2) (Kind en Gezin, 2020b). In 2014, there were not yet childcare places receiving an additional subsidy on top of the income-related subsidy (level 3) for having a proactive admission policy that favours children from vulnerable families.

[58] Since 01.04.2014 only services receiving income-related level (step 2) in the Flemish Community.

[59] During our observation period, the Flemish Community also refers to parents who are actively seeking employment or to parents who are in education or training.

Regarding the price, childcare costs for parents are relatively affordable in Belgium compared to other European countries, as all subsidised childcare services have to adopt income-related fees[60] (European Commission, 2019). In 2010, 72% of all childcare places in the French Community and 71% in the Flemish Community had income-related fees, which remained stable during our observation period. There are considerable differences between municipalities, however, regarding the availability of and evolution in childcare places with income-related fees and research indicates that these places are not more available in less affluent municipalities (Van Lancker & Vandenbroeck, 2019; Vandenbroeck & Bauters, 2016). Although fees are set freely on the market in non-subsidised childcare services, most adopt fees around the maximum fee in subsidised childcare (Farfan-Portet et al., 2011). In addition, childcare expenses from all approved childcare services (both subsidised and non-subsidised) are tax deductible[61]. With respect to flexibility, all subsidised childcare services must be opened at least 220 days a year and 10 hours a day between 6.30 a.m. and 6.30 p.m. on weekdays (11 hours a day in the Flemish Community[62]). In contrast, non-subsidised services have no requirements regarding opening hours in both Communities. Finally, ONE and K&G set strict quality guidelines for all approved childcare services regarding e.g. the rooms and equipment, child–staff ratio and staff level of education. While this entails no considerable variation in quality between municipalities, the specific requirements differ between the Communities and types of childcare (centre-based versus home-based).

5.2.2 Migration history: Southern European, Maghreb and Turkish origin groups

Belgium is an old immigration country, which resulted in a substantial and increasing share of the population having a migration background. Similar to other Northern and Western European countries, the Belgian post-WWII migration history can be divided into three migration waves (Van Mol & De Valk, 2016). First, Belgium recruited guest workers to address labour shortages after the Second World War originating from Southern Europe (starting in 1946), as well as Turkey and Morocco (from 1964 onwards). Second, during the 1970s and 1980s migration mainly occurred in the

[60] From 16.02.2009 to 01.04.2014 also non-subsidised childcare services in the Flemish Community could decide to adopt income related fees. In this case, the government supplements the difference between the parents' contribution, calculated based on their income, to a guaranteed day price.

[61] All parents are eligible for the tax deduction as long as at least one parent has a work-related income, including unemployment benefits or other replacement incomes.

[62] Since 01.04.2014, all subsidised childcare services in the Flemish Community must be open for at least 220 days a year and services receiving additional income-related subsidies (level 2) must also be opened 11 hours a day between 6 a.m. and 8 p.m.

context of family reunification and marriage migration. Following the migration stop of non-European guest workers in 1974, many Turkish and Moroccan guest workers rapidly decided to settle permanently in Belgium and bring over their spouses and family members. In contrast, there was a larger extent of return migration among Southern European labour migrants due to economic growth in their origin countries and because they could move within Europe without legal restrictions after 1974. In subsequent decades, a substantial share of second generation Turks and Moroccans continued to marry a partner from their country of origin, a pattern which rarely occurred among Southern European origin groups (Corijn & Lodewijckx, 2009; Hartung et al., 2011). Finally, the third migration wave (from the 1990s onwards) is characterised by more heterogeneous immigration flows of family migrants and intra-European migrants, as well as considerable fluctuations in the levels of refugees and asylum seekers.

As a result of their long migration history, Southern European (mainly Italian), Maghreb (with the overwhelming majority originating from Morocco) and Turkish origin groups constitute – after neighbouring countries - the largest foreign origin groups in Belgium, with a large second generation (FOD WASO & UNIA, 2019). The specific settlement patterns of Maghreb and Turkish origin groups resulted in so called "transplanted communities" that maintain strong bonds with the communities in the region of origin and facilitate transnational marriages and new migrations (Kesteloot, 1985; Reniers, 1999). Since the settlement patterns of these origin groups differ considerably from that of the native Belgian population, they have a different local availability of formal childcare (Biegel et al., 2021; Vandenbroeck et al., 2008). The majority of Southern European origin groups still resides close to the former mining sites in Wallonia (e.g. Charleroi, Liège, Mons) and North-East Flanders (i.e. Limburg), and the former industrial belt in Wallonia. Turkish origin groups not only settled in the former industrial areas in Limburg and Wallonia, but also in and around large cities in Flanders (e.g. Antwerp, Ghent) and Brussels, characterised by large secondary labour markets. Moroccan origin groups are mainly concentrated in and around Brussels and Antwerp. Partly due to the housing market and the generally lower socio-economic status of migrants and their descendants, these origin groups are still concentrated in the more disadvantaged dense inner neighbourhoods where they originally settled and newly arriving migrants keep settling in these neighbourhoods (Imeraj, Willaert, & de Valk, 2018). There are, however, suburbanisation processes in which particularly migrants with better socio-economic positions move outside the city centres (de Valk & Willaert, 2012; Pannecoucke & De Decker, 2015).

Research for Belgium consistently shows that although the migrant-native employment gap is more pronounced among the first generation, the labour market situation of

second generation migrant women is generally weaker compared to that of native Belgian women. Particularly second generation Turkish and Maghreb origin women exhibit a weak labour market attachment, since they not only display lower employment rates than native Belgian women, but are also characterised by less stable employment trajectories and overrepresented in part-time employment and employment sectors with low wages and irregular working hours (FOD WASO & UNIA, 2019; Maes et al., 2019). Second generation Southern European origin women hold an intermediate position between the labour market positions of native Belgian women on the one hand, and those of Turkish and Maghreb origin women on the other hand.

5.3 Theoretical framework

Available research highlights that inequalities in formal childcare uptake are partly related to a limited availability of formal childcare places, since this entails a differential access for parents with different socio-economic backgrounds (Pavolini & Van Lancker, 2018; Vandenbroeck & Lazzari, 2014). In a context of supply shortages and priority criteria that disproportionally affect parents with limited institutional knowledge of enrolment procedures, as well as parents with unstable employment trajectories and irregular working hours since their demand for care is difficult to predict, especially parents without a migration background are more likely to overcome the barriers induced by the lack of childcare places (Biegel et al., 2021; Farfan-Portet et al., 2011; Vandenbroeck et al., 2008; Vandenbroeck & Lazzari, 2014). In this respect, prior research for Brussels indicates that migrant origin parents start their search for formal childcare significantly later than native Belgian parents (Vandenbroeck et al., 2008). Therefore, increasing local childcare availability may particularly improve access for households with a migrant origin mother, as this entails less competition for the available places, which may in turn reduce uptake gaps with households with a native mother. However, whether and the degree to which local childcare expansions affect migrant-native uptake gaps may depend on the formal childcare coverage level. In this respect, Van Lancker (2018) concludes that childcare expenditures should entail a strong expansion in formal childcare in order to reduce socio-economic inequalities, as additional childcare places will first benefit higher income households when supply is insufficient. In addition, the limited migrant-native differentials in the uptake of formal childcare in Sweden have been related to the sufficient supply of childcare places and a longitudinal comparison suggests that childcare expansions not necessarily benefit vulnerable groups, whereas universal coverage does (Sainsbury, 2019). Hence, it is likely that early local childcare expansions not yet reduce migrant-native uptake gaps due to an unmet demand of native parents, but that increasing local childcare

availability only improves access for migrant origin parents when coverage levels become higher. Therefore, our first hypothesis guiding the analyses is the following:

H1a: Increasing local childcare availability has a larger positive effect on the uptake of formal childcare among households with a second generation migrant mother compared to households with a native mother, resulting in decreasing migrant-native uptake gaps.

H1b: Whether and the degree to which increasing local childcare availability reduces migrant-native uptake gaps depends on the childcare coverage level.

This study is largely explorative as there are hitherto, to our knowledge, no longitudinal studies addressing the impact of increasing childcare availability on the uptake of formal childcare among native and migrant origin parents. However, five factors can be identified in the literature which may entail a lower formal childcare uptake among migrant origin parents and may moderate whether and the degree to which increasing local childcare availability affects uptake differentials by migration background. First, if childcare places are limited, migrant origin mothers - particularly of Turkish or Maghreb origin - may face more barriers in accessing affordable childcare as they are less likely than native mothers to secure a subsidised childcare slot in time due to a more limited knowledge of the complex childcare system, as well as lower employment stability (Elloukmani & Ou-Salah, 2018). Childcare without income-related fees may also be unaffordable or entail limited net income gains from employment for migrant origin mothers who generally have lower wages than native mothers. Hence, increasing the local availability of formal childcare may diminish uptake gaps with native mothers by reducing the costs of formal childcare for migrant origin mothers. However, whether and the degree to which increasing local childcare availability affects migrant-native uptake gaps is moderated by the share of subsidised childcare places in the additionally created places.

Second, since migrant origin women - especially of Turkish or Maghreb origin - are overrepresented in jobs with atypical working hours, this may be incompatible with the opening hours of most childcare services (Wall & José, 2004). If local childcare availability increases, competition for places in services with a higher degree of flexibility (e.g. longer or non-standard opening hours) will likely be less fierce and may in turn entail smaller migrant-native uptake gaps. Yet, the evolution in the share of flexible childcare places may moderate whether and to what extent increasing local availability has an impact on migrant-native uptake gaps.

Third, it is likely that parents have different preferences regarding several aspects of formal childcare, which may also vary by migration background, such as the type of

childcare (home-based versus centred-based), the diversity in the childcare staff and enrolled children, or the consideration of different cultures (Fram & Kim, 2008; Jessen et al., 2020). Since migrant origin parents may be more likely to find a childcare place that covers all their preferences when there are more places available, increasing local childcare availability may narrow migrant-native uptake gaps. The degree to which increasing local availability affects uptake gaps will depend, however, on the extent to which this entails more childcare places that cover the (specific) preferences of migrant origin mothers.

Fourth, parents' work-family preferences may moderate the impact of local childcare expansions on uptake differentials by migration background. To the extent that increasing local childcare availability induces more favourable preferences towards using formal childcare among migrant origin households and it becomes more acceptable to use formal childcare when local availability increases and more people in their social network use it (Neimanns, 2021; Vandenbroeck et al., 2008; Zoch & Schober, 2018), uptake gaps with native mothers may become smaller. However, in case differential socialisation contexts (de Valk, 2008; Grunow & Evertsson, 2016; Khoudja & Fleischmann, 2014) or limited labour market prospects (Elloukmani & Ou-Salah, 2018; Friedman et al., 1994) foster more traditional work-family attitudes among second generation women of Southern European, Maghreb or Turkish origin, they may be less likely than native women to outsource the care of young children, regardless of the local availability of formal childcare.

Finally, in case of local shortages in formal childcare, migrant origin parents may rely on informal childcare to combine work and family. Given the generally low labour market participation of first generation migrant women, particularly of Turkish or Maghreb origin, households with a second generation migrant mothers may also have more access to grandparents as informal care providers compared to households with native mothers (Biegel et al., 2021). Consequently, if local childcare availability increases, migrant origin mothers may substitute informal childcare by formal childcare, in turn resulting in reduced migrant-native gaps in the uptake of formal childcare. Yet, even when formal childcare becomes more available, informal childcare may be a more flexible, affordable and/or more preferable option as primary care source than formal childcare for migrant origin mothers, which would again moderate the impact of local childcare expansions on migrant-native gaps in uptake (Seibel & Hedegaard, 2017; Wall & José, 2004).

Considering these moderating factors, it is likely that the impact of local childcare expansions on the uptake of formal childcare differs between households with a

Southern European, Maghreb and Turkish origin mother due to their differential profiles and contexts. Our second hypothesis guiding the analyses is therefore:

H2: Whether and the degree to which increasing local childcare availability reduces the uptake gap with native mothers varies by the origin group of second generation migrant mothers.

5.4 Data and Methods

5.4.1 Data

We use data from the Belgian Census of 2011 that covers the entire population legally residing in Belgium on January 1, 2011. The 2011 Census data has been linked to i) longitudinal microdata on household composition and place of residence from the population registers for the period 2010-2015, ii) longitudinal microdata on income and childcare expenses from the tax return register for the period 2010-2015, and iii) municipality-level contextual data from K&G and ONE on the availability of formal childcare services for children aged 0-3 for the period 2010-2015. Since the population registers provide information on descent, we can derive individuals' migration background. Natives are defined as individuals who have a Belgian nationality at birth and with two parents that have a Belgian nationality at birth. An individual is considered to be of migrant origin when the person himself or one of the parents has a nationality at birth that is not Belgian. Individuals with a migration background who are born in Belgium are defined as the second generation and individuals with a migration background who are not born in Belgium are defined as the first generation[63]. When both parents of second generation individuals have a different nationality at birth that is not Belgian, origin reflects the nationality at birth of the mother.

For the analyses, we use the mother as the unit of analysis, and we examine the use of formal childcare between 2010 and 2014 among two-parent households in which the mother has i) no migration background (N: 220,542; hereafter, native mothers), ii) a second generation Southern European background (N: 15,246; hereafter, 2G South-EU), iii) a second generation Maghreb background (N: 9,301; hereafter, 2G Maghreb), or iv) a second generation Turkish background (N: 4,629; hereafter, 2G Turkey). Formal childcare uptake is a time-varying dummy coded variable with a value of 1 if the father or mother has indicated an amount for tax reduction for childcare expenses in their annual tax return form, and a value of 0 if they did not declare any expenses for formal

[63] Individuals who immigrated before the age of 18 (i.e. generation 1.5) are considered as first generation migrants and therefore excluded in this study.

childcare[64]. In each year, we limit our analyses to households with only one (first) child since we are unable to identify with our data whether the declared childcare expenses indicate the use of formal childcare or another expense such as out-of-school care for a child older than 2.5 years in case households have more than one child[65]. This selection also allows us to capture parents' first experience with formal childcare. Further, we only consider households whose first child is at least 9 months old at the end of that year to exclude mothers on maternity leave (since mothers have 3 months of maternity leave, children can enrol in formal childcare from the age of 3 months) and mothers who immediately take up full-time parental leave afterwards[66]. In addition, we only include households whose first child is maximum 2.5 years old at the end of that year since almost all children are enrolled in kindergarten from that age onwards. Finally, we exclude households in which the mother is younger than 18 years and focus only on mothers who are co-residing with the father of the child since we are not able to identify with the tax return data whether or not formal childcare is used among parents who are not co-residing due to 'fiscal co-parenting' in case the living arrangement of the children is evenly distributed[67].

5.4.2 Methods

Since our data provides in each year information on individuals' formal childcare uptake and their place of residence, we compare the uptake of formal childcare among households with native and second generation migrant mothers living in the same municipality by using municipality-level fixed-effects models that only exploit variation within municipalities over time (Allison, 1984; Stock & Watson, 2015). In doing so, we avoid biased estimates of the effect of childcare availability on childcare uptake by confounding variation in availability between municipalities and variation within municipalities over time. This method implies the inclusion of municipality dummies that control for all time-constant differences between municipalities. In order to obtain robust estimations, we perform separate analyses for each migrant origin group (2G

[64] The indicator of parents' childcare use based on the tax return data was validated against data from K&G and ONE for each province, indicating that tax deduction provided a valid indicator of formal childcare uptake (results available on request).

[65] This is due to the fact that parents can indicate an amount for tax reduction for childcare expenses for children until the age of 12.

[66] Considering children who are at least 9 months old at the end of the year implies that they could have been enrolled in formal childcare for 6 months during that year (or 3 months in case full-time parental leave is directly used after maternity leave). The validation indicated that this age range best approximates the results of K&G and ONE.

[67] Table 5.2 in Appendix indicates how many households are excluded for each step of our sample selection.

South-EU/2G Maghreb/2G Turkey) and distinguish for each migrant origin group the municipalities where at least 100 households with a second generation migrant mother reside. The remaining municipalities are collapsed in provinces. This approach allows us to include all native mothers in all three sets of analyses (albeit with different clustering of municipalities depending on the migrant group considered) and avoids the exclusion of households due to small sample sizes in some municipalities.

For each migrant origin group, we estimate three logit models. *Model 1* investigates how changes in childcare availability within municipalities over time affect mothers' uptake of formal childcare and only includes i) the fixed-effects for the (clustered) municipalities, and ii) local childcare coverage (quadratic specification). Local childcare coverage is a time-varying variable and equals in each year the amount of formal childcare places per 100 children aged 0–3 in each municipality. A quadratic specification is used in order to allow that the impact of changes in childcare availability varies by the level of childcare coverage. The municipality dummies are effect coded, which allows us to calculate predicted probabilities for the average uptake across municipalities. *Model 2* additionally controls for i) mothers' origin group (natives are used as reference category), and ii) the interaction between mothers' origin group and the municipality fixed-effects to allow different regional patterns of uptake by origin group. *Model 3* addresses whether the impact of increasing local childcare availability on formal childcare uptake varies by mothers' origin group and includes the interaction between mothers' origin group and local childcare coverage (quadratic specification) in addition to Model 2. To visualise the effect of increasing local childcare availability on mothers' formal childcare uptake, we estimate for each origin group predicted probabilities and average marginal effects at different childcare coverage levels using the margins command in Stata/MP 17.

Finally, as a sensitivity analysis, *Model 4* takes the main socio-demographic characteristics into account that have been identified in the literature affecting parents' the uptake of formal childcare. The inclusion of socio-demographic characteristics in *Model 4* does not interfere with the descriptive aim of the paper, as we merely control for composition in terms of i) mothers' educational level, ii) mother's age at first childbirth, iii) the age of the first child at the end of the year, and iv) the fathers' migration background, rather than providing more substantive explanations for migrant-native gaps in the uptake of formal childcare. Mother's educational level is a time-constant variable representing the highest level of education in 2011 and distinguishes four categories: low (ISCED 0-2), medium (ISCED 3-4), high (ISCED 5-6) and unknown. Mother's age at first childbirth is a time-constant continuous variable and the age of the first child at the end of the year is a time-varying continuous variable. The origin of the father is a time-constant variable and distinguishes four categories:

native, first generation migrant, second generation migrant, and unknown origin. Among migrant origin women with a migrant origin parent, the overwhelming majority belongs to the same origin group. Table 5.1 provides an overview of the distribution of the covariates and sample sizes by mothers' origin group.

Table 5.1: Distribution of the covariates and sample sizes by mothers' origin group among two-parent households with one child (in %).

	Native	**2G South-EU**	**2G Maghreb**	**2G Turkey**
Formal childcare uptake				
Yes	69.35	45.38	29.42	20.06
Mothers' educational level				
Low	7.70	13.43	21.33	23.20
Medium	34.22	40.61	53.41	57.03
High	57.02	44.25	23.48	18.12
Unknown	1.06	1.71	1.77	1.64
Mothers' age at first childbirth				
mean	28.73	28.61	26.93	26.01
Child's age at end of the year				
mean	1.65	1.67	1.64	1.66
Origin father				
Native	87.06	51.54	10.74	5.60
First generation migrant	4.86	9.71	45.59	51.22
Second generation migrant	7.94	38.5	43.35	42.77
Unknown	0.15	0.25	0.32	0.41
N	220,542	15,246	9,301	4,629

Source: Belgian Census 2011, calculations by authors.

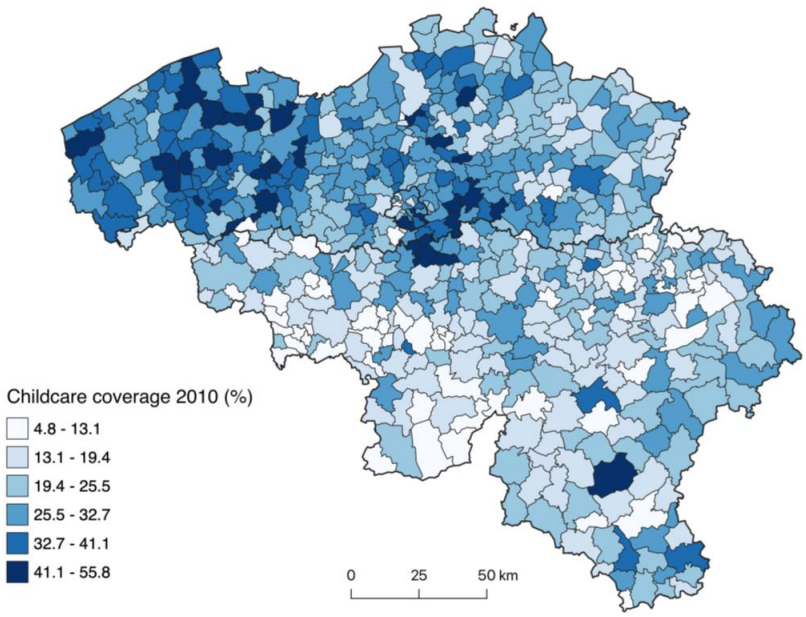
5.5 Results

5.5.1 Descriptive results

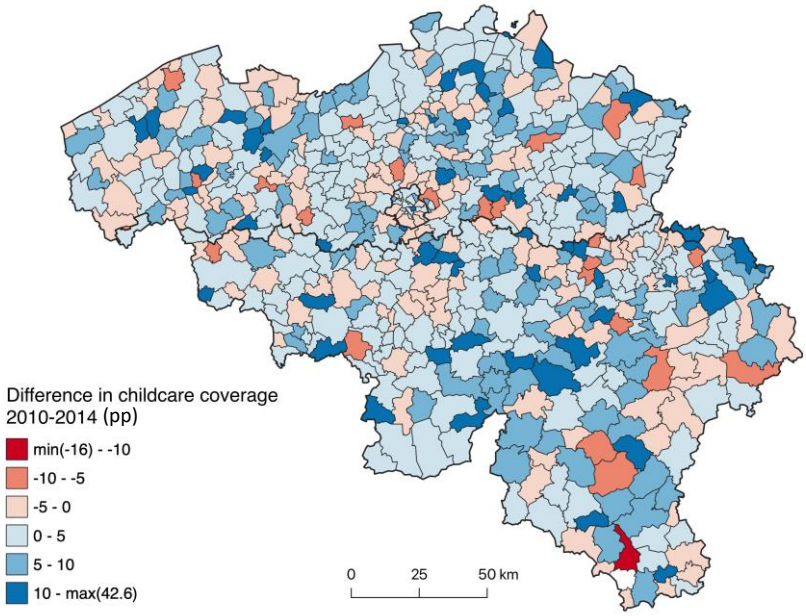
During the observation period 2010-2014, Belgium exhibits substantial variation in the local availability of formal childcare between municipalities, as well as variation within municipalities over time. Figure 5.1a shows the childcare coverage level for each Belgian municipality in 2010 and indicates that childcare coverage levels range from 5 up to 56 percent. In general, Flanders exhibits a higher availability of formal childcare than Wallonia and Brussels, but there is also considerable variation between municipalities within each region. Figure 5.1b displays for each municipality the change in childcare coverage between 2010 and 2014 and indicates that the majority of municipalities witness an increasing childcare coverage level during the observation period of this study. Again, we find considerable variation between municipalities. Childcare coverage increases by 0 to 5 percentage points in 40% of all municipalities, by 5 to 10 percentage points in 20% of all municipalities and the increase is higher than 10 percentage points in 10% of all municipalities (Fig. 5.2). In contrast, the availability of formal childcare also decreases between 2010 and 2014 in 30% of all Belgian municipalities. This decrease ranges from 0 to 5 percentage points in 25% of all municipalities, while exceeding 5 percentage points in 5% of all municipalities.

Figure 5.1: (a) Formal childcare coverage in 2010 and (b) the change in formal childcare coverage between 2010-2014 in Belgian municipalities.

a. Formal childcare coverage in 2010

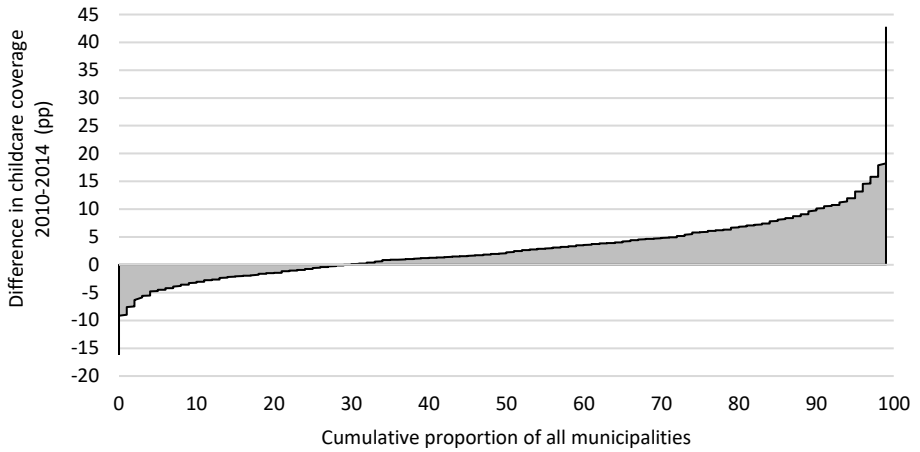


b. Change in formal childcare coverage between 2010-2014



Notes: Childcare coverage equals the amount of formal childcare places per 100 children aged 0–3 in each municipality.
Source: K&G and ONE, calculations by authors.

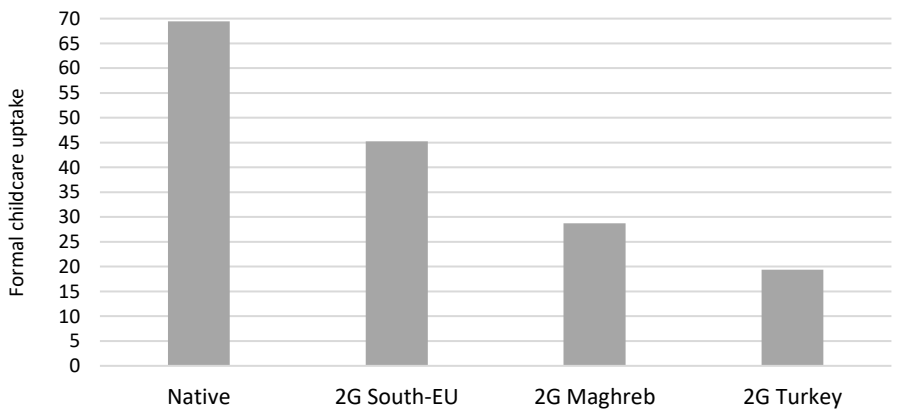
Figure 5.2: The change in formal childcare coverage between 2010-2014 within Belgian municipalities, the cumulative proportion of all municipalities.



Notes: Childcare coverage equals the amount of formal childcare places per 100 children aged 0–3 in each municipality.
Source: K&G and ONE, calculations by authors.

Figure 5.3 shows the average uptake of formal childcare in 2010-2014 by mothers' origin group and indicates that native mothers are more likely to use formal childcare than second generation migrant mothers. The uptake gap with native mothers is particularly large for second generation mothers of Maghreb and Turkish origin. Whereas on average 70% of native mothers used formal childcare in 2010-2014, this amounts on average to 45% for Southern European origin mothers, to 29% for Maghreb origin mothers and only to 20% for Turkish origin mothers.

Figure 5.3: Formal childcare uptake by mothers' origin group among two-parent households with one child.



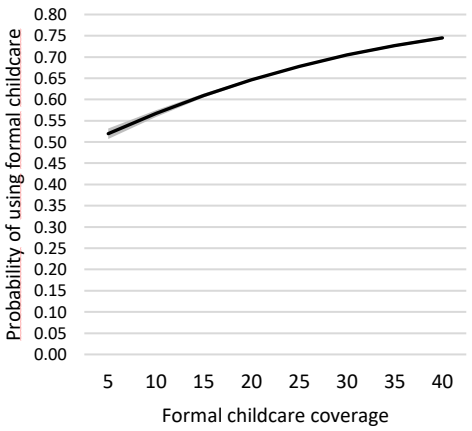
Source: Belgian Census 2011, calculations by authors

5.5.2 Multivariate results

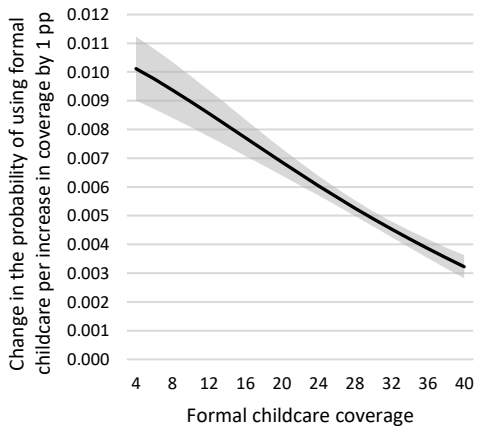
Figure 5.4a shows mothers' probability of using formal childcare at different childcare coverage levels and indicates that mothers are more likely to use formal childcare when there are more childcare places available within their municipality. While mothers' probability of using formal childcare amounts on average to 0.50 at a coverage level of 5 percent, it increases up to 0.75 at a coverage level of 40 percent. As the impact of increasing local childcare availability on mothers' uptake of formal childcare may differ depending on the starting level, Figure 5.4b visualises the average change in mothers' probability of using formal childcare associated with a percentage point increase in childcare coverage within a municipality at different levels of childcare coverage (model results available in Appendix, Tables 5.3, 5.4 and 5.5). Our results show a positive effect of increasing local childcare availability, which is largest at low coverage levels and becomes increasingly smaller at higher coverage levels. Whereas mothers' probability of using formal childcare increases on average by 0.010 percentage points if childcare coverage increases by 1 percentage point at a coverage level of 4 percent, it only increases by 0.003 percentage points at a coverage level of 40 percent.

Figure 5.4: (a) The probability of using formal childcare at different levels of childcare coverage and (b) the change in the probability of using formal childcare per 1 percentage point increase in childcare coverage at different levels of childcare coverage (with 95% conf. interval).

a. Probability of using formal childcare by coverage level



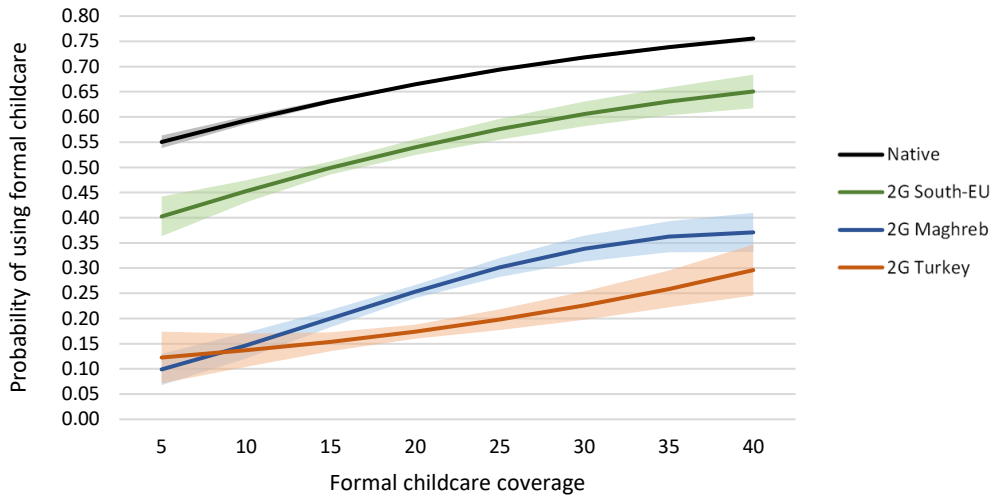
b. Change in the probability of using formal childcare at increasing childcare coverage



Notes: (a) Predicted probabilities and (b) average marginal effects based on Model 1 including municipality fixed effects and childcare coverage (quadratic specification).
Source: Belgian Census 2011, calculations by authors.

Subsequently, we examine whether and to what extent the impact of increasing local childcare availability on uptake probabilities varies by mothers' migration background. In line with Figure 5.3, Figure 5.5 shows that the probability of using formal childcare is consistently higher among native mothers than is the case among second generation migrant mothers, although mothers with a migration background are also more likely to use formal childcare at higher coverage levels. With respect to native mothers, their probability of using formal childcare increases from an average of 0.55 to 0.75 when coverage levels increase from 5 to 40 percent. Considering the same coverage levels, the probability of using formal childcare increases from 0.40 to 0.65 percent among Southern European origin mothers on average, while the increase is limited from an average probability of 0.10 to 0.37 among Maghreb origin mothers. Regarding second generation Turkish mothers, we find that their probability of using formal childcare remains largely stable around 0.15 between coverage levels of 5 and 15 percent, while the probability of uptake subsequently increases reaching 0.30 at a coverage level of 40 percent.

Figure 5.5: The probability of using formal childcare at different levels of childcare coverage (with 95% conf. interval), by mothers' origin group.



*Notes: Predicted probabilities based on Model 3 including municipality fixed effects, coverage (quadratic specification), origin, origin*municipality and origin*coverage (quadratic specification).*
Source: Belgian Census 2011, calculations by authors.

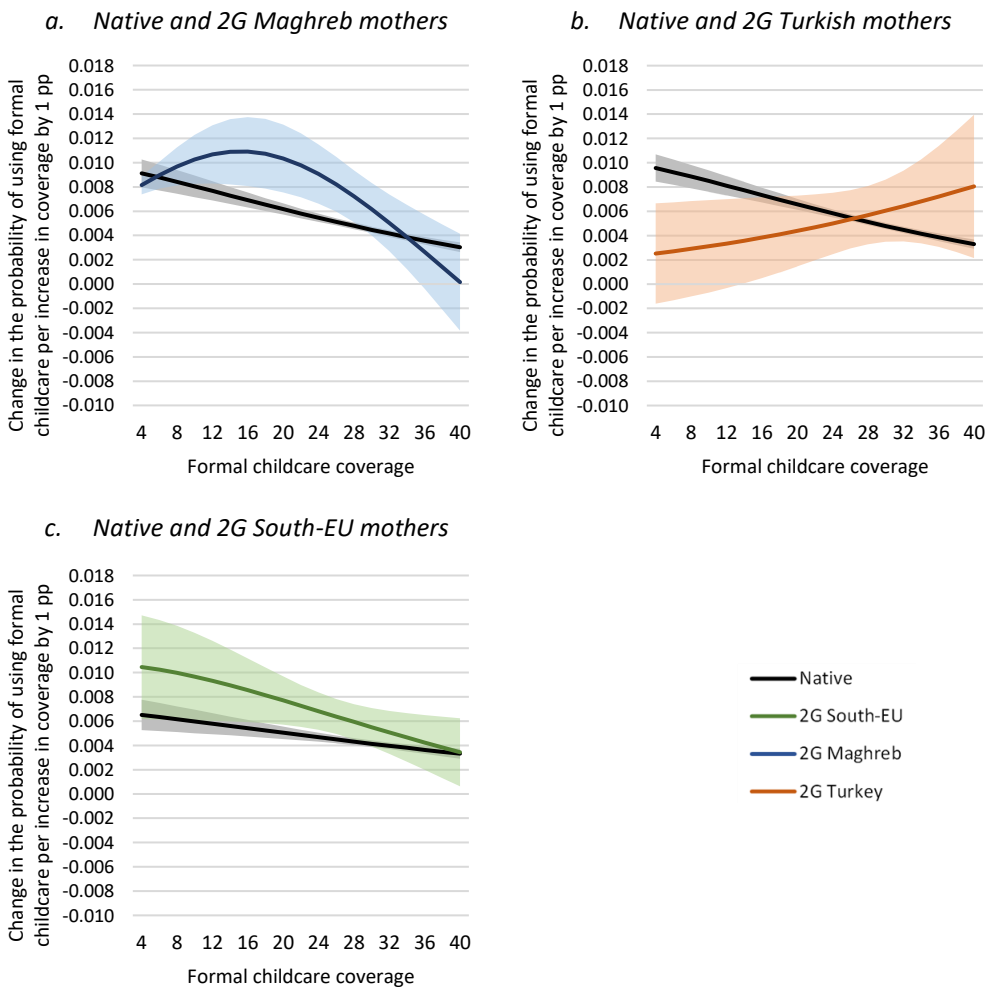
In line with the overall effect of increasing local childcare availability (Figure 5.4b), Figure 5.6 indicates that there is a positive effect of increasing coverage on native mothers' formal childcare uptake, which becomes smaller at higher coverage levels. Whereas an increase in childcare coverage within municipalities by 1 percentage point is for native mothers on average associated with an increase of 0.009 percentage points in their probability of using formal childcare at a coverage level of 4 percent, it diminished to an increase of 0.003 percentage points at a coverage level of 40 percent. A Likelihood Ratio test comparing Models 2 and 3 indicates that the impact of increasing local childcare coverage differs significantly between native and second generation Maghreb mothers (Δ-2LL: 13.50; Δdf: 2; p: 0.001). Figure 5.6a shows that a 1 percentage point increase in childcare coverage within a municipality has a stronger positive effect on Maghreb origin mothers' formal childcare use between coverage levels of 8 to 32 percent. While the increase in the probability of using formal childcare amounts at these coverage levels on average to 0.008 and 0.004 percentage points for native mothers, it amounts to 0.010 and 0.005 percentage points for Maghreb origin mothers. As a result, the gap in childcare uptake with native mothers becomes smaller when the local availability of formal childcare increases. However, as this is only a slightly stronger positive effect, Figure 5.5 shows that considerable uptake gap persist.

Figure 5.6b indicates that increasing local childcare coverage has almost no effect on the childcare uptake of Turkish origin mothers at coverage levels between 4 and 20 percent. Turkish origin mothers' probability of using formal childcare increases at these coverage levels on average by 0.002 to 0.004 percentage points if childcare coverage increases by 1 percentage point within municipalities, which is a weaker effect compared to native mothers. This positive effect of increasing local childcare coverage among Turkish origin mothers becomes larger at higher coverage levels. At coverage levels of 40 percent, an increase in childcare coverage within municipalities by 1 percentage point is associated with an increase in the probability of using formal childcare of Turkish origin mothers of 0.008 percentage points (compared to 0.003 for native mothers). However, a Likelihood Ratio test indicates no significantly different effect of increasing local childcare coverage between native and second generation Turkish mothers (comparing models 2 and 3: Δ-2LL: 3.26; Δdf: 2; p: 0.196). Hence, although Turkish origin mothers become more likely to use formal childcare when childcare places become more widely available within their municipalities, the uptake gap with native mothers does not decrease.

Finally, considering Southern European origin mothers, Figure 5.6c shows that the increase in the probability of using formal childcare is associated with a 1 percentage point increase in coverage ranges from an average of 0.010 percentage points at a coverage level of 4 percent to an increase by 0.003 percentage points at a coverage

level of 40 percent. Although Figure 5.6c suggests some variation in the effect of increasing coverage on uptake between native and Southern European mothers, a Likelihood Ratio test indicates that including the interaction between childcare coverage and origin in Model 3 yields no significant improvement compared to Model 2 (Δ-2LL: 3.80; Δdf: 2; p: 0.149). Hence, although Southern European origin women become more likely to use formal childcare in case of local childcare expansions, the uptake gap with native mothers remains unchanged.

Figure 5.6: The change in the probability of using formal childcare per 1 percentage point increase in childcare coverage at different levels of childcare coverage (with 95% conf. interval), by mother's origin group.

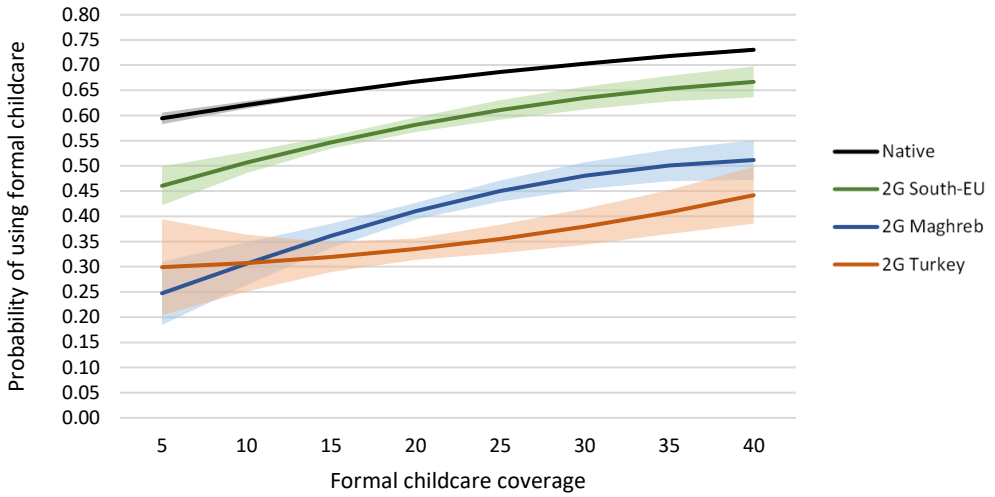


*Notes: Average Marginal Effects based on Model 3 including municipality fixed effects, coverage (quadratic specification), origin, origin*municipality and origin*coverage (quadratic specification).*
Source: Belgian Census 2011, calculations by authors.

5.5.3 Sensitivity analyses

Figure 5.7 shows the probability of using formal childcare after controlling for socio-demographic characteristics. In line with Figure 5.5, the probability of using formal childcare is consistently higher among native mothers than is the case among second generation migrant mothers and all origin groups are more likely to use formal childcare at higher coverage levels. Whereas the probability of using formal childcare did not change considerably among native and Southern European origin mothers after controlling for socio-demographic characteristics, the probability of using formal childcare has increased for Maghreb and Turkish origin mothers. As a result, the gap in childcare uptake with native mothers has become smaller for second generation Maghreb and Turkish mothers after controlling for socio-demographic characteristics.

Figure 5.7: The probability of using formal childcare at different levels of childcare coverage after controlling for socio-demographic characteristics (with 95% conf. interval), by mothers' origin group.



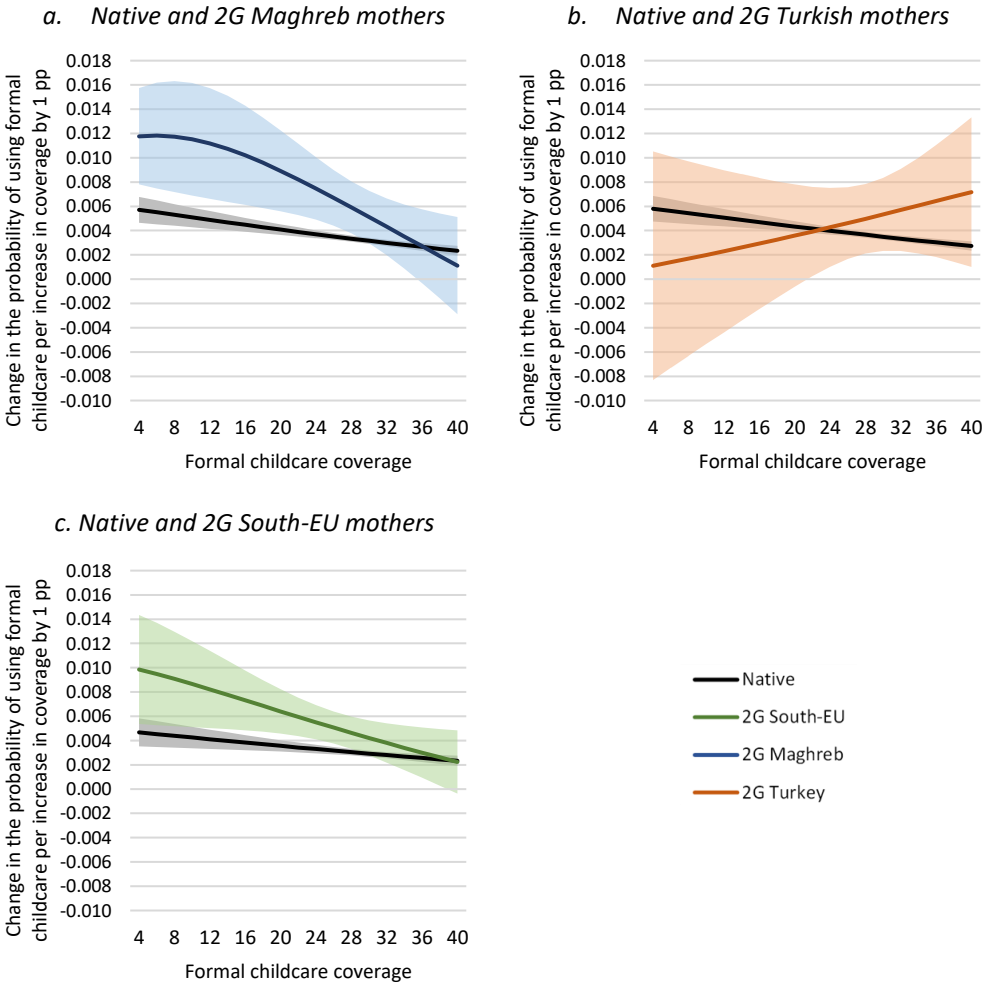
*Notes: Predicted probabilities based on Model 4 including municipality fixed effects, coverage (quadratic specification), origin, origin*municipality, origin*coverage (quadratic specification), mothers' educational level, mother's age at first childbirth, the age of the first child at the end of the year, and the fathers' migration background.*
Source: Belgian Census 2011, calculations by authors.

Regarding the effect of increasing local childcare availability, Figure 5.8 indicates that the same overall pattern can be found among native mothers after controlling for socio-demographic characteristics: increasing local childcare coverage has a positive effect on their childcare uptake, which is strongest at lower childcare coverage levels. The positive effect has however become slightly smaller, amounting to 0.006 at a

coverage level of 4 percent (instead of 0.009 in Figure 5.6) and to 0.002 percentage points at a coverage level of 40 percent (instead of 0.003 in Figure 5.6). A Likelihood Ratio test indicates that the impact of increasing local childcare coverage still differs significantly between native and second generation Maghreb mothers after controlling for socio-demographic characteristics (Δ-2LL: 12.9; Δdf: 2; p: 0.002). Figure 5.8a shows that a 1 percentage point increase in childcare coverage within a municipality still has a stronger positive effect on Maghreb origin mothers' formal childcare use and that the positive effect of increasing local childcare availability has become slightly stronger at low coverage levels after controlling for socio-demographic characteristics (amounting to 0.012 percentage points at a coverage level of 4 percent instead of 0.008). Hence, after controlling for socio-demographic characteristics, the gap in childcare uptake with native mothers still becomes smaller when the local availability of formal childcare increases.

Regarding Turkish mothers, Figure 5.8b shows that the overall pattern did not change considerably after controlling for socio-demographic characteristics, and a Likelihood Ratio test indicates that there is still no significantly different effect of increasing local childcare coverage between native and second generation Turkish mothers (Δ-2LL: 1.48; Δdf: 2; p: 0.477). Finally, also with respect to Southern European origin mothers, Figure 5.8c indicates the same overall pattern compared to Figure 5.6c. However, a Likelihood Ratio test indicates that including the interaction between childcare coverage and origin yields now a significant improvement of our model (Δ-2LL: 6.57; Δdf: 2; p: 0.037). Hence, after controlling for socio-demographic characteristics, the gap in childcare uptake with native mothers becomes slightly smaller when the local availability of formal childcare increases, which is also shown in Figure 5.7.

Figure 5.8: The change in the probability of using formal childcare per 1 percentage point increase in childcare coverage at different levels of childcare coverage after controlling for socio-demographic characteristics (with 95% conf. interval), by mother's origin group.



*Notes: Average Marginal Effects based on Model 4 including municipality fixed effects, coverage (quadratic specification), origin, origin*municipality, origin*coverage (quadratic specification), mothers' educational level, mother's age at first childbirth, the age of the first child at the end of the year, and the fathers' migration background.*
Source: Belgian Census 2011, calculations by authors.

5.6 Discussion

Research indicates that parents with a migration background display a lower uptake of formal childcare compared to parents without a migration background (i.e. native parents) in most European countries (Biegel et al., 2021; Driessen, 2004; Schober & Spiess, 2013; Teppers et al., 2019). Although prior research has identified a limited availability of formal childcare as a potential supply-side explanation, given that in practice it entails unequal access to childcare for native and migrant origin parents (Vandenbroeck et al., 2008; Vandenbroeck & Lazzari, 2014), it remains unclear whether and to what extent expanding childcare availability effectively diminishes migrant-native uptake differentials due to the lack of longitudinal research. This is unfortunate given that many European countries have made considerable investments in formal childcare availability. Given this gap in the literature, this study examines the relationship between changes in local childcare availability in the period 2010-2014 and the uptake of formal childcare among two-parent households in which the mother has no migration background, versus a second generation Southern European, Maghreb or Turkish background by using longitudinal microdata from the 2011 Belgian census and the population register which have been linked to tax return data on childcare expenses and municipality-level data on childcare coverage for children aged 0-3. More specifically, municipality-level fixed-effects models are used to address whether and to what extent increasing childcare coverage within municipalities over time has a stronger positive effect on the uptake of formal childcare among migrant origin parents compared to native parents, resulting in decreasing migrant-native uptake gaps.

In line with prior research for Belgium (Biegel et al., 2021), we find that second generation migrant mothers are less likely to use formal childcare than native mothers and that the uptake gap is most pronounced among Maghreb and particularly Turkish origin mothers. Our results indicate that all origin groups are more likely to use formal childcare at higher coverage levels, but that the impact of an increase in childcare coverage within municipalities by 1 percentage point on mothers' childcare uptake varies by migration background. For native mothers, increasing local childcare coverage has a positive effect on their childcare uptake, which is strongest at lower childcare coverage levels. The same overall pattern can be found among Maghreb origin mothers, but the positive effect is stronger compared to native mothers, thus reducing migrant-native uptake gaps. Since this is only a slightly stronger positive effect, considerable uptake gaps remain nevertheless. With respect to Turkish origin mothers, we find that increasing local childcare availability has no significantly different impact on their childcare uptake compared to native mothers. Hence, the uptake gap with native mothers does not decrease when childcare places become more widely available within their municipalities. Our finding that Turkish and Maghreb origin mothers

display very distinct patterns highlights the importance of distinguishing non-European origin groups, which has often not been possible due to data limitations. Further, our results show that although Southern European mothers become more likely to use formal childcare when local childcare availability increases, the uptake gap with native mothers remains unchanged since there is no differential effect of increasing local childcare coverage.

While these descriptive analyses are necessary to provide a first indication that increasing local childcare availability can narrow uptake gaps between native mothers and second generation migrant origin mothers, more research is required to disentangle the underlying mechanisms behind these varying effects of increasing local childcare coverage by migration background and the persisting migrant-native uptake gaps, as this requires a more in-depth and elaborate discussion that goes beyond the scope of one study. Whether and the extent to which increasing local childcare availability reduces uptake gaps with native mothers for each migrant origin group may be moderated by several (complementary) factors such as an unmet demand of native parents, the affordability, flexibility and characteristics (e.g. home-based versus centre-based) of the additionally created childcare places, as well as parents' preferences regarding outsourcing care for young children and informal childcare, or discrimination. In this respect, we identify six avenues for follow-up research. First, to address the impact of supply-side factors such as childcare costs and flexibility, future research could take the availability and evolution in childcare places with income-related fees and flexible opening hours within municipalities into account. The supply of childcare places with income-related fees and longer or non-standard opening hours, and their evolution in the period 2010-2014 varies considerably between municipalities, which may have moderated the impact of local childcare expansions on migrant-native gaps in uptake. This information is unfortunately not available in our data. Second, as prior research indicates that childcare expansions diminish socio-economic gradients in formal childcare uptake (Farfan-Portet et al., 2011; Jessen et al., 2020; Sibley et al., 2015), a fruitful path would be to examine whether and to what extent migrant-native uptake gaps and migrant-native differentials in the effect of increasing local childcare availability are related to the different socio-economic positions of native and migrant origin mothers and socio-economic differentials in the effect of increasing local availability. More specifically, if supply shortages and priority criteria disadvantage parents whose demand for care is difficult to predict, incorporating parents' employment stability into the analyses may be particularly informative. It would also be worthwhile to include parents' job-related characteristics, such as the sector of employment or working hours (e.g. atypical, irregular). In this respect, Biegel et al. (2021) find that the overrepresentation in part-time and flexible work arrangements of

second generation Turkish and Moroccan mothers partly explained their lower uptake of formal childcare. Third, although municipality-level fixed effects analyses are used, native and migrant origin parents may still face differential access to formal childcare within municipalities due to potential differences in the distance from home to a childcare facility and the availability of means of transportation (e.g. car, public transport). It would therefore be interesting to elaborate more on these aspects in future research. Fourth, follow-up studies could consider the (differential) availability of grandparents as potential informal care providers among native and second generation migrant mothers and whether this shapes migrant-native uptake differentials and the impact of increasing local childcare availability. Fifth, although register data provides rich information, it does not allow us to consider parents' work-family preferences. Prior Belgian research suggests that differential work-family preferences may be particularly relevant for explaining the lower uptake of formal childcare among Turkish origin mothers (Biegel et al., 2021). Yet, in order to elaborate our understanding of how work-family preferences shape parents' childcare strategies, a longitudinal measurement of attitudes is required to address to which extent differential work-family preferences result from differential socialisation contexts, limited labour market prospects or differential childcare availability. Also additional mixed-method research could provide valuable insights in this respect. Sixth, it would be interesting to address in future research how contextual factors such as the share of migrants within municipalities shape the uptake of formal childcare among native and migrant origin parents.

Furthermore, this study explored the impact of changes in childcare availability on the uptake of formal childcare among two-parent households with a native or second generation migrant mother. Since individuals of the second generation are defined as individuals who are born in Belgium, but who have at least one parent with a nationality at birth that is not Belgian, future research could elaborate more on potential differences in the uptake of formal childcare between individuals with one (generation 2.5) or two parents (second generation) with a foreign nationality at birth. In addition, follow-up research could also include mothers who are not co-residing with the father and address to what extent migrant-native uptake gaps and the impact of increasing local childcare coverage are related to household composition.

Addressing the barriers behind the lower formal childcare uptake of migrant origin parents stands high on the academic and policy agenda, as reducing migrant-native uptake gaps may be advantageous for children, parents and the society at large. On the one hand, research increasingly addresses the relationship between enrolment in formal childcare and children's development and indicates that early experiences of socialisation in formal settings entails considerable and long-lasting benefits for

children's cognitive, linguistic and socio-emotional development, highlighting that the quality of formal childcare is crucial in this respect. These developmental benefits in turn contribute to enhancing children's educational and labour market careers entailing economic returns at the country-level (Burger, 2010; Camilli et al., 2010). Moreover, as this strand of literature suggests that the benefits of high quality childcare especially are larger for disadvantaged children (e.g. children from low income families or children with a migration background), formal childcare can be an effective tool to promote social inclusion. On the other hand, in the context of increasing diversity and accelerated population ageing, access to affordable and flexible formal childcare may be an important condition for a successful labour market integration of migrant origin mothers. In contrast, current family policies in Belgium such as formal childcare and parental leave that primarily support women who are firmly established in the labour market (e.g. long waiting lists, priority access for working parents) may reinforce the precarious employment positions of migrant origin women by inadvertently raising additional barriers to combine family formation with continued labour force participation (Kil et al., 2017; Marynissen et al., 2021). In addition to the societal importance of migrant origin mothers' labour force participation, a reduced labour force participation after family formation has also implications for women's financial independence, future labour market trajectories and social security at later stages of the life course (e.g. pensions) given that labour market trajectories are path-dependent and social rights are in Belgium strongly tied to (recent) work experience (Koelet et al., 2015; Neels et al., 2018).

5.7 Appendix

Table 5.2: Sample selection by mothers' migration background.

	Native	2G South-EU	2G Maghreb	2G Turkey	Total
households with one mother whose child is aged 9 months -2.5 years	608,811	41,467	34,239	14,415	698,932
excluding households with more than 1 child	249,611	19,060	11,245	5,238	285,154
additionally excluding households in which mothers are not co-habiting with the father (i.e. final selection)	220,542	15,246	9,301	4,629	249,718

Source: Belgian Census 2011, calculations by authors.

Table 5.3: Municipality-level fixed-effects logit models for the uptake of formal childcare, households with native and second generation Maghreb mothers.

	Model 1		Model 2		Model 3		Model 4	
	OR	sig	OR	sig	OR	sig	OR	sig
Constant	0.7896	***	1.2618	***	1.2848	***	0.4491	***
Municipality fixed effects								
effect coded dummies	included		included		included		included	
Childcare coverage								
coverage (linear)	1.0445	***	1.0419	***	1.0406	***	1.0292	***
coverage (quadratic)	0.9997	***	0.9997	***	0.9997	***	0.9998	***
Origin (ref. native)								
2G Maghreb			0.1627	***	0.0611	***	0.1447	***
2G Maghreb*municipality			included		included		included	
Coverage*origin								
coverage (linear)*2G Maghreb					1.0741	***	1.0517	*
coverage (quadratic)*2G Maghreb					0.9989	**	0.9993	*
Mothers' educational level (ref. high)								
Low							0.1768	***
Medium							0.3593	***
Unknown							0.3007	***
Mothers' age at first childbirth							1.0505	***
Child's age at end of the year							1.2962	***
Origin father (ref. native)								
First generation migrant							0.6584	***
Second generation migrant							0.7951	***
Unknown							0.8852	n.s.
N	229,843		229,843		229,843		229,843	
R^2	0,0372		0,0563		0,0563		0,1341	
df	29		56		58		66	
Log likelihood	-139053		-136302		-136295		-125061	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001. Source: Belgian Census, calculations by authors.*

Table 5.4: Municipality-level fixed-effects logit models for the uptake of formal childcare, households with native and second generation Turkish mothers.

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	OR	sig	OR	sig	OR	sig	OR	sig
Constant	0.7446	***	1.0119	n.s.	1.0116	n.s.	0.3856	***
Municipality fixed effects								
effect coded dummies	included		included		included		included	
Childcare coverage								
coverage (linear)	1.0463	***	1.0422	***	1.0423	***	1.0292	***
coverage (quadratic)	0.9997	***	0.9997	***	0.9997	***	0.9998	***
Origin (ref. native)								
2G Turkey			0.1079	***	0.1272	***	0.2839	***
2G Turkey *municipality			included		included		included	
Coverage*origin								
coverage (linear)*2G Turkey					0.9792	n.s.	0.9737	n.s.
coverage (quadratic)*2G Turkey					1.0005	n.s.	1.0006	n.s.
Mothers' educational level (ref. high)								
Low							0.1755	***
Medium							0.3576	***
Unknown							0.2938	***
Mothers' age at first childbirth							1.0484	***
Child's age at end of the year							1.2865	***
Origin father (ref. native)								
First generation migrant							0.6934	***
Second generation migrant							0.8013	***
Unknown							0.9990	n.s.
N	225,171		225,171		225,171		225,171	
R^2	0,0354		0,051		0,051		0,1288	
df	20		38		40		48	
Log likelihood	-135493		-133293		-133292		-122373	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*
Source: Belgian Census 2011, calculations by authors.

Table 5.5: Municipality-level fixed-effects logit models for the uptake of formal childcare, households with native and second generation Southern European mothers.

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	OR	sig	OR	sig	OR	sig	OR	sig
Constant	0.7119	***	0.8216	***	0.8360	n.s.	0.3250	***
Municipality fixed effects								
effect coded dummies	included		included		included		included	
Childcare coverage								
coverage (linear)	1.0312	***	1.0302	***	1.0287	***	1.0239	***
coverage (quadratic)	0.9998	***	0.9998	***	0.9999	**	0.9999	**
Origin (ref. native)								
2G South-EU			0.5713	***	0.4478	***	0.4511	***
2G South-EU *municipality			included		included		included	
Coverage*origin								
coverage (linear)*2G South-EU					1.0197	n.s.	1.0262	*
coverage (quadratic)*2G South-EU					0.9997	n.s.	0.9997	n.s.
Mothers' educational level (ref. high)								
Low							0.1775	***
Medium							0.3592	***
Unknown							0.2994	***
Mothers' age at first childbirth							1.0479	***
Child's age at end of the year							1.2729	***
Origin father (ref. native)								
First generation migrant							0.7067	***
Second generation migrant							0.7726	***
Unknown							0.8710	n.s.
N	235,788		235,788		235,788		235,788	
R^2	0,0461		0,0494		0,0494		0,1266	
df	52		102		104		112	
Log likelihood	-141220		-140734		-140732		-129302	

*Significant levels: * p<0.05, ** p<0.01; *** p<0.001.*
Source: Belgian Census 2011, calculations by authors.

Chapter 6
Conclusion

Belgium is characterised by one of the largest employment rate gaps between women without a migration background (hereafter, native women) and second generation women across Europe (Eurostat, 2014). Since the successful labour market integration of second generation women is considered increasingly important in a context of accelerated population ageing and increasing diversity to cover welfare state costs, understanding which mechanisms induce migrant-native differences in labour market participation stands high on both academic and policy agendas. In addition to the societal relevance of improving the labour market participation of migrant origin women, a low labour market participation may increase poverty risks at the household level, can jeopardise women's financial independence and has long-term implications for future labour market opportunities and social security protection (e.g. pensions) at later stages of the life course (Koelet et al., 2015; Neels et al., 2018). While it is widely established that women's work and family trajectories are strongly interrelated and a large body of literature has studied work-family interlinkages among general populations (Gutierrez-Domenech, 2005; Kreyenfeld, 2015; Wood et al., 2016), little is known on interlinkages between work and family trajectories among groups with a migration background. This is unfortunate as research indicates that the migrant-native employment gap larger is among women with children than among childless women (Holland & de Valk, 2017; Rubin et al., 2008), which suggests that incorporating family trajectories may enhance our understanding of differences between the labour market participation of native and second generation women. In addition, since access to formal childcare enables parents' (and particularly mothers') labour market participation, it is remarkable that our understanding of the use of formal childcare among second generation parents is limited.

Therefore, this dissertation examined the work-family trajectories of second generation women in comparison to women without a migration background in Belgium. By adopting a life course perspective, two dimensions of women's work-family trajectories have been addressed: employment trajectories around the transition to parenthood, as well as the uptake of formal childcare. The first and foremost contribution of this dissertation is that it investigates variation by migration background, hereby distinguishing Southern European, Turkish and Maghreb origin groups. Second, this dissertation contributes to available literature by exploring path-dependencies in work-family trajectories. To this end, I first examine women's early employment trajectories upon graduation (Chapter 2) and subsequently address how

early labour market (dis)advantages shape women's employment trajectories around the transition to parenthood (Chapter 3) as well as their uptake of formal childcare (Chapter 5). Third, following the life course principle of linked lives, this dissertation contributes to the literature by adopting a household perspective and addressing variation by migration background in couples' gender division of paid work around the transition to parenthood (Chapter 4). In the concluding chapter of this dissertation, Section 6.1 first discusses the main findings of the four empirical chapters regarding variation by migration background in the light of the second and third contribution. Subsequently, Section 6.2 reflects on the limitations of this research and potential fruitful paths for future research on work-family trajectories in migrant populations.

6.1 Main findings

6.1.1 Path-dependencies in early work-family trajectories

Chapter 2 first examined migrant-native differentials in women's labour market entry upon graduation since early labour market (dis)advantages are likely to shape their employment trajectories around the transition to parenthood, as well as their uptake of formal childcare. In contrast to available literature that largely focuses on employment positions at one point in time regardless of employment stability and associated income, this study used longitudinal microdata from the MIA Panel to assess whether there are migrant-native differentials in the entry into and exit out a first 'sustainable employment spell'. This was operationalised as an employment spell of at least four consecutive quarters, leading to the gross Belgian minimum wage and a work intensity of at least 40% of a full-time position in the fourth quarter of the employment spell. In addition, we examined whether the characteristics of the first job in this employment spell vary by migration background. The results show that Turkish and Maghreb origin women (particularly of generation 1.5) face more difficulties in establishing themselves in the labour market compared to native women[68]. Already from the onset of their career, the employment trajectories of migrant origin women are less stable than is the case among native women. This employment instability is due to lower probabilities of entering stable employment, in tandem with higher probabilities of exiting stable employment compared to natives. In addition, migrant origin women are also less likely to start in white collar jobs, with a full-time contract or with a wage similar to natives. The results further demonstrate that whereas native women enter a sustainable employment spell often directly after graduation, migrant

[68] Results extending the analyses to Southern European origin groups and men indicate that the differences with natives are most pronounced among non-European origin women (Maes, Wood, & Neels, 2020).

origin women are more frequently looking for a job or employed without fulfilling the conditions with respect to stability, income and work intensity. This suggests that the Belgian labour market consists of insiders on the one hand who enjoy greater job stability, and outsiders on the other hand who tend to move from one temporary contract to another (Doerflinger et al., 2020; Van Dooren et al., 2014). Although migrant-native differentials diminish after controlling for individual (e.g. educational level and field, language skills), household (i.e. number of children and income of the partner) and parental (i.e. parental income) characteristics, substantial gaps remain. This suggests that improving migrant origin women's knowledge of the labour market (e.g. navigating available job opportunities and/or effective activation programs) and the information available to employers on migrant origin women's productivity (e.g. statistical discrimination) may prove instrumental in reducing migrant-native differentials in early career outcomes.

Chapter 3 subsequently showed that the differential stability that seems inherent to the labour market trajectories of migrant origin women compared to native women in the Belgian context (cf. Chapter 2) is also key to understand migrant-native differentials in employment trajectories around the transition to parenthood. This study used longitudinal microdata from the BASD Panel and fixed-effects models to compare changes in contractual working hours from one year before until three years after the birth of the first child between native women and second generation women of Southern European and Turkish or Moroccan origin. The results that stratify women's employment trajectories around parenthood in terms of their observed pre-birth employment positions seem to suggest that the birth of a first child has a stronger impact on the labour market participation of migrant origin women than is the case among native women, with the largest difference for Turkish or Moroccan origin women. Employed second generation women reduce their working hours to a larger extent compared to natives, whereas second generation women who were not employed before the birth of their first child were found less likely to substantially increase their working hours. In contrast, accounting for differential employment stability by comparing women with similar pre-birth employment rates, which reflects women's predicted or average employment intensity, we find only limited differentials between the employment trajectories of native and second generation women. This indicates that there is a strong path-dependency of employment trajectories around the transition to parenthood for migrant women and natives alike, but that second generation women generally have a lower pre-birth labour market attachment than native women which accounts for the frequently observed migrant-native differentials in maternal employment. As such, this study contributes not only theoretically to available literature on work-family interlinkages by addressing variation by migration

background and unpacking path-dependencies in employment trajectories around early family formation, but has also a methodological contribution. The analyses highlight that estimating employment probabilities of women who do not (yet) have children, but otherwise similar age and socio-economic characteristics, offers a more robust indicator of women's pre-birth labour market attachment than observed employment positions at an arbitrary moment before family formation, as the latter disregard variation in employment stability. This methodological approach is particularly relevant for population subgroups with generally less stable employment trajectories, such as women with a migration background (cf. Chapter 2), and can also be adopted in other strands of research.

Furthermore, in line with micro-economic theories (Becker, 1991), the results of Chapter 3 indicate that women's pre-birth wage potential conditions the changes in their working hours after the transition to parenthood. Migrant-native differentials in women's pre-birth wage potential appear to be less pronounced among women with similar pre-birth employment rates and additionally controlling for women's pre-birth wage potential therefore results in (almost) no change in the difference with native women's employment trajectories around the transition to parenthood. This suggests that it is mostly the differential pre-birth labour market attachment that accounts for the migrant-native differences in employment trajectories around the transition to parenthood, which may reflect the rigidity of the Belgian labour market consisting of insiders and outsiders (Doerflinger et al., 2020; Van Dooren et al., 2014). Hence, a life course perspective can enhance our understanding of diverging labour market trajectories by migration background by unpacking the cumulative process where early (dis)advantages condition subsequent work-family trajectories. Since migrant-native differentials in employment trajectories around the transition to parenthood can (largely) be traced back to women's differential pre-birth labour market attachment, it is vital to support the labour market entry of migrant origin women and to tackle inequalities prior to childbearing in order to avoid a further exacerbation of differential employment opportunities after the onset of family formation. Given that access to work-family reconciliation policies (but also entitlements to social rights such as pensions) are in Belgium tied to previous employment and conditioned on uninterrupted professional careers, it is particularly important to help migrant origin women not only to enter employment, but to acquire stable employment (Chapter 2).

Chapter 5 further considered the interaction between path-dependencies in work-family trajectories and the institutional context by exploring how formal childcare availability affects migrant-native differentials in the uptake of formal childcare. Prior studies have identified a limited availability of formal childcare services as a potential explanation for the lower uptake of formal childcare among migrant origin parents

compared to native parents since this in practice entails an unequal access. In the Belgian context of supply shortages and long waiting lists, parents with a limited knowledge of enrolment procedures, as well as parents with unstable employment trajectories and irregular working hours, have been found to face more barriers in accessing a childcare slot in time since their demand for care is difficult to predict (Biegel et al., 2021; Farfan-Portet et al., 2011; Vandenbroeck et al., 2008; Vandenbroeck & Lazzari, 2014). Due to the lack of longitudinal research it is, however, unclear whether increasing childcare availability effectively narrows migrant-native uptake gaps by reducing these access constraints. Using longitudinal microdata from the 2011 Belgian census and the population register which have been linked to longitudinal tax return data on households' childcare expenses and municipality-level data on childcare coverage, this study explored whether and to what extent increasing childcare availability within municipalities can reduce migrant-native uptake gaps. Municipality-level fixed-effects logit models were used to address how changes in childcare availability within municipalities over time affect the uptake of formal childcare among two-parent households where the mother has no migration background, versus a second generation Southern European, Maghreb or Turkish background. In line with prior research for Belgium (Biegel et al., 2021), we find that households with a second generation mother are less likely to use formal childcare than households with a native mother. The uptake gap is most pronounced among Maghreb and particularly Turkish origin groups. The results indicate that all origin groups are more likely to use formal childcare at higher coverage levels, but that the impact of an increase in childcare coverage within municipalities on the uptake of childcare varies by mothers' migration background. For native mothers, increasing local childcare coverage has a positive effect on their formal childcare uptake, which is strongest at lower childcare coverage levels. The same overall pattern can be found among Maghreb origin mothers, but the positive effect is stronger compared to native mothers, thus reducing migrant-native uptake gaps. Since this is only a slightly stronger positive effect, considerable uptake gaps remain nevertheless. Further, although Turkish and Southern European mothers become more likely to use formal childcare when local childcare availability increases, the uptake gap with native mothers remains unchanged since there is no differential effect of increasing local childcare coverage. Our finding that Turkish and Maghreb origin mothers display very distinct patterns highlights the importance of distinguishing non-European origin groups, which has often not been possible due to data limitations. While this study is a first indication that increasing local childcare availability can narrow migrant-native uptake gaps, more research is required to disentangle the underlying mechanisms behind these varying effects of increasing local childcare coverage by migration background and the persisting uptake gaps. Whether and the extent to which increasing local childcare

availability reduces uptake gaps with native mothers for each migrant origin group may be moderated by several (complementary) factors such as an unmet demand of native parents, the affordability, flexibility and characteristics (e.g. home-based versus centre-based) of the additionally created childcare places, as well as parents' preferences regarding outsourcing care for young children and informal childcare, or discrimination in childcare services.

In sum, the results of this dissertation illustrate the importance of being able to adopt a longitudinal and path-dependent life course perspective in research on the labour market trajectories of migrant origin women. Considering path-dependencies in women's employment trajectories, the interdependencies with their family trajectories and subsequent interactions with the design of work-family reconciliation policies have been shown to constitute important conditions to understand differences between the employment trajectories of native and second generation women. In the rigid Belgian labour market context characterised by insiders and outsiders, work-family reconciliation policies that strongly condition access on stable employment imply by design a differential access for native and migrant origin women, since they face different opportunity structures from the onset of their career. As such, current Belgian family policies that primarily support parents who are firmly established in the labour market constrain migrant origin women's agency in their work-family strategies and may in turn perpetuate the precarious employment positions of migrant origin women by implicitly raising additional barriers to combine family formation with (continued) labour force participation. In this respect, also research for Belgium on parental leave has indicated that migrant-native uptake differentials can be largely explained by their differential stability of employment trajectories, which induces differences in eligibility for parental leave (Kil et al., 2017; Marynissen et al., 2021). These findings suggest that universal access to flexible and affordable formal childcare and parental leave are likely to support (migrant origin) women with a low labour market attachment to combine motherhood with spells of employment. In a context without constraints regarding the accessibility, affordability or flexibility of work-family reconciliation policies, parents can develop their work-family strategies according to their personal preferences, which may in turn still result in differential work-family trajectories by migration background. Yet, the life course perspective argues that work-family attitudes and childcare preferences are not static, but change over time and may be adjusted over individuals' life courses. Gender role expectations continuously evolve and there has been a gradual shift from a male-breadwinner to a dual-earner model among most Western European countries in the second half of the 20th century (Goldscheider et al., 2015). Hence, while work-family preferences of migrant origin groups may currently differ compared to those of native populations, a shift in these preferences may only occur

in a context that no longer implies structural barriers to combine work and family. In this respect, research suggests that increasing the accessibility of formal childcare may induce more favourable preferences towards using formal childcare among migrant origin groups and it may become more acceptable to use formal childcare when more people in their social network use it (Neimanns, 2021; Vandenbroeck et al., 2008; Zoch & Schober, 2018). Therefore, specific policies that reduce institutional and demand-side barriers for the labour market opportunities of migrant origin women and that increase their access to family policies seem a crucial precondition for improving the labour market participation of migrant origin mothers.

6.1.2 Linked lives: couples' gender division of paid work around the transition to parenthood

Since work-family strategies are typically developed at the household-level, prior studies have indicated that omitting partners' characteristics in research on maternal employment may yield biased results (Matysiak & Vignoli, 2008). Therefore, Chapter 3 took the migration background, as well as the pre-birth employment and wage potential of women's partners into account and the results showed that these partner characteristics shape women's employment trajectories around the transition to parenthood. Controlling for differences between native and migrant origin women's partners resulted, however, in almost no change in migrant-native differentials in women's employment trajectories around parenthood. In addition to absolute labour market positions of women and their partners, micro-economic and bargaining theories suggest that also women's relative position in the household determines their employment trajectories around family formation (Becker, 1991; Lundberg & Pollak, 1996). Since partners' relative labour market opportunities as well as gender role expectations are likely to vary depending on the origin group and migrant generation of both partners, the couple is a key research unit to fully acknowledge population heterogeneity and to enhance our understanding of (potential differences in) household-level work-family strategies.

To get more insight into couple dynamics around family formation among groups with a migration background, Chapter 4 used longitudinal microdata from the MIA Panel to examine variation by migration background in couples' gender division of paid work from one year before up to three years after the transition to parenthood. Subsequently, couple-level fixed-effects models were estimated to assess changes in women's relative work intensity around first childbirth and whether this differs by migration background. Whereas the effect of parenthood on couples' gender division of (un)paid work has been well-documented among majority populations (Baxter et al., 2008; Kuhhirt, 2011; Schober, 2013; Wood et al., 2018; Wood et al., 2016), variation of

this link by couples' migration background has hitherto only been examined to a limited extent due to the limited availability of large-scale longitudinal data. In addition, previous research focussing on migrants' gender division of (un)paid work has not addressed how this division unfolds over the life course and has not fully acknowledged heterogeneity by origin within and between couples (Diehl et al., 2009; Goldscheider et al., 2011; Huschek et al., 2011).

The results of Chapter 4 indicate that the majority of native couples adopt an equal division of paid work, but that gender inequality in paid work increases after the birth of the first child. In accordance with studies for West-Germany (Kuhhirt, 2011) and the UK (Schober, 2013), which predominantly reflect the patterns of the majority population, we find that while men's work intensity remains stable, women significantly reduce their work intensity after the transition to parenthood. Comparing native couples' gender dynamics around family formation with those of couples where at least one partner is of migrant origin, this study shows that combining an account of couples' division of paid work before the onset of family formation with a perspective focusing on changes in couples' division of paid work during family formation, provides a more thorough understanding of variation by migration background in couples' employment around parenthood. Combining both perspectives, we identified four patterns of gender dynamics in the division of paid work around the transition to parenthood. First, migrant origin couples whose pre-birth division of paid work as well as gender dynamics around family formation are similar to native couples (i.e. Southern European origin couples). Second, migrant origin couples where women's pre-birth relative work intensity is largely similar to native couples, but where gender inequality in paid work increases to a significantly stronger extent after first childbirth (i.e. mixed non-European origin couples consisting of a native woman and a non-European origin man). Third, migrant origin couples who exhibit a stronger degree of gender inequality in paid work before family formation than native couples, but no significant differences with native couples with respect to changes in the division of paid work after the transition to parenthood (i.e. mixed non-European origin couples with a migrant origin woman, as well as non-European origin couples consisting of a first generation woman and a second generation man). Fourth, migrant origin couples who display a higher degree of gender inequality in paid work before first childbirth than native couples and also a significantly stronger increase in gender inequality after family formation (i.e. first and second generation non-European origin couples, as well as non-European origin couples with a second generation woman and a first generation man). Although this study indicates that the effect of parenthood on couples' gender division of paid work varies by migration background, more research is required to disentangle the underlying mechanisms behind these varying gender dynamics. Research for majority

populations has - in in line with micro-economic theories - identified that the relative distribution of labour market characteristics (e.g. earnings) within couples shapes couple-level gender dynamics in the employment-fertility link (Marynissen et al., 2020) as well as the fertility-employment link (Wood et al., 2018). Future research on gender dynamics in migrant households should therefore use longitudinal microdata to examine i) how women's pre-birth relative labour market characteristics within couples differ between native couples and migrant origin couples, and ii) whether and to what extent differences in (the impact of) these relative characteristics can explain variation in couples' gender dynamics around family formation by migration background.

In sum, Chapter 4 contributes to available literature by adopting a longitudinal household perspective and providing a first step in exploring subgroup variation in terms of migration background regarding couples' gender division of (un)paid work around family formation. Further research is, however, needed to assess the underlying theoretical mechanisms behind the differential interconnectedness of life course events by couples' migration background. Knowing couples' gender division of paid work in different stages of the life course and pinpointing which life course transitions induce migrant-native differences in gender dynamics in households yields also particular societal relevance. In order to develop specific policies that enhance the labour market participation of migrant origin women, a life course perspective is required, as different policies are relevant in different stages in the life course.

6.2 Paths for future research

Although this dissertation contributed to available literature in multiple ways, a number of limitations can be identified, which offer fruitful paths for future research on work-family trajectories in migrant populations. From the main life course principles, we suggest five potential avenues for the further development of this strand of research. First, while this dissertation highlighted path-dependencies in work-family trajectories, the empirical chapters only focussed on a specific stage in the early life course (i.e. Chapter 2 on labour market entry, Chapters 3 and 4 on the transition to parenthood, and Chapter 5 on households with only one first child). Future research should therefore take a longer observation window and link subsequent employment and family transitions in order to elaborate how the path-dependent interplay of work and family trajectories further unfolds over the life courses of native and migrant origin women. Early labour market trajectories might be influenced by or induce specific first transitions regarding family formation, which in turn will affect further work-family behaviour in subsequent stages of labour market and family biographies. Hence, a more comprehensive life course approach examining the recursive work-family relation in terms of continued childbearing is needed to gain a more integrated understanding

of how path-dependencies in work-family dynamics induce and/or reinforce differences in labour market outcomes by migration background.

Second, Section 1.3 argued that work-family attitudes and childcare preferences may differ between native and second generation women (de Valk, 2008; Khoudja & Fleischmann, 2015; Seibel & Hedegaard, 2017; Wood, 2022), which may partly explain migrant-native differences in women's employment trajectories around the transition to parenthood and the uptake of formal childcare. Although the register-based data infrastructures that are used in this dissertation provide rich information, they do not allow considering individuals' work-family attitudes. The life course principle of agency, however, highlights that labour market opportunities and attitudes are strongly interrelated, making it difficult to identify the role of attitudes in women's work-family trajectories. On the one hand, differential socialisation contexts may stimulate different work-family attitudes among second generation Southern European, Turkish and Moroccan women compared to native women. To the extent that women limit their investment in education and employment in anticipation of reduced labour market participation after the transition to parenthood, there may also be a self-selection of women with more traditional work-family attitudes in less stable employment positions and low wage jobs before family formation. On the other hand, women with limited labour market prospects may consider family formation as an alternative career (Friedman et al., 1994). In this view, weaker pre-birth labour market opportunities may foster traditional work-family attitudes that subsequently shape their employment trajectories around family formation and childcare strategies. Hence, a longitudinal measurement of attitudes among native and migrant origin groups in combination with register-based panel data that allows addressing the extent to which gender role attitudes change after family formation among different origin groups may be a promising avenue to elaborate our understanding of the role of attitudes in women's work-family trajectories. Additional mixed-method research could provide valuable insights in this respect as well. Although there are hitherto no specific quantitative studies for Belgium, there are some qualitative indications for more traditional gender norms after family formation among Turkish and Moroccan origin groups. For instance, research among the Turkish and Moroccan second generation in Belgium indicates that once women are married, and particularly when they have children, it is no longer considered desirable to work within the Turkish or Moroccan community (Adam & Torrekens, 2015). Furthermore, given this interplay between labour market opportunities and attitudes, it is likely that the estimated employment opportunities that are used in Chapter 3 as indicator for women's pre-birth labour market attachment are affected by (differential) work-family preferences of native and migrant origin women. We therefore argue that future research should

further address the congruence between preferences and opportunities, and focus more strongly on strategies to identify variation in women's employment probabilities that is not affected by or related to differential preferences.

Third, the life course principle of time and place argues that work-family behaviour is embedded in and shaped by the societal context parents experience. Hence, the specific labour market, institutional and normative context of Belgium shapes how parents with different migration backgrounds organise their work and family life, and is likely to be crucial for the interpretation of the results of this dissertation. Since European countries vary in the extent to which policy designs challenge particular gender norms and imply subgroup differences in the access to these policies, and the context-contingency of the results presented in this dissertation (Mussino & Duvander, 2016; Sainsbury, 2019; Saxonberg, 2013), comparing different countries could provide more insight into the impact of policy designs on subgroup variation in work-family trajectories (Huschek et al., 2011). In Belgium, work-family reconciliation policies are strongly conditioned on stable employment, which contrasts with universal access in Nordic countries or policies in favour of the one-and-a-half-earner model (e.g. Germany). In this respect, limited migrant-native differentials in the uptake of family policies in Sweden have been related to universal access to formal childcare and parental leave (Sainsbury, 2019). In addition, Section 1.1.1 indicated that the migration histories of Southern European, Turkish and Maghreb origin groups have given rise to specific socio-economic and ideational contexts of these origin groups in Belgium, which may have shaped the work-family trajectories of the second generation. As such, migrant-native differentials in women's work-family trajectories are likely to vary across European countries as a result of countries' migration histories that may have induced specific origin groups, as well as specific socio-economic and ideational contexts among these groups.

Fourth, following the life course principle of agency, a fruitful path for future research would be to further elaborate heterogeneity within the second generation. This dissertation focussed on women of the second generation, who were defined as women who are born in Belgium, but who have at least one parent with a nationality at birth that is not Belgian. Given that socio-economic and ideational contexts are likely to vary between women with one (generation 2.5) or two parents (second generation) with a foreign nationality at birth, future research could examine potential differences between their work-family trajectories. In this respect, previous research suggests that the choice of individuals with a migration background for a native partner is associated with generally better socio-economic positions and more egalitarian gender role attitudes (Dribe & Lundh, 2008; Hooghiemstra, 2001; Huschek et al., 2011). The observed differences with natives' work-family trajectories among second generation

Southern European, Turkish and Maghreb origin women may also be related to compositional differences in this respect. Whereas research indicates that relationships with a native partner are common among both first and second generation Southern Europeans (Hannemann et al., 2018; Koelet & De Valk, 2014) and also increasingly occur among second generation Moroccan migrants, particularly among men, they remain low among Turkish origin groups (Hannemann et al., 2018). In addition, future studies could use data infrastructures covering more recent time periods that allow examining work-family interlinkages among descendants of more recent origin groups such as Eastern Europeans. This may be informative on variation by migration background as these origin groups are likely to display different socio-economic and ideational contexts compared to the origin groups related to the post-WWII waves of labour migration.

Finally, although this dissertation deployed longitudinal research designs that combined information on differential life domains as well as different levels, these data infrastructures only cover the period 2000-2016 (the BASD Panel only the period 1999-2010). From the life course principle of time and place, follow-up research considering more recent time periods seems therefore appropriate. In this respect, we argue that a structural integration of register-based microdata into effective longitudinal research designs should be developed in order to continuously monitor the employment trajectories of women with a migration background around family formation and to evaluate the uptake and effects of (changes in) work-family reconciliation policies on their labour market outcomes.

Chapter 7
References

Abroms, L. C., & Goldscheider, F. K. (2002). More work for mother: How spouses, cohabiting partners and relatives affect the hours mothers work. *Journal of Family and Economic Issues, 23*(2), 147-166.

Adam, I., & Torrekens, C. (2015). Marokkaanse en turkse belgen: Een (zelf) portret van onze medeburgers.

Allison, P. D. (1984). *Event history and survival analysis: Regression for longitudinal event data*. Thousand Oaks: SAGE publications.

Allison, P. D. (2009). *Fixed effects regression models* (Vol. 160): SAGE publications.

Anderson, D. J., Binder, M., & Krause, K. (2003). The motherhood wage penalty revisited: Experience, heterogeneity, work effort, and work-schedule flexibility. *ILR Review, 56*(2), 273-294.

Baert, S., & Cockx, B. (2013). Pure ethnic gaps in educational attainment and school to work transitions: When do they arise? *Economics of Education Review, 36*, 276-294.

Baert, S., Cockx, B., Gheyle, N., & Vandamme, C. (2013). Do employers discriminate less if vacancies are difficult to fill? Evidence from a field experiment. *CESifo Working Paper, No. 4093*.

Baert, S., Heiland, F. W., & Korenman, S. (2016). Native-immigrant gaps in educational and school-to-work transitions in the 2nd generation: The role of gender and ethnicity. *De Economist, 164*(2), 159-186.

Baert, S., Neyt, B., Omey, E., & Verhaest, D. (2017). *Student work, educational achievement, and later employment: A dynamic approach*.

Bass, B. C. (2015). Preparing for parenthood? Gender, aspirations, and the reproduction of labor market inequality. *Gender & society, 29*(3), 362-385.

Baxter, J., Buchler, S., Perales, F., & Western, M. (2015). A life-changing event: First births and men's and women's attitudes to mothering and gender divisions of labor. *Social Forces, 93*(3), 989-1014.

Baxter, J., Hewitt, B., & Haynes, M. (2008). Life course transitions and housework: Marriage, parenthood, and time on housework. *Journal of Marriage and Family, 70*(2), 259-272.

Becker, G. S. (1991). *A treatise on the family*. Cambridge: Harvard University Press.

Becker, G. S. (2009). *Human capital: A theoretical and empirical analysis, with special reference to education*: University of Chicago press.

Bergsvik, J., Kitterød, R. H., & Wiik, K. A. (2020). Parenthood and couples' relative earnings in norway. *European Sociological Review, 36*(2), 218-235.

Bernardi, L., Huinink, J., & Settersten Jr, R. A. (2019). The life course cube: A tool for studying lives. *Advances in Life Course Research, 41*, 100258.

Bevelander, P., & Groeneveld, S. (2006). Patterns of transition: Female native dutch and ethnic minority employment patterns in the dutch labour market, 1991 and 2002. *Journal of Ethnic and Migration Studies, 32*(5), 785-807.

Biegel, N., Wood, J., & Neels, K. (2021). Migrant-native differentials in the uptake of (in) formal childcare in belgium: The role of mothers' employment opportunities and care availability. *Journal of Family Research*.

Blumberg, R. L. (1984). A general theory of gender stratification. *Sociological theory*, 23-101.

Brines, J. (1993). The exchange value of housework. *Rationality and society, 5*(3), 302-340.

Budig, M. J., & England, P. (2001). The wage penalty for motherhood. *American sociological review, 66*(2), 204-225.

Burger, K. (2010). How does early childhood care and education affect cognitive development? An international review of the effects of early interventions for children from different social backgrounds. *Early childhood research quarterly, 25*(2), 140-165.

Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers college record, 112*(3), 579-620.

Cantillon, B., & Van Lancker, W. (2013). Three shortcomings of the social investment perspective. *Social Policy and Society, 12*(4), 553-564.

CGKR. (2012). *Diversiteitsbarometer werk*.

Chiswick, B. R. (1978). The effect of americanization on the earnings of foreign-born men. *Journal of political Economy, 86*(5), 897-921.

Chiswick, B. R., & Miller, P. W. (1995). The endogeneity between language and earnings: International analyses. *Journal of Labor Economics, 13*(2), 246-288.

Ciccia, R., & Bleijenbergh, I. (2014). After the male breadwinner model? Childcare services and the division of labor in european countries. *Social Politics, 21*(1), 50-79.

Cleveland, G., & Krashinsky, M. (2009). The nonprofit advantage: Producing quality in thick and thin child care markets. *Journal of Policy Analysis and Management, 28*(3), 440-462.

Corijn, M., & Lodewijckx, E. (2009). *De start van de gezinsvorming bij de turkse en marokkaanse tweede generatie in het vlaamse gewest*. Brussel: Studiedienst van de Vlaamse Regering.

Corluy, V. (2014). *Labour market outcomes and trajectories of immigrants in Belgium.* Universiteit Antwerpen (Belgium).

Crenshaw, K. (1990). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stan. L. Rev., 43*, 1241.

Daly, M., & Ferragina, E. (2018). Family policy in high-income countries: Five decades of development. *Journal of European Social Policy, 28*(3), 255-270.

Davis, S. N., & Greenstein, T. N. (2009). Gender ideology: Components, predictors, and consequences. *Annual Review of Sociology*, 87-105.

De Klerck, W., Boey, R., Djait, F., Gonzalez-Garibay, M., Jacobs, M., & Raymenants, J. (2016). *De vlaamse arbeidsmarkt na 2020*.

de Valk, H. (2008). Parental influence on work and family plans of adolescents of different ethnic backgrounds in the netherlands. *Sex Roles, 59*(9), 738-751.

de Valk, H., & Milewski, N. (2011). Family life transitions among children of immigrants: An introduction. *Advances in Life Course Research, 16*(4), 145-151.

de Valk, H., & Willaert, D. (2012). Internal mobility of international migrants: The case of belgium. In F. Nissa & C. Gemma (Eds.), *Minority internal migration in europe* (pp. 13-38): Ashgate Publishers.

Diehl, C., Koenig, M., & Ruckdeschel, K. (2009). Religiosity and gender equality: Comparing natives and muslim migrants in germany. *Ethnic and Racial Studies, 32*(2), 278-301.

Djait, F. (2014). Integratie op de vlaamse arbeidsmarkt. *Internationale Migraties en Migranten in Vlaanderen*, 85-96.

Doerflinger, N., Pulignano, V., & Lukac, M. (2020). The social configuration of labour market divides: An analysis of germany, belgium and italy. *European Journal of Industrial Relations, 26*(2), 207-223.

Dribe, M., & Lundh, C. (2008). Intermarriage and immigrant integration in sweden: An exploratory analysis. *Acta Sociologica, 51*(4), 329-354.

Driessen, G. W. (2004). A large-scale longitudinal study of the utilization and effects of early childhood education and care in the netherlands. *Early Child Development and Care, 174*(7-8), 667-689.

Dujardin, C., Fonder, M., & Lejeune, B. (2018). Does formal child care availability for 0–3 year olds boost mothers' employment rate? Panel data based evidence from belgium. *Annals of Economics and Statistics/Annales d'économie et de statistique*(129), 103-126.

Elchardus, M., & Te Braak, P. (2014). Toekomstverwachtingen van jongvolwassenen.

Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In *Handbook of the life course* (pp. 3-19): Springer.

Elloukmani, S., & Ou-Salah, L. (2018). Thuisblijven of werken? Ervaren drempels van marokkaanse vrouwen. In J. Coene, P. Raeymaeckers, B. Hubeau, T. Goedemé, R. Remmen, & A. Van Haarlem (Eds.), *Armoede en sociale uitsluiting: Jaarboek 2018* (pp. 149-172). Leuven: Acco.

Erdal, M. B., & Oeppen, C. (2013). Migrant balancing acts: Understanding the interactions between integration and transnationalism. *Journal of Ethnic and Migration Studies, 39*(6), 867-884.

Esping-Andersen, G. (1999). *Social foundations of postindustrial economies*. Oxford: OUP.

Esser, H. (2006). *Migration, language and integration*: WZB.

European Commission. (2014). *Key data on early childhood education and care in europe: 2014 edition*. Luxembourg: Publications Office of the European Union.

European Commission. (2019). *Key data on early childhood education and care in europe: 2019 edition*. Luxembourg: Publications Office of the European Union.

Eurostat. (2014). Employment rate by sex, age and migration status.

Evans, K. (2007). Concepts of bounded agency in education, work, and the personal lives of young adults. *International journal of psychology, 42*(2), 85-93.

Fabra, M. E., & Camisón, C. (2009). Direct and indirect effects of education on job satisfaction: A structural equation model for the spanish case. *Economics of Education Review, 28*(5), 600-610.

Farfan-Portet, M.-I., Lorant, V., & Petrella, F. (2011). Access to childcare services: The role of demand and supply-side policies. *Population Research and Policy Review, 30*(2), 165-183.

FOD WASO, & UNIA. (2017). *Socio-economische monitoring: Arbeidsmark en origine*. Brussel Interfederaal Gelijkekansencentrum en Federale Overheidsdienst Werkgelegenheid en Sociaal Overleg.

FOD WASO, & UNIA. (2019). *Socio-economische monitoring: Arbeidsmark en origine*. Brussel: Federale Overheidsdienst Werkgelegenheid en Sociaal Overleg en UNIA.

Fram, M. S., & Kim, J. (2008). Race/ethnicity and the start of child care: A multi-level analysis of factors influencing first child care experiences. *Early childhood research quarterly, 23*(4), 575-590.

Friedman, D., Hechter, M., & Kanazawa, S. (1994). A theory of the value of children. *Demography, 31*(3), 375-401.

Gesthuizen, M., & Wolbers, M. H. J. (2010). Employment transitions in the netherlands, 1980–2004: Are low educated men subject to structural or cyclical crowding out? *Research in Social Stratification and Mobility, 28*(4), 437-451.

Ghysels, J., & Van Lancker, W. (2009). Het matteüseffect onder de loep: Over het ongelijke gebruik van kinderopvang in vlaanderen. *CSB Berichten. Antwerpen: Centrum voor Sociaal Beleid Herman Deleeck*.

Giele, J., & Elder, G. H. (1998). *Methods of life course research: Qualitative and quantitative approaches*: Sage.

Glorieux, I., Laurijssen, I., & Van Dorsselaer, Y. (2009). *Zwart op wit: De intrede van allochtonen op de arbeidsmarkt*: Garant.

Göbel, C., & Verhofstadt, E. (2008). *The role of temporary employment for the integration of schoolleavers into permanent employment.* Paper presented at the XXII Annual Conference of the European Society for Population Economics, June.

Goldscheider, Bernhardt, E., & Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review, 41*(2), 207-239.

Goldscheider, Goldscheider, C., & Bernhardt, E. M. (2011). Creating egalitarian families among the adult children of turkish-and polish-origin immigrants in sweden. *International Migration Review, 45*(1), 68-88.

Goos, M., Manning, A., & Salomons, A. (2009). Job polarization in europe. *American economic review, 99*(2), 58-63.

Gracia, P., Vázquez-Quesada, L., & Van de Werfhorst, H. G. (2016). Ethnic penalties? The role of human capital and social origins in labour market outcomes of second-generation moroccans and turks in the netherlands. *Journal of Ethnic and Migration Studies, 42*(1), 69-87.

Grunow, D., & Evertsson, M. (2016). *Couples' transitions to parenthood: Analysing gender and work in europe*: Edward Elgar Publishing.

Güngör, D., & Bornstein, M. H. (2009). Gender, development, values, adaptation, and discrimination in acculturating adolescents: The case of turk heritage youth born and living in belgium. *Sex Roles, 60*(7-8), 537-548.

Gutierrez-Domenech, M. (2005). Employment after motherhood: A european comparison. *Labour Economics, 12*(1), 99-123.

Hannemann, T., Kulu, H., Rahnu, L., Puur, A., Hărăguș, M., Obućina, O., . . . Pailhé, A. (2018). Co-ethnic marriage versus intermarriage among immigrants and their descendants: A comparison across seven european countries using event-history analysis. *Demographic Research, 39*, 487-524.

Hartung, A., Vandezande, V., Phalet, K., & Swyngedouw, M. (2011). Partnership preferences of the belgian second generation: Who lives with whom? *Advances in Life Course Research, 16*(4), 152-163.

Heath, A. F., Rothon, C., & Kilpi, E. (2008). The second generation in western europe: Education, unemployment, and occupational attainment. *Annual Review of Sociology, 34*, 211-235.

Hegewisch, A., & Gornick, J. C. (2011). The impact of work-family policies on women's employment: A review of research from oecd countries. *Community, Work & Family, 14*(2), 119-138.

Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of applied psychology, 89*(3), 416.

Hemerijck, A. (2018). Social investment as a policy paradigm. *Journal of European public policy, 25*(6), 810-827.

Hermansen, A. S. (2017). Age at arrival and life chances among childhood immigrants. *Demography, 54*(1), 201-229.

Heyse, P., Pauwels, F., Wets, J., Timmerman, C., & Perrin, N. (2006). Liefde kent geen grenzen: Een kwantitatieve en kwalitatieve analyse van huwelijksmigratie vanuit marokko, turkije, oost europa en zuid-oost azië.

Höhne, J. (2013). *Language integration of labour migrants in austria, belgium, france, germany, the netherlands and sweden from a historical perspective*.

Holland, J. A., & de Valk, H. (2017). Differences in labour force participation by motherhood status among second-generation turkish and majority women across europe. *Population studies, 71*(3), 363-378.

Hooghiemstra, E. (2001). Migrants, partner selection and integration: Crossing borders? *Journal of Comparative Family Studies, 32*(4), 601-626.

Huschek, D., de Valk, H., & Liefbroer, A. C. (2011). Gender-role behavior of second-generation turks: The role of partner choice, gender ideology and societal context. *Advances in Life Course Research, 16*(4), 164-177.

Idema, H., & Phalet, K. (2007). Transmission of gender-role values in turkish-german migrant families: The role of gender, intergenerational and intercultural relations. *Zeitschrift für Familienforschung, 19*(1), 71-105.

Imeraj, L., Willaert, D., & de Valk, H. (2018). A comparative approach towards ethnic segregation patterns in belgian cities using multiscalar individualized neighborhoods. *Urban Geography, 39*(8), 1221-1246.

Jessen, J., Schmitz, S., & Waights, S. (2020). Understanding day care enrolment gaps. *Journal of Public Economics, 190*, 104252.

Kesteloot, C. (1985). De geografische spreiding van buitenlandse minderheden in belgië. In A. Martens & F. Moulaert (Eds.), *Buitenlandse minderheden in vlaanderen-belgië* (pp. 75-90). Antwerpen: Uitgeverij de Nederlandsche Boekhandel.

Khattab, N. (2009). Ethno-religious background as a determinant of educational and occupational attainment in britain. *Sociology, 43*(2), 304-322.

Khoudja, Y., & Fleischmann, F. (2014). Ethnic differences in female labour force participation in the netherlands: Adding gender role attitudes and religiosity to the explanation. *European Sociological Review, 31*(1), 91-102.

Khoudja, Y., & Fleischmann, F. (2015). Ethnic differences in female labour force participation in the netherlands: Adding gender role attitudes and religiosity to the explanation. *European Sociological Review, 31*(1), 91-102.

Khoudja, Y., & Platt, L. (2016). Labour market entries and exits of women from different origin countries in the uk.

Kil, T., Neels, K., & Vergauwen, J. (2016). Gender inequality in the division of housework over the life course: A european comparative perspective. In *Changing family dynamics and demographic evolution*: Edward Elgar Publishing.

Kil, T., Neels, K., Wood, J., & de Valk, H. (2018). Employment after parenthood: Women of migrant origin and natives compared. *European Journal of Population, 34*(3), 413-440.

Kil, T., Wood, J., & Neels, K. (2017). Parental leave uptake among migrant and native mothers: Can precarious employment trajectories account for the difference? *Ethnicities, 18*(1), 106-141.

Kind en Gezin. (2010). *Jaarverslag kinderopvang 2010*.

Kind en Gezin. (2020a). *Kinderopvang baby's en peuters. Cijfers op maat*. Retrieved from https://www.opgroeien.be/cijfers-en-publicaties/kinderopvang-babys-en-peuters/cijfers-op-maat

Kind en Gezin. (2020b). *Kinderopvang baby's en peuters. Vlaanderen en brussel*. Retrieved from https://www.opgroeien.be/cijfers-en-publicaties/kinderopvang-babys-en-peuters/vlaanderen-en-brussel

Koelet, S., & De Valk, H. (2014). European liaisons? A study on european bi-national marriages in belgium. *Population, Space and Place, 20*(2), 110-125.

Koelet, S., De Valk, H., Glorieux, I., Laurijssen, I., & Willaert, D. (2015). The timing of family commitments in the early work career: Work-family trajectories of young adults in flanders. *Demographic Research, 32*, 657-690.

Kogan, I. (2004). Last hired, first fired? The unemployment dynamics of male immigrants in germany. *European sociological review, 20*(5), 445-461.

Koslowski, A., Blum, S., & Moss, P. (2016). *12th international review of leave policies and related research 2016*. Vienna: International Network on Leave Policies and Related Research.

Kretschmer, D. (2018). Explaining differences in gender role attitudes among migrant and native adolescents in germany: Intergenerational transmission, religiosity, and integration. *Journal of Ethnic and Migration Studies, 44*(13), 2197-2218.

Kreyenfeld, M. (2015). Maternal and paternal employment across the life course. In R. Scott & S. Kosslyn (Eds.), *Emerging trends in the social and behavioral sciences: An interdisciplinary, searchable, and linkable resource* (pp. 1-15). Hoboken, NJ: John Wiley & Sons.

Kreyenfeld, M., & Andersson, G. (2014). Socioeconomic differences in the unemployment and fertility nexus: Evidence from denmark and germany. *Advances in Life Course Research, 21*, 59-73.

Kuhhirt, M. (2011). Childbirth and the long-term division of labour within couples: How do substitution, bargaining power, and norms affect parents' time allocation in west germany? *European Sociological Review, 28*(5), 565-582.

Lauer, C. (2003). Education and unemployment: A french-german comparison.

Leitner, S. (2003). Varieties of familialism: The caring function of the family in comparative perspective. *European societies, 5*(4), 353-375.

Levi, M. (1953). Les mineurs italiens en belgique. *Politique étrangère, 18*(2/3), 181-192.

Liefbroer, A. C., & Corijn, M. (1999). Who, what, where, and when? Specifying the impact of educational attainment and labour force participation on family formation. *European Journal of Population/Revue Européenne de Démographie, 15*(1), 45-75.

Lievens, J. (1999). Family-forming migration from turkey and morocco to belgium: The demand for marriage partners from the countries of origin. *International Migration Review, 33*(3), 717-744.

Lucassen, S. (2003). Bijbanen van onderwijsvolgende jeugd. *CBS, Sociaal-economische Maandstatistiek, 2*, 16-18.

Lück, D. (2005). Cross-national comparison of gender role attitudes and their impact on women's life courses. *Globalization, Uncertainty, and Women in Society. Cheltenham, UK/Northampton, USA: Edward Elgar*.

Lundberg, S., & Pollak, R. A. (1996). Bargaining and distribution in marriage. *Journal of economic perspectives, 10*(4), 139-158.

Lundström, K. E., & Andersson, G. (2012). Labor market status, migrant status, and first childbearing in sweden. *Demographic Research, 27*, 719-742.

Maes, J., Wood, J., & Neels, K. (2019). Early labour market trajectories of intermediate and second generation turkish and maghreb women in belgium. *Research in Social Stratification and Mobility, 61*, 65-78.

Maes, J., Wood, J., & Neels, K. (2020). Kwantitatieve analyse van eerste arbeidsintrede bij schoolverlaters In J. Wood & K. Neels (Eds.), *Wegwijs naar werk : Longitudinale analyse en evaluatie van inburgerings- en activeringstrajecten in vlaanderen, 2005-2016: Eindrapport van de viona leerstoel 'migratie, integratie & arbeidsmarkt'*.

Maliepaard, M., & Alba, R. (2016). Cultural integration in the muslim second generation in the netherlands: The case of gender ideology. *International Migration Review, 50*(1), 70-94.

Mandel, H., & Semyonov, M. (2006). A welfare state paradox: State interventions and women's employment opportunities in 22 countries. *American journal of sociology, 111*(6), 1910-1949.

Marynissen, L., Neels, K., Wood, J., & Van de Velde, S. (2020). Ready for parenthood? Dual earners' relative labour market positions and entry into parenthood in belgium. *Demographic Research, 42*, 901-932.

Marynissen, L., Wood, J., & Neels, K. (2021). Mothers and parental leave in belgium: Social inequalities in eligibility and uptake. *Social Inclusion, 9*(2), 325-337.

MAS. (2007). Analyse van het zoekproces van ouders naar een voorschoolse kinderopvangplaats.

Matysiak, A., & Vignoli, D. (2008). Fertility and women's employment: A meta-analysis. *European Journal of Population, 24*(4), 363-384.

Matysiak, A., & Węziak-Białowolska, D. (2016). Country-specific conditions for work and family reconciliation: An attempt at quantification. *European Journal of Population, 32*(4), 475-510.

Mazrekaj, D., De Witte, K., & Vansteenkiste, S. (2017). Het rendement van een diploma middelbaar onderwijs op de vlaamse arbeidsmarkt. *Leuven: Steunpunt Werk*.

Mescoli, E. (2016). *Forgotten women: The impact of islamophobia on muslim women in belgium*.

Milewski, N., Struffolino, E., & Bernardi, L. (2018). Migrant status and lone motherhood–risk factors of female labour force participation in switzerland. In L. Bernardi & D. Mortelmans (Eds.), *Lone parenthood in the life course* (pp. 141-163): Springer, Cham.

Modood, T. (2004). Capitals, ethnic identity and educational qualifications. *Cultural trends, 13*(2), 87-105.

Moen, P., Erickson, M. A., & Dempster-McClain, D. (1997). Their mother's daughters? The intergenerational transmission of gender attitudes in a world of changing roles. *Journal of Marriage and the Family*, 281-293.

Moghadam, V. M. (2003). *Modernizing women: Gender and social change in the middle east*: Lynne Rienner Publishers.

Morelli, A. (1988). L'appel à la main d'oeuvre italienne pour les charbonnages et sa prise en charge à son arrivée en belgique dans l'immédiat après-guerre. *Revue belge d'histoire contemporaine, 19*(1-2), 83-130.

Mussino, E., & Duvander, A.-Z. (2016). Use it or save it? Migration background and parental leave uptake in sweden. *European Journal of Population, 32*(2), 189-210.

Myria. (2016). *70 jaar italiaanse immigratie... En meer!*

Myrskylä, M., & Margolis, R. (2014). Happiness: Before and after the kids. *Demography, 51*(5), 1843-1866.

Neels, K. (2000). *Education and the transition to employment: Young turkish and moroccan adults in belgium*.

Neels, K., De Wachter, D., & Peeters, H. (2018). The effect of family formation on the build-up of pension rights among minority ethnic groups and native women in belgium. *Ageing & Society, 38*(6), 1253-1278.

Neels, K., & Stoop, R. (2000). *Reassessing the ethnic gap: Employment of younger turks and moroccans in belgium*.

Neimanns, E. (2021). Unequal benefits–diverging attitudes? Analysing the effects of an unequal expansion of childcare provision on attitudes towards maternal employment across 18 european countries. *Journal of Public Policy, 41*(2), 251-276.

Noppe, J., Vanweddingen, M., Doyen, G., Stuyck, K., Feys, Y., & Buysschaert, P. (2018). *Vlaamse migratie- en integratiemonitor 2018*. Brussel: Agentschap Binnenlands Bestuur.

Nylin, A.-K., Musick, K., Billingsley, S., Duvander, A.-Z., & Evertsson, M. (2021). Trends in women's relative earnings within couples across the transition to parenthood in sweden, 1987–2007. *European Sociological Review, 37*(3), 349-364.

OECD. (2008). *Jobs for immigrants (vol. 2)*: OECD Publishing.

OECD. (2010). *Equal opportunities? The labour market integration of the children of immigrants*. Paris: OECD Publishing.

ONE. (2020). *Rapport d'activités 2020. One en chiffres*.

Oppenheimer, V. K. (1994). Women's rising employment and the future of the family in industrial societies. *Population and Development Review*, 293-342.

Pannecoucke, I., & De Decker, P. (2015). *Woonsituatie van migranten. Scoping paper*. Leuven.

Pavolini, E., & Van Lancker, W. (2018). The matthew effect in childcare use: A matter of policies or preferences? *Journal of European public policy, 25*(6), 878-893.

Peeters, H., Neels, K., Havermans, N., Mortelmans, D., Donvil, N., De Wachter, D., & Cordeel, L. (2017). *De kleur van de vergrijzing*. Leuven: LannooCampus.

Pessin, L., & Arpino, B. (2018). Navigating between two cultures: Immigrants' gender attitudes toward working women. *Demographic Research, 38*, 967.

Pettit, B., & Hook, J. L. (2009). *Gendered tradeoffs: Women, family, and workplace inequality in twenty-one countries*: Russell Sage Foundation.

Phalet, K., Deboosere, P., & Bastiaenssen, V. (2007). Old and new inequalities in educational attainment: Ethnic minorities in the belgian census 1991—2001. *Ethnicities, 7*(3), 390-415.

Pichler, F. (2011). Success on european labor markets: A cross-national comparison of attainment between immigrant and majority populations. *International Migration Review, 45*(4), 938-978.

Piton, C., & Rycx, F. (2020). *The heterogeneous employment outcomes of first-and second-generation immigrants in belgium*.

Platt, L. (2005). The intergenerational social mobility of minority ethnic groups. *Sociology, 39*(3), 445-461.

Rendall, M. S., Tsang, F., Rubin, J. K., Rabinovich, L., & Janta, B. (2010). Contrasting trajectories of labor-market integration between migrant women in western and southern europe. *European Journal of Population/Revue européenne de Démographie, 26*(4), 383-410.

Reniers, G. (1999). On the history and selectivity of turkish and moroccan migration to belgium. *International Migration, 37*(4), 679-713.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces, 92*(3), 899-928.

Rubin, J., Rendall, M. S., Rabinovich, L., Tsang, F., van Oranje-Nassau, C., & Janta, B. (2008). *Migrant women in the european labour force: Current situation and future prospects*. Cambridge, UK: RAND Europe.

Sainsbury, D. (2019). Policy constructions, immigrants' social rights and gender: The case of swedish childcare policies. *Journal of European Social Policy, 29*(2), 213-227.

Saxonberg, S. (2013). From defamilialization to degenderization: Toward a new welfare typology. *Social policy & administration, 47*(1), 26-49.

Schober, P. (2013). The parenthood effect on gender inequality: Explaining the change in paid and domestic work when british couples become parents. *European Sociological Review, 29*(1), 74-85.

Schober, P., & Scott, J. (2012). Maternal employment and gender role attitudes: Dissonance among british men and women in the transition to parenthood. *Work, employment and society, 26*(3), 514-530.

Schober, P., & Spiess, C. K. (2013). Early childhood education activities and care arrangements of disadvantaged children in germany. *Child Indicators Research, 6*(4), 709-735.

Scott, K., & Stanfors, M. (2011). The transition to parenthood among the second generation: Evidence from sweden, 1990–2005. *Advances in Life Course Research, 16*(4), 190-204.

Seibel, V., & Hedegaard, T. F. (2017). Migrants' and natives' attitudes to formal childcare in the netherlands, denmark and germany. *Children and Youth Services Review, 78*, 112-121.

Sibley, E., Dearing, E., Toppelberg, C. O., Mykletun, A., & Zachrisson, H. D. (2015). Do increased availability and reduced cost of early childhood care and education narrow social inequality gaps in utilization? Evidence from norway. *International Journal of Child Care and Education Policy, 9*(1), 1.

Stevens, E. (2009). *Jongeren in beeld. Een analyse op basis van eak/lfs*. Retrieved from Leuven:

Stock, J. H., & Watson, M. W. (2015). *Introduction to econometrics*. Harlow: Pearson.

Teppers, E., Schepers, W., & Van Regenmortel, T. (2019). Het gebruik van opvang voor kinderen jonger dan 3 jaar in het vlaams gewest.

Termote, A., & Van Trier, W. (2011). Hoe kan men best de overgang van school naar werk opvolgen? *Over.Werk. Tijdschrift van het Steunpunt WSE, 21*(2), 98-109.

Tielens, M., & Herremans, W. (2009). *Schoolverlaters in hun eerste job. Een analyse op basis van het datawarehouse am&sm*.

Timmerman, C. (2006). Gender dynamics in the context of turkish marriage migration: The case of belgium. *Turkish Studies, 7*(1), 125-143.

Timmerman, C., Lodewyckx, I., & Wets, J. (2009). Marriage at the intersection between tradition and globalization: Turkish marriage migration between emirdag and belgium from 1989 to present. *The History of the Family, 14*(2), 232-244.

Tsang, F., Rendall, M. S., Rohr, C., & Hoorens, S. (2014). Emerging trends in earnings structures of couples in europe: Short statistical report no. 5.

Uhlendorff, A., & Zimmermann, K. F. (2006). Unemployment dynamics among migrants and natives.

UNIA. (2016). *Diversiteitsbarometer onderwijs*.

Van de Werfhorst, H. G., & Van Tubergen, F. (2007). Ethnicity, schooling, and merit in the netherlands. *Ethnicities, 7*(3), 416-444.

Van den Broucke, S., Noppe, J., Stuyck, K., Buysschaert, P., Boyen, G., & Wets, J. (2015). *Vlaamse migratie- en integratiemonitor 2015*. Retrieved from

Van Dooren, G., Struyven, L., & Sam, C. (2014). *National report on the labour market position of vulnerable groups in belgium*. (2215-1605). Leuven: Univeristy of Leuven.

Van Imhoff, E., & Keilman, N. (1991). *Lipro 2.0: An application of a dynamic demographic projection model to household structure in the netherlands* (Vol. 23). Amsterdam: Swets & Zeitlinger.

Van Lancker, W. (2018). Reducing inequality in childcare service use across european countries: What (if any) is the role of social spending? *Social policy & administration, 52*(1), 271-292.

Van Lancker, W., & Ghysels, J. (2012). Who benefits? The social distribution of subsidized childcare in sweden and flanders. *Acta Sociologica, 55*(2), 125-142.

Van Lancker, W., & Vandenbroeck, M. (2019). De verdeling van de kinderopvang in vlaanderen en in de centrumsteden: Spanning tussen de economische en sociale functie van kinderopvang.

Van Mol, C., & De Valk, H. (2016). Migration and immigrants in europe: A historical and demographic perspective. In *Integration processes and policies in europe* (pp. 31-55): Springer, Cham.

Van Tubergen, F., Maas, I., & Flap, H. (2004). The economic incorporation of immigrants in 18 western societies: Origin, destination, and community effects. *American Sociological Review, 69*(5), 704-727.

Vandenbroeck, M., & Bauters, V. (2016). Cartografie van de nederlandstalige gezinsvoorzieningen in het brussels hoofdstedelijk gewest.

Vandenbroeck, M., De Visscher, S., Van Nuffel, K., & Ferla, J. (2008). Mothers' search for infant child care: The dynamic relationship between availability and desirability in a continental european welfare state. *Early childhood research quarterly, 23*(2), 245-258.

Vandenbroeck, M., & Lazzari, A. (2014). Accessibility of early childhood education and care: A state of affairs. *European Early Childhood Education Research Journal, 22*(3), 327-335.

Vandezande, V., Fleischmann, F., Baysu, G., Swyngedouw, M., & Phalet, K. (2008). De turkse en marokkaanse tweede generatie op de arbeidsmarkt in antwerpen en brussel.

Vanduynslager, L., Wets, J., Noppe, J., & Doyen, G. (2013). *Vlaamse migratie- en integratiemonitor 2013*.

Vansteenkiste, S., & Sourbron, M. (2016). Op weg naar de arbeidsmarkt. De arbeidsmarktintrede van vlaamse schoolverlaters. *Over. Werk. Tijdschrift van het Steunpunt WSE, 26*(01-2016), 92-105.

VDAB. (2004). *Fatima of sil, een wereld van verschil. Een vergelijkend onderzoek naar de slaagkansen op de arbeidsmarkt tussen etnisch e.U. En allochtone schoolverlaters*.

VDAB. (2008). *De taal van de arbeidsmarkt*.

VDAB. (2014). *Duurzaam werk voor jongeren: Fictie of realiteit*. Retrieved from Brussel:

VDAB. (2017). *Werkzoekende schoolverlaters in vlaanderen*.

Verhaeghe, P.-P., Li, Y., & Van de Putte, B. (2013). Socio-economic and ethnic inequalities in social capital from the family among labour market entrants. *European Sociological Review, 29*(4), 683-694.

Verhaeghe, P.-P., Van der Bracht, K., & Van de Putte, B. (2015). Inequalities in social capital and their longitudinal effects on the labour market entry. *Social networks, 40*, 174-184.

Verhofstadt, E. (2007). *Qualitative aspects of entry jobs.* Ghent University.

Vidal-Coso, E. (2019). Female employment following childbirth: Differences between native and immigrant women in switzerland. *Journal of Ethnic and Migration Studies, 45*(9), 1667-1692.

Vignoli, D., Drefahl, S., & De Santis, G. (2012). Whose job instability affects the likelihood of becoming a parent in italy? A tale of two partners. *Demographic Research, 26*, 41-62.

Wall, K., & José, J. S. (2004). Managing work and care: A difficult challenge for immigrant families. *Social policy & administration, 38*(6), 591-621.

West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & society, 1*(2), 125-151.

Wingens, M., de Valk, H., Windzio, M., & Aybek, C. (2011). The sociological life course approach and research on migration and integration. In *A life-course perspective on migration and integration* (pp. 1-26): Springer, Dordrecht.

Winkler-Dworak, M., & Toulemon, L. (2007). Gender differences in the transition to adulthood in france: Is there convergence over the recent period? *European Journal of Population/Revue Européenne de Démographie, 23*(3), 273-314.

Wolf, K. (2016). Marriage migration versus family reunification: How does the marriage and migration history affect the timing of first and second childbirth among turkish immigrants in germany? *European Journal of Population, 32*(5), 731-759.

Wood, J. (2019). Social differentials in the effect of formal childcare on the transition to parenthood?: An assessment of varying effects by education, working hours and migration background. *Advances in Life Course Research, 42*, 100309.

Wood, J. (2022). Childcare ideals among second generation muslim moroccan immigrants in flanders. *Community, Work & Family*, 1-18.

Wood, J., Kil, T., & Marynissen, L. (2018). Do women's pre-birth relative wages moderate the parenthood effect on gender inequality in working hours? *Advances in Life Course Research, 36*, 57-69.

Wood, J., & Marynissen, L. (2019). Who steps back? Dual-earner couples' organization of paid work and leave uptake after childbearing in belgium. *Population, English edition, 74*(3), 303-330.

Wood, J., & Neels, K. (2017). First a job, then a child? Subgroup variation in women's employment-fertility link. *Advances in Life Course Research, 33*, 38-52.

Wood, J., Neels, K., De Wachter, D., & Kil, T. (2016). Family formation and labour force participation. *Population, 71*(1), 53-81.

Wood, J., Van den Berg, L., & Neels, K. (2017). Household division of labour and family formation in the moroccan first and second generations at the turn of the 21st century. In C. Timmerman, N. Fadil, I. Goddeeris, N. Clycq, & K. Ettourki (Eds.),

Moroccan migration in belgium: More than 50 years of settlement (pp. 125-145). Leuven: Leuven University Press.

Zhou, M. (1997). Growing up american: The challenge confronting immigrant children and children of immigrants. *Annual review of sociology, 23*(1), 63-95.

Zhou, M. (2005). Ethnicity as social capital: Community-based institutions and embedded networks of social relations. *Ethnicity, social mobility and public policy: comparing the US and UK*, 131-159.

Zoch, G., & Schober, P. S. (2018). Public child-care expansion and changing gender ideologies of parents in germany. *Journal of Marriage and Family, 80*(4), 1020-1039.

Zuccotti, C. V. (2015). Do parents matter? Revisiting ethnic penalties in occupation among second generation ethnic minorities in england and wales. *Sociology, 49*(2), 229-251.

Appendix

Declaration of co-authors' contributions

Chapter 2 Early labour market trajectories of intermediate and second generation Turkish and Maghreb women in Belgium

Chapter 2 has been published in Research in Social Stratification and Mobility in June 2019.

The three authors designed the study jointly. Julie Maes prepared the literature review, analysed the data and drafted, revised and finalised the manuscript. Jonas Wood and Karel Neels contributed to the consistency of the introduction and theoretical framework. Karel Neels is responsible for data acquisition and developed the analyses. Both Karel Neels and Jonas Wood helped with the interpretation of the results and critically revised the paper. All authors read and approved the final manuscript.

Chapter 3 Path-Dependencies in Employment Trajectories Around Motherhood: Comparing Native Versus Second-Generation Migrant Women in Belgium

Chapter 3 has been published in Journal of International Migration and Integration in January 2021.

The three authors designed the study jointly. Julie Maes prepared the literature review, analysed the data and drafted, revised and finalised the manuscript. Karel Neels is responsible for data acquisition and developed the predicted employment probabilities used in the model stratification. Jonas Wood developed the fixed-effects design. Both Karel Neels and Jonas Wood helped with the interpretation of the results and critically revised the paper. All authors read and approved the final manuscript.

Chapter 4 The gender division of paid work around family formation: variation by couples' migration background

Chapter 4 has been published in Advances in Life Course research in July 2022.

The three authors designed the study jointly. Julie Maes prepared the literature review, analysed the data and drafted, revised and finalised the manuscript. Jonas Wood and Karel Neels contributed to the consistency of the introduction and theoretical framework. Leen Marynissen helped with the literature review and the presentation of the results. Karel Neels is responsible for data acquisition. Jonas Wood, Leen Marynissen and Karel Neels critically revised the paper. The authors read and approved the final manuscript.

Chapter 5 Formal childcare uptake of native and second generation mothers in Belgium: does increasing local childcare availability narrow migrant-native uptake gaps?

Chapter 5 is currently under review at Genus.

Julie Maes prepared the literature review, analysed the data and drafted, revised and finalised the manuscript. Karel Neels is responsible for data acquisition and the design of the municipality-level fixed-effects models, and helped with the interpretation of the results. Naomi Biegel helped with the literature review and the preparation of the data. Jonas Wood contributed to the consistency of the introduction and theoretical framework, and to the presentation of the results. Karel Neels, Naomi Biegel and Jonas Wood critically revised the paper. The authors read and approved the final manuscript.

Summary in Dutch - Nederlandstalige samenvatting

In de tweede helft van de 20e eeuw is de arbeidsparticipatie van vrouwen enorm toegenomen in Europese landen, waardoor er geleidelijk een verschuiving kwam van een mannelijk kostwinnaarsmodel naar een tweeverdienersmodel. Rond dezelfde periode zorgden grote immigratiestromen na de Tweede Wereldoorlog voor een toenemende diversiteit van de bevolking in Noord- en West-Europese landen. Over het algemeen is de arbeidsparticipatie van vrouwen met een migratieachtergrond lager dan die van vrouwen zonder migratieachtergrond[69]. Hoewel de werkzaamheidskloof met vrouwen zonder migratieachtergrond het grootst is bij de eerste generatie, hebben vrouwen van de tweede generatie - voornamelijk van niet-Europese herkomst - nog steeds een lagere arbeidsparticipatie dan vrouwen zonder migratieachtergrond. In vergelijking met andere Europese landen vertoont België bovendien een van de grootste werkzaamheidskloven tussen vrouwen zonder migratieachtergrond en vrouwen van de tweede generatie. In de context van vergrijzing en toenemende diversiteit is de succesvolle arbeidsparticipatie van vrouwen met een migratieachtergrond echter belangrijk om de kosten van de welvaartsstaat te dekken (bv. pensioenen of gezondheidszorg). Naast de maatschappelijke relevantie van de arbeidsparticipatie van vrouwen met een migratieachtergrond, kan een lage arbeidsparticipatie ook armoederisico's op huishoudensniveau vergroten, de financiële onafhankelijkheid van vrouwen in gevaar brengen en gevolgen hebben voor hun toekomstige kansen op de arbeidsmarkt en sociale zekerheid bescherming (bv. pensioenen). Het is daarom cruciaal om zicht te krijgen op de mechanismen die verschillen genereren in de arbeidsparticipatie van vrouwen met en zonder migratieachtergrond.

Het is algemeen vastgesteld dat de arbeidsmarkttrajecten van vrouwen sterk samenhangen met hun gezinstrajecten. Terwijl de arbeidsmarkttrajecten van mannen relatief stabiel zijn gedurende hun levensloop, heeft de transitie naar ouderschap een grote impact op de arbeidsmarkttrajecten van vrouwen. Hoewel de groeiende beschikbaarheid van formele kinderopvang en ouderschapsverlof in de meeste Europese landen de combinatie van werk en gezin aanzienlijk heeft vergemakkelijkt, waardoor de arbeidsparticipatie van moeders de afgelopen vijftig jaar is toegenomen, verminderen veel vrouwen nog steeds hun werkuren na de geboorte van een eerste

[69] In dit proefschrift worden personen zonder migratieachtergrond gedefinieerd als personen die een Belgische nationaliteit bij geboorte hebben en van wie ook beide ouders een Belgische nationaliteit bij geboorte hebben. Wegens gebrek aan informatie omtrent de nationaliteitshistoriek van grootouders kan in dit proefschrift de derde generatie niet onderscheiden worden van personen zonder migratieachtergrond.

kind. Hoewel er veel onderzoek bestaat bij de algemene bevolking, is er echter weinig geweten over de onderlinge samenhang van werk- en gezinstrajecten bij groepen met een migratieachtergrond. Dat is jammer aangezien de werkzaamheidskloof tussen vrouwen met en zonder migratieachtergrond groter is bij vrouwen met kinderen dan bij vrouwen zonder kinderen, wat suggereert dat het mee in rekening brengen van gezinstrajecten ons inzicht kan vergroten in het verschil in arbeidsparticipatie van vrouwen met en zonder migratieachtergrond. Daarnaast is het opmerkelijk dat we ook weinig weten over het gebruik van formele kinderopvang bij ouders van de tweede generatie, aangezien toegang tot formele kinderopvang de arbeidsparticipatie van ouders (en met name moeders) in belangrijke mate mogelijk maakt. Dit proefschrift onderzoekt daarom in welke mate de werk-gezinstrajecten van vrouwen van de tweede generatie verschillen van de trajecten van vrouwen zonder migratieachtergrond in België. Hierbij wordt een onderscheid gemaakt tussen Zuid-Europese, Turkse en Maghrebijnse herkomstgroepen. Vanuit een levensloopperspectief worden twee dimensies van de werk-gezinstrajecten van vrouwen bestudeerd: arbeidsmarkt trajecten rond de transitie naar ouderschap enerzijds en het gebruik van formele kinderopvang anderzijds. Deze samenvatting schetst de belangrijkste bevindingen en conclusies van de vier empirische hoofdstukken.

Allereerst onderzoekt **hoofdstuk 2** verschillen tussen vrouwen met en zonder migratieachtergrond in hun intrede op de arbeidsmarkt na afstuderen, aangezien moeilijkheden aan het begin van de arbeidsloopbaan waarschijnlijk hun verdere werk-gezinstrajecten zullen beïnvloeden. De centrale vraag van dit hoofdstuk is of kinderen van eerste generatie migranten evenveel kans hebben als vrouwen zonder migratieachtergrond om een “duurzame tewerkstelling” te verwerven. Dergelijke duurzame tewerkstelling wordt geoperationaliseerd als een tewerkstelling van ten minste vier opeenvolgende kwartalen, waarbij de tewerkstelling moet leiden tot een inkomen van minstens het Belgisch minimuminkomen en een werkintensiteit van minstens 40% van een voltijdse tewerkstelling in het vierde kwartaal. Daarnaast bekijken we of er verschillen zijn naar migratieachtergrond in de kenmerken (type contract, type werk en bruto inkomen) en de duur van deze eerste duurzame tewerkstelling. Om dat te onderzoeken wordt gebruik gemaakt van het Vlaams administratief panel over Migratie, Integratie en Activering (MIA Panel) dat longitudinale microdata bevat van de sociale zekerheid registers (KSZ). De analyses onderscheiden de tussengeneratie (vrouwen die naar België zijn geïmmigreerd voor de leeftijd van 18 jaar) en de tweede generatie (vrouwen die geboren zijn in België) om verschillen in socialisatie, taalontwikkeling en onderwijskansen mee in rekening te brengen. De resultaten van Hoofdstuk 2 tonen dat vrouwen van Turkse en Maghrebijnse herkomst (voornamelijk van de tussengeneratie) meer moeite hebben

om zich op de arbeidsmarkt te vestigen dan vrouwen zonder migratieachtergrond. Al vanaf het begin van hun loopbaan zijn de arbeidsmarkttrajecten van vrouwen met een migratieachtergrond minder stabiel dan die van vrouwen zonder migratieachtergrond. Ze vertonen een lagere kans om een tewerkstelling van vier kwartalen te betreden, in combinatie met een hogere kans om deze tewerkstelling te verlaten in vergelijking met vrouwen zonder migratieachtergrond. Bovendien starten vrouwen met een migratieachtergrond hun eerste "duurzame tewerkstelling" minder vaak met een job als bediende of ambtenaar, met een voltijds contract of met een loon dat vergelijkbaar is met dat van vrouwen zonder migratieachtergrond. Uit de resultaten blijkt verder dat vrouwen zonder migratieachtergrond vaak direct na afstuderen dergelijke duurzame tewerkstelling betreden, terwijl vrouwen van Turkse en Maghrebijnse herkomst vaker op zoek zijn naar werk of aan het werk zijn zonder te voldoen aan de voorwaarden omtrent stabiliteit, inkomen en werkintensiteit. Dat suggereert dat de Belgische arbeidsmarkt bestaat uit enerzijds insiders met een grotere job stabiliteit en anderzijds outsiders die van het ene tijdelijke contract naar het andere gaan. Hoewel de verschillen tussen vrouwen met en zonder migratieachtergrond afnemen na controle voor individuele kenmerken (bv. opleidingsniveau, talenkennis, eerdere werkervaring), huishoudenskenmerken (aantal kinderen en arbeidspositie van de partner) en ouderlijke kenmerken (inkomen van de ouders), blijven er aanzienlijke verschillen bestaan.

Hoofdstuk 3 toont vervolgens dat de instabiliteit van arbeidsmarkttrajecten die al voor gezinsvorming ontstaat belangrijk is om verschillen naar migratieachtergrond te begrijpen bij arbeidsmarkttrajecten van vrouwen rond de transitie naar ouderschap. Aan de hand van het Belgisch Administratief Socio-Demografisch Panel (BASD Panel) dat samengesteld is op basis van longitudinale microdata van de Kruispuntbank van de Sociale Zekerheid (KSZ) en het Rijksregister, analyseert deze studie veranderingen in de werkintensiteit van vrouwen van één jaar voor de geboorte van hun eerste kind tot drie jaar nadien. We vergelijken hierbij vrouwen zonder migratieachtergrond met tweede generatie vrouwen van Zuid-Europese en Turkse of Marokkaanse herkomst. De resultaten lijken erop te wijzen dat de geboorte van een eerste kind een sterkere impact heeft op de arbeidsparticipatie van vrouwen met een migratieachtergrond dan van vrouwen zonder migratieachtergrond, met het grootste verschil voor vrouwen van Turkse of Marokkaanse herkomst. Als we kijken naar vrouwen die één jaar voor de transitie naar ouderschap werkten, stellen we vast dat vrouwen van de tweede generatie hun werkintensiteit sterker terugschroeven dan vrouwen zonder migratieachtergrond. Ook bij vrouwen die één jaar voor de geboorte van hun eerste kind niet werkten (werkloos of inactief) stellen we vast dat vrouwen van de tweede generatie minder vaak hun werkintensiteit verhogen. Deze verschillen kunnen echter

(grotendeels) verklaard worden door verschillende tewerkstellingskansen vóór gezinsvorming. Als we vrouwen met gelijkaardige tewerkstellingskansen voor gezinsvorming vergelijken, vinden we slechts beperkte verschillen tussen de arbeidsmarkttrajecten rond de transitie naar ouderschap van vrouwen zonder migratieachtergrond en tweede generatie vrouwen van Zuid-Europese en Turkse of Marokkaanse herkomst. Dat toont aan dat er zowel voor vrouwen met als zonder migratieachtergrond een sterke pad-afhankelijkheid is in arbeidsmarkttrajecten rond de transitie naar ouderschap. Vrouwen van de tweede generatie hebben voor de geboorte van hun eerste kind over het algemeen lagere tewerkstellingskansen dan vrouwen zonder migratieachtergrond, wat het verschil in arbeidsparticipatie van moeders met en zonder migratieachtergrond verklaart dat vaak wordt waargenomen. Verder stellen we vast dat ook het loonpotentieel van vrouwen voor gezinsvorming de veranderingen in hun werkintensiteit na de geboorte van het eerste kind beïnvloedt. Verschillen in het loonpotentieel van vrouwen met en zonder migratieachtergrond blijken minder uitgesproken bij vrouwen met gelijkaardige tewerkstellingskansen, en bijkomend controleren voor het loonpotentieel zorgt voor (bijna) geen verandering in de verschillen naar migratieachtergrond. De bevindingen van deze studie tonen dus dat het van cruciaal belang is om de intrede op de arbeidsmarkt van vrouwen met een migratieachtergrond te ondersteunen en de ongelijkheden vóór ouderschap aan te pakken om te voorkomen dat verschillen in arbeidsmarktuitkomsten nog groter worden na de start van gezinsvorming. Aangezien de toegang tot gezinsbeleid zoals kinderopvang en ouderschapsverlof in België sterk verbonden is aan eerdere tewerkstelling en afhankelijk is van een ononderbroken arbeidsloopbaan, is het belangrijk dat vrouwen met een migratieachtergrond niet alleen geholpen worden om aan het werk te gaan, maar ook om een stabiele tewerkstelling te verwerven (cf. hoofdstuk 2).

Aangezien werk-gezin strategieën doorgaans op het niveau van het huishouden worden ontwikkeld, hanteert **hoofdstuk 4** een huishoudensperspectief. Longitudinale microdata van het MIA Panel wordt gebruikt om variatie naar migratieachtergrond te onderzoeken in de genderverdeling van betaald werk binnen koppels van één jaar voor de geboorte van het eerste kind tot drie jaar nadien. De resultaten tonen dat de meerderheid van de koppels zonder migratieachtergrond een gelijke verdeling van betaald werk hanteert, maar dat de genderongelijkheid in betaald werk toeneemt na de geboorte van het eerste kind. Dat komt doordat veel vrouwen hun werkintensiteit verminderen na de transitie naar ouderschap, terwijl de werkintensiteit van mannen stabiel blijft. Wanneer we de genderdynamieken van koppels zonder migratie achtergrond rond gezinsvorming vergelijken met die van koppels waarbij ten minste één partner een migratieachtergrond heeft, kunnen we vier patronen identificeren.

Deze vier patronen komen voort uit verschillen met koppels zonder migratieachtergrond in enerzijds hun verdeling van betaald werk vóór gezinsvorming en anderzijds hun veranderingen in deze verdeling rond de transitie naar ouderschap. Ten eerste zijn er koppels met een migratieachtergrond waarbij zowel de verdeling van betaald werk voor de geboorte van het eerste kind alsook de genderdynamieken rond gezinsvorming vergelijkbaar zijn met die van koppels zonder migratieachtergrond. Dat patroon stellen we vast bij koppels van Zuid-Europese herkomst. Ten tweede zijn er koppels met een migratieachtergrond waarbij de relatieve werkintensiteit van vrouwen voor gezinsvorming grotendeels vergelijkbaar is met die van koppels zonder migratieachtergrond, maar waarbij de genderongelijkheid in betaald werk sterker toeneemt na de geboorte van het eerste kind. Dat patroon vinden we bij gemengde koppels bestaande uit een vrouw zonder migratieachtergrond en een man van niet-Europese herkomst. Ten derde zijn er koppels met een migratieachtergrond die voor gezinsvorming een grotere mate van genderongelijkheid in betaald werk vertonen dan koppels zonder migratieachtergrond, maar geen significante verschillen vertonen wat betreft veranderingen in de verdeling van betaald werk na de transitie naar ouderschap. Dat patroon werd vastgesteld bij gemengde koppels bestaande uit een man zonder migratieachtergrond en een vrouw van niet-Europese herkomst, alsook bij niet-Europese koppels bestaande uit een vrouw van de eerste generatie en een man van de tweede generatie. Ten vierde zijn er koppels met een migratieachtergrond die zowel een hogere mate van genderongelijkheid in betaald werk vertonen voor de geboorte van het eerste kind in vergelijking met koppels zonder migratieachtergrond alsook een aanzienlijk sterkere toename van genderongelijkheid na gezinsvorming. Dat laatste patroon stellen we vast bij eerste en tweede generatie niet-Europese koppels, alsook bij niet-Europese koppels met een vrouw van de tweede generatie en een man van de eerste generatie. Deze studie toont dus aan dat de genderverdeling van betaald werk binnen koppels rond de transitie naar ouderschap varieert naar migratieachtergrond, maar meer onderzoek is nodig om de onderliggende mechanismen achter deze uiteenlopende genderdynamieken te ontrafelen.

Hoofdstuk 5 focust ten slotte op de tweede dimensie van de werk-gezinstrajecten van vrouwen. Dit hoofdstuk gaat na welke invloed de lokale beschikbaarheid van kinderopvangplaatsen heeft op verschillen in het gebruik van formele kinderopvang naar migratieachtergrond. In de Belgische context van aanbodtekorten en lange wachtlijsten ondervinden ouders van de tweede generatie, en voornamelijk van niet-Europese herkomst, wellicht meer moeilijkheden om tijdig een kinderopvangplaats te vinden dan ouders zonder migratieachtergrond aangezien zij minder stabiele arbeidsmarkttrajecten hebben, oververtegenwoordigd zijn in jobs met onregelmatige werkuren en mogelijk het sociaal kapitaal missen om zich een weg te banen door het

complexe kinderopvangsysteem. Door het gebrek aan longitudinaal onderzoek is het echter onduidelijk of een grotere beschikbaarheid van kinderopvangplaatsen de kloof tussen ouders met en zonder migratieachtergrond daadwerkelijk verkleint. Deze studie gaat daarom na of en in welke mate uitbreidingen in de beschikbaarheid van kinderopvang binnen gemeenten in de periode 2010-2014 het gebruik van formele kinderopvang verhogen bij huishoudens waar de moeder een tweede generatie Zuid-Europese, Turkse of Maghrebijnse achtergrond heeft, versus geen migratieachtergrond. Om dit te onderzoeken wordt gebruik gemaakt van de Belgische Census 2011 die werd gekoppeld aan i) longitudinale microgegevens uit de bevolkingsregisters omtrent huishoudensamenstelling en woonplaats, ii) longitudinale microgegevens uit de belastingaangiften omtrent de uitgaven van huishoudens voor kinderopvang, en iii) longitudinale gegevens van K&G en ONE omtrent de beschikbaarheid van kinderopvangplaatsen voor kinderen van 0-3 jaar op gemeenteniveau. De resultaten van hoofdstuk 5 tonen dat alle herkomstgroepen vaker gebruik maken van formele kinderopvang bij hogere dekkingsgraden[70], maar dat het effect van een verhoging van de beschikbaarheid van kinderopvang binnen gemeenten op het gebruik van kinderopvang verschilt naargelang migratieachtergrond. Voor moeders zonder migratieachtergrond heeft een verhoging van de lokale beschikbaarheid van kinderopvang een positief effect op hun gebruik van formele kinderopvang, dat het sterkst is bij lagere dekkingsgraden van kinderopvang. Hetzelfde algemene patroon wordt vastgesteld bij moeders van Maghrebijnse herkomst, maar het positieve effect is iets sterker dan bij moeders zonder migratieachtergrond, waardoor de verschillen tussen moeders met en zonder migratieachtergrond iets kleiner worden. Er blijven echter nog steeds aanzienlijke verschillen bestaan in het gebruik van formele kinderopvang. Hoewel ook moeders van Turkse en Zuid-Europese herkomst vaker gebruik maken van formele kinderopvang wanneer de lokale beschikbaarheid toeneemt, blijft het verschil met moeders zonder migratieachtergrond ongewijzigd, aangezien er geen verschillend effect is van een uitbreiding in de lokale beschikbaarheid van kinderopvang. Deze bevinding dat de verschillen met moeders zonder migratieachtergrond slechts lichtjes verminderen of ongewijzigd blijven wanneer de beschikbaarheid van kinderopvang toeneemt, komt mogelijks doordat het aanbod nog steeds onvoldoende is, ondanks de recente toename van de dekkingsgraad. Het is mogelijk dat initiële uitbreidingen van kinderopvang de verschillen naar migratieachtergrond nog niet verkleinen wegens de aanhoudende onvervulde vraag van ouders zonder migratieachtergrond, maar dat een grotere lokale

[70] De dekkingsgraad wordt berekend door het totale aantal kinderopvangplaatsen in een bepaalde gemeente te delen door het aantal kinderen jonger dan drie jaar in diezelfde gemeente.

beschikbaarheid van kinderopvang de toegang voor ouders met een migratieachtergrond pas verbetert wanneer de dekkingsgraad aanzienlijk hoger wordt. Bovendien is er meer onderzoek nodig naar de mogelijke mechanismen achter de uiteenlopende effecten van een uitbreiding van de lokale beschikbaarheid van kinderopvang naargelang migratieachtergrond en de aanhoudende verschillen tussen moeders met en zonder migratieachtergrond. Of en de mate waarin een grotere beschikbaarheid van lokale kinderopvang de verschillen met moeders zonder migratieachtergrond verkleint voor elke herkomstgroep, wordt mogelijks gemodereerd door verschillende (complementaire) factoren zoals de betaalbaarheid en flexibiliteit van de (bijkomende) kinderopvangplaatsen in de gemeente, of de voorkeuren van ouders met betrekking tot het uitbesteden van zorg voor jonge kinderen en informele kinderopvang.

Over het algemeen illustreren de resultaten van deze thesis het belang van een longitudinaal en pad-afhankelijk levensloopperspectief in onderzoek naar de arbeidsparticipatie van vrouwen met een migratieachtergrond. Een levensloop perspectief kan ons inzicht op vlak van verschillen in arbeidsmarkttrajecten naar migratieachtergrond vergroten door het cumulatieve proces te belichten waarbij moeilijkheden aan het begin van de arbeidsloopbaan bepalend zijn voor daaropvolgende werk-gezinstrajecten. Bovendien is een levensloopperspectief ook noodzakelijk om specifiek beleid te ontwikkelen dat de arbeidsparticipatie van vrouwen met migratieachtergrond bevordert, aangezien verschillend beleid relevant is in verschillende fasen van de levensloop. De pad-afhankelijkheid in de arbeidsmarkttrajecten van vrouwen, de onderlinge samenhang met hun gezinstrajecten en de interacties met het design van gezinsbeleid blijken belangrijke factoren om de verschillende arbeidsmarkttrajecten van vrouwen met en zonder migratieachtergrond te begrijpen. In de rigide Belgische arbeidsmarktcontext die wordt gekenmerkt door insiders en outsiders, bestendigt het huidige gezinsbeleid (dat in de eerste plaats ouders ondersteunt die reeds een sterke positie op de arbeidsmarkt hebben opgebouwd) de zwakkere arbeidsposities van vrouwen met een migratieachtergrond door impliciet extra barrières te creëren om gezinsvorming te combineren met arbeidsparticipatie. Deze bevindingen suggereren dat universele toegang tot flexibel en betaalbaar gezinsbeleid vrouwen (met een migratieachtergrond) met onstabiele arbeidsmarkttrajecten waarschijnlijk kan helpen om het moederschap te combineren met periodes van werk. In een context zonder beperkingen in de toegankelijkheid, betaalbaarheid en flexibiliteit van gezinsbeleid, kunnen ouders hun werk-gezin strategieën ontwikkelen volgens hun persoonlijke voorkeuren, wat alsnog kan leiden tot verschillende werk-gezinstrajecten naar migratieachtergrond. De verwachtingen omtrent genderrollen evolueren echter

voortdurend en terwijl het mannelijke kostwinnaarsmodel de dominante norm was in de meeste West-Europese landen tijdens de eerste helft van de 20e eeuw, is het tweeverdienersmodel de overheersende norm in de meeste hedendaagse Westerse landen zoals België, ook wanneer koppels kinderen hebben. Hoewel de werk-gezin attitudes en normen van bepaalde herkomstgroepen momenteel wellicht verschillen van de groep zonder migratieachtergrond, kan een verschuiving op dit vlak waarschijnlijk alleen plaatsvinden in een context die niet langer structurele belemmeringen inhoudt om werk en gezin te combineren. Bovendien zijn attitudes en arbeidsmarktkansen sterk met elkaar verweven, waardoor het moeilijk is om de rol van attitudes in de werk-gezinstrajecten van vrouwen te achterhalen. Aan de ene kant kunnen verschillende socialisatiecontexten verschillende werk-gezin attitudes stimuleren bij Zuid-Europese, Turkse en Marokkaanse vrouwen van de tweede generatie in vergelijking met vrouwen zonder migratieachtergrond. Voor zover vrouwen hun investeringen in het onderwijs en de arbeidsmarkt beperken in anticipatie op een verminderde arbeidsparticipatie na de transitie naar ouderschap, kan er ook sprake zijn van zelfselectie van vrouwen met meer traditionele werk-gezin attitudes in minder stabiele arbeidsposities en laagbetaalde jobs voor gezinsvorming. Aan de andere kant kunnen vrouwen met beperkte vooruitzichten op de arbeidsmarkt gezinsvorming beschouwen als een alternatieve carrière. Vanuit dat oogpunt kunnen lage arbeidsmarktkansen voor gezinsvorming traditionelere werk-gezin attitudes teweegbrengen die vervolgens de werk-gezinstrajecten van vrouwen vormgeven. Daarom lijkt beleid dat enerzijds inzet op het verhogen van de arbeidsmarktkansen van vrouwen met een migratieachtergrond door institutionele belemmeringen en barrières aan de vraagzijde (bv. statistische discriminatie) te verminderen, en anderzijds op het verbeteren van de toegang tot gezinsbeleid, cruciaal om de arbeidsparticipatie van vrouwen met een migratieachtergrond te verhogen.