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# Working Paper Transitions from first unions among immigrants and their descendants. The role of partner choice

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Kenneth Aarskaug Wiik, Lars Dommermuth and Jennifer A. Holland

Transitions from first unions among immigrants and their descendants: The role of partner choice

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Kenneth Aarskaug Wiik, Lars Dommermuth, and Jennifer A. Holland

# Transitions from first unions among immigrants and their descendants: The role of partner choice

#### Abstract:

The family life courses of immigrants and their descendants, particularly intermarriage and the timing of marriage and childbearing, have been widely studied as indicators of societal integration. But largely absent are investigations into the role of cohabitation in the family lives of these sub-populations. Choosing cohabitation as first union may, for instance, signal secularization and less social control. Using Norwegian register data on all first co-residential unions entered 2006-2015 among individuals born 1980 or later (*N*=218,833 unions, 80.5% cohabitations), we consider associations between partner choice and subsequent partnership transitions. Around half of first unions including second-generation individuals were cohabitations, among which 88% were exogamous (i.e., partners originating from different countries or with a majority partner). These exogamous cohabiting couples were more dissolution-prone and less likely to marry than endogamous immigrant and second-generation cohabiting couples. Among second-generation couples who married directly, on the other hand, 79% were endogamous. These marriages were less likely to divorce than their first-generation counterparts.

**Keywords:** First union; Partner choice; Marriage; Cohabitation; Union dissolution; Second generation; Immigrants;

JEL classification: J12, J13, J15

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#### Sammendrag

Få studier har undersøkt familie -og samlivsatferden til norskfødte barn av innvandrere. Både i Norge og resten av Europa er dette en befolkningsgruppe som inntil nylig har vært for ung til at denne typen analyser har vært mulig. Selv om Norge er en relativt ny innvandringsdestinasjon, står nå et betydelig antall unge med innvandrerbakgrunn på terskelen til voksenlivet. Familie -og samlivsatferd er viktige indikatorer på sosioøkonomisk integrasjon. Valg av partner har blitt ansett som særlig viktig, men også valg av samlivstype og samlivsbrudd kan gi en pekepinn på i hvor stor grad personer med innvandrerbakgrunn følger det rådende familieetableringsmønsteret og nye familienormer. I denne artikkelen bruker vi registerdata om første samliv inngått i perioden 2006-2016 og undersøker sammenhenger mellom valg av partner og overganger fra ekteskap og samboerskap. For samboere undersøkes tilbøyeligheten til å inngå ekteskap eller oppløse samlivet. For par som giftet seg direkte ser vi på skilsmisser. Vi er særlig interessert i barn av innvandrere født i Norge av innvandrerforeldre, da deres atferd kan gi en pekepinn på endringer i innvandrebefolkningens integrering i det norske samfunnet over tid. Resultatene viser at eksogame samboerpar, det vil si par der partnerne har ulik landbakgrunn eller en av partnerne er uten innvandrerbakgrunn, var mer tilbøyelige til å flytte fra hverandre og mindre tilbøyelige til å gifte seg, enn endogame par, altså par der begge hadde bakgrunn fra samme land. Blant par som giftet seg direkte uten å være samboere først, var nær 8 av 10 norskfødte med innvandrerforeldre i endogame ekteskap. Disse ekteparene var mindre tilbøyelige til å skille seg enn ektepar der begge var innvandrere fra samme land. Par uten innvandrerbakgrunn som giftet seg direkte uten å være samboere først, var minst tilbøyelige til å skille seg. Dette siste funnet bekrefter at gruppen som gifter seg uten å være samboere først er en svært selektert gruppe i Norge.

# 1. Introduction

The family life courses of immigrants have been widely studied, not least in the classical immigration countries, like the United States, Canada, and the United Kingdom. Family behaviors can be a key mechanism for economic integration and may provide insights into the blurring or dissipating of symbolic or social boundaries between social groups (Alba, 2005). Intermarriage between natives and immigrants has been considered particularly relevant (Kalmijn, 1998; Qian, Lichter, & Tumin, 2018; Schwartz, 2013). Nonetheless, also other aspects of family behavior, like timing of first union formation, fertility and incidence of cohabitation, are indicators of societal integration (Andersson, Persson, & Obucina, 2017; Hannemann, Kulu, González-Ferrer, Pailhé, Rahnu, & Puur, 2014; Van Landschoot et al., 2018; Holland & Wiik, 2017).

To date, European studies of the immigrant population's family formation behavior have mostly considered first-generation immigrants (Kulu & González-Ferrer, 2014). The children of immigrants born in their countries of residence, on the other hand, have been so young that only a vague impression of their patterns of family formation has been gained so far. However, this is changing rapidly as more second-generation immigrants reach family formation ages. The increasing body of European research investigating family life course patterns among the second-generation has focused on topics like marriage timing (e.g., Andersson, Obucína, & Scott, 2015; Ferrari & Pailhé, 2017; Wiik & Holland, 2018), partner choice (Celikaksoy, 2016; Huschek, De Valk, & Liefbroer, 2012; Muttarak & Heath, 2010), and divorce (Andersson, et al., 2015; Milewski & Kulu, 2014). But largely absent from these studies has been a look at the role of cohabitation in the family lives of immigrants and their descendants (Kulu & González-Ferrer, 2014). This is a glaring omission, given the increasing diversity in family forms that has paralleled the increasing diversity of populations.

In most affluent countries, and particularly in the Nordic countries, cohabitation has increased both as a form of intimate partnership and as a context for parenthood (Perelli-Harris et al., 2012; Sobotka & Toulemon, 2008). Currently, the vast majority of co-residential partnerships in Norway begin as cohabitations (90%) and more than 50% of first births occur within cohabiting unions (Noack, Bernhardt, & Wiik, 2014). Understanding the incidence and meaning of cohabitation among the children of immigrants will improve our understanding of whether and how these individuals, often originating in countries with traditional family values and norms, adapt to ongoing changes in the 'standard' family life course observed in Norway, more broadly in Western contexts. Beyond questions of social cohesion,

understanding how cohabitation fits in the unfolding of the second-generation's first coresidential unions will deepen our understanding of the 'institution' of cohabitation (Cherlin, 2004), an increasingly important union form for European families.

In Norway, immigrants and their native-born children make up 17.3% of the country's total population (Statistics Norway, 2018). As elsewhere in Europe, the second-generation is a growing population subgroup, currently comprising around 170,000 persons, or 3.2% of the total Norwegian population (Statistics Norway, 2018). The second-generation is still a young population group, and as of 2015, 72% were younger than 16 years. Two-thirds of the second-generation originates from countries in Asia (including Turkey) and Africa (Statistics Norway, 2016), countries and regions with a family formation pattern characterized by early and universal marriage and relatively many children (United Nations, 2017).

Using Norwegian register data on all first co-residential unions entered 2006 through 2015 among individuals born 1980 or later (*N*=218,833, 80.5% cohabitations), this paper addresses the timing and mode of partnership transitions, providing novel insights by including unmarried cohabitation and a broad set of countries-of-origin. Our main focus is on secondgeneration immigrants, that is, native-born men and women with two immigrant parents. Studies on family formation among second-generation immigrants have mostly focused on the transition to first parenthood or first marriage, and they have tended to investigate these events in isolation from other family formation events (Kulu & González-Ferrer, 2014). We move beyond the "one life-event-at-a-time" approach and study two or more transitions to family life simultaneously (De Valk et al., 2011; Kulu & González-Ferrer, 2014). Correspondingly, we compare associations between endogamous (i.e., partners originating in same country) and exogamous (i.e., partners originating in different countries) partner choice and transitions from first unions across migrant generations and investigate the levels and timing of the following partnership transitions: 1) from first cohabitation to a) marriage or b) union dissolution, and 2) from first marriage to divorce.

# 2. Background

#### 2.1 The family behavior of children of immigrants

Second-generation immigrants are born and socialized within their countries of residence and share the same institutional contexts and many cultural outlets, with majority populations (Huschek et al., 2010; Bernhardt et al. 2007). At the same time, norms, practices and behaviors of their parents' countries of origin may be transmitted and maintained through

links to first-generation family and friends (De Valk & Liefbroer, 2007; Kalmijn & Kraaykamp, 2018; Nauck, 2001). The second-generation thus occupies a "sociocultural middle ground" between their countries of origin and their home countries (Foner, 1997). Correspondingly, research confirms that the second-generation is more similar to majoritypopulations in terms of family values and preferences (Holland & De Valk, 2013) and actual marital timing (Huschek et al., 2010; Wiik & Holland, 2018) and fertility (Andersson et al., 2017; Scott & Stanfors, 2011; Sobotka, 2008; Tønnesen, 2014) than those who arrived as adults. There is also some evidence that second-generation individuals are more likely to marry a majority-background individual than their first-generation counterparts (Dribe & Lundh, 2008; Kulu & Hannemann, 2018; Muttarak & Heath, 2010; Wiik & Holland, 2017). Still, studies on fertility (Kulu, Hannemann, Pailhé, Neels, Krapf, González-Ferrer, & Andersson, 2017; Scott & Stanfors, 2011) and intermarriage (Dribe & Lundh, 2008, 2011) confirm that the larger sociocultural distance between source and destination country, the slower was the adjustment process across migrant generations. In the United Kingdom, Kulu and Hannemann (2018) found that second-generation immigrants overall were less likely to marry endogamously than their parents. Among those of South Asian origin, however, the differences across generations were small. Similarly, in Spain, second-generation immigrants originating from countries with a low mean age at marriage were less likely to reside outside the parental home without marrying than those originating from countries with higher marital ages (Vitali & Arpino, 2015).

So far, however, few extant studies on union formation have included data on cohabitation or studied transitions from first unions that were cohabitations (e.g., Hannemann & Kulu, 2015; Kleinepier & DeValk, 2016; Pailhé, 2015). There is recent evidence that Dutch secondgeneration immigrants of Turkish and Moroccan origin hold less favorable attitudes to cohabitation than natives (Kalmijn & Kraaykamp, 2018). Similarly, in Sweden Bernhardt and colleagues (2007) found that Turkish-origin young adults generally disapproved of living together without being married and that very few chose cohabitation as first union. Polish second-generation immigrants, on the other hand, had adapted to the Swedish attitudinal pattern, though their behavior was less congruent with the majority pattern (Bernhardt, Goldscheider, Goldscheider, & Bjerén, 2007). Also, in France, 20% of descendants of Turkish immigrants chose cohabitation as first union, compared with 98% of French majoritybackground men and women (Milewski & Hamel, 2010).

Although the increasing rates of union dissolution in Western societies reflect changing family values, secularization and more individual freedom (Lesthaeghe, 2010; Thorton &

Young-DeMarco, 2001), even fewer studies of the second-generation's family behavior have examined the dynamics of first unions, and particularly first unions that were cohabitations. The studies that do exist typically focus on divorce and have mostly investigated the stability of mixed marriages between natives and immigrants (see below). One recent exception is Hannemann et al. (2014) who studied union formation and dissolution among immigrants and their children across four European countries (United Kingdom, Estonia, France, and Spain). This study confirmed that, with respect to first union dynamics, the children of immigrants exhibited patterns more similar to the parental generation, than the majority populations. Further, immigrants and their descendants from countries and regions with traditional family trajectories (e.g., Turkey and South Asian) showed similar patterns of union formation and dissolution as in their countries-of-origin, with high rates of direct marriages and low levels of divorce.

Investigating dynamics of first unions among Russian migrants and their children born in Estonia, Rahnu, Sakkeus, Puur, and Klesment (2015) found that cohabitation was less prevalent among migrants and their descendants than natives. Once in a cohabiting union, however, migrant-background women and men were more likely to convert their unions to marriage than native Estonians. At the same time, migrant-background cohabiting women were more dissolution prone than native women. The authors found no statistically significant differences in these cohabitation outcomes across migrant generations.

Hannemann and colleagues (2015) found higher levels of union dissolution among secondgeneration immigrants originating in Maghreb and Turkey than among their first-generation counterparts and natives in France. In Estonia, Russian migrant men and women were less likely to dissolve their unions relative to their native peers. The descendants of Russian migrants, on the other hand, were more likely to experience union dissolution than native Estonians (Rahnu et al., 2015). However, controlling for ethnic homogamy in additional analyses, these differences were rendered statistically insignificant, implying that it is crucial to include both partners' immigrant-background characteristics in studies of union dynamics.

#### 2. 2. Dynamics of first cohabiting unions

In the Nordic countries, cohabitation has been an established phenomenon since the late 1960s, and currently more first births occur to cohabiting than to married couples (Holland, 2017; Noack et al., 2014). In Norway, more than 90% of majority-background individuals choose cohabitation as first union (Wiik, 2009). Also, cohabiting couples with common children and/or who have lived together for two years or more have most of the same rights

and responsibilities that married couples have, especially in public law areas like social security and taxes (Noack, et al., 2014). In such a context, one could expect to find that second-generation immigrants, who have been born and socialized in Norway, more often than their immigrant counterparts, follow the dominant union and family formation pattern, including cohabitation as first union and nonmarital first births.

At the same time, the attitudes, behaviors, and socioeconomic characteristics of cohabitors differ from those of married persons, implying that the union types are qualitatively different or selective of those disapproving of marriage or who face barriers to marriage. A common understanding is that cohabitation is partly a result of long-term cultural trends during the 20<sup>th</sup> century, including an emphasis on emotional satisfaction, and romantic love in partnerships (Cherlin, 2004). Reflecting these cultural trends, it is often argued that cohabitation is selective of more individualistic and nontraditional individuals, at least in the U.S. (Brines & Joyner, 1999; Smock, 2000). Notably, cohabitors are more prone to dissolve their unions than those married, even when couples have common children (Hart, Lyngstad, & Vinberg, 2017; Jalovaara, 2013; Liefbroer & Dourleijn, 2006). Also, the union type is most popular among people of lower socioeconomic status (Kravdal, 1999; Wiik et al., 2009), which may directly or indirectly increase union instability.

To be sure, cohabitors constitute a highly heterogeneous group, operating as a prelude to marriage, a trial marriage or an alternative to marriage for different couples in Norway (Hiekel, Liefbroer & Poortman, 2014). If a first cohabitation is not transferred into a marriage, the likelihood of experiencing several co-residential unions increases already in young adulthood (Dommermuth & Wiik, 2014). The relationship of cohabitation to marriage may be important for understanding the stability of these unions. Norwegian cohabitors not intending to marry reported lower levels of relationship quality and commitment to the union compared with those married. Cohabitors planning to marry their current partners were, however, as committed and satisfied with their unions as were married individuals (Wiik et al., 2009).

Taken together, these findings nonetheless suggest that the "transaction costs" of dissolving cohabiting unions could be lower than what is generally the case for marriages, implying that cohabitors may more frequently be in search of a "better match" even though still living in a partnership. Cohabitors may be less restrictive when choosing a partner, and hence less likely to marry and more likely to split up. The "lesser bond" hypothesis claims that individuals who choose to cohabit will seek different types of partners than those who marry (Schoen & Weinick, 1993). As cohabitors stress egalitarianism, the lesser bond perspective claims that cohabiting couples will be less homogamous on ascribed

characteristics, like social class and ethnicity, but more homogamous on achieved characteristics, like education (e.g., Raymo & Xie, 2000). Furthermore, while someone may be willing to partner exogamously within cohabitation, endogamy may be preferred when considering a marital partner.

Regarding partner choice and dynamics of cohabiting unions, a double-selection process could imply that cohabiting couples sharing more similar traits move from cohabitation to marriage, whereas those less similar dissolve or continue to cohabit (Brines & Joyner, 1999; Goldstein & Harknett, 2006; Schwartz, 2013). Correspondingly, when examining stocks of couples in the US, there are more likely to be ethnically mixed cohabiting than married couples (Blackwell & Lichter, 2000), though rates of intergroup unions have increased for both union types (Qian & Lichter, 2007). Cortina, Esteve and Domingo (2008) found that cohabitation with a native partner was common among Latin American female immigrants in Spain, and that the formation of such unions was negatively related to education. The generally positive association between education and exogamous marriages (Celikaksoy, 2016; Kalmijn, 2012) could thus be partly due to the omission of cohabitation.

## 2. 3. Partner choice and union dissolution

In the literature it is often hypothesized that heterogamy in general is related to "...poorer relationship outcomes because of differences in partners' lifestyles, attitudes, and beliefs, and/or because of disapproval from family and community members." (Schwartz, 2013: 463). Correspondingly, studies on divorce show that dissimilarity between the partners increases the risk of divorce, for instance when they have different educational levels or socioeconomic and religious backgrounds (Lyngstad & Jalovaara, 2010; Mäenpää & Jalovaara, 2014). This exogamy hypothesis extends to suggest that ethnic exogamous marriages have a higher divorce risk than endogamous ones (Andersson et al., 2015; Dribe & Lundh, 2012; Milewski & Kulu, 2014). There are several plausible explanations for this positive relation between exogamy and union instability. First, natives and immigrants come from different socialization environments and it is likely that their preferences, values, and norms also differ. Such dissimilarities may reduce the time spent on joint activities, increase misunderstandings between the partners and be a source of conflict (Hohmann-Marriott & Amato, 2008; Kalmijn, de Graaf, & Janssen, 2005). Further, partnering outside the group implies that one is crossing a social boundary, and such unions may receive less support from partners' respective families and wider social networks than endogamous unions (Hohmann-Marriott & Amato, 2008; Kalmijn, 1998). If couples additionally choose to cohabit out of their group

rather than to marry, social disapproval may be even stronger. This could be especially so if one or both partners originate in countries and regions where this union type is marginalized. Third, exogamous couples may experience societal discrimination, particularly those in which the partners come from different ethnic groups, and such negative experiences may reduce union quality and lead to dissolution (Milewski & Kulu, 2014).

Regarding the relation between couples' immigrant-background composition and divorce, extant empirical studies have mostly focused on the role of partner choice on marital dissolutions (Andersson et al., 2015; Feng, Boyle, van Ham, & Raab, 2012; Kalmijn et al., 2005) or union dissolutions among immigrant couples with common children (Dribe & Lundh, 2012). Whereas most of these studies find an elevated risk of divorce for exogamous couples (Dribe & Lundh, 2012; Feng et al., 2012; Kalmijn et al., 2005; Milewski & Kulu, 2014), especially when spouses are culturally distant (Smith, Maas, & van Tubergen, 2012), others find no such evidence (Zhang & Van Hook, 2009). In the United States, the results of Hohmann-Marriott and Amato (2008) showed that individuals in interethnic unions reported poorer relationship quality than did individuals in same-ethnic unions, irrespective of whether they were cohabiting or married. To our knowledge, however, no extant studies have investigated associations between couples' immigrant-background composition and union dissolution among cohabiting couples without common children.

# **3. Hypotheses**

First, given the fact that direct marriage is currently marginal behaviour among majoritybackground individuals, we expect to find that most majority-majority couples as well as mixed couples (i.e., one majority partner and one immigration-background partner) will choose cohabitation as their first union. Among immigrant-background couples, on the other hand, we expect to find that endogamous couples more often will marry directly, whereas exogamous couples to a larger extent will cohabit (H1). In line with the exogamy hypothesis and theoretical arguments derived from prior research on assortative mating, we further hypothesize that exogamous immigrant-background couples as well as mixed couples will be more likely to dissolve compared with endogamous couples (H2). Although few studies so far have addressed this issue using data on first cohabiting unions, we do expect to find a similar association for married and cohabiting couples alike.

Further, the findings of the few extant studies that have so far addressed associations between couples' immigrant-background composition and dynamics of first cohabiting

unions, are mixed, but generally cohabitation often seems to be a prelude to marriage among immigrant-background cohabiting couples. Among majority couples, on the other hand, the union type is more often an alternative to marriage, substantiated by for instance the high level of childbearing in cohabitation in Norway (Noack et al., 2014). Taking both partners' characteristics into account, and in accordance with the double-selection hypothesis, we therefore hypothesize that endogamous immigrant-background cohabiting couples will be more likely to marry than their exogamous counterparts as well as majority-majority couples (H3). However, we do expect to find that cohabiting couples consisting of first- and second-generation immigrants originating from countries and regions with traditional family trajectories, most notably Asia, Middle-East and North-Africa (MENA), and Eastern Europe, are more likely to marry and less likely to dissolve than immigrant-background couples originating in Western European/Anglo-Saxon countries and majority couples (H4).

## 4. Data and method

## 4.1. Sample and procedure

We use information from administrative registers covering the entire resident population of Norway. These high quality longitudinal data allow for the investigation of union dynamics across migrant subpopulations, groups often too small to be captured in survey data and often hard to reach due to social exclusion, a lack of trust or language difficulties (Stoop et al., 2010). The population registers contain demographic (e.g. marriages, child births, immigration status and (parents') country of birth) as well as socioeconomic information (e.g. education level, place of residence). The introduction of a unique address for all dwellings in the household register made it possible to also identify cohabitors from 2005 onwards. A cohabiting couple is defined as a man and a woman aged 18 years or older registered as residing in the same dwelling, who are not relatives or married and whose age difference is no more than 15 years. If couples have common children, this latter rule on age difference does not apply.<sup>1</sup> As the household data are updated annually (January 1), we focus on new cohabiting and marital unions formed 2006 onwards to give all couples a similar exposure time. Couples who were cohabiting or married in 2005 (or earlier for married couples) were omitted from the sample.<sup>2</sup> In the current study, we focus on all first unions entered 2006 through 2015 by women and men born 1980 or later (N=218,833 unions, 80.5% cohabitations).

To study transitions from first unions, we use multivariate event-history models. Couples are followed from the year of first union formation to the year of marriage, dissolution/ divorce or any censoring. The duration dependence was union duration in years, which was specified with linear and second-degree polynomial terms. Censoring occurs if one or both partners out-migrate, dies or at the end of the observation period (December 31, 2016). Transitions from first cohabitation are modelled in a competing risk framework (0: continue to be cohabiting (ref), 1: union dissolution, 2: marriage). For those who married directly without prior cohabitation, we model the chance of divorce in any given year (0: married, 1: divorced). The date of divorce corresponds to the year in which the divorce was legalized. As migration and family behavior may be endogenous processes (Andersson, 2004), we consider family behavior occurring in Norway only.

### 4.2. Independent variables

Our main explanatory variable, *couple type*, was made by combining information on partners' migrant generations and their countries of origin. We first grouped individuals into three migrant generations based on country of (parents') birth: The first-generation (i.e., foreignborn), second-generation (i.e., native-born with two foreign-born parents), and majority individuals (i.e., native-born with at least one native-born parent). Among immigrant-background couples, we separate between those where the partners originate from the same (endogamous) or different countries (exogamous). By the same definition, "mixed" couples (i.e., second generation-majority and immigrant-majority couples), were defined as exogamous. Using this information, we then made the following variable: (1) Immigrant-immigrant, endogamous, (2) immigrant-immigrant, exogamous, (3), immigrant-majority, (4) second generation-second-generation/immigrant, endogamous, (5) second generation-second-generation/immigrant, exogamous, (6) second generation-majority, and (7) majority-majority couples. Please note that we chose to group couples consisting of one second-generation immigrant together with second-generation couples due to the low number of "pure" second-generation exogamous couples (n = 29 (marriage), 55 (cohabitation)).

We controlled for available characteristics related to union dynamics. First, to capture sociocultural distance between source and destination country we disaggregated each partner by nine global *regions of (parents') origin*: (1) Nordic countries, (2) Europe (excluding Eastern Europe), North America, Australia, and New Zealand, (3) Eastern Europe, (4) Central Asia, (5) Southeast Asia and rest of Oceania, (6) South Asia, (7) Middle-East and North-Africa, including Turkey (MENA), (8) Sub-Saharan Africa; and (9) South and Middle

America. Next, the *mean age of the couple* at time of the union formation was grouped into five categories: < 23 years (1); 23-25 years (2); 26-28 years (3), 29-31 years (4), and > 31 years (5). *Age difference* between the partners was grouped into three categories (woman > 2 years older than man (1); < 3 years (2); and man > 2 years older than woman (3)). A time-varying dummy measured whether couples were *parents to at least one child* (1 = yes, 0 = no) at time *t*-1. Another potential confounder is *place of residence*. Couples living in the municipalities of one of Norway's three most populated cities (i.e., Oslo, Bergen, and Trondheim) at time *t*-1 were defined as urbanites and coded 1. Otherwise, this indicator was set to 0.

Further, we included a variable measuring *couples' education level* at time *t*-1. This variable was grouped into five categories depending on whether both partners were primary educated (up to 9 years) (1), whether one partner (2) or both partners (3) had completed a secondary education (up to 12 years), and whether one of the partners (4) or both (5) had completed any tertiary education (13 years +). Annual income refers to each partner's total income before taxes in the year preceding each yearly observation period. Total income is the sum of labour income and income from self-employment, and all transfers, such as parental benefit, sickness benefits and benefits for occupational rehabilitation. The income estimates are adjusted for inflation, and given in whole 10,000s of 2015- Norwegian Kroner.

## 5. Results

#### **5.1. Descriptive results**

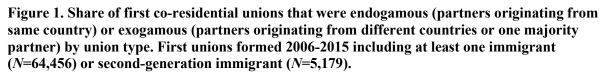
Of the 218,833 first unions included in the present analysis, 19.5% were direct marriages and 80.5% were cohabitations. As shown in the two lower rows of Table 1, 3,066 (1.4%) of these couples involved two second-generation individuals (i.e., born in Norway by two immigrant parents) or one second-generation partner and one immigrant. Next, 2,113 (1%) unions were between one second-generation immigrant and a majority partner, whereas 42,479 (19.5%) unions involved two immigrants. In line with our first hypothesis, we further note from Table 1 that higher shares of exogamous unions were cohabitations. This was particularly evident for mixed unions between a majority individual and an immigrant-background individual. Notably, 90.1% of second-generation-majority unions and 77.8% of the immigrant-majority couples were cohabitations, compared with 14.8% of endogamous second-generation unions (i.e., originating in the same country). 63.1% of second-generation unions involving partners

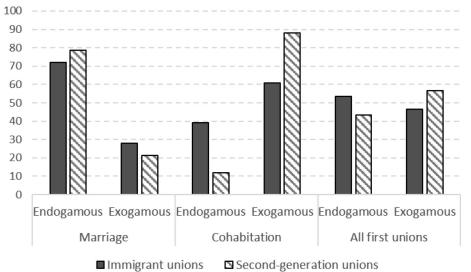
originating in different countries were cohabitations. 92% of majority-couples chose cohabitation as first union.

	Type of f		
Couple type	Marriage	Cohabitation	N (%)
Majority-majority	8.1	91.9	149,198 (68.2)
Immigrant-majority	22.2	77.8	21,977 (10.0)
Immigrant-immigrant, endogamous	58.9	41.1	34,475 (15.8)
Immigrant-immigrant, exogamous	37.1	62.9	8,004 (3.7)
2 <sup>nd</sup> generation-majority	9.9	90.1	2,113 (1.0)
2 <sup>nd</sup> gen-2 <sup>nd</sup> gen/immigrant, endogamous	85.2	14.8	2,243 (1.0)
2 <sup>nd</sup> gen- 2 <sup>nd</sup> gen/ immigrant, exogamous	36.9	63.1	823 (0.4)
_N(%)	42,609 (19.5)	176,224 (80.5)	218,833 (100)

Table 1. Type of first union by couple types. All first unions formed 2006-2015, partners born1980 or later

The share of endogamous and exogamous immigrant-background unions by union types are presented in Figure 1. Restricting the sample to unions including at least one immigrantbackground partner, it becomes further evident that cohabiting unions more often than direct marriages were exogamous. Also, we see from Figure 1 that second-generation immigrants more often than their immigrant counterparts were in exogamous first unions.





Sociodemographic characteristics of couples who entered their first unions during 2006 to 2015 are shown in Table 2. Regarding partner's region-of-origin, we first see that among cohabiting couples, 83.3% of women and 84% of men were of majority background or originated from another Nordic country. The comparable shares among couples marrying directly were 32.8% (women) and 36.9% (men). Partners originating in all other global regions were more often married than cohabiting. This over-representation was particularly evident among men and women originating from countries in Eastern Europe, Asia, MENA, as well as Sub-Saharan Africa, and to a certain extent South America. Among male and female partners originating from Western Europe, North America, Australia, and New Zealand, the shares choosing cohabitation and marriage were rather similar. Distributions of partners' countries-of-origin by union types are shown in Appendix 1.

Further, we see from Table 2 that cohabiting couples were younger and less often had one or more common children than married couples, and that the age difference between partners was slightly smaller among cohabiting couples. Regarding couples' socioeconomic characteristics in the year preceding union dissolution, marriage or censoring, 43.1% of cohabiting couples included at least one tertiary educated partner, compared with 47.8% of married couples. Cohabiting women had higher annual income than married women, whereas the opposite was true for male partners' income. Last, we note that roughly one-third of couples resided in one of Norway's three most populated cities and that cohabiting unions on average were of shorter duration than marital unions.

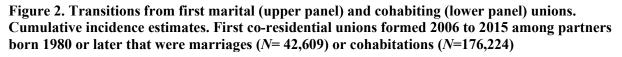
Transitions from direct marriages (upper panel) and first cohabiting unions (lower panel) by couple types are illustrated in Figure 2. As cohabitation has two potential outcomes (dissolution or marriage), we used cumulative incidence functions (CIFs). CIFs are identical to survival functions when competing risks are not present (Gooley, Leisenring, Crowley, & Storer, 1999), so we also used this method to describe transitions from first marriage to divorce. From Figure 2 we first note that among couples marrying directly, immigrant couples, and particularly exogamous ones, had the highest divorce rates. Among exogamous immigrant couples, 43% were divorced after 10 years. The comparable share among endogamous immigrant couples was 37%. Further, 22% of endogamous second-generation couples were divorced after 10 years, compared with 25% of their exogamous counterparts and 26% of second-generation-majority marriages. Interestingly, we further note from Figure 2 that only 14% of majority-majority couples marrying directly were divorced at the end of our observation period (December 31, 2016).

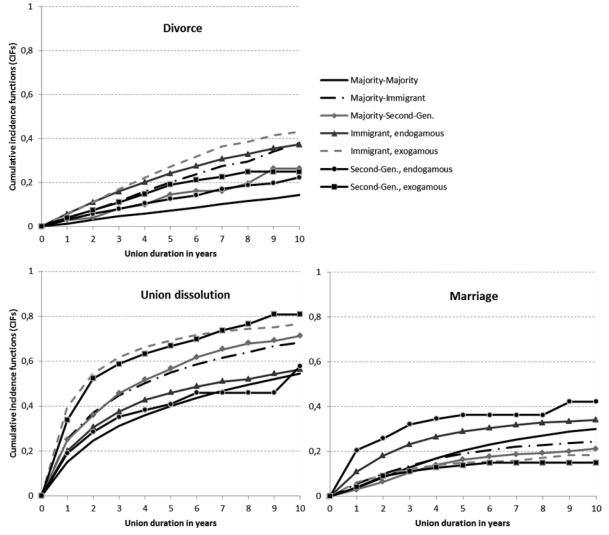
	Cohabitati	Direct marriage		
	% or <i>M</i> (sd)	n	% or <i>M</i> (sd)	n
Couple type				
Majority-majority	77.85	137,183	28.20	12,015
Immigrant-majority	9.70	17,097	11.45	4,880
2 <sup>nd</sup> generation-majority	1.08	1,903	0.49	210
Immigrant, endogamous	8.04	14,160	47.68	20,315
Immigrant, exogamous	2.85	5,031	6.98	2,973
2 <sup>nd</sup> gen., endogamous	0.19	331	4.49	1,912
2 <sup>nd</sup> gen., exogamous	0.29	519	0.71	304
Region of origin, woman				
Majority/ Nordic	83.30	146,790	32.83	13,990
Western Europe <sup>a</sup>	4.00	7,043	4.37	1,863
Eastern Europe	6.80	11,992	30.15	12,847
Central Asia	0.58	1,025	2.05	875
Southeast Asia <sup>b</sup>	1.36	2,402	4.87	2,073
South Asia	0.62	1,093	11.02	4,697
MENA	1.13	1,998	7.99	3,405
Sub-Saharan Africa	1.46	2,574	4.80	2,046
South America	0.74	1,307	1.91	813
Region of origin, man		-		
Majority/ Nordic	83.42	147,013	36.11	15,385
Western Europe <sup>a</sup>	4.48	7,903	4.76	2,027
Eastern Europe	6.07	10,689	28.55	12,166
Central Asia	0.40	709	1.46	621
Southeast Asia <sup>b</sup>	0.91	1,605	2.56	1,091
South Asia	0.90	1,585	11.60	4,942
MENA	1.49	2,628	8.37	3,568
Sub-Saharan Africa	1.53	2,697	5.13	2,184
South America	0.79	1,395	1.47	625
Mean age of couple at union formation		,		
< 23	28.48	50,185	10.28	4,379
23 - 25	35.28	62,176	28.89	12,310
26 - 28	25.64	45,184	36.47	15,541
29 - 31	9.06	15,968	19.84	8,455
> 31	1.54	2,711	4.52	1,924
Age difference between partners				<u>)</u> -
< 3	58.92	103,837	59.24	25,242
Woman > man	6.43	11,329	4.01	1,708
Man > woman	34.65	61,058	36.75	15,659
Couple has common child(ren), <i>t</i> - 1	38.46	67,779	67.64	28,819
Couple's education, $t - 1$	20110	01,112	0,101	20,017
Both primary	13.82	24,349	27.34	11,650
One secondary	17.86	31,469	13.13	5,595
Both secondary	16.86	29,704	7.48	3,188
One tertiary	28.17	49,635	27.78	11,837
Both tertiary	23.30	41,067	24.26	10,339
Woman's income, <i>t</i> -1 in 10 000 NOK	27.09 (26.10)	71,007	24.36 (26.22)	10,559
Man's income, <i>t</i> -1 in 10 000 NOK	39.68 (41.68)		44.59 (36.78)	
Urban residence, $t - 1$	26.92	47,435	27.96	11,913
Union duration	2.99 (2.18)	т,тээ	4.01 (2.52)	11,715
N	176,224		42,609	

# Table 2. Descriptive statistics of variables used in the analyses. All first co-residential unions formed 2006-2015, partners born 1980 or later

*Note*: <sup>a</sup> This category comprises countries in Europe (excluding Eastern Europe) as well as the US, Canada, Australia, and New Zealand. <sup>b</sup> This category also comprises countries in rest of Oceania

What is most striking about this figure, however, is the highly unstable nature of exogamous cohabiting unions. Notably, 81% of exogamous second-generation couples and 77% of exogamous immigrant couples formed in 2006 were dissolved after 10 years. The comparable shares among majority-immigrant and majority-second-generation couples were 68% and 71% respectively. Endogamous cohabiting couples, on the other hand, were more stable. 58% of endogamous second-generation couples and 56% of endogamous immigrant couples and 56% of endogamous immigrant couples ended in dissolution. These patterns do not differ greatly from the dissolution rates of majority-majority cohabiting couples, 54% of which were dissolved by the end of the observation period.





Regarding transitions to marriage among cohabiting couples, we find the highest shares among endogamous second-generation (42%) and immigrant couples (34%), followed by majority couples (30%). Exogamous second-generation couples were least likely to transform their cohabiting unions into marriage (15%), closely followed by their exogamous immigrant counterparts (18%) and second-generation-majority unions (21%). The comparable share among majority-immigrant couples was 24% (see Figure 2).

#### 5.2. Multivariate results

Overall, the descriptive results are in line with hypothesis 2 that exogamous couples are more likely to dissolve than endogamous couples. Given the highly heterogeneous character of (immigrant-background) couples, however, it is vital to control for partners' global region-oforigin and other potentially confounding variables.

Results from the multivariate event-history analysis of divorce among couples marrying directly are presented in Table 3. From this table we first note that endogamous second-generation couples displayed significantly lower divorce risks than endogamous immigrant couples (p<.05), net of partners' global region-of-origin and the other included variables. More precisely, the odds ratio that these endogamous second-generation couples would divorce in any given year was 24% lower than that of their immigrant counterparts. We further see from the results in Table 3 that all types of direct marriages involving at least one majority spouse were less divorce prone than endogamous immigrant couples. Precisely, the risk of divorce for mixed immigrant-majority marriages was 51% lower than that of endogamous immigrant couples. The comparable reduction in the odds of divorce in any given year for mixed marriages between a second-generation immigrant and a majority spouse was 38% relative to endogamous immigrant couples. Majority couples had the lowest odds of divorce: the odds ratio of divorce among majority couples marrying directly was 0.20 that of immigrant endogamous couples, net of the other included variables.

Regarding spouses' global region-of-origin, the results in Table 3 confirm that married couples in which wives themselves or their parents immigrated from countries in Eastern Europe Asia, South America, MENA and Sub-Saharan Africa had significantly lower divorce risks than those involving immigrant-background women originating from Western Europe, North America, Australia, and New Zealand. When the wife originated in another Nordic country, on the other hand, couples were significantly more divorce prone relative to those where the wife originated in Western Europe, North America, Australia, and New Zealand. A similar pattern was found for husbands' region-of-origin, though there were no statistically

significant differences in divorce risks between marriages involving a man of Nordic, Central Asian or South American origin and those involving a man of Western European or Anglo-Saxon origin.

Table 3. Results from discrete-time logit model of divorce. Direct marriages contacted 2006 to
2015 (N=42,609). Odds ratios with 95% confidence intervals

	OR	Divorce 95% CI	
Couple type (ref = immigrant, endogamous)			
Majority-majority	0.19	0.16	0.23
Immigrant-majority	0.48	0.43	0.55
2 <sup>nd</sup> generation-majority	0.60	0.39	0.94
Immigrant, exogamous	0.98	0.89	1.09
2 <sup>nd</sup> gen., endogamous	0.77	0.66	0.89
2 <sup>nd</sup> gen., exogamous	0.90	0.65	1.25
Region of origin, woman (ref = Western Europe <sup>a</sup> )			
Majority/ Nordic	1.44	1.25	1.66
Eastern Europe	0.65	0.55	0.78
Central Asia	0.74	0.56	0.97
Southeast Asia <sup>b</sup>	0.57	0.46	0.70
South Asia	0.72	0.57	0.92
MENA	0.43	0.35	0.53
Sub-Saharan Africa	0.65	0.50	0.84
South America	0.77	0.63	0.95
Region of origin, man (ref = Western Europe <sup>a</sup> )			
Majority/ Nordic	1.07	0.93	1.22
Eastern Europe	0.54	0.45	0.64
Central Asia	0.79	0.59	1.07
Southeast Asia <sup>b</sup>	0.58	0.45	0.75
South Asia	0.64	0.51	0.81
MENA	0.63	0.52	0.77
Sub-Saharan Africa	0.66	0.52	0.85
South America	1.11	0.90	1.36
Couple has common child(ren), <i>t</i> - 1	0.77	0.72	0.81
Mean age at marriage (ref = $23 - 25$ )	0.77	0.72	0.01
< 23	0.92	0.84	1.01
26-28	1.39	1.30	1.48
20 - 20 29 - 31	2.15	1.98	2.33
> 31	3.23	2.78	3.74
	5.25	2.70	5./4
Age difference between partners (ref = < 3 years) Woman > man	1.13	0.99	1.28
Man > woman		1.05	
	1.11	1.05	1.17
Couple's education, $t - 1$ (ref = both secondary)	1 40	1.22	1.((
Both primary	1.49	1.33	1.66
One secondary	1.35	1.20	1.52
One tertiary	1.16	1.04	1.30
Both tertiary	1.09	0.97	1.22
Woman's income, <i>t</i> -1	0.96	0.95	0.96
Man's income, $t - 1$	0.98	0.98	0.98
Urban residence, <i>t</i> -1	0.70	0.65	0.75
Union duration	2.94	2.82	3.06
Union duration squared	0.91	0.90	0.91
N Events		6,473	
N Couple-years		213,486	
$X^2(df)$	8	3407.2031 (38)	

*Note*: Estimates in bold p < .05. <sup>a</sup> This category comprises countries in Europe (excluding Eastern Europe) as well as the US, Canada, Australia, and New Zealand. <sup>b</sup> This category also comprises countries in rest of Oceania

From the results presented in Table 3 it is further clear that married parental couples were less divorce prone than their childless counterparts. Next, couples whose mean marital age was above 25 years as well as well as couples in which husbands were 3 years or older than wives were more likely to divorce than those with marital ages 23-25 years and the age homogamous. Further, educationally heterogamous couples as well as primary educated couples were more likely to divorce than secondary educated couples, whereas both spouses' annual income was negatively related to divorce. Last, we note from Table 3 that urban couples who married directly were less divorce prone than their rural counterparts and that there was a rising-falling pattern of divorce over marital duration.

Results from multivariate competing risk models for transitions from first cohabiting unions are presented in Table 4. From this table we first note that mixed couples as well as exogamous second-generation and immigrant couples were significantly more likely to dissolve their first cohabiting unions relative to continue cohabiting, compared with endogamous immigrant couples. Specifically, the odds ratio that exogamous secondgeneration couples would dissolve rather than continue cohabiting in any given year was 59% higher than that for endogamous immigrant couples, net of the other variables included. Likewise, the dissolution risk for exogamous immigrant couples was 63% higher than that for their endogamous counterparts. From Table 4 we also see that majority couples had significantly lower chance of experiencing union dissolution relative to continue cohabiting compared with endogamous immigrant couples, net of the other included variables. The union dissolution risk of endogamous second-generation couples did not differ significantly from the reference group.

Turning to the competing event, marriage, we observe an opposite pattern: exogamous second-generation and immigrant couples as well as mixed couples were significantly less marriage prone compared with endogamous immigrant couples. Notably, exogamous second-generation cohabiting couples had 51% lower odds of transforming their unions into marriage than their endogamous immigrant counterparts. Similarly, the odds ratio that mixed unions involving a second-generation partner and a majority partner would marry rather than continue cohabiting was 49% lower than that for endogamous immigrant couples. Differences between endogamous immigrant and second-generation couples failed to reach statistical significance at the 5%-level. Also, majority couples were significantly less likely to transform their cohabiting unions into marriage than were endogamous immigrant couples.

Taken together, these results confirm our third hypothesis that there indeed is a selection of endogamous immigrant-background cohabiting couples into marriage and that majority

couples are more likely to continue cohabiting than marrying or dissolving compared with their immigrant-background counterparts. This latter finding implies that cohabitation is more often an alternative to being married among majority couples than is the case for immigrantbackground couples. Interestingly, endogamous second-generation couples choosing cohabitation as their first union do not differ from cohabiting endogamous immigrant couples in their subsequent union transitions.

Regarding the other variables included in Table 4, we see that cohabiting couples in which one or both partners originated from countries in Eastern Europe, or the female partner herself or her parents immigrated from countries in Southeast Asia, were significantly less likely to dissolve, but more likely to marry, compared with those involving Western European or Anglo-Saxon partners. When the man and/or the woman originated from countries in Central Asia, or the man was of South Asian origin, they were more dissolution prone than their counterparts of Western European origin. Couples where the man was of majority background or originated in another Nordic country, on the other hand, were more dissolution prone but less likely to marry relative to continue cohabiting than cohabiting couples involving partners of Western European or Anglo-Saxon origin. A similar negative marriage gradient was found for couples involving women of Nordic origin. Further, cohabiting couples involving women originating from countries in Central - and South Asia or MENA were more marriage prone than those involving women of Western European or Anglo-Saxon origin. A similar positive marriage gradient was found among couples where male partners originated in South Asia.

The results in Table 4 further confirm that among cohabiting couples, having at least one common child was negatively related to union dissolution, but positively related to marriage. Older couples were more likely to split up, and less likely to marry, relative to continue cohabiting, compared with couples forming their first unions in their mid-20s. Further, age heterogamous couples were more likely to dissolve their unions, but less likely to marry, than their age homogamous counterparts. Regarding couples' education, couples involving at least one tertiary educated partner were more marriage prone, compared with lower educated couples. Tertiary educated couples, on the other hand, were less dissolution prone than secondary and primary educated couples. We further note from Table 4 that partners' annual income reduced the odds of union dissolution. Transitions from cohabitation to marriage, on the other hand, were positively related to partners' income. Residing in one of Norway's three largest cities was positively related to union dissolution, and negatively related to marriage. Last, we see that there was a rising-falling pattern of dissolution as well as marriage over union duration.

	Union dissolution			Marriage		
	OR	95% CI		OR	95%	6 CI
Couple type (ref = immigrant, endogamous)						
Majority-majority	0.80	0.76	0.83	0.66	0.61	0.71
Immigrant-majority	1.17	1.12	1.23	0.70	0.65	0.75
2 <sup>nd</sup> generation-majority	1.15	1.06	1.25	0.50	0.43	0.58
Immigrant, exogamous	1.63	1.55	1.72	0.70	0.64	0.77
2 <sup>nd</sup> gen., endogamous	1.16	0.92	1.46	1.15	0.93	1.42
2 <sup>nd</sup> gen., exogamous	1.62	1.41	1.86	0.48	0.36	0.63
Region of origin, woman (ref = Western Europe <sup>a</sup> )						
Majority/ Nordic	0.99	0.95	1.03	0.90	0.85	0.96
Eastern Europe	0.76	0.71	0.81	1.49	1.36	1.63
Central Asia	1.17	1.05	1.31	1.68	1.40	2.02
Southeast Asia <sup>b</sup>	0.86	0.79	0.94	1.45	1.29	1.64
South Asia	1.06	0.95	1.19	1.94	1.65	2.27
MENA	0.98	0.90	1.07	1.59	1.39	1.81
Sub-Saharan Africa	1.09	1.00	1.18	1.07	0.915	1.26
South America	0.94	0.86	1.04	1.23	1.05	1.43
Region of origin, man (ref = Western Europe <sup>a</sup> )						
Majority/ Nordic	1.08	1.03	1.12	0.94	0.88	0.99
Eastern Europe	0.83	0.78	0.89	1.01	0.92	1.11
Central Asia	1.16	1.02	1.32	1.01	0.80	1.25
Southeast Asia <sup>b</sup>	1.01	0.91	1.11	0.95	0.82	1.10
South Asia	1.22	1.11	1.34	1.74	1.50	2.01
MENA	1.06	0.98	1.14	1.12	0.99	1.28
Sub-Saharan Africa	1.08	0.99	1.17	1.13	0.97	1.32
South America	1.00	0.92	1.11	0.86	0.73	1.02
Couple has common child(ren), <i>t</i> - 1	0.49	0.48	0.50	1.16	1.12	1.19
Mean age at union formation (ref = $23 - 25$ )	0.12	0.10	0.50	1.10	1.12	1.12
<23	0.99	0.97	1.01	0.79	0.77	0.82
26 - 28	1.11	1.08	1.13	1.03	1.01	1.06
29 - 31	1.41	1.36	1.47	0.97	0.93	1.01
> 31	1.79	1.62	1.98	0.87	0.77	0.99
Age difference between partners (ref = $< 3$ years)	1.77	1.02	1.90	0.07	0.77	0.77
Woman > man	1.46	1.42	1.51	0.65	0.61	0.69
Man > woman	1.18	1.12	1.20	0.03	0.91	0.96
Couple's education, $t - 1$ (ref = both secondary)	1.10	1.10	1.20	0.74	0.91	0.70
Both primary	1.33	1.29	1.37	0.78	0.74	0.82
One secondary	1.33	1.19	1.25	0.85	0.81	0.88
One tertiary	1.01	0.98	1.04	1.27	1.23	1.32
Both tertiary	0.84	0.98	0.87	1.81	1.74	1.87
Woman's income, <i>t</i> -1	0.98	0.98	0.98	1.01	1.01	1.01
Man's income, t -1	0.98	0.98	0.98	1.01	1.01	1.01
Urban residence, <i>t</i> -1	1.09	1.06	1.11	0.95	0.93	0.98
Union duration	2.42	2.39	2.45	0.93 2.17	2.13	2.21
Union duration squared	0.92	0.91	0.92	0.92	0.92	0.92
N Events	0.92	68,655	0.72	0.74	31,740	0.92
		00,033	702	,752	51,740	
N Couple-years $X^2$ ( <i>df</i> )				,732 591 (76)		
A (UJ)			/3040.2	571 (70)		

Table 4. Results from discrete-time multinomial logit model of a) union dissolution, b) marriage, or c) continue cohabiting (base). First co-residential unions formed 2006 to 2015 that were co-habitations (*N*=176.224). Odds ratios with 95% confidence intervals.

*Note*: Estimates in bold p < .05. <sup>a</sup> This category comprises countries in Europe (excluding Eastern Europe) as well as the US, Canada, Australia, and New Zealand. <sup>b</sup> This category also comprises countries in rest of Oceania.

Results from an alternative model of union dissolution including cohabiting and married couples are presented in Appendix 2. In these analyses, we included a dummy measuring whether cohabiting couples married during the observation period, coded as one from the year

of marriage. Considering all first co-residential unions, exogamous second-generation couples were significantly more divorce prone than endogamous immigrant couples, net of the other variables included. Endogamous second-generation couples, on the other hand, were significantly more stable than their endogamous immigrant counterparts.

# 6. Summary and discussion

Using Norwegian register data on all first co-residential unions formed 2006 through 2015 among women and men born 1980 or later, the current study addressed how patterns of partner choice were associated with union dynamics across migrant generations, a topic that has received little study so far (Kulu & González-Ferrer, 2014). Specifically, we sat out to compare associations between endogamous (i.e., partners originating in same country) and exogamous (i.e., partners originating in different countries) partner choice and transitions from these first unions across migrant generations. The following partnership transitions were considered: 1) from first cohabitation to a) marriage or b) union dissolution, and 2) from first marriage to any divorce.

A major contribution of the current study was the inclusion of cohabiting unions. To the best of our knowledge, no extant studies have investigated associations between couples' immigrant-background composition and union dissolution across marital and cohabiting unions without common children. Cohabitation before an eventual marriage is almost universal behavior among majority individuals in Norway and studying associations between partner choice and union dynamics of both marital and non-marital co-residential unions in such a context, provided additional insights into immigrant adaptation processes.

First, descriptive results confirmed that over 80% of the 218,833 first unions included in the present study were cohabitations. There were, however, large variations across union types and partners' regions-of-origin in the incidence of cohabitation. As expected, higher shares of exogamous unions were cohabitations. This was particularly evident among second-generation individuals who partnered with a majority-background individual, who tended to follow the majority pattern by choosing cohabitation as first union. 90% of these mixed unions were cohabitations, compared with 63% of second-generation couples involving partners originating in different countries and 92% of majority couples. This compares with 15% of endogamous second-generation unions and 41% of endogamous immigrant unions.

This latter generational difference is likely due to the fact that immigrants in the selected age groups (born 1980 and later) to a larger extent than their second-generation counterparts

originates in (Eastern) European countries (Statistics Norway, 2018). Similarly, there were considerable differences in the incidence of cohabitation across partners' global regions-of - origin, and partners originating in all other global regions than the Nordic countries were more often married than cohabiting. This over-representation was particularly evident among partners originating from countries in Eastern Europe, Asia, MENA, as well as Sub-Saharan Africa, global regions characterized by a traditional family formation patterns with relatively early and universal marriage and high fertility (United Nations, 2017).

Further, in line with the exogamy hypothesis and theoretical arguments derived from prior research on assortative mating, we expected to find that exogamous immigrant-background as well as mixed couples would be more likely to dissolve their first unions than endogamous couples. Although few extant studies so far have addressed this issue using data on first cohabiting unions, we expected to find a similar association for married and cohabiting couples alike. Correspondingly, results from multivariate event-history models confirmed that "mixed" cohabiting couples, regardless of generation, as well as exogamous secondgeneration couples were significantly more likely to dissolve their first cohabiting unions relative to continue cohabiting, compared with endogamous immigrant and endogamous majority couples. Similarly, among direct marriages, second-generation endogamous couples were less likely to divorce than their first-generation counterparts. Second-generation exogamous married couples were, however no more or less divorce prone than endogamous immigrant couples, likely attributable to the low number of exogamous second-generation marital unions (n=304). In fact, all direct marriages involving majority spouses were significantly less divorce prone than endogamous immigrant marriages. Majority-majority couples who directly married displayed significantly lower divorce risks than all other couple types. This finding echoes the increasingly selective nature of direct marriage in Norway. Currently, the vast majority of majority-background Norwegians live as cohabitors before eventually marrying. The few who marry directly, seems to be particularly selective of the most religious individuals (Wiik, 2009). Taken together, the results from the current paper are partly in accordance with our second hypothesis.

Regarding dynamics of first cohabiting unions, we further expected that endogamous immigrant-background cohabiting couples would be more marriage prone than their exogamous counterparts as well as majority cohabitors. Correspondingly, our multivariate results confirmed that first- and second-generation exogamous cohabiting couples were less likely to marry, relative to continue cohabiting, than their endogamous counterparts. Similarly, majority couples were significantly less likely to transform their cohabiting unions

into marriage than were endogamous immigrant couples. Taken together, these results are in accordance with expectations derived from the double selection hypothesis and confirm that there indeed is a selection of endogamous immigrant-background cohabiting couples into marriage. Also, the finding that majority couples were more likely to continue cohabiting than marrying or dissolving compared with their immigrant-background counterparts implies that cohabitation is more often an alternative to being married among majority couples than is the case for immigrant-background couples.

We further expected to find that cohabiting couples consisting of immigrants and their native-born children originating from countries and regions with traditional family trajectories, most notably Asia, MENA, Eastern Europe and Sub-Saharan Africa, would be more likely to marry and less likely to dissolve than immigrant-background couples originating in Western European/Anglo-Saxon countries and majority-majority couples. In accordance with Hypothesis 4, our results confirmed that cohabiting couples in which one or both partners originated from countries in Eastern Europe, or the female partner herself or her parents immigrated from countries in Southeast Asia, MENA or South America, were significantly less likely to dissolve, but more likely to marry, compared with those involving Western European or Anglo-Saxon partners. Further, cohabiting couples involving women originating from countries in Asia and MENA, as well as couples where male partners originated in South Asia, MENA, as well at Sub-Saharan Africa, were more marriage prone than those involving women of Western European or Anglo-Saxon origin. This contrast with our finding that couples where the man and/or the woman originated in a Nordic country were less likely to marry relative to continue cohabiting compared with cohabiting couples involving Western partners. Again, these findings echo the "alternative to marriage" character of many cohabiting unions in the Nordic countries (Hiekel et al., 2014). Among immigrants and their children originating in countries where cohabitation is marginalized, on the other hand, the union types seem to be more of a prelude to marriage. Future research should investigate this issue more in detail using more fine-grained data from representative surveys.

Given the young age structure of the second-generation, most European large-scale representative studies on their family formation have so far been restricted to those whose parents emigrated from the largest and oldest sending countries, most notably Turkey and Morocco (Kulu & González-Ferrer 2014). The family formation behavior of descendants of immigrants from smaller and more recent countries-of-origin is less studied, mainly because groups are too small to be captured in representative surveys (De Valk & Milewski 2011).

Register data are a promising source of information on immigrant background populations, a hard-to-reach group that is sometimes too small to be captured in nationally representative surveys. Moreover, using these data we were able to investigate the dynamics of first non-marital unions and give particular attention to the children of immigrants from a large number of countries of origin, who are now just entering family formation ages.

Despite these strengths, the data also had several limitations. First, although we were able to capture most cohabiting unions using these data, our cohabitation estimates are probably downward biased. For instance, cohabiting unions entered at the beginning of one year that were dissolved later that year were not captured in our data. Similarly, childless couples with age difference larger than 15 years are not counted as cohabiting, neither are students or other (young) people cohabiting without reporting address change. Further, using these data, we cannot exclude the possibility that some immigrants and descendants, particularly those originating in predominantly Muslim countries, are registered as cohabiting in our data though actually living in unregistered religious marriages ("Nikah Urfi" (Sunni) / "Mutah" (Shia)). Although it is not known how common this phenomenon is in Norway, a recent qualitative study revealed that these unions are stable and resemble legal marriages (Bredal & Wærstad, 2014). Also, the low number of "pure" second generation couples prevented us from investigating potential gender asymmetries in union dynamics of mixed couples. It could be, for instance, that couples consisting of a second-generation man and a majority woman behave differently than unions involving a second-generation woman and a majority man. Prior research on the fertility behavior of interracial couples in the U.S. confirm that this is indeed the case (Choi & Goldberg, 2018). This is a matter for further research. Last, a focus on other individual characteristics, such as attitudes and values, may provide greater insights into sociocultural distance between migrant and majority populations. For instance, religiosity is often used as a proxy for culture and/or normative attachment of immigrants (Foner & Alba, 2008).

Taken together, these findings provide new insights into the intersection between population and family life-course diversity. In developing and growing our understanding of new family forms, such as cohabitation, non-marital childbearing and complex families, we must not ignore how processes of union transitions differ depending on the composition of couples. Moreover, broadening our attention to a wider range of family dynamics, such as union type and the timing of family events, and integrating these into our studies of assortative mating, we will gain a more nuanced understanding of adaptation and integration within diverse societies.

#### Notes

Please note that using these data, we miss out on around 10% of cohabiting unions without common children (Falsnes-Dalheim, 2009), most often involving students or other (young) childless couples cohabiting for shorter periods without reporting address changes.
 To be sure, we cannot rule out the possibility that some individuals had cohabitation experience prior to 2005. Nonetheless, as we are focusing on cohorts born 1980 or later, who were in their mid-twenties or younger in 2005, left-cencoring should be of minor importance. Around 70% of Norwgians with cohabitation experience born 1965-73 had lived in one corresidential union only by age 35, and the median age at first union formation for cohorts born 1975-1979 was 24,3 years (Dommermuth & Wiik, 2014).

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# Appendix

Appendix 1. Partners' countries-of-origin (i.e., own or parents' country-of-birth). First unions
formed 2006-2015, partners born 1980 or later.

Cohabit	ing wome	n	Cohabi	iting men		Marrieo	ł womer	1	Marri	ed men	
Country	n	%	Country	n	%	Country	n	%	Country	n	%
Norway	125,891	71.44	Norway	127,161	72.16	Norway	11,776	27.64	Norway	12,997	30.50
Sweden	8,281	4.70	Sweden	7,569	4.30	Poland	5.236	12.29	Poland	5,085	11.93
Poland	4,506	2.56	Denmark	4,458	2.53	Lithuania	2,511	5.89	Lithuania	2,476	5.81
Denmark	4,173	2.37	Poland	4,138	2.35	Pakistan	1,997	4.69	Pakistan	2,077	4.87
Lithuania	2,709	1.54	US	2,618	1.49	India	1,358	3.19	India	1,361	3.19
US	2,673	1.52	Lithuania	2,489	1.41	Somalia	979	2.30	Somalia	1,005	2.36
Germany	2,301	1.31	UK	2,412	1.37	Philippines	914	2.15	Turkey	896	2.10
UK	2,123	1.20	Germany	2,227	1.26	Romania	861	2.02	Iraq	860	2.02
Philippines	1,014	0.58	Somalia	964	0.55	Iraq	817	1.92	Afghanistan	842	1.98
Somalia	983	0.56	France	768	0.44	Turkey	782	1.84	Romania	824	1.93
Finland	958	0.54	Iceland	763	0.43	US	758	1.78	US	728	1.71
Russia	864	0.49	Netherlands	736	0.42	Afghanistan	713	1.67	Kosovo	667	1.57
Iceland	852	0.48	Finland	732	0.42	Russia	688	1.61	Sweden	630	1.48
China	703	0.40	Iraq	681	0.39	Sweden	596	1.40	Denmark	592	1.39
Netherlands	685	0.39	Iran	653	0.37	Kosovo	590	1.38	Russia	474	1.11
France	680	0.39	Philippines	648	0.37	China	531	1.25	Bosnia-H.	468	1.10
Romania	658	0.37	Chile	592	0.34	Iran	511	1.20	Syria	456	1.07
Vietnam	656	0.37	Spain	588	0.33	Denmark	491	1.15	Latvia	431	1.01
S. Korea	635	0.36	Romania	567	0.32	Bosnia-H.	484	1.14	Iran	430	1.01
Spain	632	0.36	Latvia	550	0.31	Latvia	467	1.10	UK	415	0.97
Thailand	630	0.36	Vietnam	538	0.31	Syria	453	1.06	China	410	0.96
Latvia	624	0.35	Russia	536	0.30	Germany	433	1.02	Philippines	409	0.96
Iran	590	0.33	Bosnia-H.	521	0.30	Thailand	411	0.96	Germany	395	0.93
Chile	515	0.29	Colombia	503	0.29	Vietnam	380	0.89	Sri Lanka	386	0.91
Eritrea	482	0.27	Eritrea	498	0.28	Sri Lanka	374	0.88	Eritrea	360	0.84
Iraq	470	0.27	China	496	0.28	Ukraine	357	0.84	Vietnam	316	0.74
Bosnia-H.	464	0.26	Canada	462	0.26	Eritrea	321	0.75	Serbia	297	0.70
India	455	0.26	Pakistan	439	0.25	Serbia	313	0.73	Bulgaria	288	0.68
Hungary	429	0.24	India	437	0.25	Bulgaria	299	0.70	Ethiopia	248	0.58
Canada	422	0.24	Italy	422	0.24	Brazil	284	0.67	Morocco	241	0.57
Colombia	391	0.22	S. Korea	421	0.24	UK	269	0.63	Macedonia	205	0.48
Estonia	348	0.20	Afghanistan	408	0.23	Ethiopia	266	0.62	Myanmar	175	0.41
Italy	335	0.19	Turkey	373	0.21	Morocco	254	0.60	Finland	173	0.41
Kosovo	313	0.18	Kosovo	366	0.21	Macedonia	205	0.48	Nepal	171	0.40
Pakistan	296	0.17	Thailand	350	0.2	Finland	183	0.43	Ukraine	168	0.39
Bulgaria	278	0.16	Hungary	339	0.19	Nepal	181	0.42	France	159	0.37
Ethiopia	271	0.15	Australia	321	0.18	Myanmar	177	0.42	Estonia	157	0.37
Brazil	270	0.15	Ethiopia	274	0.16	France	153	0.36	Palestine	154	0.36
Slovakia	259	0.15	Bulgaria	263	0.15	Estonia	149	0.35	Croatia	153	0.36
Turkey	241	0.14	Slovakia	261	0.15	Iceland	143	0.34	Brazil	150	0.35
Other	6,164	3.50	Other	6,682	3.79	Other	3,944	9.26	Other	3,880	9.11
N / %	176,224	100.0		176,224	100.0	Ν	42,609	100.0		42,609	100.0

	Union dissolution				
	OR	95% CI			
Couple type (ref = immigrant, endogamous)					
Majority-majority	0.70	0.67	0.73		
Immigrant-majority	1.03	0.99	1.07		
2 <sup>nd</sup> generation-majority	1.04	0.96	1.13		
Immigrant, exogamous	1.42	1.36	1.49		
2 <sup>nd</sup> gen., endogamous	0.73	0.65	0.82		
2 <sup>nd</sup> gen., exogamous	1.40	1.24	1.59		
Region of origin, woman (ref = Western Europe <sup>a</sup> )					
Majority/ Nordic	0.97	0.93	1.01		
Eastern Europe	0.76	0.72	0.81		
Central Asia	1.08	0.98	1.19		
Southeast Asia <sup>b</sup>	0.80	0.74	0.86		
South Asia	0.94	0.86	1.03		
MENA	0.80	0.74	0.86		
Sub-Saharan Africa	1.01	0.93	1.09		
South America	0.94	0.86	1.03		
Region of origin, man (ref = Western Europe <sup>a</sup> )					
Majority/ Nordic	1.04	1.00	1.08		
Eastern Europe	0.83	0.79	0.88		
Central Asia	1.15	1.02	1.29		
Southeast Asia <sup>b</sup>	0.98	0.89	1.07		
South Asia	1.08	1.00	1.18		
MENA	0.95	0.89	1.02		
Sub-Saharan Africa	1.01	0.93	1.08		
South America	1.07	0.99	1.17		
Union status (ref = married)					
Cohabiting	4.50	4.36	4.64		
Cohabiting, married during observation	0.04	0.04	0.05		
Couple has common child(ren), <i>t</i> - 1	0.52	0.51	0.53		
Mean age at union formation (ref = $23 - 25$ )					
< 23	0.99	0.98	1.01		
26-28	1.14	1.11	1.16		
29-31	1.53	1.48	1.58		
> 31	2.13	1.97	2.31		
Age difference between partners (ref = $< 3$ years)					
Woman > man	1.44	1.40	1.49		
Man > woman	1.16	1.14	1.18		
Couple's education, $t - 1$ (ref = both secondary)			-		
Both primary	1.33	1.23	1.37		
One secondary	1.22	1.19	1.25		
One tertiary	1.01	0.99	1.04		
Both tertiary	0.85	0.83	0.88		
Noman's income, t -1	0.98	0.98	0.98		
Man's income, t-1	0.98	0.98	0.98		
Jrban residence, t -1	1.05	1.03	1.08		
Jnion duration	2.41	2.38	2.45		
Jnion duration squared	0.92	0.91	0.92		
V Events	01/2	75,650	0.72		
J Couple-years		1,006,321			

**Appendix 2.** Results from discrete-time logit model of union dissolution. First co-residential unions formed 2006 to 2015 (*N*=218,833). Odds ratios with 95% confidence intervals

*Note*: Estimates in bold p < .05. <sup>a</sup> This category comprises countries in Europe (excluding Eastern Europe) as well as the US, Canada, Australia, and New Zealand. <sup>b</sup> This category also comprises countries in rest of Oceania

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