Socio-economic effects on union formation among second generation migrant women in Belgium

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Abstract

With second and higher generation migrants entering adulthood at a high rate, their patterns of family formation are increasingly being studied in demographic literature. This paper attempts to contribute to the existing literature by examining the association between socio-economic characteristics and partnership patterns among second generation migrants in Belgium. While the theoretical frameworks attempting to explain the association between socio-economic characteristics and union formation are strongly rooted in demographic research, they rarely account for population heterogeneity in terms of different origin groups. We study these mechanisms among Southern European, Turkish and Moroccan second generation migrant women in Belgium using the Belgian Administrative Socio-Demographic Panel on the period 2003-2010. Descriptive results indicate that direct marriage is the main type of first union formation among Turkish and Moroccan young adult women whereas Belgian and Southern European second generation women mostly opt for cohabitation as a first union. With respect to the influence of socio-economic characteristics on union formation both labour market participation and income level have a positive effect on union formation. Analyses including both indicators suggest that the positive effect of labour market position is mainly channelled through the higher income levels associated with labour market participation. In addition, socio-economic effects for Southern European second generation women are fairly similar to the effects among Belgian women while socio-economic effects do differ significantly for Turkish and Moroccan women. A general observation is that a disadvantaged socio-economic position is less hampering on the chances of union formation among Turkish and Moroccan origin groups. However, among all origin groups higher income levels yield higher odds of union formation.

1. Introduction

Partnership patterns in Europe and the United States have been changing drastically from the 1960s onward (Perelli-Harris & Lyons-Amos, 2015). The number of marriages has strongly declined and the mean age at first marriage has increased. These changes can be linked to the rise in unmarried cohabitation which can serve as a viable alternative to marriage but more often acts as a premarital living arrangement. A large body of literature has focused on explaining these trends in union formation. Many of these studies have considered changes in partnership patterns to be associated with a cultural shift toward emancipation, self-realization, autonomy and secularization (Lesthaeghe, 2010; Lesthaeghe & Van de Kaa, 1986). Other theoretical approaches link the changing patterns of union formation to rising female educational attainment and employment. One the one hand Becker's New Home Economics (1974, 1981) state that economic independence lowers the gains of

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marriage for women and consequently makes marriage less beneficial for them. In addition, specialization of partners in either domestic or breadwinner roles has long been regarded as a functional necessity for marital stability (Becker, 1981; Durkheim, 1960; Parsons, 1949). Higher labour market participation and income levels are thought to promote union formation for men while diminishing the partnering chances for women. However, functional specialization of partners is considered an inflexible household configuration in times of economic uncertainty (Oppenheimer, 1977). Oppenheimer (1988) formulates an alternative hypothesis stating that persons who are economically independent, regardless of gender, are more prone to union formation. Labour market participation not only determines one's ability to set up a household but also yields more advantageous future perspectives. Hence, according to Oppenheimer, economic independence is expected to promote union formation for both men and women.

A shortcoming in most explanations for changing partnership patterns is that they do not account for population heterogeneity in terms of origin. This is remarkable since migrant populations in Europe have been growing consistently over the past decades (Van Mol & de Valk, 2016). In the context of Belgium, the recruitment of Southern European, Turkish and Moroccan guest workers after the second world war has resulted in several large migrant communities (Martens, 1973; Reniers, 1999). In addition, research on migrant populations has shown that these groups often differ from the majority population in terms of socio-economic characteristics and attitudes toward gender and family. With respect to socio-economic position, especially non-European migrant populations still hold a disadvantaged position in the educational system and on the labour market (Eurostat, 2011; Neels, 2000). This is not only true for first generation non-European immigrants, but also for their descendants (Corluy, Haemels, Marx, & Verbist, 2015; Heath, Rothon, & Kilpi, 2008). Belgium in particular has one of the largest gaps in labour market outcomes between natives and individuals with a migration background (Corluy, 2014). With respect to cultural differences, especially first generation migrants but also second generation migrants from less egalitarian origin countries have more traditional attitudes toward gender roles (de Valk, 2008; Huschek, de Valk, & Liefbroer, 2011; Röder & Mühlau, 2014).

Given the disadvantaged educational and employment positions and differing attitudes toward gender and family of migrant populations, it is relevant to investigate the proposed explanations for changes in partnership patterns among immigrants and their descendants. Differing opportunities and attitudes could lead to differences in the link between socio-economic characteristics and union formation. Previous research has shown that patterns of union formation observed among the majority population do not always recur to the same extent among migrant groups. Migrant populations do not only diverge in timing and type of union but also in whom they marry (Corijn & Lodewijckx, 2009; Hannemann & Kulu, 2015; Hartung, Vandezande, Phalet, & Swyngedouw, 2011; Huschek, de Valk, & Liefbroer, 2012; Lievens, 1997; Timmerman & Wets, 2011). However, economic theories attempting to explain patterns of union formation have not explicitly accounted for population heterogeneity in terms of origin. The objective of this paper is to identify whether there is variation in the effect of socio-economic characteristics on union formation for different origin groups. We focus on comparing union formation patterns and their link to socio-economic characteristics between Southern European, Turkish and Moroccan second generation migrants and Belgian natives. We use longitudinal data from the Belgian Administrative Socio-Demographic panel on women aged 18 to 32 years old living in Belgium between 2003 and 2010.

2. Theoretical framework

2.1. Migrant populations in Belgium

Europe has experienced a strong increase in inhabitants with an immigrant background since the Second World War. Due to a wide variation in immigration waves, sending countries and motives for migration, the current European population with a migrant background is strongly diversified in terms of origin and generation (Van Mol & de Valk, 2016). This paper will focus specifically on the descendants of Southern European (Greece, Italy, Portugal, Spain), Turkish and Moroccan immigrant groups in Belgium resulting from the large-scale recruitment of guest workers in the 1960s and 1970s. We compare these migrant groups since they are similar with respect to the timing and context of migration to Belgium. In addition, this selection allows us to compare second generation migrants patterns of European and non-European origin. First, we provide a short historical overview with respect to immigration and then we elaborate on the specific socio-economic and cultural position of these migrant groups.

After the Second World War, bilateral agreements were made between Belgium on the one hand and European and non-European countries on the other as a way to revitalize the Belgian economy (Martens, 1973). The first bilateral agreements between Italy and Belgium resulted in a large influx of Italian labour migrants from 1946 on. Starting in the mid-1950s, additional labour migration from Spain, Greece and Portugal was introduced. In the early 1960s, Belgium closed agreements with Turkey and Morocco resulting in the recruitment of large numbers of Turkish and Moroccan labour migrants up until the early 1970s. Selective immigration mechanisms resulted in several Turkish and Moroccan communities throughout Belgium which mirror regional communities in the country of origin, so-called “transplanted communities” (Reniers, 1999; Surkyn & Reniers, 1996). Due to the rising native unemployment level, the Belgian government limited labour migration in 1974 and 1976. These policy changes mainly affected the non-European Turkish and Moroccan migrants and often caused them to settle permanently in Belgium (Reniers, 1999). However, even after 1974 Turkish and Moroccan immigration continued through the means of family reunification which allowed family members of labour migrants to join their husbands or fathers in Belgium. More recently, marriage migration has created an additional and persistent immigration flow through the marriage of second or higher generation migrants to men or women residing in their country of origin (Hartung et al., 2011; Lievens, 1997). This type of migration is stimulated and facilitated by the existence of strong bonds between immigrant communities in Belgium and local communities in Morocco and Turkey (Lievens, 1999). However, whereas non-European migrants often permanently settled in the country of destination after the migration stop, return migration was more prominent among Southern European labour migrants due to economic growth in their origin country (Van Mol & de Valk, 2016). In addition, Intra-European mobility was less restricted and even facilitated by the abolition of European borders for citizens of EU-member countries in the 1990s. These migration dynamics resulted in the lower incidence of family reunifying and family forming migration among the Southern European migrant population.

Given that the number of immigrants and their descendants has grown exponentially during the past decades, literature has paid specific attention on the socio-economic position of migrants. A literature review by Heath et al. (2008) concludes that second generation migrants, especially originating from less-developed countries, experience strong disadvantages in the educational system and on the European labour market. In the case of Belgium, large gaps in terms of poverty

and employment exist between the majority population and other origin groups. Timmerman, Vanderwaeren, and Crul (2003) show that while the gap in educational attainment between the Turkish and Moroccan second generation and native Belgians is still substantial, their level of educational attainment is improving strongly. Despite this educational progress, Turks and Moroccans of the second generation are still mostly employed in less favourable jobs and unemployment among this group has increased continuously since the mid-1990s while the overall number of job seekers has decreased. Research by Phalet (2007), Baert et al. (2016) and Corluy et al. (2015) confirms that ethnic minorities experience significant disadvantages and ethnic penalties on the Belgian labour market. While we expect the second generation to do better than the first generation due to enrolment in the local educational system, higher educational achievements and knowledge of the native language they still experience significant labour market disadvantages. These studies indicate that especially non-European (e.g. Turkish or Moroccan) second generation migrants are poorly protected against unemployment and benefit less from educational investments in terms of job opportunities compared to Belgian natives. In addition to socio-economic differences, migrant populations also tend to differ with respect to attitudes toward gender roles and family. Especially immigrants from countries characterized by less egalitarian gender-role beliefs have more traditional attitudes toward gender compared to natives (Röder & Mühlau, 2014). Whereas research on the second generation is more limited it indicates that traditional gender attitudes persist among the descendants of the first generation (de Valk, 2008; Huschek et al., 2011). Especially second generation migrants from less gender egalitarian countries hold more traditional ideas on male and female gender roles.

2.2. Union formation patterns in migrant populations

In addition to differing socio-economic and cultural characteristics, previous research has also shown that partnership patterns of immigrants and their descendants differ from those of natives. With respect to timing, second generation migrants generally start union formation at earlier ages compared to the majority population (de Valk, 2006; Huschek, Liefbroer, & de Valk, 2010). Regarding union type, research shows that Turkish and Moroccan second generation migrants more often than natives enter into direct marriages without a period of premarital cohabitation. Previous studies have indicated that the prominence of early marriage among migrant populations may be due to more traditional individual and parental preferences and human capital in combination with limited contact with other origin groups (de Valk & Liefbroer, 2007; Huschek et al., 2010; Liefbroer & Corijn, 1999). Among non-European descendants, the dominance of marriage over cohabitation can also be connected to partner choices of second generation migrants. Turkish and Moroccan second generation migrants often marry a first generation migrant from their country of origin instead of choosing a native or second generation partner (Hartung et al., 2011; Huschek et al., 2012; Kulu & González-Ferrer, 2014; Lievens, 1997). Marriage migration offers the opportunity for women or men to migrate to the country of their partner despite restrictive migration policies. Hence, partner choice among second generation migrants is very much related to union type. However, we should not disregard heterogeneity within migrant populations. While some migrant groups diverge from the majority population, this is not necessarily true for second generation migrants of other origin groups.

To explain both the considerable differences in partnership patterns between majority and minority populations as well as the differences within the migrant population, several hypotheses have been

developed. Initially, these hypotheses have been developed to explain the differences in fertility behaviour of migrant populations (Milewski, 2010; Sobotka, 2008). However, as Hannemann and Kulu (2015) have shown in a recent publication, these hypothesis are also relevant in explaining partnership patterns due to the strong connection between union formation and fertility behaviour. To explain differences in partnership patterns for the first generation, we can distinguish three relevant hypothesis: the socialisation hypothesis, the adaptation hypothesis and the selection hypothesis (Hannemann & Kulu, 2015). The socialisation hypothesis expects the partnership behaviour of first generation migrants to resemble partnership behaviour in their country of origin. Family preferences and partnership behaviour in the childhood environment are assumed to be the main influence on union formation patterns of immigrants. The adaptation hypothesis states that partnership behaviour is mainly affected by the current environment and its partnership patterns. Based on this hypothesis, one expects first generation migrants to resemble partnership patterns of the country of destination. The selection hypothesis assumes immigrants to be a selective group with distinct individual partnership preferences resulting in partnership patterns that differ from their country of origin and reflect more closely the patterns of the country of destination.

Since second generation migrants have not experienced migration itself, these hypotheses appear to be less relevant at first sight. However, based on the exposure to mainstream society we can still imagine differing mechanisms for second generation migrants (Hannemann & Kulu, 2015). Descendants of first generation migrants who are less exposed to mainstream society and are socialised in an environment that cultivates traditional partnership preferences, are expected to resemble partnership patterns of their parents and the country of origin. In contrast, second generation migrants who are strongly exposed to and integrated in mainstream society could display less traditional partnership patterns that are more similar to the majority population. Due to initial migration flows from specific Turkish and Moroccan regions (Reniers, 1999) and persisting family reunifying and family forming immigration (Lievens, 1999), migrant communities are specifically strong for Turkish and Moroccan migrant groups. Hence we expect the patterns of union formation of Turkish and Moroccan second generation migrant to differ strongest from Belgian natives. However, we expect the differences from the native pattern to be stronger for Turkish than for Moroccan second generation migrants. Due to strongly defined “transplanted communities” in Turkish migrant groups, they are most likely to be influenced by the migrant community as opposed to the mainstream society. We expect patterns of union formation for the Southern European second generation to be most similar to Belgians since they do not concentrate in strong communities and are more likely to be influenced by the mainstream culture.

2.3. Economic independence and union formation

Several studies have focused on explaining union formation patterns by linking cultural changes in values such as emancipation, individualisation and secularisation to the changes in partnership patterns observed since the 1960s (Lesthaeghe, 2010; Lesthaeghe & Van de Kaa, 1986). However, family and partnership formation have also been analysed from an economic perspective since the 1970s. Economic theories have specifically focused on the role of socio-economic characteristics in explaining the observed changes in patterns of union formation. Whereas sociological explanations have been applied to study family formation among migrant groups by focusing on cultural assimilation (see 2.2.), a shortcoming in economic explanations is that they do not account for population heterogeneity in terms of origin. The following paragraphs will give a short overview of

two noteworthy economic theories to identify some of the most important economic mechanisms of union formation.

One of the most influential economic explanations for union formation patterns was posed by Becker's New Home Economics. According to Becker (1974), marriage is formed as a means of increasing the utility of both partners involved. Maximum utility for both spouses is obtained through functional specialization of partners in either paid work or domestic work. This specialization within the household creates mutual dependence since partners trade income from paid work for domestic work and childcare which maximizes the gains of marriage. This train of thought is in line with functional sociologists such as Parsons (1949), who stated that the division of tasks between spouses is a functional necessity for marital stability (Oppenheimer, 1977). Linking this idea with evolutionary perspectives on gender and traditional gender norms this implies that union formation is promoted when women specialise in domestic work while men participate in paid work. According to this theory, women with higher earning potential and greater career ambition are less likely to marry (Cherlin, 2000). When women become economically independent, the gains of marriage decrease since the mutual dependence of partners diminishes or disappears. In addition, women participating on the labour market are less attractive marriage partners since they no longer specialize solely in household work. Becker uses his theory to explain the change in union formation trends. The strong increase in female educational attainment, boosting female labour market opportunities and income prospects, is assumed to be the main driver behind both the decrease in marriages formed and the increase in marital instability observed since the 1960s.

Becker's hypothesis on gender-specific effects of rising female employment and educational attainment on changing patterns of union formation has been heavily contested throughout the past decades and empirical support for the hypothesis is less convincing (Bracher & Santow, 1998; Cherlin, 2000; Oppenheimer, 1994). Recent research has shown that the gender-specificity in the effect of labour market participation and income is most likely dependent on the societal context (Kalmijn, 2011; Liefbroer & Corijn, 1999; Oppenheimer, 1988; Thomson & Bernhardt, 2010). In contexts where a strong division in gender-roles is socially expected and encouraged by social policy, Becker's theory can be expected to explain differences in partnership patterns. In countries characterized by gender equity a stable labour market position of women is more likely to raise women's chances of entering into a union. With female labour market participation being the new norm, women without a secure socio-economic position might postpone or forego union formation since they have a harder time establishing and maintaining a family. Furthermore, Becker's New Home Economics mainly focuses on explaining the decrease in the number of marriages but does not pose a sufficient explanation for the delay in marriage observed since the 1960s (Oppenheimer, 2000).

Oppenheimer addresses these concerns in her uncertainty hypothesis. To counter Becker's specialization argument, Oppenheimer (1977, 2000) emphasizes the inflexibility of the traditional male breadwinner model as a household strategy. By relying solely on the income of one partner, the functioning and well-being of the household may be endangered when this partner is temporarily or permanently unable to do paid work. Female employment can act as an insurance against the loss of the household's major income source. Hence, instead of lowering the gains of marriage, female labour market attachment can improve the economic position of the household. This is especially true in an economically precarious context characterized by a decrease in young men's economic

position (Oppenheimer, 1994). Regardless of gender, an individual's current labour market position determines one's ability to set up an independent household with a partner (Kalmijn, 2011; Oppenheimer, Kalmijn, & Lim, 1997). Participating on the labour market provides one with the, mainly financial, resources to support a household. In addition, the degree of involvement in the labour market also yields a perspective into the future. If employment is unstable the way in which one's future life will be structured is uncertain and unpredictable making it difficult to plan ahead. Stable labour market participation thus promotes union formation by providing resources on the short term and certainty on the long term. Career immaturity characterized by uncertain financial resources and future life styles, for example in the case of educational enrolment (Coppola, 2004; Liefbroer & Corijn, 1999), tends to postpone union formation (Kalmijn, 2011). To recapitulate, Becker explains the observed changes in partnership patterns by the increasing socio-economic position of women whereas Oppenheimer explains these changes by the decreasing socio-economic position of young men which enhances the importance of female labour market participation.

The hypothesis that a better socio-economic situation promotes union for both sexes has been supported by research in Sweden (Bracher & Santow, 1998) and Finland (Jalovaara, 2012; Mäenpää, 2009). Based on previous research conducted among majority populations and Belgium being a fairly gender egalitarian country in terms of labour market opportunities, we expect women with higher labour market participation and income levels to be more likely of entering into a partnership. Consequently, we expect educational enrolment and unfavourable employment positions to diminish the likelihood of starting a union. In summary, we expect a better socio-economic position to raise the likelihood of union formation (hypothesis 1). However, as mentioned a few times before, these economic theories explaining patterns of union formation do not account for population heterogeneity in terms of origin. Previous research has indicated that migrant populations often differ from the majority population in terms of opportunities in the educational system and on the labour market. In addition, some migrant groups are characterized by more traditional attitudes toward gender roles. This might imply that the proposed effects of socio-economic characteristics on union formation are viable for the majority population but do not recur among migrant populations. Therefore we expect socio-economic mechanisms to differ for partnership patterns among the Southern European, Turkish and Moroccan second generation (hypothesis 2). Due to lack of literature on this topic, it is hard to predict to what extend these mechanisms will differ. Based on the small educational and employment gap and the smaller cultural distance, we expect more similar socio-economic effects for Southern-European and native women compared to Turkish and Moroccan women.

3. Data and methods

3.1. *Data*

The association between socio-economic characteristics and patterns of union formation is analysed using the Belgian Administrative Socio-Demographic Panel. This panel provides information on a representative sample of women aged 15-50 years on 31 December 1999 who are followed up between 1 January 2000 and 1 December 2010. To safeguard the cross-sectional representativeness throughout the observation period, the initial sample is supplemented by additional annual samples of 15-year old women as well as supplementary annual samples of women who settled in Belgium in the preceding year. Apart from women aged 15-50 years who constitute the primary sampling units (N=103,808), the BASD Panel also includes the household members of sampled women on January

1st in each year of the observation period (N=337,934). This combination allows to sketch a detailed picture of demographic and socio-economic characteristics of households. Both the initial sample and supplementary samples of women and their household members are disproportionately stratified by nationality, consistently using a sampling fraction of 1/40 for Belgian women compared to a sampling fraction of 1/20 for foreign women. The overrepresentation of migrant groups – together with information on country of birth for sampled individuals and their parents – provides unique opportunities to analyse family dynamics of migrant populations in Belgium.

For this study we selected Belgian women and second generation migrants of the three largest origin groups: Southern Europe (Greece, Italy, Portugal, Spain), Morocco and Turkey. The observation period of this research is 2003-2010. This selection of years is necessary since we need data on child allowance which is available from 2003 onwards to determine whether respondents are enrolled in education. To ensure that the analysis captures the transition to first union formation we only included childless women who entered the panel under the age of 25 as children within the household. We examine partnership patterns of native and second generation women aged 17-32 in Belgium. In total, 15,371 respondents (63,095 person-years) are selected for analyses. Of this sample, 5,373 women enter into a union throughout the observation period whereas 9,998 women are censored.

3.2. *Methods*

To analyze the influence of employment and income on union formation we use discrete-time event history models. The analysis draws on hazard models for union formation (regardless of union type) estimated using logistic regression models of entry into a first union. Union formation is constructed using the household position of women. Unions are defined as the transition from living in the parental household or living as a single to either unmarried cohabitation or direct marriage (i.e. marriage not preceded by a period of cohabitation). To estimate competing risk hazard models for union type we use multinomial logistic regression in which either direct first marriage or first unmarried cohabitation are possible destination states and the reference outcome is not entering into a union.

All independent variables are measured on a quarterly basis meaning we have information for every three months of observation. However, partnership transitions are measured annually which means we know in which year a union was formed. Given that we cannot determine exactly in which quarter a union was formed, we use time-varying information on the last quarter of the previous year to estimate union formation hazards in the following year. In this paper we focus on the effects of labour market position and income level on first union formation. As an indicator of labour market position we use the respondent's labour market status during the last quarter of the year previous to the year of observation. Six different labour market positions are defined: I) enrolled as a student, II) inactivity, III) unemployment, IV) part-time, V) full-time labour market participation and VI) self-employment. Since we do not have information on educational attainment, we use data on child allowance as an indicator for educational enrolment. In Belgium, child allowance is given to students up until 25 years old. Respondents of 25 years old or older that are enrolled in education are registered as being inactive due to this operationalisation. The income indicator is calculated using the level of income and benefits during the last quarter of the year previous to the year of observation. This variable indicates level of income using income quintiles and an additional category

for respondents who do not receive any income or benefits. We distinguish seven income categories: I) no income or benefits, III) first quintile (0-20%), IV) second quintile (20-40%), V) third quintile (40-60%), VI) fourth quintile (60-80%) and VII) fifth quintile (80-100%).

All models include the same control variables. The time-constant control variables are origin and cohort. Origin group is the most prominent control variable and distinguishes the different groups selected: I) Belgian, II) Southern European second generation, III) Turkish second generation and IV) Moroccan second generation. A respondent is considered a second generation migrant if she is born in Belgium herself but at least one of her parents is born outside of Belgium. We will interact this variable with labour market position and income to see whether socio-economic effects on union formation differ by origin of the woman. We control for cohort by including birth year of the respondent as a continuous variable. We also include age, region and household position as time-varying control variables. Age is included in a quadratic specification and is allowed to vary by origin group to control for differing schedules of union formation. We control for possible regional differences in partnership behaviour by determining whether the respondent lives in Flanders, Brussels or Wallonia[2]. Household position is included to control for differing starting positions and distinguishes between I) children living with married parents, II) children living with unmarried parents, III) children living with one parent, IV) singles and V) respondents living as "other" members in a household (e.g. friends or siblings living together).

Our results consist of two parts. The first part is a descriptive analysis to verify to what extend partnership patterns differ between Belgian natives and second generation migrants. The second part is a multivariate analysis of union formation. For both dependent variables – overall first union formation and first union formation by type – four models are fitted. The first model only includes labour market participation as a socio-economic indicator. In a second model we add income level as an additional socio-economic characteristic. As a result, we can observe whether the effects of labour market participation are to some extent explained by differing income levels. In the third and fourth model we allow the effects of labour market participation and income level to vary by origin group. This way we can investigate whether socio-economic effects on union formation differs for the distinguished origin groups of interest.

4. Results

4.1. Descriptive results

To get an idea of the prevalent partnership patterns among Turkish, Moroccan and Southern European second generation migrants in Belgium we display the proportion of women entering into a union (figure 1) and the median age at first union formation for the different origin groups (figure 2). Figure 1 shows that differences between origin groups in the propensity of entering into a first union are fairly limited. Between 28 and 35 percent of all origin groups enters into a first union between ages 18 and 32 in the observation period. However, with respect to union type large differences appear between the Belgian and Southern European origin groups on the one hand and Turkish and Moroccan second generation migrants on the other. While only four percent of Belgians and nine percent of Southern European second generation women in the sample enters directly into marriage, this type of union formation is substantially more prominent among Turkish (32%) and

[2] Flanders, Wallonia and the Brussels Capital Region are Belgian regions of the NUTS 1 level.

Moroccan (25%) second generation women who are at risk of first union formation. Unmarried cohabitation is the first union type of only a very small proportion of all Turkish and Moroccan women in the sample, respectively three and four percent. Alternatively, unmarried cohabitation is the main type of first union formation for Belgian (30%) and Southern European (20%) origin groups.

[FIGURE 1 ABOUT HERE]

Figure 2 shows the median age at first union formation for the four origin groups. The results suggest earlier union formation for Turkish and Moroccan second generation women compared to other origin groups. Union formation, regardless of union type, occurs earlier for Turkish and Moroccan women with a median of 22 years old at first union formation than for Belgian and Southern European women (24 years old. When only comparing the median age at direct marriage the results are more polarised. Turkish and Moroccan women generally enter into a union two years earlier than Belgian and Southern European women. Within origin groups, the differences between median ages at direct marriage and cohabitation vary. Belgian, Turkish and Southern European women tend to be younger when they start to cohabit than when they directly marry. Among Moroccan second generation women the pattern is opposite with higher median ages at first cohabitation than at direct marriage.

[FIGURE 2 ABOUT HERE]

4.2. Multivariate analyses

In the multivariate analyses we estimate the effect of labour market participation and income level on first union formation and on the transition to either direct first marriage or first cohabitation. First, we estimate the effect of labour market participation without accounting for differences in income level. In a second step, we add income level to observe whether the effect of labour market participation changes.

[TABLE 2 ABOUT HERE]

In model 1 (table 2) we observe the effect of labour market participation on union formation without controlling for income level. The results shows a clear positive gradient in the effect of labour market position on union formation with full-time employed and self-employed women having the highest odds of entering into a first union. A negative effect is observed for women not participating on the labour market with the odds of entering a first union being respectively 44% and 60% lower for unemployed and inactive women. Women enrolled in education have the lowest odds of entering into a union (78% lower). Model 3 (table 3) shows the results for the competing risks analysis. These analyses show that the positive effect of a higher degree of labour market participation recurs in a very similar way when looking at marriage and cohabitation as competing risks. For both union types, full-time employment yields the highest odds while unemployment, inactivity and educational enrolment yield the lowest odds. Self-employed women are excluded from the multinomial regression models due to low cell counts.

[TABLE 3 ABOUT HERE]

When we add income level to the analysis in model 2 for union formation (table 2) and model 4 (table 3) for union type, we get a better view on the influence of socio-economic characteristics on

first union formation. A significant drop in deviance (Δdf=5; Δ-2LL=101.33) compared to the model without income level indicates that adding income to the model improves the model fit. Hence, including income level allows us to model patterns of first union formation more accurately. The results show that the effect of income level is positive with the highest income quintiles yielding the highest odds of entering into a first union, first marriage and first cohabitation. With respect to first union formation in general, lower income levels yield significantly lower odds of union formation. Compared to the highest income level, the odds of union formation for women without an income are 59% lower. The negative effect of lower income levels is stronger for marriage than for unmarried cohabitation[3]. Whereas women without an income are 59% less likely of entering into a cohabitation, they are 75% less likely of entering into a marriage compared to women in the highest income category. By adding income to the model, the strong positive gradient in the effect of labour market position earlier observed largely disappears. However, the significant negative effect of student status is maintained and the impact of self-employment event turn strongly positive after controlling for income level. The results suggest that the positive effect of labour market position on union formation is mainly channelled through the higher income levels associated with employment. In the competing risks analyses, the negative effect of being enrolled as a student remains. However, controlling for income yields significantly higher odds of direct marriage for unemployed an inactive women. This indicates that after controlling for income, entry into direct first marriage is associated with lower labour market participation. In further analyses we control for income level when analysing the effect of labour market participation.

[TABLE 4 ABOUT HERE]

To examine whether the effects of socio-economic characteristics vary for different origin groups we first display differential effects obtained through interacting labour market participation and income level with the different origin groups. The differential effects indicate whether there are significant differences in the socio-economic effects between Belgian women on the one hand and Turkish, Moroccan and Southern European second generation women on the other. Second, we discuss origin-specific effects since they provide a clearer image of the effects of labour market participation and income level for each origin group. Origin-specific effects are calculated by multiplying the main effect for Belgian women with the differential effects for each other origin group.

[FIGURE 2 ABOUT HERE]

When looking at the differential effect of labour market participation for the different origin groups, the results indicate that the overall effect masks some variation. For Belgian women, both the analysis of union formation in general (model 5, table 4) and the competing risks analysis of direct first marriage and first cohabitation (model 6, table 4) indicate that student status decreases the odds of both cohabitation and direct marriage and self-employment increases general union formation odds significantly for Belgian women. The results show that the effect of labour market participation for Southern European women does not differ significantly from that of Belgian women. Only with respect to unmarried cohabitation, the negative effect of unemployment is significantly stronger. However, for both Turkish and Moroccan women inactivity yields significantly higher odds of entering into a union compared to Belgian women. This is also the case for unemployed Moroccan

[3] Sensitivity analysis comparing direct first marriage to first cohabitation shows that these differences are significant.

women. Hence, contrary to Belgian women, there are significant differences in the effect of employment positions on union formation for Turkish and Moroccan women. The results from the differential effects are confirmed when looking at the origin-specific effects of labour market participation in figure 3. With respect to first union formation in general (panel A) the results show that inactivity and unemployment yield the highest odds of union formation among Turkish and Moroccan second generation women. For the other origin groups, the differences between employment positions are minimal. For direct marriage (figure 3, panel B) inactivity and unemployment yield higher odds regardless of origin group. However, the positive effect of low labour market participation is stronger among Turkish and Moroccan women compared to the other origin groups. With respect to first cohabitation, there is no effect of labour market participation for Belgian and Southern European second generation women. It has to be noted that the results for first cohabitation among Turkish and Moroccan second generation women are unreliable due to the extremely low incidence of unmarried cohabitation for these groups. Only 14 Turkish and 39 Moroccan women start a cohabiting partnerships during the observation period. Since this number is stretched out over different labour market positions by introducing interaction, the results are based on a very small number of events for each origin group.

[FIGURE 3 ABOUT HERE]

The differential effects of income level on union formation are displayed in model 7 and 8 (table 4). Since the differential odds ratios are larger than one, the negative effect of lower income levels observed among Belgian women are suggested to be less articulated among Moroccan second generation migrants. Additionally, lower income levels yield lower odds of entering into a union for Southern European and Turkish women compared to Belgian women. However, none of the differential effects are statistically significant indicating that differences in the income effect between origin groups are limited. The origin-specific effects of income level in figure 3 show that the positive effect of income level is prevalent among all origin groups. The results for Southern European second generation are fairly similar to Belgian women. For Turkish women, the highest income category clearly yields the highest odds of entering into a union whereas all other categories yield similar lower odds. As suggested by the differential effects in table 4, the negative effect of income is weaker for Moroccan women. The difference in odds of union formation for women in the highest income category and women without an income are more limited compared to the other origin groups. This is especially true for union formation in general but can also be found to a lesser extent for direct marriage.

5. Discussion

This paper aims to identify whether the effect of socio-economic characteristics on first union formation varied for different origin groups in Belgium. First, this paper analyses patterns of union formation among Southern European, Turkish and Moroccan second generation women in Belgium. Descriptive results indicate that Belgian and second generation women do not necessarily differ with respect to propensity of union formation but there are clear differences in choice of union type. Whereas the majority of Turkish and Moroccan second generation women enter into direct marriage, unmarried cohabitation is the main choice of first union type among Belgian and Southern European women. The dominance of (direct) marriage among the Turkish and Moroccan second generation can be linked to partner choices of these groups. Partly due to restrictive Belgian

immigration policies, a large proportion of Turkish and Moroccan second generation migrants in Belgium marry a first generation migrant from their country of origin (Hartung et al., 2011; Huschek et al., 2012; Lievens, 1999). The high prevalence of marriage can thus be linked to the specific immigration strategies within Turkish and Moroccan communities. This corresponds with the low number of direct marriages among the Southern European group for which marriage migration is less frequent. In addition, the descriptive results indicated that union formation among Turkish and Moroccan women generally occurs about two years earlier than among Belgian and Southern European women. Previous research has suggested that earlier union formation among migrant populations is promoted by traditional individual and parental attitudes toward union formation, lower educational levels and less contact with the majority population (de Valk & Liefbroer, 2007; Huschek et al., 2010). The general similarity in partnership patterns of Southern European to those of Belgian women can be connected to the high exposure of Southern European to mainstream Belgian society (Hannemann & Kulu, 2015). In contrast, exposure to mainstream society may be more limited for the Turkish and Moroccan second generation that is often still tied to strong communities of co-ethnics (Lievens, 1997).

Second, this paper links patterns of union formation among Southern European, Turkish and Moroccan second generation women to socio-economic characteristics. Both labour market position and income level were included as indicators of a woman's socio-economic position. When only including labour market participation in the model results show that active participation on the labour market yields the highest odds of entering into a union while both inactivity and educational enrolment have a strong decreasing effect on the odds of union formation. However, when including income level the positive gradient in the effect of labour market position on union formation and direct first marriage largely disappears while income level itself does have a strong positive effect on union formation. Hence, we can accept our first hypothesis but need to add that the initial positive effect of labour market position is largely due to the higher income levels associated with higher labour market participation. However, educational enrolment as an indicator for career immaturity maintains a negative effect after controlling for income levels. These results are in line with Oppenheimer's uncertainty hypothesis which states that uncertain and unfavourable socio-economic characteristics hamper union formation (Oppenheimer, 2003). With respect to differences by union type, the positive gradient in the effect of income is prevalent both for direct first marriage and first cohabitation. The negative effect of lower income levels is stronger for entry into marriage than for first cohabitation. These results correspond to literature which states that marriage requires a solid economic base and unmarried cohabitation has risen as a (temporary) alternative for young-adults in uncertain socio-economic positions (Kalmijn, 2011; Kravdal, 1999; Mäenpää, 2009). After controlling for income levels, the results show that entry into direct marriage is associated significantly with inactivity and unemployment whereas this is not the case for first cohabitation. Hence, when accounting for financial security, women with more labour market participation are more likely to enter into a direct first marriage.

To study whether these general patterns are similar for all origin groups or mask variation between Belgians and second generation migrants we calculated the differential and origin-specific effects of labour market participation and income levels. The differences in the effect of income level between origin groups are fairly limited. The effect of income for Southern European, Turkish and Moroccan women does not significantly differ from Belgian women. However, the negative effect of lower

income levels is weaker among Moroccan women. Analyses of labour market participation show that there is variation in the effects of labour market position for different origin groups. Among Belgian and Southern European women the differences between employment positions are limited to a negative effect of educational enrolment on union formation. However, among Turkish and Moroccan second generation women union formation in general is associated with a more disadvantaged position on the labour market. Looking at entry into direct first marriage, the positive effect of inactivity and unemployment observed for all origin groups is enhanced among Turkish and Moroccan women. These results seem to corroborate with Becker's (1981) hypothesis that female economic independence negatively affects union formation. However, other aspects linked to the specific position of second generation migrants could also shed light on these differing effects. First, descendants of Turkish and Moroccan immigrants often grow up within "transplanted communities" (Reniers, 1999) and are often socialized within a more traditional environment. This means they might adhere to more traditional values with regard to union formation (Timmerman, 2006) and hold different norms about the requirements to start an independent household (de Valk & Liefbroer, 2007). Our findings with respect to Southern European second generation migrants confirm this hypothesis since this group is more exposed to mainstream society. Southern European countries are part of the European Union and their migrant communities are not characterized by a strong link with the country of origin. A second possible explanation is that a disadvantaged socio-economic position is less inhibiting on partnership transitions among Turkish and Moroccan women since they already occupy a disadvantaged position on the labour market (Phalet, 2007; Timmerman et al., 2003). In contrast to Belgian women, they have less favourable labour market prospects in general. This could explain why unstable labour market participation has a strong negative effect on union formation among Belgian and Southern European women while this negative association is significantly weaker among Turkish and Moroccan women. A third possible explanation for this positive association of lower employment and union formation among Turkish and Moroccan women are the stronger ties existing within families and migrant communities. Ethnically homogenous couples, either consisting of two second generation migrants or containing a marriage migrant, more often live with the parents of one of the spouses (Corijn & Lodewijckx, 2009). Strong ties with family means an extended support system which does not simply rely on the labour market position or earnings of the two partners. It is evident that these possible explanations should not necessarily exclude each other. The finding that disadvantaged socio-economic positions are less detrimental on union formation chances of Turkish and Moroccan second generation women is important. It means that households formed by a second generation migrant might start out from a more disadvantaged socio-economic position. Combined with less advantaged opportunities on the labour market we can expect these households to have difficulties with "catching up" to the majority population. On a policy-level it is therefore necessary to provide a more advantageous starting position for migrant families and provide adequate resources to prevent the reproduction of inequalities in higher migrant generations.

This paper contributes to the existing literature by taking population heterogeneity into account. In previous research on socio-economic characteristics and union formation, migrant populations were not specifically distinguished from the majority population. In addition, we use both income and labour market participation as socio-economic indicators. Including both aspects allows us to distinguish between financial and employment preconditions of union formation. However, some limitations of this study offer opportunities for further research. A first limitation is the lack of an

adequate indicator of educational attainment. Given that earlier research has shown that educational has a strong influence on the timing of transitions in the life-course and union formation (Coppola, 2004; Hango & Le Bourdais, 2007; Jenkins, 2011; Liefbroer & Corijn, 1999) it is important to control for educational attainment when analysing the effects of labour market participation and income levels. In addition, educational attainment should be integrated as an indicator of long-term labour market prospects. In this study we attempt to control for education by including student-status as a labour market position. However, this does not fully capture the highest achieved educational level or the age at graduating. To get a clear picture of socio-economic differences in partnership patterns for majority and minority populations, educational level should be taken into account. In addition, the low incidence of unmarried cohabitation among Turkish and Moroccan second generation women made it impossible to analyse socio-economic effects on cohabitation for these groups. When analysing patterns of union formation among migrant populations it is important to distinguish different union types. As our descriptive finding indicated, certain migrant population do not so much differ in propensity of union formation but differ in the type of first union. A larger sample size could solve this problem if it leads to a higher observed number of cohabitations among these migrant groups. Third, we think it is important in future research on union formation to take the socio-economic positions of both partners into account. This would allow us to answer economic hypotheses on functional specialisation within the household more accurately.

6. Bibliography

Baert, S., Heiland, F., & 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 (0013-063X), 164*(2), 159-186. doi: 10.1007/s10645-016-9273-4

Becker, G. (1974). A theory of marriage *Economics of the family: Marriage, children, and human capital* (pp. 299-351): University of Chicago Press.

Becker, G. (1981). *A treatise on the family* Harvard: Harvard University Press.

Bracher, M., & Santow, G. (1998). Economic independence and union formation in Sweden. *Population studies, 52*(3), 275-294.

Cherlin, A. J. (2000). Toward a new home socioeconomics of union formation. *The ties that bind: Perspectives on marriage and cohabitation*, 126-144.

Coppola, L. (2004). Education and Union Formation as Simultaneous Processes in Italy and Spain. *European Journal of Population, 20*, 219-250. doi: 10.1007/s10680-004-1781-2

Corijn, M., & Lodewijckx, E. (2009). *De start van de gezinsvorming bij de Turkse en Marokkaanse tweede generatie in het Vlaamse Gewest een analyse op basis van Rijksregistergegevens*: Brussel, Studiedienst van de Vlaamse Regering.

Corluy, V. (2014). *Labour market outcomes and trajectories of immigrants in Belgium dissertation*: Antwerp.

Corluy, V., Haemels, J., Marx, I., & Verbist, G. (2015). The labour market position of second-generation immigrants in Belgium.

de Valk, H. A. G. (2006). *Pathways into adulthood: A comparative study on family life transitions among migrant and Dutch youth* (Vol. 124): Rozenberg Publishers.

de Valk, H. A. G. (2008). Parental influence on work and family plans of adolescents of different ethnic backgrounds in the Netherlands. *Sex roles, 59*(9-10), 738-751.

de Valk, H. A. G., & Liefbroer, A. C. (2007). Timing Preferences for Women's Family-Life Transitions: Intergenerational Transmission Among Migrants and Dutch. *Journal of Marriage and Family, 69*(1), 190-206.

Durkheim, É. (1960). *De la division du travail social*. Paris: PUF.

Eurostat. (2011). Migrants in Europe: a statistical portrait of the first and second generation. In E. Union (Ed.). Luxembourg.

Hango, D. W., & Le Bourdais, C. (2007). Early Union Formation in Canada: Links with Education. *European Journal of Population, 23*, 339-368. doi: 10.1007/s10680-007-9129-3

Hannemann, T., & Kulu, H. (2015). Union formation and dissolution among immigrants and their descendants in the United Kingdom. *Demographic Research, 33*, 273-312.

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. *Annu. Rev. Sociol, 34*, 211-235.

Huschek, D., de Valk, H. A., & Liefbroer, A. C. (2012). Partner choice patterns among the descendants of Turkish immigrants in Europe. *European Journal of Population/Revue européenne de Démographie, 28*(3), 241-268.

Huschek, D., de Valk, H. A. G., & 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*, 164-177. doi: 10.1016/j.alcr.2011.09.005

Huschek, D., Liefbroer, A. C., & de Valk, H. A. (2010). Timing of first union among second-generation Turks in Europe: The role of parents, peers and institutional context. *Demographic Research, 22*(16), 473-504.

Jalovaara, M. (2012). Socio-economic resources and first-union formation in Finland, cohorts born 1969-1981. *Population studies, 66*(1), 69-85. doi: 10.1007/s10680-012-9280-3

Jenkins, A. (2011). Educational attainment, labour market conditions and the timing of births. *Longitudinal and Life Course Studies, 2*(2), 202-227.

Kalmijn, M. (2011). The influence of men's income and employment on marriage and cohabitation: Testing Oppenheimer's theory in Europe. *European Journal of Population/Revue européenne de Démographie, 27*(3), 269-293.

Kravdal, Ø. (1999). Does marriage require a stronger economic underpinning than informal cohabitation? *Population studies, 53*(1), 63-80.

Kulu, H., & González-Ferrer, A. (2014). Family Dynamics Among Immigrants and Their Descendants in Europe: Current Research and Opportunities. *European Journal of Population, 30*(4), 411-435.

Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and development review*, 211-251.

Lesthaeghe, R., & Van de Kaa, D. J. (1986). Twee demografische transities. *Bevolking: groei en krimp*, 9-24.

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. (1997). The third wave of immigration from Turkey and Morocco: determinants and characteristics.

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*, 717-744.

Mäenpää, E. (2009). Cohabiting Partners Socioeconomic Characteristics and the Transition to Marriage in Finland. *Finnish Yearbook of Population Research, 44*, 63-78.

Martens, A. (1973). 25 jaar wegwerparbeiders: het Belgisch immigratiebeleid na 1945. *KUL. Sociologisch Onderzoeksinstituut. Rapporten, 1973*(2).

Milewski, N. (2010). Immigrant fertility in West Germany: Is there a socialization effect in transitions to second and third births? *European Journal of Population/Revue européenne de Démographie, 26*(3), 297-323.

Neels, K. (2000). Education and the transition to employment: young Turkish and Moroccan adults in Belgium. In R. Lesthaeghe (Ed.), *Communities and Generations: Turkish and Moroccan Populations in Belgium* (pp. 243-278). Brussels: VUB Univ. Press.

Oppenheimer, V. K. (1977). The sociology of women's economic role in the family. *American Sociological Review*, 387-406.

Oppenheimer, V. K. (1988). A theory of marriage timing. *American journal of Sociology*, 563-591.

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

Oppenheimer, V. K. (2000). The continuing importance of men's economic position in marriage formation. *The ties that bind: Perspectives on marriage and cohabitation*, 283-301.

Oppenheimer, V. K. (2003). Cohabiting and marriage during young men's career-development process. *Demography, 40*(1), 127-149.

Oppenheimer, V. K., Kalmijn, M., & Lim, N. (1997). Men's career development and marriage timing during a period of rising inequality. *Demography, 34*(3), 311-330.

Parsons, T. (1949). The social structure of the family. In R. Anshen (Ed.), *The Family: Its Function and Destiny* (pp. 173-201). New York: Harper & Brothers.

Perelli-Harris, B., & Lyons-Amos, M. (2015). Changes in partnership patterns across the life course: An examination of 14 countries in Europe and the United States. *Demographic Research, 33*(6), 145-178.

Phalet, K. (2007). *Down and out: the children of immigrant workers in the Belgian labour market*: Oxford University Press.

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.

Sobotka, T. (2008). Overview Chapter 7: The rising importance of migrants for childbearing in Europe. *Demographic Research, 19*(9), 225-248.

Surkyn, J., & Reniers, G. (1996). Selecte gezelschappen: over de migratiegeschiedenis en de interne dynamiek van migratieprocessen. *Bevolking en Gezin, 25*(themanummer), 41-72.

Thomson, E., & Bernhardt, E. (2010). Education, values, and cohabitation in Sweden. *Marriage & Family Review, 46*(1-2), 1-21.

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

Timmerman, C., Vanderwaeren, E., & Crul, M. (2003). The second generation in Belgium. *International migration review, 37*(4), 1065-1090.

Timmerman, C., & Wets, J. (2011). Marriage Migration and the Labour Market. *Nordic Journal of Migration Research, 1*(2), 69-79.

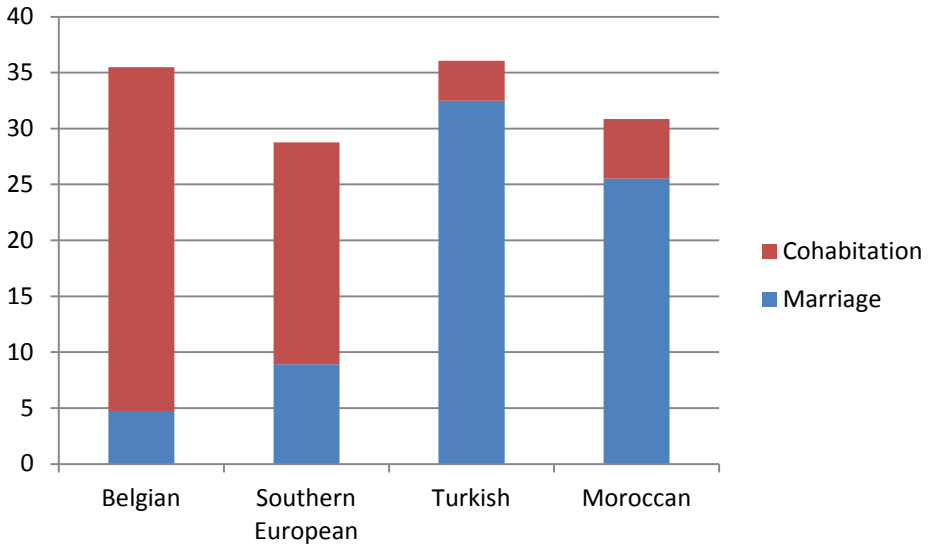
Van Mol, C., & de Valk, H. (2016). Migration and immigrants in Europe: a historical and demographic perspective *Integration Processes and Policies in Europe* (pp. 31-55): Springer.

Table 1: Distribution of person-quarters and persons over categories of covariates, Belgium 2003-2010

Time-varying covariates (n person-years):		**Time-constant covariates (n persons):**	
Labour market position		*Origin group*	
. Enrolled as student	38,633 (61.23%)	. Belgian	13,503 (87.85%)
. Inactive	5,020 (7.96%)	. Southern European 2G	741 (4.82%)
. Unemployed	2,596 (4.11%)	. Turkish 2G	391 (2.54%)
. Part-time employed	3,764 (5.97%)	. Moroccan 2G	736 (4.79%)
. Full-time employed	12,180 (19.30%)		
. Self-employed	902 (1.43%)	*Cohort*	
		. 1979 – 1984	2,967 (19.30%)
Income level		. 1985 – 1989	7,117 (46.30%)
. No income	40,026 (63.44%)	. 1990 – 1995	5,287 (34,40%)
. First quintile (0-20%)	4,860 (7.70%)		
. Second quintile (20-40%)	4,403 (6.98%)		
. Third quintile (40-60%)	4,613 (7.31%)		
. Fourth quintile (60-80%)	4,682 (7.42%)		
. Fifth quintile (80-100%)	4,511 (7.15%)		
Region			
. Flanders	37,730 (59.80%)		
. Wallonia	20,745 (32.88%)		
. Brussels	4,620 (7.32%)		
Household position			
. Child – parents married	43,037 (68.21%)		
. Child – parents unmarried	2,895 (4.59%)		
. Child – one parent	12,051 (19.10%)		
. Single	3,703 (5.87%)		
. Other	596 (0.94%)		
. Other/unknown household	813 (1.29%)		

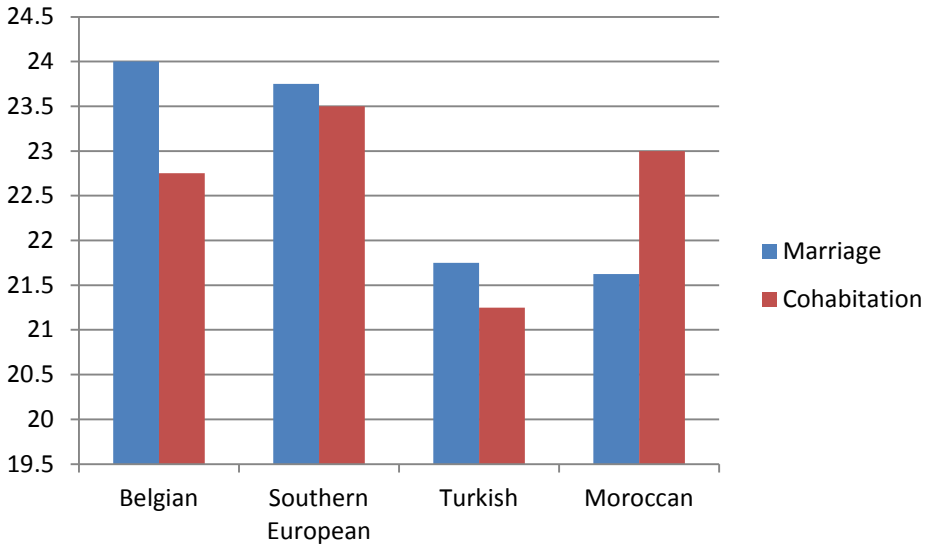
Source: Belgian Administrative Socio-Demographic Panel, 2003-2010

Figure 1 Proportion of women entering into a first union during the observation period, women aged 17-32, Belgium 2003-2010



Source: Belgian Administrative Socio-Demographic Panel, 2003-2010

Figure 2 Mean age at first union formation, women aged 17-32, Belgium 2003-2010



Source: Belgian Administrative Socio-Demographic Panel, 2003-2010

Table 2 Odds-ratios from logit models of union formation, women aged 18-32, Belgium 2003-2010

	Model 1 (excl. income)		Model 2 (incl. income)	
	OR	sig.	OR	sig.
Labour market position				
Student	0.223	***	0.467	***
Inactive	0.407	***	0.972	
Unemployed	0.562	***	0.926	
Part-time	0.866	**	0.925	
Full-time *(ref.)*	1.000		1.000	
Self-employed	0.921		2.064	***
Income level				
No income			0.413	***
0 - 20 %			0.571	***
20 - 40 %			0.824	**
40 - 60 %			0.958	
60 - 80 %			1.022	
80 - 100 % *(ref.)*			1.000	
Origin				
Belgian *(ref.)*	1.000		1.000	
South-European 2G	1.253		1.211	
Turkish 2G	4.132	**	3.907	*
Moroccan 2G	3.285	**	3.188	**
Age				
Belgian * Age	1.713	***	1.713	***
Belgian * Age²	0.970	***	0.970	***
Southern European * Age	0.829		0.829	
Southern European * Age²	1.014		1.013	
Turkish * Age	0.780		0.793	
Turkish * Age²	1.009		1.008	
Moroccan * Age	0.821		0.821	
Moroccan * Age²	1.005		1.005	
Household position				
Child – married parents *(ref.)*	1.000		1.000	
Child – unmarried parents	1.423	***	1.422	***
Child – one parent	1.166	***	1.163	***
Single	1.310	***	1.284	***
Other household member	1.205		1.186	
Other/unknown	1.740	***	1.739	***
Birth year	0.987		0.987	*
Region				
Flanders *(ref.)*	1.000		1.000	
Wallonia	1.000		1.015	
Brussels	0.794	**	0.809	**
df	25		30	
-2LL	32404.22		32302.9	
Δdf			5	
Δ-2LL			101.33	***
n of person-quarters	63,095		63,095	
n of persons	15,371		15,371	

Source: Belgian Administrative Socio-Demographic Panel, 2003-2010

Table 3 Relative Risk Ratios from multinomial logistic regression of union, women aged 18-32, Belgium 2003-2010

	Model 3 (excl. income)				Model 4 (incl. income)			
	Marriage		Cohabitation		Marriage		Cohabitation	
	RRR	sig.	RRR	sig.	RRR	sig.	RRR	sig.
Labour market position								
Student	0.224	***	0.221	***	0.527	**	0.474	***
Inactive	0.649	***	0.400	***	1.697	*	0.895	
Unemployed	0.726	**	0.545	***	1.735	**	0.808	
Part-time	0.944		0.831	**	1.160		0.885	*
Full-time *(ref.)*	1.000		1.000		1.000		1.000	
Income level								
No income					0.304	***	0.414	***
0 - 20 %					0.295	***	0.634	***
20 - 40 %					0.527	***	0.894	
40 - 60 %					0.766	*	1.005	
60 - 80 %					0.827		1.075	
80 - 100 % *(ref.)*					1.000		1.000	
Origin								
Belgian *(ref.)*	1.000		1.000		1.000		1.000	
South-European 2G	5.075		1.183		4.719		1.146	
Turkish 2G	84.920	***	2.862		74.436	***	2.715	
Moroccan 2G	71.851	***	0.255		63.747	***	0.242	
Age								
Belgian * Age	1.954	***	1.793	***	1.873	***	1.739	***
Belgian * Age²	0.967	***	0.968	***	0.968	***	0.970	***
Southern European * Age	0.777		0.786		0.790		0.793	
Southern European * Age²	1.011		1.017		1.011		1.016	
Turkish * Age	0.661		0.443	*	0.687	*	0.449	*
Turkish * Age²	1.011		1.048		1.008		1.047	
Moroccan * Age	0.708	*	0.870		0.729		0.874	
Moroccan * Age²	1.002		1.013		1.001		1.013	
Household position								
Child – married parents *(ref.)*	1.000		1.000		1.000		1.000	
Child – unmarried parents	0.468	*	1.592	***	0.480	*	1.583	***
Child – one parent	0.744	**	1.300	***	0.754	**	1.293	***
Single	1.165		1.356	***	1.133		1.329	***
Other household member	1.228		1.188		1.210		1.170	
Other/unknown	2.709	***	1.498	**	2.766	***	1.487	**
Birth year	0.923	***	1.002		0.918	***	1.004	
Region								
Flanders *(ref.)*	1.000		1.000		1.000		1.000	
Wallonia	1.088		0.982		1.125		0.994	
Brussels	0.906		0.723	***	0.927		0.736	***
df	48				58			
-2LL	35479.90				35356.26			
Δdf					10			
Δ-2LL					123.65	***		
n of person-quarters	63,095				63,095			
n of persons	15,371				15,371			

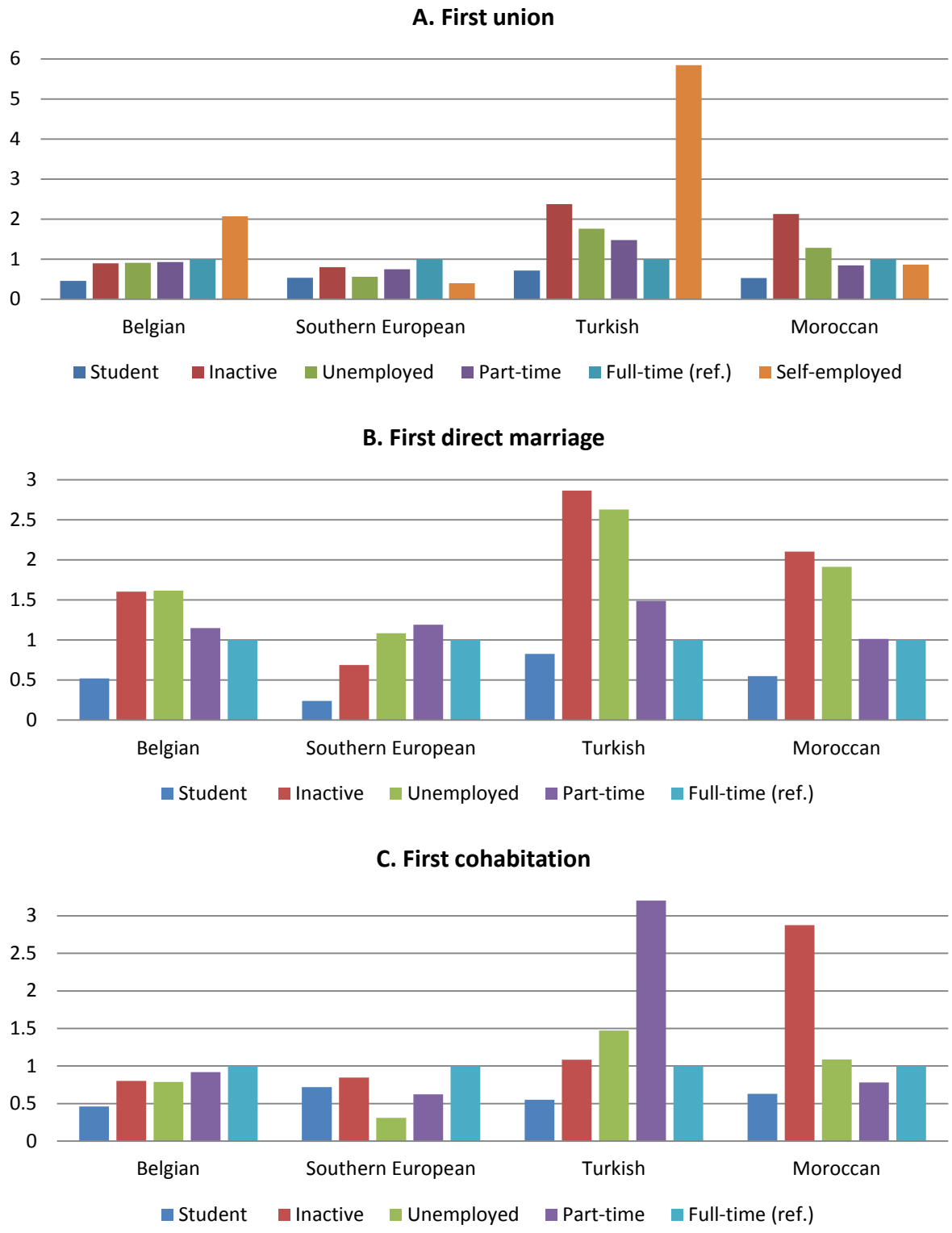
Source: Belgian Administrative Socio-Demographic Panel, 2003-2010

Table 4 Odds-ratios from random-effects logit models of union formation and competing risks model of union type including most recent labour market position and income level, women aged 18-32, Belgium 2003-2010

	Model 5		Model 6			
	Union formation		Marriage		Cohabitation	
	OR	sig.	RRR	sig.	RRR	Sig.
Labour market position (main effect)						
Student	0.456	***	0.519	**	0.461	***
Inactive	0.900		1.604	*	0.801	
Unemployed	0.909		1.617		0.789	*
Part-time	0.929		1.147		0.918	
Full-time *(ref.)*	1.000		1.000		1.000	
Self-employed	2.070	***				
Origin * labour market position						
South European * Student	1.171		0.458		1.560	
South European * Inactive	0.886		0.428		1.055	
South European * Unemployed	0.617		0.670		0.395	*
South European * Part-time	0.805		1.038		0.678	
South European * Self-employed	0.195					
Turkish * Student	1.576		1.591		1.198	
Turkish * Inactive	2.637	**	1.786		1.351	
Turkish * Unemployed	1.937	*	1.625		1.867	
Turkish * Part-time	1.591		1.296		3.546	
Turkish * Self-employed	2.823					
Moroccan * Student	1.159		1.059		1.363	
Moroccan * Inactive	2.365	***	1.310		3.591	*
Moroccan * Unemployed	1.415		1.183		1.378	
Moroccan * Part-time	0.913		10.884		0.849	
Moroccan * Self-employed	0.419					
Δ df	15		24			
Δ -2LL	36.29	**	33.07			
	Model 7		**Model 8**			
	Union formation		**Marriage**		**Cohabitation**	
Income level (main effect)						
No income	0.405	***	0.286	***	0.410	***
0 - 20 %	0.576	***	0.310	***	0.643	***
20 - 40 %	0.830	*	0.516	***	0.897	
40 - 60 %	0.983		0.803		1.023	
60 - 80 %	1.035		0.778		1.092	
80 - 100 % *(ref.)*	1.000		1.000		1.000	
Origin * income level						
South European * No income	0.752		0.571		0.964	
South European * 1st quintile	0.663		0.632		0.672	
South European * 2nd quintile	0.905		1.338		0.826	
South European * 3rd quintile	0.746		1.142		0.638	
South European * 4th quintile	1.035		1.670		0.684	
Turkish * No income	0.814		0.902		0.303	
Turkish * 1st quintile	0.750		0.796		0.292	
Turkish * 2nd quintile	0.587		0.702		0.324	
Turkish * 3td quintile	0.466		0.514		0.519	
Turkish * 4th quintile	0.426		0.703		0.005	
Moroccan * No income	1.945		1.635		4.183	*
Moroccan * 1st quintile	1.328		1.156		1.780	
Moroccan * 2nd quintile	1.283		1.335		1.708	
Moroccan * 3rd quintile	1.062		1.085		0.983	
Moroccan * 4th quintile	1.180		1.563		0.844	
Δ df	15		30			
Δ 2LL	17.91		34.09			
n of person-quarters	63,095		63,095			
n of persons	15,371		15,371			

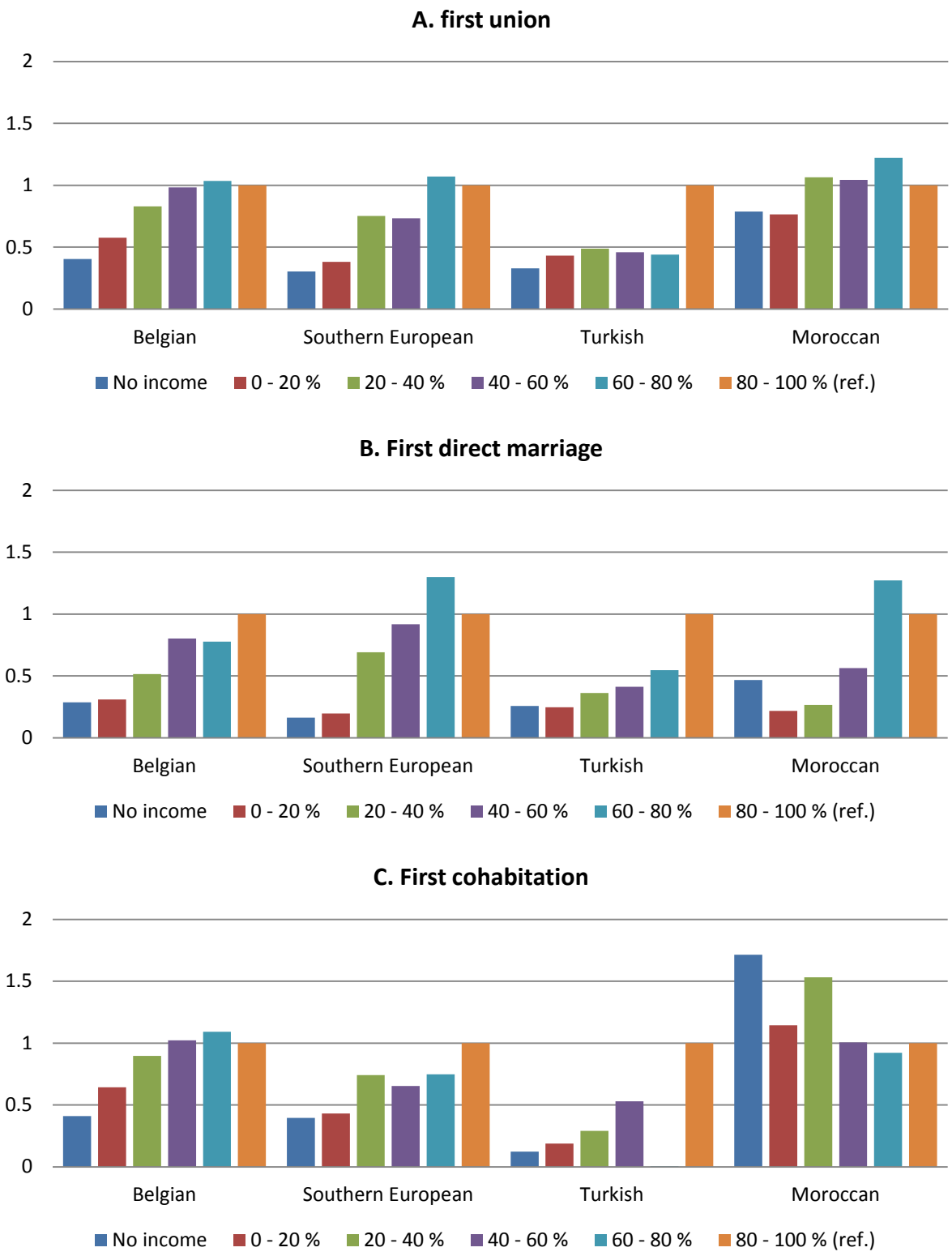
Source: Belgian Administrative Socio-Demographic Panel, 2003-2010
Controlled for: age, age², origin*age, origin*age², household position, birth year, region

Figure 3 Origin-specific effects of labour market participation for union formation (model 5) and union type (model 6), women aged 18-32, Belgium 2003-2010



Source: Belgian Administrative Socio-Demographic Panel, 2003-2010
Controlled for: age, age², origin*age, origin*age², household position, birth year and region
Results for union formation estimated using logit models and results for union type estimated using multinomial logistic regression models.

Figure 4 Origin-specific effects of income level for union formation (model 7) and union type (model 8), women aged 18-32, Belgium 2003-2010



Source: Belgian Administrative Socio-Demographic Panel, 2003-2010
Controlled for: age, age², origin*age, origin*age², household position, birth year and region
Results for union formation estimated using logit models and results for union type estimated using multinomial logit models.