ETHNIC DIFFERENCES IN WOMEN'S FAMILY-LIFE TRAJECTORIES:

TIMING AND SEQUENCING OF EVENTS

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This study examines ethnic differences in family behavior among young adult women from migrant and Dutch families. Drawing on rich data from the Dutch population registers, we apply sequence analysis to follow an entire birth cohort of the Turkish, Moroccan, Surinamese, and Antillean second generation and a native comparison group from age 16 to 30 (N=11,670). We further distinguish between children of two foreign-born parents and children of mixed parentage. Results indicate that there is relatively little diversity in family behavior of native Dutch women during the early twenties, as marriage and childbearing are consistently delayed. Conversely, we found considerable heterogeneity in the behavior of the second generation around these ages. Nevertheless, the behavior of the second generation also reflects cultural persistence: Turkish and Moroccan women are particularly likely to start family formation relatively early in the life course, even though many of them had left the parental home to live alone independently. The trajectories of Surinamese and Antillean women are dominated by non-marital cohabitation and a relatively high incidence of single motherhood. Children from mixed-parentage were found to be more similar to the majority population.

Family sociology, mixed parentage, second generation, sequence analysis, the Netherlands, transition to adulthood

INTRODUCTION

The transition to adulthood is a crucial period in the life course and has therefore been extensively studied (Billari & Liefbroer, 2010; Corijn & Klijzing, 2001; Settersten et al., 2005). During this period, young adults are confronted with many transitions within a relatively short period of time, by furthering their education, entering the labor market, leaving the parental home, and by forming families (Rindfuss, 1991). In particular transitions related to family formation have been susceptible to change in Western societies over the past decades (Brückner & Mayer, 2004; Widmer & Ritschard, 2009). Many authors have claimed that the structure and pace of the transition to adulthood has altered, resulting in a decreasing propensity to marry, postponement of marriage and parenthood, and an increase in the decision to remain childless (Billari & Liefbroer, 2010; Lesthaeghe & van de Kaa, 1986; Mills & Blossfeld, 2005; Settersten et al., 2005).

Despite the great deal of research on the transition to adulthood in Europe, relatively little attention has been devoted to youth-to-adult transitions among children from immigrant parents. However, migrant children constitute a large and growing share of the contemporary young adult population in Europe. For example, currently between 35 and 50 percent of the children of the four largest immigrant groups in the Netherlands (Turks, Moroccans, Surinamese, and Antilleans) is between the ages of 18 and 35 (Statistics Netherlands, 2014). Their first-generation immigrant parents are thought to have more traditional family values and to grant less autonomy to their children in life-course decision making than the majority population (Nauck, 2002; Shaw, 2003). These cultural values may to a certain extent be passed on to next generations through socialization and enculturation processes (Glass et al., 1986). As a result, the preferences and behavior of migrant children may strongly differ from that of children of native-born parents (de Valk & Liefbroer, 2007a, 2007b; Zorlu & Mulder, 2011).

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The present study contributes to the literature in two ways. First, whereas previous studies on migrant children's family dynamics have mainly focused on single markers in the transition to adulthood (e.g., Garssen & Nicolaas, 2008; Huschek et al., 2010; Zorlu & Mulder, 2011), we cover several life-course events simultaneously (e.g., leaving the parental home, union formation, becoming a parent) and acknowledge the cumulative nature of the life course (Giele & Elder, 1998; Mayer, 1986). We do so by applying sequence analysis, a technique in which the whole trajectory serves as the unit of analysis, rather than a specific event in the life course (unlike survival analysis for example). Sequence analysis has been extensively applied in life-course research on the majority population, as it provides a more holistic insight into youth-to-adult transitions (e.g., Aassve et al., 2007; Bras et al., 2010; Widmer & Ritschard, 2009). Second, we add to the literature by assessing the importance of mixed parentage for family behavior. The second generation is defined as all those who are born in the Netherlands, but have *at least* one foreign-born parent (Statistics Netherlands, 2014). In this study, we further distinguish between children from two foreign-born parents ("2.0 generation") and children of couples consisting of an immigrant and a non-immigrant parent ("2.5 generation"). Despite empirical evidence showing significant differences between the 2.5 generation and the 2.0 generation in many respects (Ramakrishnan, 2004; Rumbaut, 2004; Zorlu & Mulder, 2011), the two groups have often been lumped together in previous research, mostly due to data limitations (e.g., Huschek et al., 2010; Kleinepier & de Valk, 2014). This study seeks to answer the following two research questions: *(1) To what extent are there ethnic differences in family trajectories between the second generation of Turkish, Moroccan, Surinamese, and Antillean origin and native Dutch young adults? (2) How and to what extent do young adults with two foreign-born parents differ from young adults of mixed parentage in terms of family behavior?*

Our study focuses on women for both practical and theoretical reasons. On the practical side, studying both men and women would be too broad for the scope of this paper. On the theoretical

side, contemporary Dutch society is often depicted in the literature as being in favor of autonomy, emancipation and gender equality (Oppenheimer, 2004). In contrast, in more patriarchal societies such as Turkey and Morocco, cultural norms regarding the timing and sequencing of important family transitions are found to be stricter for women than for men (Bowen & Early, 1993; Koc, 2007). In societies of the Caribbean region, such as Suriname and the Antilles, families usually have a more matrifocal structure where women are pivotal in child-rearing practices (Shaw, 2003). Previous research indicates that Caribbean mothers appear stricter and more demanding with daughters than sons (Senior, 1991; Sharpe, 1997). Existing research thus suggests that intergenerational transmission of cultural values is stronger towards daughters than towards sons in various non-Western cultures. Differences in family-life trajectories between the second generation and the native Dutch may therefore be particularly pronounced among women (cf. de Valk & Liefbroer, 2007b; Kleinepier & de Valk, 2014; Zorlu & Mulder, 2011).

To address our research questions, we use unique individual administrative panel data from the System of Social statistical Datasets (SSD) that cover the total population of the Netherlands (Bakker et al., 2014). Billari (2001a:452) notes that population registers are "the ideal source for sequence data", since they contain the same information as retrospective surveys, but without important methodological problems, such as recall error, non-response, and missing data. An entire birth cohort of Turkish, Moroccan, Surinamese, and Antillean second-generation women and a 10% native Dutch comparison group (N=11,670) is followed from age 16 in 1999 until age 30 in 2013, capturing the most dynamic period of young adulthood.

THE DUTCH CONTEXT: MIGRANTS IN THE NETHERLANDS

Currently, 21.4% of the 16.8 million inhabitants of the Netherlands has a migrant background (Statistics Netherlands, 2014). These people can be about equally divided between individuals who

are born abroad (first generation) and individuals who are born in the Netherlands, but have at least one parent who is born abroad (second generation). As stated, we focus on the second generation of the four largest ethnic minority groups in the Netherlands: Turks, Moroccans, Surinamese, and Antilleans. All other ethnic minority groups are considerably smaller and cover a variety of mainly more recent immigrants to the Netherlands, such as asylum seekers and migrants from Eastern Europe (Bruquetas-Callejo et al., 2011). The four main origin groups particularly predominate the young adult population in the Netherlands: together, they compose more than half of the second-generation population between ages 18-35 (Statistics Netherlands, 2014).

The vast majority of Turkish and Moroccan (*Mediterranean*) immigrants in the Netherlands were recruited as "guest workers" in the 1960s and early 1970s to fill in labor shortages, predominantly in unskilled or low-skilled sectors. Most of these labor migrants were male and left their families behind in their countries of origin. They were mainly low educated and originated from the rural parts in their origin countries where the large majority adheres to Islam (van Tubergen, 2003). As the name already suggests, guest workers were regarded as temporary settlers. The government did therefore not have integration policies for Turkish and Moroccan migrants in Dutch society, resulting in difficulties on the labor market and a low proficiency in Dutch (Vermeulen & Penninx, 2000). However, despite the fact that many Turkish and Moroccan migrants lost their jobs during the 1970s and 1980s oil crises, a large share decided to prolong their stay in the Netherlands due to the poor economic and political situation in Turkey and Morocco (Bruquetas-Callejo et al., 2011). Many of them were joined by their families in the 1970s and 1980s and subsequently had children who were born and raised in the Netherlands. On 1 January 2014, the number of residents with a Turkish and Moroccan background in the Netherlands was respectively 396,414 and 374,996, of which slightly more than half is of the second generation (Statistics Netherlands, 2014). Because intermarriage with Dutch is rare among the first generation, the vast majority of the Turkish (98%)

and Moroccan (92%) second generation has two foreign-born parents (Statistics Netherlands, 2014). Although the socioeconomic position of the Turkish and Moroccan second generation is generally better than that of their parents, empirical studies show that they still have lower educational credentials and are more frequently unemployed compared to the majority population (Hartgers & Besjes, 2014; Heath et al., 2008; Odé & Veenman, 2003).

The presence of Surinamese and Antillean (*Caribbean*) immigrants in the Netherlands is closely related to Dutch colonial history. Before Suriname's independence in 1975, the country formed part of the Kingdom of the Netherlands and migration was uncontrolled. In particular during the two years leading up to independence, many Surinamese migrants came to the Netherlands as they feared that entry would become more difficult afterwards (Vermeulen & Penninx, 2000). Migration from the (former) Netherlands Antilles is of a different nature. Because the Antilles are still part of the Netherlands Kingdom, all Antilleans hold Dutch nationality. Migration movements have long been dominated by short-term student migration, but with the decline of the Antillean economy in the 1980s and 1990s, people from all strata of the population began to take part in the migration process and return migration occurred less frequent (Vermeulen & Penninx, 2000). As of 1 January 2014, there were 348,291 individuals with a Surinamese background and 146,855 individuals with an Antillean background living in the Netherlands, of which respectively 48 and 44 percent is of the second generation (Statistics Netherlands, 2014). Due to their colonial ties, Surinamese and Antillean migrants usually had some command of the Dutch language prior to migration (Vermeulen & Penninx, 2000). Their socioeconomic position is very diverse, on average less favorable than that of the native Dutch, but better than that of Turks and Moroccans (Odé & Veenman, 2003; van der Werfhorst & van Tubergen, 2007). The rates of ethnically mixed relationships are relatively high among Surinamese and Antillean migrants: 37% of the Surinamese and 56% of the Antillean second generation has one parent who was born in the Netherlands (Statistics Netherlands, 2014).

THEORY AND HYPOTHESES

Destandardization of the life course

The twentieth century has witnessed considerable changes in the life courses of young adults in Western Europe and the United States (Mayer, 2004; McLanahan, 2004). Pathways into and through adulthood among cohorts born in the first half of the past century were characterized by an increasing amount of uniformity. This was particularly the case in the period shortly after World War II, when there was little variation in the occurrence and timing of important life transitions. Moreover, there was a more-or-less standardized sequence in which family transitions occurred: the majority of young adults in the 1950s left the parental home to marry, shortly followed by the birth of the first child (Bras & Kok, 2003). This traditional sequence of family transitions is referred to as the *standard biography* (Beck & Beck-Gernsheim, 2002; Liefbroer & Dykstra, 2000).

From the 1960s onwards, an opposite trend can be observed. Due to changes in the economic structure, there has been a significant weakening of the institution of the family and religion, along with an increase of the ideology of individualism and self-development (Inglehart, 1977; Lesthaeghe & van de Kaa, 1986). Family tradition and parental authority became less pronounced and young adults had increasingly more autonomy in life-course decision making. Consequently, the transition to adulthood has become less linear and predictable, which is referred to as *destandardization of the life course* in the literature (Settersten et al., 2005). The dominant family trajectory in the first half of the twentieth century, the standard biography, has been replaced by the so-called '*choice' or 'do-it-yourself' biography*, which assumes that individuals make autonomous decisions and construct "a life of one's own" (Beck & Beck-Gernsheim, 2002:22). As a result, life events that are hard to reverse and that have far-reaching consequences, such as marriage and parenthood, are more often postponed (Billari & Liefbroer, 2010). Marriage is frequently preceded by living with an unmarried partner (Liefbroer & Dykstra, 2000). Also other living

arrangements, such as living alone, unmarried parenthood, and remaining childless, have become more common (Corijn & Klijzing, 2001; Billari & Liefbroer, 2010).

Destandardization of the life course has globally not developed to the same extent. Western Europe and North America are believed to be the frontrunners of demographic change (Lesthaeghe & van de Kaa, 1986). Although the family behavior in non-Western societies has also changed over the past decades (Kagitcibasi & Ataca, 2005), cross-cultural studies indicate that there are still strict norms and values on the timing and sequencing of transitions into adulthood in these societies (Koc, 2007; Nauck, 2002). In the typical patrilineal Turkish and Moroccan societies, especially the behavior of women is bound by rules as they may put the family's reputation at risk through disapproved actions (Bowen & Early, 1993). Marriage plays a key role in the transition to adulthood in these societies and girls are generally expected to remain virgin until they marry (Yerden, 1995). Moreover, marriages are contracted at much younger ages in Turkey and Morocco than in Northern and Western Europe: in 2012, the mean age at first marriage for women in Turkey was 23.5 compared to 30.4 in the Netherlands (UNECE Statistical Database, 2015). Similarly, women in Turkish and Moroccan society are on average younger when they become a mother than women in the Netherlands, although differences are smaller (United Nations, 2013). Overall, despite the fact that family patterns are prone to change in Turkey and Morocco, the standard biography is still the dominant family trajectory among women (Koc, 2007).

In contrast to Mediterranean countries (Turkey/Morocco), not so much value is attached to marriage in Caribbean countries (Suriname/Antilles). Having a child is considered to be much more important than having a (formal) relationship. Unmarried cohabitation and extramarital births are therefore very common in Caribbean countries (Shaw, 2003). Compared to Dutch society, the transition to parenthood also occurs at younger ages in Suriname and the Antilles (United Nations, 2013). In addition, many Caribbean households are matrifocal, meaning that women are often the

head of household and frequently live without a partner while the roles of fathers and husbands tend to be rather marginal (Sharpe, 1997). Single motherhood is a typical characteristic of the so-called *Caribbean family system* (Shaw, 2003).

Hypotheses

To explain diversity in family behavior among ethnic groups, we follow theories of socialization within the family. Socialization is a process by which cultural patterns are transmitted to an individual by direct transmission of values, role modelling, and social status inheritance (Bandura, 1977; Cunningham, 2001; Glass et al., 1986). The family, especially parents, plays a central role in the socialization of a child. The vast majority of Turkish, Moroccan, Surinamese and Antillean first-generation immigrants has moved to the Netherlands as adult and is thus primarily socialized in the country of birth. A large body of literature indicates that the norms and values of individuals are largely stable during adulthood (Inglehart, 1977, Inglehart & Baker, 2000). The parents of the second generation under study should therefore have, at least partly, maintained the norms and values of their culture of origin (see de Valk et al., 2004; Garssen & Nicolaas, 2008; Merz et al., 2009). If so, the expectations towards the behavior of their children are to a certain extent drawn from their socialization-country context. Indeed, a study by de Valk and Liefbroer (2007a) showed that women of the four main second-generation groups in the Netherlands prefer a somewhat older age of leaving the parental home and much younger ages of parenthood than native Dutch women. The Turkish and Moroccan second generation were also found to prefer younger ages of marriage. Moreover, the authors found less variation in the preferred age for marriage and childbearing among the second generation compared with the native Dutch, indicating a higher consensus on the appropriate timing of major family-life transitions among the second generation. Based on the literature outlined above, we come to the following three hypotheses: *Hypothesis 1: There is less*

within-group variation in family trajectories among the Turkish, Moroccan, Surinamese, and Antillean second generation than among native Dutch young adults.

Hypothesis 2: Dutch young adults are (a) more likely to postpone parenthood than all second-generation groups, and (b) more likely to postpone marriage than the Turkish/Moroccan second generation.

Hypothesis 3: The Turkish/Moroccan second generation is more likely to follow the 'standard biography' than the native Dutch and the Surinamese/Antillean second generation.

The literature is very consistent in its findings regarding the spread of alternative family forms and the increasing postponement of marriage and childbearing in Western societies (Billari & Liefbroer, 2010; McLanahan, 2004; Mills & Blossfeld, 2005). Less certain is whether these developments have also increased diversity in family behavior between individuals. While some studies have found support for this idea (Elzinga & Liefbroer, 2007; Widmer & Ritschard, 2009), there is also empirical evidence showing a rather strong consensus concerning the timing and sequencing of important life transitions among young adults from recent birth cohorts (Elchardus & Smits, 2006; Nico, 2014). Other critique on the destandardization thesis focuses on the fact that differences between low and high educated individuals in family behavior have increased, which may reflect different standardized trajectories for different social classes rather than a process of destandardization (Liefbroer & Dykstra, 2000). Thus, while young people in Western societies nowadays are thought to have more autonomy in life-course decision making, implicit norms and the institutional structures within which individuals must fit may retain biographical uniformity.

If the above arguments hold, diversity in life-course trajectories among native Dutch young adults would be rather limited, and Hypothesis 1 would not be supported. In fact, according to another line of reasoning, an alternative to Hypothesis 1 is warranted. Children are indeed not solely socialized by their parents, but also through contact with peers, the media, school, and the culture at large (Huschek et al., 2010; Prinstein & Dodge, 2008). These alternative sources of socialization are

more likely to contrast the cultural values of migrant children's parents, possibly contributing to intergenerational tensions and conflicts (Giguère et al., 2010; Lou et al., 2012). Under these circumstances, some children may conform to the cultural norms set out by their parents, whereas others may opt for a trajectory that is more in line with the cultural norms of mainstream society. This leads to the following alternative hypothesis. *Hypothesis 1 (Alternative): There is more within-group variation in family trajectories among the Turkish, Moroccan, Surinamese, and Antillean second generation than among native Dutch young adults.*

The previous hypotheses are aimed at differences between ethnic groups. We can, however, also make an important distinction within the ethnic groups of the second generation, namely between children with two foreign-born parents (2.0 generation) and children from mixed parentage, with only one foreign-born parent (2.5 generation). The 2.5 generation has one Dutch parent who grew up and was socialized in the Netherlands, implying that this parent is most likely more oriented towards Dutch norms and values. Moreover, in the migration literature, ethnic intermarriage is considered to be an important indicator of integration (Kalmijn & van Tubergen, 2006). Migrants with a Dutch partner are usually more oriented towards Dutch society than migrants who found their partner within their own ethnic group (Kalmijn, 1998). We therefore expect the following. *Hypothesis 4: The family life course of the 2.5 generation is more similar to that of the native Dutch than that of the 2.0 generation.*

DATA AND METHODS

Data

For this study, we make use of rich longitudinal data from the System of Social statistical Datasets (SSD), compiled by Statistics Netherlands (Bakker et al., 2014). The SSD was constructed by linking several registers and surveys to the Dutch municipal population registers (known as the GBA) at the

individual level. The data contain a wealth of demographic information on every legal inhabitant of the Netherlands, including birth date, gender, ethnic origin, marital status, and position in the household. The measurement moment of the household position is the last Friday of September of each year. Data were available from 1999 onwards up until 2013. We select all women of the Turkish (N=1,677), Moroccan (N=1,414), Surinamese (N=1,853), and Antillean (N=411) second generation who were 16 years old on the last Friday of September in 1999. In addition, we take a 10% random sample of the native Dutch women (N=6,315) from the same birth cohort (1982/1983). We follow these women from age 16 in 1999 to age 30 in 2013. A small group (5%), for which the information on one or multiple years was not available in the registers due to death or emigration, is excluded from the analyses. In total, our research population includes 11,670 young adult women.

The SSD allows us to determine with whom a person lived at each measurement moment and, thus, to classify each person according to their position in the household between the ages of 16 and 30. In this study, we distinguish between eight positions in total. Through the record linkage of parents and children, we check if a person was living in the *parental home* (PH), whether or not accompanied by other family members. When a person was not living in the parental home, we distinguish between three positions that pertain to a situation without children. First, when an individual was the only person registered at a particular address, the person is coded as *living single* (S). Second, when a person was living with a partner without being married, the living arrangement is classified as *cohabiting* (C). Third, a women who was registered as married and that was living at the same address as her spouse, is classified as *married* (M). When the person was living with at least one child as well, there are again three possibilities: *living single, and child(ren)* (SC), *cohabiting, and child(ren)* (CC), and *married, and child(ren)* (MC). We do not distinguish between the number of children since we are mainly interested in the transition to parenthood (first birth). Finally, those registered at the same address with people other than parents or partners are classified as *shared*

residence (SR). The number of women living in this household type with a child was so low (N=103) that it was not included as a separate category.

It is important to note that, although population registers generally provide accurate information on socio-demographic characteristics of legally residing residents, register data also have limitations. Despite the legal obligation to report changes in address within five days' time, some people do not (immediately) report their move to the municipality. The administrative delay may result in an incorrect household position in the data. Furthermore, some measurement error may occur in determining the less straightforward household types, such as unmarried couples without children versus two 'unattached' persons living at the same address. Statistics Netherlands identifies unmarried couples without children on the basis of several allocation rules (e.g., fiscal information) and by stochastic imputation, leading to a 95% match at the individual level with data from the Housing Demand Survey from 2002 (de Groot et al., 2011). Although the magnitude of these measurement issues is thus likely to be small, it cannot be ruled out that in some cases the household position is misclassified.

Methods

The analysis consists of three parts. In the first part, we investigate the levels of diversity in life-course trajectories within each of the origin groups. To achieve this, we calculate the heterogeneity of the state distribution at each chronological age for the different origin groups. We use the Shannon entropy (Shannon, 1948) as a heterogeneity indicator, which has also been used in previous studies (Billari, 2001b; Widmer & Ritschard, 2009). The Shannon entropy-index is a number between [0, 1], where a higher value indicates more diversity of states among individuals. Entropy is zero when every person is in the same state at a given age. Maximal entropy is achieved when all states

are uniformly distributed, i.e. when exactly 12.5% of the population is in each of the eight states at a certain age.

The second part of our analysis is aimed at comparing and classifying family trajectories. We first compute optimal matching (OM) distances between all individual sequences using R's TraMineR package (Gabadinho et al., 2011). The OM metric generates pairwise distances between sequences based on three arithmetic operations: insertion, deletion, and substitution. A cost is assigned to each of the three operations by the researcher. The distance between two sequences is defined as the total cost of the smallest number of operations required to match the sequences. Although OM is by far the most frequently used metric for sequence analysis in the social sciences, the literature is still inconclusive about the best solution for specifying the costs of the three operations (Gauthier et al., 2009; Hollister, 2009; see also the debate in *Sociological Methods & Research:* Abbott & Tsay, 2000; Levine, 2000; Wu, 2000; Abbott, 2000). In this study, we opt for unitary insertion/deletion costs and empirically define substitution costs as the inverse of the transition rates, following the approach of previous studies (e.g., Aassve et al., 2007; Barban, 2013; Gauthier et al., 2009; Widmer & Ritschard, 2009). As a robustness check, we replicate our analyses by using another commonly applied solution for calculating OM distances: insertion/deletion costs of 1 and a constant substitution cost of 2[1]. The different substitution cost settings yielded substantially similar results. In contrast to a constant substitution cost, however, the transition rate approach accounts to a certain extent for state distances by assigning higher substitution costs to less frequent transitions, which we therefore prefer. Once OM distances have been calculated, we develop a typology of family trajectories using Partitioning Around Medoids (PAM) cluster analysis (Kaufman & Rousseeuw, 1990). In partition-based clustering methods, the number of clusters needs to be specified a priori. We therefore test a

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[1] *Under these configurations, OM is equivalent to the Longest Common Subsequence (LCS) metric (see Elzinga & Studer, 2014).*

range of cluster solutions (2-20 cuts) and determine the quality of the partitions with the Average Silhouette Width (ASW) criterion (see Rousseeuw, 1987).

In the third and last part of our analysis, we investigate to what extent the obtained clusters are related to ethnic background, mixed parentage, and several control variables. Replicating the approach followed in previous studies (e.g., Bras et al., 2010; Widmer & Ritschard, 2009), we perform a series of binary logistic regression models, using each of the clusters as the outcome variable. The independent and control variables are measured as follows (see also Table 1).

– *Origin* is based on the country of birth of the parents. Individuals are categorized as second generation if at least one parent is born abroad. In the rare cases of intermarriage between different immigrant groups, the country of birth of the mother determined the ethnic origin. For each second-generation group, we include a separate dummy variable. Women with two native-born parents are chosen as the reference group.

– *Mixed parentage* is also based on the birth country of the parents, but with an extra distinction between one foreign-born parent and two-foreign-born parents. We thus include two dummy variables for each second-generation group in this variable. Again, women with two native-born parents are chosen as the reference group.

– *Labor market trajectory* is a categorical variable that captures the life-course trajectory of each individual in the public domain. Following the same approach as with the dependent variable, we develop a data-driven typology of the women's educational and labor market careers, resulting in four distinct types of trajectories: (1) full-time employees, (2) part-time employees, (3) students, and (4) unemployed. Women with a full-time trajectory serve as the reference category. Appendix A provides further details on the construction of this variable.

– *Educational level.* The Central Register for Enrolment in Higher Education (Dutch acronym: CRIHO) contains information on a yearly basis from 1986 onwards about students in higher vocational

education and at the university level in the Netherlands that is publicly financed. Unfortunately, administrative registers on secondary and lower-tertiary education are only available for recent years and do consequently not provide a 100% coverage of our research population. Educational level is therefore measured by a dummy variable on whether the person has obtained a higher vocational education or university degree (0=no, 1=yes). Although educational level is to some extent also accounted for by the labor market trajectory variable, collinearity diagnostics indicate that including both variables in the regression models does not produce harmful multicollinearity (VIFs range between 1.23–2.08; see Keith, 2006).

– *Number of siblings* indicates the number of siblings that were living in the household when the person was 16 years old. We distinguish between five categories: (1) no siblings (reference category), (2) one sibling, (3) two siblings, (4) three siblings, and (5) four or more siblings.

---Table 1 here---

RESULTS

Diversity of family trajectories

We first present results concerning the distribution of entropy for each chronological age among the different origin groups (Figure 1). This indicator provides an initial assessment of the diversity in life-course trajectories between individuals: if the entropy is close to 1, diversity is high; if entropy is close to 0, diversity is relatively low. As can be seen in Figure 1, entropy at age 16 is low among all origin groups, which is due to the fact that the vast majority of the young adult women were living in the parental home at this age. From that age on, there is a strong increase in entropy up until age 22 among the Turkish and Moroccan second generation, followed by a slight decrease in entropy starting in their mid-twenties. Among the native Dutch, entropy increases more slowly and regularly. At younger ages, native Dutch women thus feature lower levels of entropy than women of the

Turkish and Moroccan second generation, but at age 30 the three origin groups have rather identical levels of entropy. Indeed, during their late twenties, Turkish and Moroccan women with two foreign-born parents have somewhat lower levels of entropy than the native Dutch. Additional analyses (not shown) indicate that this is due to an increasing share of married women with children among the Turkish and Moroccan second generation at these ages. Similar to the native Dutch population, entropy steadily increases among the Surinamese and Antillean second generation from age 16 onwards and stabilizes around the mid-twenties. Levels of entropy are, however, consistently higher also among the Surinamese and Antillean second generation than among the native Dutch.

---Figure 1 here---

Transversal entropy results show diversity between individuals for discrete patches of the trajectory and not for the trajectory as a whole. In Figure 2, we therefore present the average OM distance between individuals within each origin subgroup, along with error bars that represent the 95% confidence interval. The figure shows that all second-generation groups have a significant higher average OM distance than the native Dutch. These results confirm the findings in Figure 1 that, in contrast to Hypothesis 1 and in line with the alternative to it, there is greater diversity in family trajectories between individuals of the second generation than among the native Dutch. Figures 1 and 2 also shed light on Hypothesis 4. Among the Surinamese and Antillean second generation, the 2.5 generation occupies an intermediate position between their 2.0-generation counterparts and the native Dutch. These results corroborate our hypothesis that the 2.5 generation is more similar to the majority population than the 2.0 generation. We find a similar pattern among the Moroccan second generation, but the difference is not statistically significant (Figure 2). The situation is reversed for the Turkish second generation, where those with one foreign-born parent feature the highest levels of dissimilarity. Thus, these results only partially confirm Hypothesis 4.

---Figure 2 here---

Typology of family trajectories

We proceed by exploring and describing the various trajectories in our data. Since the number of possible sequences is extremely large, we have reduced the entire set of sequences into more-or-less homogeneous subgroups by means of optimal matching followed by cluster analysis. The ASW criterion (ASW=0.29) suggested a 10-cluster typology as the 'appropriate' number of groups to describe the variety of family trajectories (see method section). Figure 3 provides an aggregated view of the state distribution at each chronological age within each of the 10 clusters. We report the medoid sequence (smallest sum of pairwise distances to all other sequences in the group) as the most characteristic sequence within each cluster (see Aassve et al., 2007).

Cluster 1 (*postponers*) is characterized by the sequence PH/15, which stands for a trajectory in which a person lives in the parental home for the complete observation period of 15 years (age 16–30). This cluster thus mainly includes women who did not experience a family transition before age 30 or left the parental home in their late twenties. In addition, the cluster contains a number of so-called 'boomerang children'. These young adults have left the parental home, but return to live with their parents afterwards (see Stone et al., 2014). The most characteristic sequence in Cluster 2 (*late singles*) is PH/9–S/6. Individuals who experienced such a trajectory remained in the parental home until their mid-twenties and subsequently lived alone during the remainder of the observation period. As the name already suggests, Cluster 3 (*early singles*) differs from the second in that these women leave the parental home earlier. The medoid sequence (PH/4–S/10–C/1) suggests that leaving home occurs around age 20. Cluster 4 (*single mothers*) has a characteristic sequence of PH/5–S/2–SC/8, which means living in the parental home until the age of 21, followed by a short period of living alone, after which the first child is born while the woman continues to live without a partner. Women in Cluster 4 have the lowest mean age at first childbearing ($M = 22.3$).

Clusters 5–9 all include women who have lived with a partner for a substantial period during young adulthood. Women in Cluster 5 (*unmarried cohabiters*) did so with an unmarried partner. As the medoid sequence indicates (PH/7–S/1–C/7), most of these women were not married and had not made the transition to motherhood by age 30 (yet). Cluster 6 (*cohabiting mothers*) has the medoid sequence PH/6–C/3–CC/6, which means living in the parental home until age 22, followed by three years living with an unmarried partner, after which the first child is born. The cluster thus differs from the previous in that these women have experienced a first birth well before age 30 (*M* = 24.8). Cluster 7 (*premarital cohabiters*) is characterized by the sequence PH/7–C/3–M/2–MC/3, which stands for a trajectory in which a person leaves the parental home to live with an unmarried partner, followed by marriage and a short period alone with a spouse, after which the first child is born. The most characteristic sequence in Cluster 8 (*premarital singles*) is PH/3–S/4–M/4–MC/4, meaning that the person has left the parental home at a relatively young age to live alone, followed by marriage and subsequently motherhood. The main difference with the previous cluster is that these women did not cohabit and married at younger ages. Childbearing started at almost identical ages in Clusters 7 (*M* = 27.1) and 8 (*M* = 26.8). Cluster 9 (*standard biography*) is characterized by the sequence PH/5–M/2–MC/8. This cluster thus predominantly consists of sequences that include marrying directly from the parental home, followed by the birth of the first child at relatively young ages (*M* = 22.9). Finally, Cluster 10 (*shared residence*) contains trajectories that are characterized by living together with people other than parents or partners for substantial period (PH/3–S/2–SR/8–S/2).

---Figure 3 here---

Ethnic differences in family trajectories

Now that we have described each of the clusters, we examine which origin groups are under or over represented within each of the family life course clusters. Table 2 gives an overview of the percentual

distribution over the clusters for the different origin groups. As can be seen in the table, there are large differences between the groups in the prevalence of each trajectory type. Compared with the other origin groups, the Turkish and Moroccan second generation are much more concentrated in the premarital singles trajectory (Cluster 8) and the standard biography (Cluster 9). This is in particular the case for the Turkish second generation, of which almost 50% has experienced one of these trajectory types. Conversely, trajectories with relatively long periods of unmarried cohabitation (Clusters 5 and 6), are very uncommon among Turkish and Moroccan women. The Surinamese and Antillean second generation stand out from the other origin groups with a relatively high incidence of single motherhood (Cluster 4). Antillean women mainly differ from Surinamese women in their higher proportion (22% vs. 10%) unmarried cohabiters (Cluster 5). The proportion unmarried cohabiters is practically identical among Antillean and native Dutch women. Another common trajectory type (19%) among native Dutch women is that of premarital cohabiters (Cluster 7). This cluster is clearly less prevalent among each of the second-generation groups.

---Table 2 here---

In order to test whether the above differences are statistically significant, also while controlling for important background factors, we perform a series of logistic regression analyses (Table 3). Table 3 shows that all second generation groups (in particular the Surinamese) have a significant higher likelihood than the native Dutch to follow the postponers trajectory (Cluster 1). The Turkish and Moroccan generation are less likely to opt for the late singles trajectory (Cluster 2) than the native Dutch, while there is no significant difference between the majority population and the Surinamese and Antillean second generation in this regard. For the early singles trajectory (Cluster 3), there are no significant differences between the origin groups (cf. Zorlu & Mulder, 2011). In line with the dominant cultural patterns in the origin countries of their parents, we find that Surinamese and Antillean women are overrepresented in the single mothers cluster (Cluster 4) compared to the

other origin groups. Strikingly, also Moroccan women have a significant higher likelihood of single motherhood than native Dutch women, but the difference is substantially smaller.

We find large differences between the native Dutch and Turkish and Moroccan second generation in the occurrence of unmarried cohabitation (Clusters 5 and 6): Turkish and Moroccan women have a much smaller likelihood to follow these trajectory types than the native Dutch. Also women of the Surinamese second generation are significantly less likely to follow the unmarried cohabiters trajectory (Cluster 5) than the native Dutch, while there is no statistical significant difference between the two groups for cohabiting motherhood (Cluster 6). We find no significant differences between the Antillean second generation and the native Dutch for both Clusters 5 and 6. All second-generation groups are underrepresented in the premarital cohabiters trajectory (Cluster 7) compared to the native Dutch. With regard to premarital singles (Cluster 8), we see that the Turkish and Moroccan second generation, and the Surinamese to a lesser extent, are more likely than the native Dutch to experience this trajectory type. There was no difference between Antillean and native Dutch women in this respect. As expected (Hypothesis 3), we see that Turkish and Moroccan women have a higher likelihood to follow the standard biography (Cluster 9) than native Dutch women. Women of the Surinamese and Antillean second generation have a lower likelihood to follow this type of trajectory than the native Dutch. Finally, the native Dutch are less likely to share their residence with people other than parents and partners (Cluster 10) than the second generation, except for the Antillean for whom the difference is not statistically significant. In particular women of the Moroccan second generation often opted for shared residence.

Overall, these results corroborate Hypothesis 2 and 3. Although Hypothesis 2 can be only partially evaluated with the results reported in Tables 2 and 3, we find that native Dutch women are more often grouped in clusters with a slower transition to parenthood than the second generation. Additional analyses (not shown) support Hypothesis 2a and indicate that Turkish second-generation

women are the youngest when they become mother, followed by the Moroccan, Surinamese, and Antillean second generation. In line with Hypothesis 2b, we see that the Turkish and Moroccan second generation are more often grouped in clusters in which marriages are contracted at relatively young ages (Cluster 8 and 9). This appears to be related to the fact that most native Dutch women who married before age 30 left the parental home at later ages and cohabited before marriage.

---Table 3 here---

Hypothesis 4 predicted that the family behavior of the 2.5 generation is more similar to that of the native Dutch than that of the 2.0 generation. To test this hypothesis, we replicate the regression analyses of Table 3, but further distinguish the second generation according to the number of foreign-born parents. The results reported in Table 4 strongly support our last hypothesis. The Turkish and Moroccan 2.0 generation are much less likely to cohabit (Clusters 5 and 6) and much more likely to experience a trajectory with early marriage formation (Clusters 8 and 9) than the native Dutch, while these differences between the 2.5 generation and the native Dutch are substantially smaller or absent. Among the Surinamese and Antillean second generation, in particular the high likelihood of the 2.0 generation to be a single mother (Cluster 4) is striking. While the 2.5 generation also has a significant higher chance to be a single mother than the native Dutch, the effect sizes are substantially smaller. Additional analyses (not shown) were performed to assess whether the mother or the father exerts the strongest influence on the family behavior of the children. The analyses revealed that women with an Antillean father and a native-born mother have a higher likelihood of being a single mother than women with an Antillean mother and a native-born father. Among the Turkish second generation, we found that those with a foreign-born mother and a native-born father deviate stronger from the native Dutch than those with a foreign-born father and a native-born mother. Among the Surinamese and Moroccan second generation, we did not find

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substantial differences between having an immigrant father and native-born mother vis-à-vis an immigrant mother and native-born father.

Finally, although not the focus of the study, several findings associated with the control variables are worth noting. Important is that we do not assume a one-sided causal effect of the 'independent' variables labor market trajectory and educational level on our dependent variable. Educational, work and family careers are indeed interdependent processes and, thus, the associations as reported in Table 3 are to some extent also explained by reversed causality (Willekens, 1991). As can be seen in Table 3, a full-time trajectory generally goes hand in hand with a family trajectory in which motherhood is postponed. Women who experience relatively long periods of unemployment are more often a single mother, whereas the standard biography is frequently combined with having part-time work. In line with previous research, we find that women who obtained a higher vocational education or university degree more often followed family trajectories in which (marital) union formation and childbearing are delayed (Liefbroer & Corijn, 1999). Women with a high educational level have in particular a small likelihood of experiencing single motherhood. However, higher education graduates also more frequently experienced the premarital singles trajectory. Finally, the effects of the number of siblings living in the parental home are mostly insignificant. In contrast with previous research (Kleinepier & de Valk, 2014), we find that the presence of siblings in the household does not increase the likelihood of being grouped in trajectory types with an early departure from the parental home. Having three or more siblings does increase the likelihood of following the standard biography.

---Table 4 here---

CONCLUSIONS AND DISCUSSION

Previous research on ethnic differences in family behavior has mainly focused on single events in the transition to adulthood. In this paper, we provided a more comprehensive picture on ethnic

differences in family patterns by considering the 'complete' trajectory into adulthood. Rich administrative micro data from the Dutch population registers offered a unique opportunity to follow an entire birth cohort of women from the second generation of the four main immigrant groups in the Netherlands (Turks, Moroccans, Surinamese, and Antilleans) and a native Dutch comparison group over a span of 15 years, from age 16 to 30. Moreover, the relatively large research population enabled us, in contrast to previous studies, to further distinguish the second generation into children from mixed parentage and children born of two foreign-born parents. Four hypotheses on ethnic differences in family trajectories were formulated and subsequently tested.

In contrast to our first hypothesis, we found more diversity in family trajectories between individuals of the second generation than among those of native Dutch origin. This finding is at odds with the suggestion that in non-Western cultures, especially women have little choice with respect to the timing and sequencing of important life-course transitions due to strong family obligations (e.g., Bowen & Early, 1993, Koc, 2007), whereas in Western cultures life courses have de-standardized and people may decide on their own unique life course with no family responsibilities and normative prescriptions (e.g., Inglehart & Baker, 2000; Lesthaeghe & van de Kaa, 1986). Rather, the finding seems to support the alternative to Hypothesis 1, that diversity in family behavior is greater among the second generation due to their special position between two cultures, facing the normative prescriptions of the parents on the one hand and the contrasting opinions from various other socializing agents on the other (Giguère et al., 2010). Yet, the upper observation limit at age 30 may have blurred differences between the origin groups: Compared to the second generation, we found that native Dutch women generally make a slower transition into adulthood by postponing marriage and childbearing (confirming Hypothesis 2). Most native Dutch women were either living with their parents, on their own, or with an unmarried partner up until their mid-to-late twenties, suggesting that (implicit) normativity of the life course is still evident among this group around the ages of

finishing higher education and entering the labor market. Conversely, second-generation women had gone through more of the possible states by these ages, allowing for more diversity between family trajectories. Entropy computed transversally at each age indicated that diversity was particularly higher among the second generation at younger ages. Indeed, during the late twenties, entropy was even lower among Turkish and Moroccan women than among the native Dutch. The fact that diversity computed over the entire trajectory was higher among the second generation may thus also be ascribed to differences in the pace of the transition to adulthood, rather than to the process of bicultural socialization. Following individuals over a longer time span is necessary to shed more light on the consensus of 'appropriate' family behavior at different stages in the life course across ethnic groups.

Furthermore, we applied cluster analysis and identified 10 substantively different types of family trajectories in young adulthood. The most dominant trajectory type among the Turkish and Moroccan second generation was the standard biography (direct marriage from the parental home, followed by the birth of the first child). In line with our third hypothesis, this trajectory type was clearly less common among native Dutch women: When Dutch women marry, this tends to be at higher ages and it is usually preceded by a period of unmarried cohabitation. However, also the trajectories of Dutch women can still be partially perceived as traditional, as the majority of the native Dutch women married before they had their first child. Apparently, many Dutch women (and/or their partners) also consider marriage as a prerequisite for parenthood (cf. Hiekel & Castro-Martín, 2014). In contrast, among the Surinamese and Antillean second generation, most mothers were not married and, unsurprisingly, many of them were not living with a partner. These results lead us to believe that cultural scripts of parents are indeed at least partly transmitted to their children. This conjecture is strengthened by the finding that, in line with Hypothesis 4, children from mixed parentage were more similar to the majority population. Additional analyses on children from

mixed ethnic backgrounds indicated that second-generation Antilleans with a native-born mother have a higher likelihood of experiencing single motherhood than those with native-born father. In contrast, second-generation Turks with a native-born father appeared more traditional in their family behavior than those with a native-born mother. Although these analyses were limited by the number of cases to draw sharp conclusions, they highlight that the role of the father and the mother in the setting of the family may strongly differ from culture to culture, which has important implications for children of mixed parentage. More research is warranted to elucidate the mechanisms behind differences between children with an immigrant father and native-born mother vis-à-vis those with an immigrant mother and native-born father and how this might vary across ethnicity and cultural groups.

Although the Turkish and Moroccan second generation most frequently experienced the standard biography, an almost equally prevalent trajectory type among these groups included those who left the parental home to live alone, followed by marriage, and subsequently the birth of the first child. Previous research has associated leaving home to live alone independently among Turkish and Moroccan second-generation youth mainly with parent-child conflicts due to a discrepancy between heritage and mainstream cultures (Kleinepier & de Valk, 2014; Zorlu & Mulder, 2011; see also Lou et al., 2012). While this may partially be the case, our results indicated that the larger share of Turkish and Moroccan women who left the parental home to live alone, still more-or-less conformed to the supposed cultural expectations of their parents by early family formation afterwards. In contrast to unmarried cohabitation (which is very uncommon among Turkish and Moroccan women), living alone does not necessarily increase the risk of breaking the taboo of staying a virgin until marriage and may therefore be acceptable, e.g. for educational purposes as was suggested by the multivariate analyses. These observations indicate that the solo residence of Turkish and

Moroccan young women may also be interpreted as a socially acceptable deviation from cultural norms.

Our analyses are based on unique population register data that entail important advantages over survey data, such as a complete coverage of the population and no recall bias. There are, however, also a few drawbacks of the data used. First, our data lack information on several important determinants of family behavior, such as religiosity and social networks, which might lead to an under- or overestimation of differences between the origin groups. Second, the position in the household as recorded in the population registers does not provide a complete understanding of family behavior. For instance, living alone (with a child) during young adulthood does not necessarily imply being single, as currently almost four out of 10 people aged 18-30 in the Netherlands are in an LAT relationship (Statistics Netherlands, 2015). Exploring differences between the origin groups in this respect might potentially be a fruitful line for future research. Finally, the fact that we selected women from one specific birth cohort is another limitation of this study. Recent research on the home-leaving behavior of young adults in the Netherlands showed a convergence in the timing of this transition between the Turkish and Moroccan second generation and the majority population over the past decade (Stoeldraijer, 2014). It is possible, if not likely, that similar trends have occurred (or might occur) for other family transitions as well, such as marriage and parenthood. Future studies may therefore elaborate on our work by taking cohort differences into account.

In conclusion, this study enhances the current literature on ethnic differences in family behavior, as it leads to new insights into how various ethnic origin groups transit into adulthood and how we may interpret specific behavior theoretically. The trajectory-based approach proved in this regard to be complementary to the often applied techniques of hazard rate modelling, which have "no conception of the career as a whole" (Abbott, 1990:140). In addition, the results with regard to mixed parentage reaffirmed that there are important differences between the 2.0 and 2.5 generation

and that they should ideally not be grouped together in empirical research or theoretical enquiry for that matter. The insights obtained from this study can be considered to be important for society as well, as family choices made during young adulthood are predictive for many outcomes later in life, including amongst others (subjective) health and socio-economic status (Barban, 2013; McLanahan & Booth, 1989). In the view of these considerations, targeting the specifically vulnerable period of young adulthood is crucial to reduce inequalities between ethnic minorities and the majority population, not only for the present, but also for future generations.

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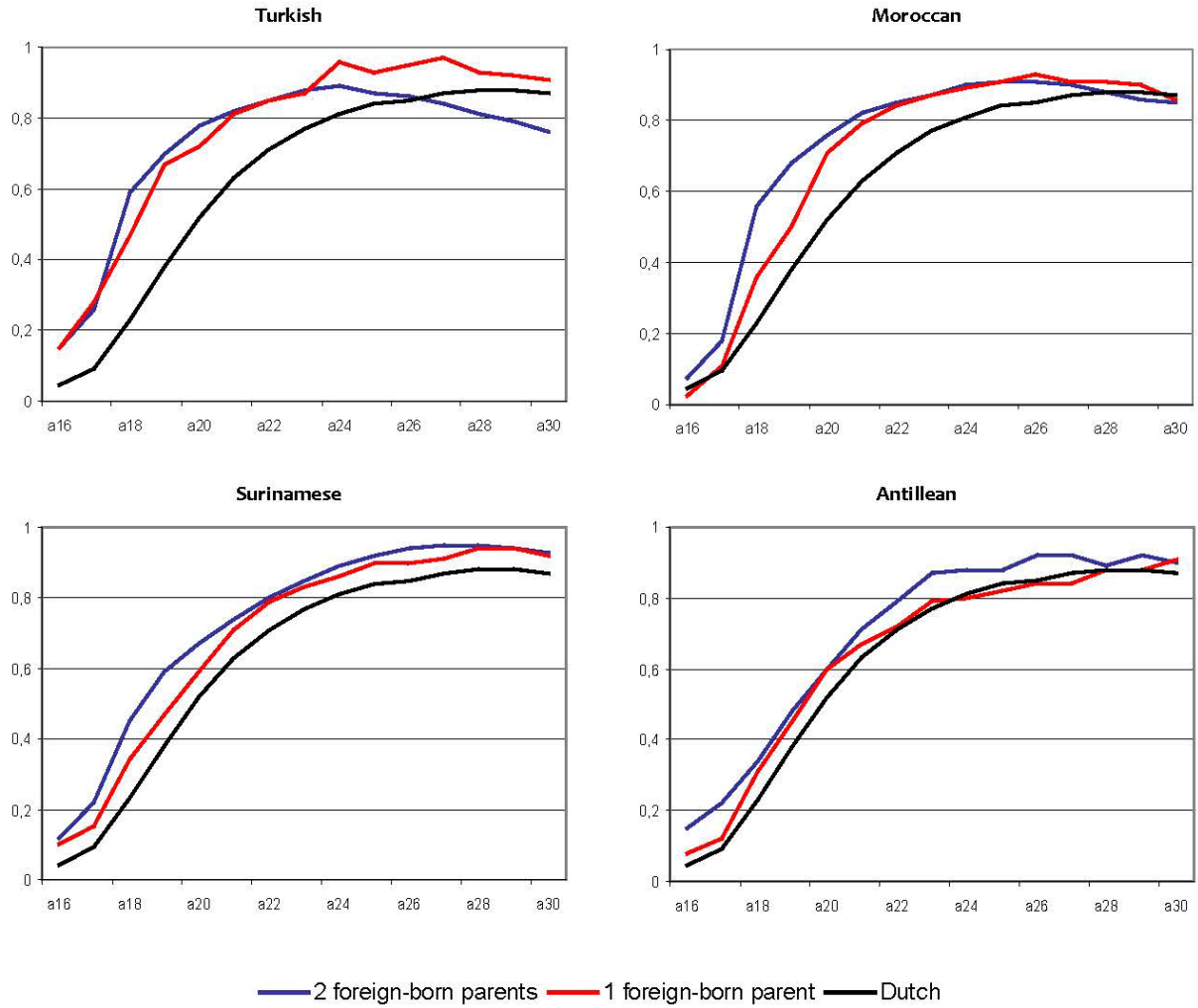
Figure 1. *Transversal entropy along chronological age, by origin group and mixed parentage*
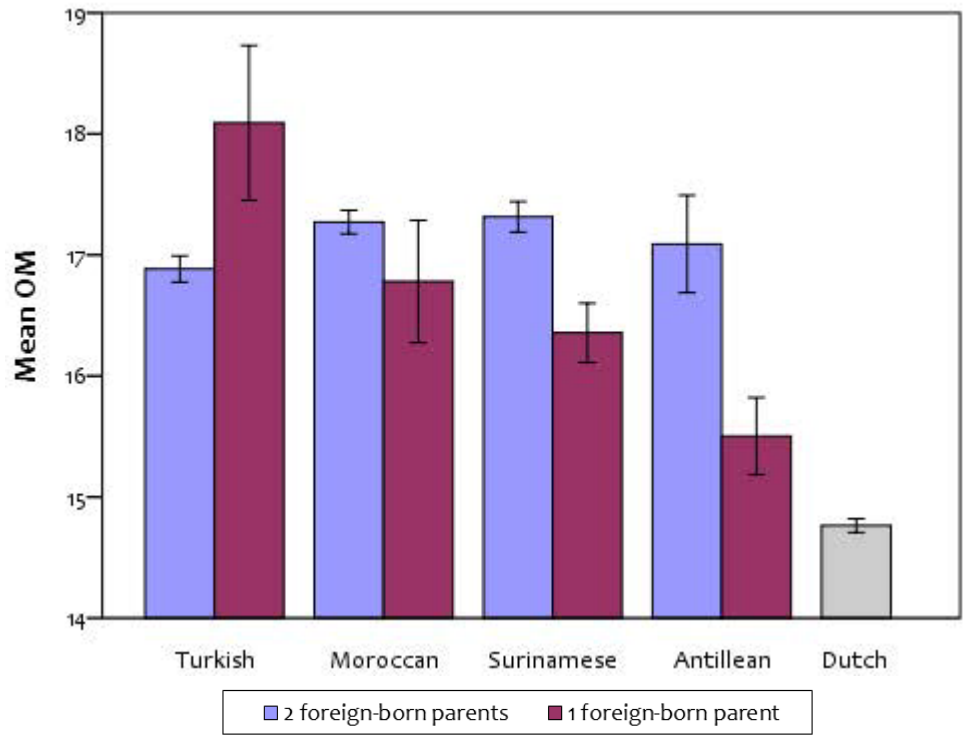
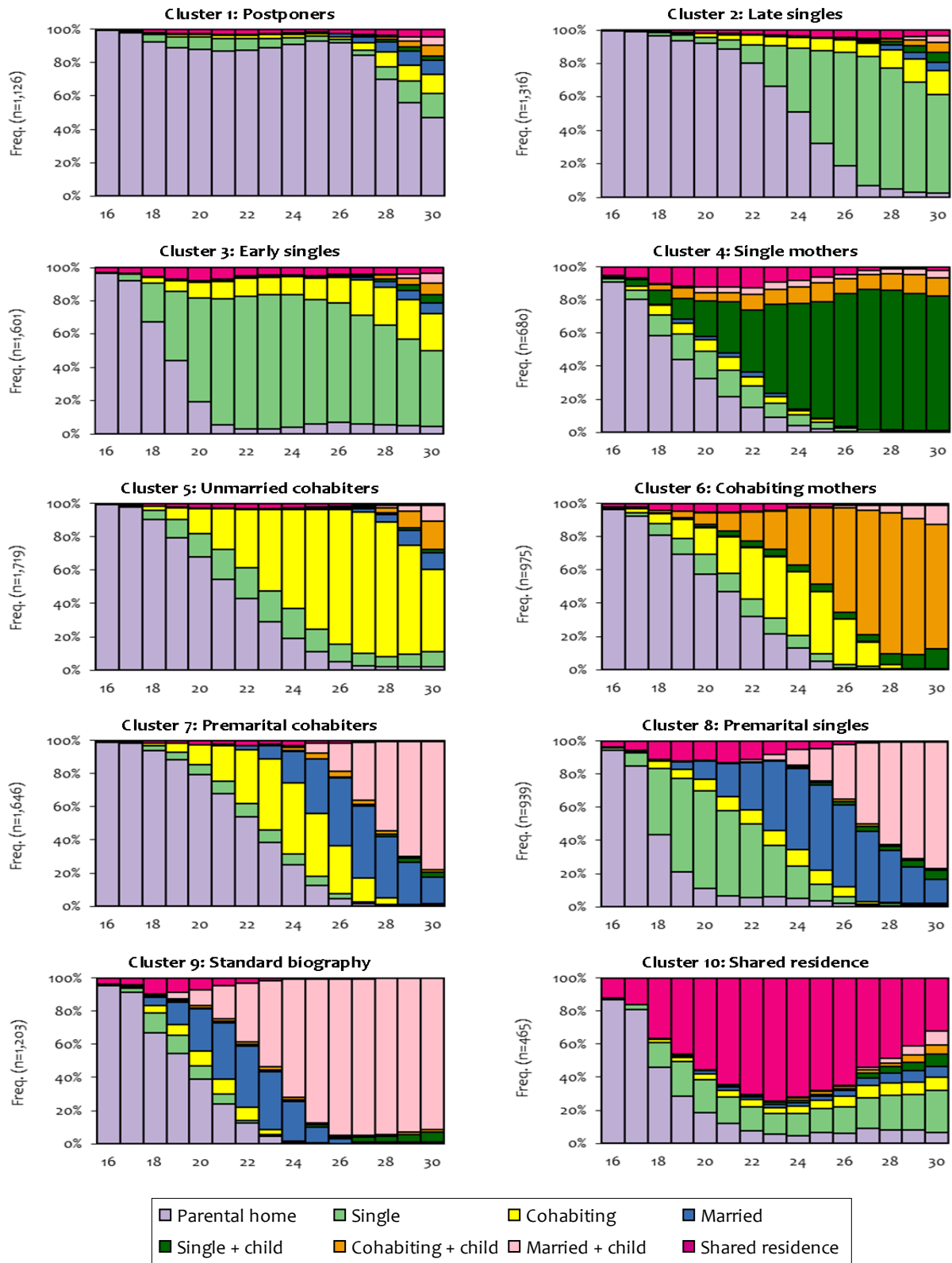*Figure 2. Mean optimal matching distance, by origin group and mixed parentage*

Figure 3. Transversal age distribution of the family life course states for the 10-cluster typology

Table 1. Percentual distribution over categories of independent variables, by origin group

	Turkish (N=1,677)	Moroccan (N=1,414)	Surinamese (N=1,853)	Antillean (N=411)	Dutch (N=6,315)
Mixed parentage					
2 foreign-born parents	95.8	92.3	79.2	33.3	N/A
1 foreign-born parent	4.2	7.7	20.8	66.7	N/A
Labor market trajectory					
Full-time	22.6	20.9	22.8	22.6	33.3
Part-time	24.7	21.8	21.3	20.4	22.2
Student	40.0	43.6	43.4	48.2	39.4
Unemployed	12.7	13.6	12.4	8.8	5.1
Educational level					
Low	75.0	73.5	68.6	58.6	58.0
High	25.0	26.5	31.4	41.4	42.0
Number of siblings					
0	16.2	10.0	22.8	24.8	15.9
1	27.2	13.1	38.1	42.3	48.0
2	31.5	17.8	25.8	23.6	24.7
3	18.1	21.5	10.1	5.6	8.0
4+	7.0	37.6	3.2	3.6	3.4

Note: Percentages may not total 100 due to rounding

Source: System of Social statistical Datasets (SSD)

Table 2. Percentual distribution over the life course clusters, by origin group

	Turkish (N=1,677)	Moroccan (N=1,414)	Surinamese (N=1,853)	Antillean (N=411)	Dutch (N=6,315)
1. Postponers	11.7	12.9	15.5	9.7	6.7
2. Late singles	4.8	7.4	13.7	11.2	13.2
3. Early singles	11.6	11.5	14.3	16.8	14.4
4. Single mothers	3.9	7.1	16.9	14.8	2.2
5. Unmarried cohabiters	1.3	2.5	9.8	22.1	22.0
6. Cohabiting mothers	3.3	2.6	9.8	7.5	10.6
7. Premarital cohabiters	9.4	7.4	7.9	9.2	19.0
8. Premarital singles	23.4	16.8	4.2	2.4	3.5
9. Standard biography	23.7	19.5	3.6	3.9	7.1
10. Shared residence	6.8	12.4	4.3	2.2	1.4
Total	100	100	100	100	100

Note: Percentages may not total 100 due to rounding

Source: System of Social statistical Datasets (SSD)

Table 3. Logistic regression analyses of trajectory types on origin groups: Odds Ratios

	Cluster 1: Postponers	Cluster 2: Late singles	Cluster 3: Early singles	Cluster 4: Single mothers	Cluster 5: Unmarried cohabiters	Cluster 6: Cohabiting mothers	Cluster 7: Premarital cohabiters	Cluster 8: Premarital singles	Cluster 9: Standard biography	Cluster 10: Shared residence
Origin group										
Turkish	1.86***	0.37***	0.88	1.02	0.05***	0.24***	0.49***	9.31***	3.65***	4.89***
Moroccan	2.03***	0.65***	0.93	1.87***	0.14***	0.22***	0.39***	5.74***	2.30***	8.44***
Surinamese	2.56***	1.12	1.01	7.10***	0.42***	0.84	0.41***	1.31*	0.44***	2.92***
Antillean	1.49*	0.86	1.09	7.75***	1.05	0.69	0.48***	0.71	0.55*	1.41
Dutch (ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Labor market trajectory										
Full-time (ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Part-time	0.91	0.42***	0.65***	2.14***	0.40***	2.24***	0.86*	0.92	3.39***	0.67*
Student	1.32**	0.83*	2.16***	1.71***	0.84*	0.79*	0.66***	0.89	0.43***	1.57**
Unemployment	0.97	0.55***	1.17	11.87***	0.25***	1.45**	0.18***	0.40***	1.24*	1.79**
Educational level										
Low (ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
High	0.84*	0.95	2.06***	0.16***	1.31***	0.41***	1.10	1.50***	0.43***	1.20
Number of siblings										
0 (ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1	1.25*	1.28**	0.66***	0.68**	1.14	1.06	1.37***	0.86	0.88	0.49***
2	1.20	1.13	0.66***	0.78	0.98	1.18	1.34**	0.95	1.20	0.63**
3	0.97	0.89	0.73**	0.83	0.77*	1.03	1.38**	1.14	1.66***	0.69*
4+	1.25	0.86	0.48***	1.00	0.35***	0.74	1.24	1.09	2.29***	0.86
No. of observations	1,126	1,316	1,601	680	1,719	975	1,646	939	1,203	465
Nagelkerke R^2	.03	.05	.11	.30	.18	.11	.07	.16	.25	.13

*Note: *** $p < .001$; ** $p < .01$; * $p < .05$*

Source: System of Social statistical Datasets (SSD)

Table 4. Logistic regression analyses of trajectory types on mixed parentage: Odds Ratios (selection)

	Cluster 1: Postponers	Cluster 2: Late singles	Cluster 3: Early singles	Cluster 4: Single mothers	Cluster 5: Unmarried cohabiters	Cluster 6: Cohabiting mothers	Cluster 7: Premarital cohabiters	Cluster 8: Premarital singles	Cluster 9: Standard biography	Cluster 10: Shared residence
Dutch (ref)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turkish										
2 foreign-born parents	1.86***	0.34***	0.89	0.98	0.03***	0.20***	0.50***	9.81***	3.79***	5.04***
1 foreign-born parent	2.11*	1.07	0.77	1.87	0.54	0.96	0.28*	2.97*	1.67	3.10
Moroccan										
2 foreign-born parents	2.13***	0.52***	0.91	1.76**	0.09***	0.18***	0.39***	6.54***	2.47***	9.27***
1 foreign-born parent	1.43	1.95**	1.06	3.32**	0.59	0.67	0.44*	0.85	1.01	3.21*
Surinamese										
2 foreign-born parents	2.90***	1.20*	0.92	7.89***	0.30***	0.72**	0.38***	1.58**	0.46***	3.24***
1 foreign-born parent	1.46*	0.85	1.37*	4.36***	0.93	1.30	0.51***	0.39*	0.38***	1.78
Antillean										
2 foreign-born parents	2.26**	0.98	0.73	14.43***	0.51*	0.68	0.28**	0.46	0.51	2.35
1 foreign-born parent	1.15	0.81	1.26	4.22***	1.33*	0.70	0.57**	0.81	0.58	0.94

*Note: *** p <.001; ** p < .01; * p <.05*

Included are controls for labor market trajectory, educational level, and number of siblings (odds ratios not presented)

Source: System of Social statistical Datasets (SSD)

APPENDIX A

The System of Social statistical Datasets (SSD) contains detailed socio-economic information on every legal inhabitant of the Netherlands. The information is derived from different administrative sources, such as the Tax and Customs Administration (in Dutch: Belastingdienst), the Employee Insurance Agency (Dutch acronym: UWV), and several educational registers (see for details Bakker et al., 2014). Data were available for the period 1999–2011, allowing us to reconstruct the women's education and work histories from age 16 in 1999 up until age 28 in 2011 on an annual time scale. For each year, we distinguish between the following five states: (1) *in education*, (2) *full-time employed*, (3) *part-time employed*, (4) *unemployed – benefits*, and (5) *unemployed – no benefits*. It is important to note that the classification is based on the most dominant state. For example, a person with a small job who receives more money from complementary benefits than from earned income, is classified as unemployed with benefits. The distinction between full-time and part-time work is based on a so-called 'part-time factor'. This part-time factor is the ratio of the number of hours worked by the person in a year to the average number of hours worked by full-time employees in that year. We classify a person as full-time employed if the average number of hours worked by the person is 80% or more of a full-time job.

Following the same approach as with the dependent variable, we calculated optimal matching (OM) distances between all individual sequences with insertion/deletion costs of 1 and substitution costs derived from state-transition frequencies (see method section). Subsequently, we applied Partitioning Around Medoids (PAM) cluster analysis to identify groups of women that are similar to each other in terms of their educational and labor market careers. The Average Silhouette Width (ASW) criterion indicated that a 4-cluster typology was the most 'appropriate' one (ASW=0.32). Figure A1 provides an aggregated view of the state distribution at each chronological age within each of the four trajectory types.
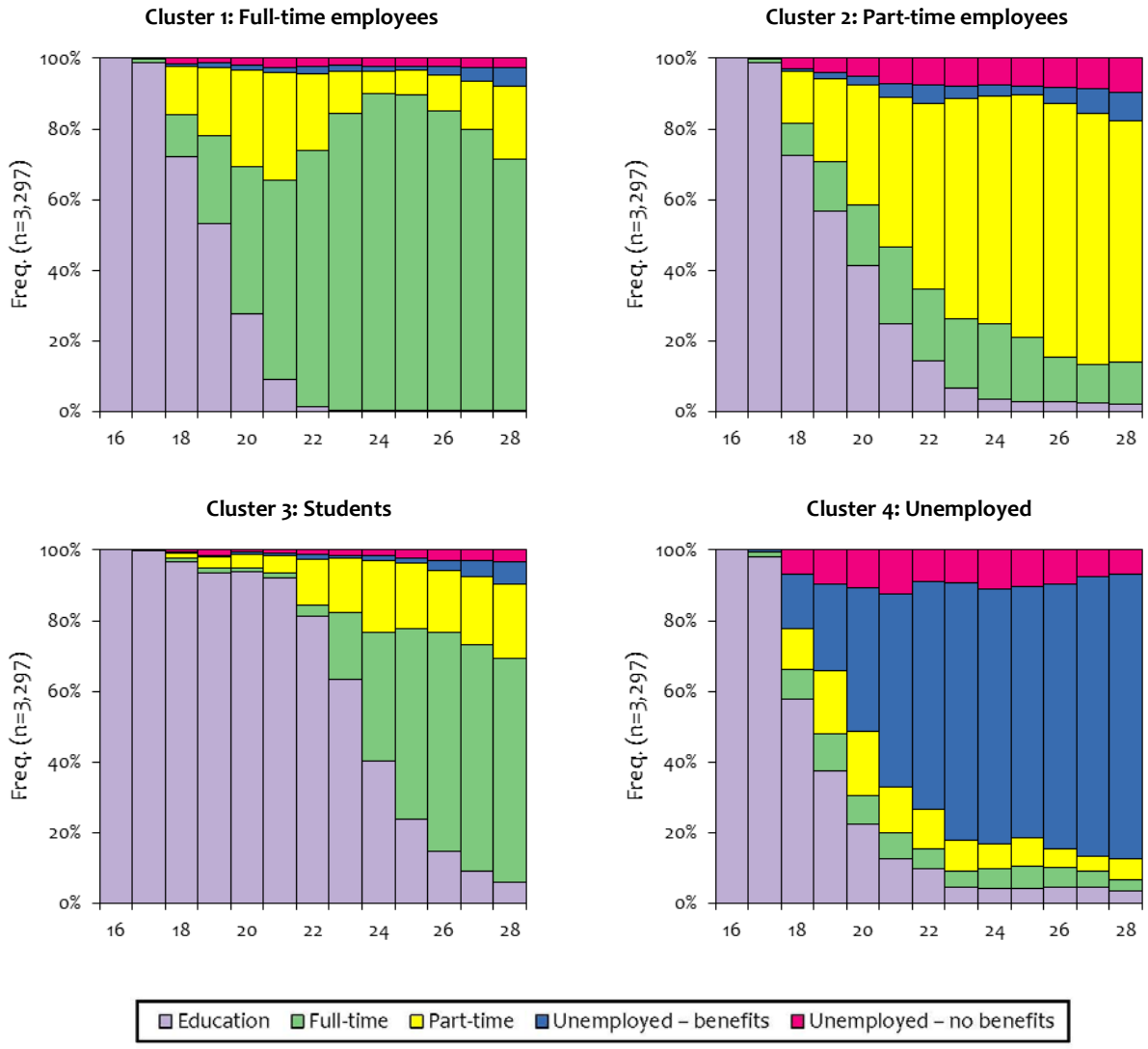
Figure A1. Transversal age distribution of the labor market states for the 4-cluster typology