The Transition to First Marriage and Partner Choice of Migrant and Majority Populations in Scandinavia

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Abstract
Using high-quality administrative register data, we study the marriage behavior of all migrant- and non-migrant-background individuals born between 1972 and 1989, who grew up in Sweden and Norway. Patterns of endogamy and exogamy, as well as the relative timing of union formation may be informative as to the socio-cultural distance between majority and migrant-background subpopulations. We begin by analyzing differential hazards of marriage by migrant generation and (parental) region of origin. We then demonstrate how the hazard of marriage varies by the endogamy or exogamy status of the union in a competing risk framework (multinomial logistic regression). Results will provide deeper insight into the family dynamics of migrants and their descendants, across countries with similar family formation regimes but different histories of migration. Moreover, we demonstrate the unique position of the second generation with respect to union formation behaviors relative migrants arriving as children and majority populations across these contexts.

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Extended Abstract

The populations of European countries are becoming increasingly diverse. Migrants and their descendants are an important part of the social fabric of their countries of residence. Despite this, popular and academic discourses tend to focus on simple migrant/non-migrant dichotomies. Going beyond debates about open or closed borders and approaches to immigrant integration, this study focuses on the second generation in Sweden and Norway. These individuals are born and socialized within their countries of residence and share the same institutional contexts, including educational and political institutions, and many cultural outlets, with majority populations (Huschek et al. 2010, Bernhardt et al. 2007, De Valk and Milewski 2011). 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 and Liefbroer 2007, Foner 1997, Nauck 2001). In such a way, these migrant-background individuals occupy a "sociocultural middle ground" between their countries of descent and their home countries (Holland and De Valk 2012, p. 5, Foner 1997).

To better understand family diversity in Scandinavia, we study the union formation behaviors of the second generation, relative to majority populations and those arriving in their countries of residence prior to age 16 (generation 1.5). Patterns of endogamy (marrying within one's ethnic and migrant-generation group) and exogamy (marrying outside of one's ethnic and migrant-generation group), as well as the relative timing of union formation may be informative as to the socio-cultural distance between majority and migrant-background subpopulations (Sassler and Qian 2003, Kalmijn and Van Tubergen 2010, Alba and Nee 2003, Pagnini and Morgan 1990, Kalmijn 1998). We build upon previous work to explore variation in the timing and correlates of marriage by migrant generation and (parent's) country of origin, investigating how patterns of exogamy and endogamy are associated with differential marriage timing.

This study is innovative is three key aspects. Firstly, we offer a unique approach to investigating the adaptation and assimilation of migrant-background populations, considering intermarriage and the timing of union formation simultaneously. Secondly, we focus on these particular Northern European country case studies because they represent two different immigrant flow destination types: a destination country with a very short history of (non-Nordic) migration (Norway) and a country with a longer migration history (Sweden) (Brochmann and Kjeldstadli 2008). At the same time, these two countries are on the leading edge of many aspects of family changes associated with the Second Demographic Transition (Neyer and Andersson 2008, Lesthaeghe 2010). Populations in these countries share similar patterns of family formation, including later ages of union formation, marriage and childbearing, as well as expressed trends toward individualism, secularism, and gender egalitarianism. Moreover, in each country a considerable proportion of the migrant-descent population comes from similar countries of origin. Comparisons of family formation behavior across sub-populations within similar family formation regimes are particularly useful for understanding the processes shaping family trajectories. As Neyer and Anderson (2008) have emphasized, it is important that comparative contexts have sufficiently similar institutional, economic and cultural characteristics. Such studies produce empirical findings that better identify the relationship between aspects of behavior that may be attributed to migrant background, rather than to unobserved differences between country contexts.

Finally, this research is technically innovative, linking population register data across country contexts. These high quality data are extremely unique globally. They allow for the exploration of family formation dynamics across migrant subpopulations, groups often too small to be captured in nationally representative survey data and often hard-to-reach due to social exclusion, a lack of trust, language difficulties, or residential mobility (Stoop et al. 2010, Barnes

2008). We make use of national register databases covering the entire populations of Sweden and Norway.

In this study we will focus on all first marriages occurring from 1990 to 2007, for all individuals never-married and residing in their respective countries at age 18. We distinguish subpopulations based on country of birth and number of foreign born parents: the 1.5 generation (foreign-born, migrated prior to age 16) and second generation, including both those with one and two foreign-born parents. We contrast these groups with majority-background individuals, i.e. those individuals born in their countries of residence to native-born parents. We further disaggregate generations 1.5 and 2 by region of (parents') origin: the Nordic countries; Europe (excluding Eastern Europe), North America and Oceania; EU Eastern Europe; Non-EU Eastern Europe; Asia; Africa; and South and Middle America. We are able to identify all individuals in comprising these groups who are legally registered in Sweden (N = 1,923,876) and Norway (N = 976,961).

Method

We will begin by demonstrating differences in the timing of first marriage by region of origin and generation in Sweden and Norway. The risk of first marriage is modeled in discrete time using logistic regression

$$\ln \frac{\hat{\pi}_i}{1 - \hat{\pi}_i} = \alpha_i + \boldsymbol{\beta}_i \mathbf{X}_i \tag{1}$$

where the dependent variable is the log of the odds of marriage, α is a constant and $\mathbf{X}_i$ is a vector of regression odds ratios on covariates β for individuals i. The primary duration dependence ("clock") of interest is age in months and spells consist of unmarried periods after age 18.

Individuals are censored if they experience a registered partnership with someone of the same sex, out-migrate, or die, or in December 2007 (the end of the observation period). Our key covariates identify individuals as majority (reference), 1.5, or second generation with one or two foreign-born parents, and are defined based on individual and parental foreign-born status. We standardize for a host of time-fixed and time-varying covariates (β) including: region of (parental) origin, parents' endogamy or exogamy status, birth cohort, educational attainment, school enrollment, employment status, and urban residence. All analyses are conducted separately for women and men.

We then move to a "competing-risk" framework (multinomial logistic regression) to explore the interrelations between the timing of marriage and partner choice among those of migrant- and majority-descent. This model takes the form

$$\ln \frac{\hat{\pi}_{ij}}{\hat{\pi}_{iJ}} = \alpha_{ij} + \boldsymbol{\beta}_{ij}\mathbf{X}_{ij} \qquad (2)$$

where the dependent variable is the log of the odds of categories of marriage, with j corresponding to one of five categories of marital partnerships relative to continuing to be unmarried: (1) married to a second generation person of the same origin; (2) married to a second generation person of a different origin; (3) married to a 1st generation migrant of the same origin; (4) married to a 1st generation migrant of a different origin; or (5) married to someone of majority origin. Again, the primary duration dependence ("clock") of interest is age in months, spells consist of unmarried periods after age 18, and our key covariates identify individuals as majority (reference), 1.5, or second generation with one or two foreign-born parents. We follow the same procedure for defining our analysis sample and rules for censoring discussed above, and again we account for a host of individual characteristics.

Preliminary Descriptive Results

Migrant Generation

Table 1 presents information on the shares of migrant- and non-migrant-background individuals born between 1972 and 1989, living in Sweden and Norway at age 18. Approximately 23% of the Swedish population as compared to 11% of the Norwegian population migrated to the country prior to age 16 (1.5 generation) or have at least one parent with a migration experience (second generation). This difference reflects the shorter history of migration in Norway (Brochmann and Kjeldstadli 2008). While absolute numbers are different, the relative shares of 1.5 and second generation migrants in the two countries are similar: approximately one-third of the migrant populations migrated to Sweden and Norway prior to age 16 and two-thirds have at least one migrant parent (second generation). There are notable differences, however, when we further disaggregate the second generation by number of foreign born parents. In Sweden approximately two-thirds of the second generation has one foreign born and one Swedish-born parent; this share is about 8-in-10 in Norway.

Region of (Parents') Origin

These differences in the migrant background population are related to the composition of regions of origin of migrants and their parents in the two countries (Table 2a and 2b). It is essential to recognize that migrant-background populations are extremely diverse and, while Norway and Sweden constitute similar country contexts in many respects, they have different migration histories and have, to a certain extent, different global migrant flows.

Generation 1.5

With respect to migrants who arrived as children and teenagers in Sweden, the largest sending region is Asia (42%), followed by countries in Eastern Europe that are not part of the European Union (16%) and South and Middle America (13.8%). Slightly less than 10% of these migrants arrived from other Nordic countries and from Europe (excluding Eastern Europe), North America and Oceania, respectively. Only 5.6% of generation 1.5 originated in Eastern European countries that are currently EU member states. Finally, approximately 6% of 1.5 generation migrants were born in African countries.

The distributions of these sending regions for migrants arriving prior to age 16 are quite similar in Norway, in most cases. As with Sweden, the largest share of generation 1.5 arrived from Asia (48%) and non-EU Eastern European countries (17%). South- and Middle-American-origin 1.5 generation migrants and those with origins in Europe (excluding Eastern Europe), North America and Oceania constitute a smaller share in Norway than in Sweden (South- and Middle-America: 5.8% vs. 13.8%, respectively; Europe (excluding Eastern Europe), North America and Oceania: 5.9% vs. 8.9%, respectively). But, similar shares of the 1.5 generation in Norway arrived from other Nordic countries (7.9%). Only 3.8% of this group originated in Eastern European EU member states. Finally, almost twice as many (11.7%) migrants arriving as children or teenagers in Norway (versus Sweden) originated in Africa.

Second Generation

There are notable differences between the parental origins of second generation populations within and across our country contexts, with the key delimiter being whether second generation individuals have one or two foreign-born parents. Among the second generation with one foreign-born parent, the shares of parental origin are quite similar between Sweden and Norway. Nearly three-quarters and two-thirds of these individuals living in Sweden and Norway,

respectively, had one foreign born parent that was born in either another Nordic country or Europe (excluding Eastern Europe), North America and Oceania. However, second generation individuals with two foreign born parents are quite different in the two countries. In Sweden, still fully half of the second generation with two foreign born parents have parental origins in either another Scandinavian country or in Europe (excluding Eastern Europe), North America and Oceania. In Norway, however, this group comes from largely Asian origins (68.1%), most commonly from Pakistan, Turkey, Vietnam and India (country-specific tabulations not shown). In Sweden, about 23% of the second generation with two foreign-born parents come from Asia, although this group most commonly comes from the Middle East and Turkey in Sweden (country-specific tabulations not shown).

Time to First Marriage

Tables 3a and 3b present descriptive statistics about the experience and timing of a first marriage for our analysis populations in Sweden and Norway. We present this information disaggregated by migrant generation status. Still, it is important to keep in mind that, as we have discussed above, these groups are diverse; the country of origin composition varies across migrant-background categories and across our two focal countries. We follow individuals from age 18 until marriage or censoring (per the rules discussed above). We present these descriptive statistics separately for women and men.

In both Sweden and Norway, a larger share of women than men have transitioned to a first marriage by the end of the observation period (2007); this is unsurprising since women tend to marry at younger ages than men. In Sweden (Table 3a), women that migrated prior to age 16 are the most likely to have experienced a marriage (23.8%), followed by those of the second generation with two foreign-born parents (20.5%), non-migrant Swedes (18.2%) and finally those

of the second generation with one foreign-born parent (16.2%). While fewer men over all transition to a first marriage and differences across the groups are smaller than those found among women, the pattern by migrant-background status is largely the same, although non-migrant Swedish men are slightly more likely to transition to marriage over the period than second generation men with two foreign-born parents.

Unlike in Sweden, where we can distinguish differences in each of the four migrant- and non-migrant-background groups, in Norway women's and men's marital behavior cluster into three distinct groups. Those individuals (both men and women) who arrived in Norway prior to age 16 and those of the second generation with two foreign-born parents tend to behave similarly with respect to marriage behavior; among these two populations subgroups approximately 27% of women and 18% of men transition to marriage in the observation period. Those second generation individuals with one foreign-born parent are the least likely to transition to a first marriage. Norwegian women and men without a migration background fall between these two groups with respect to first marriage behavior.

These cross-country and within-country (by migrant background status) differences are also clearly evident with respect the pace of the transition to first marriage. In addition to tabulations of mean and median transition durations included in Tables 3a and 3b, we include nonparametric maximum likelihood (Kaplan-Meier) estimates of the survival function for remaining unmarried for women and men of migrant- and non-migrant background in Sweden and Norway (Figures 1-4). For both women (Figure 1) and men (Figure 2) in Sweden, those who migrated prior to age 16 (generation 1.5) make the fastest transition to marriage, followed by those of the second generation with two foreign-born parents. In early periods of the life course, non-migrant and those second generation individuals with one foreign-born are similar in their transitions to marriage. However, later in life, differentials between the two groups emerge and

the transition of non-migrants accelerates. Interestingly, differences across migrant- and non-migrant-background groups are much more pronounced for women than men, particularly among those of the 1.5 generation and the second generation with two foreign-born parents.

In Norway, we observe much larger differences across migrant- and non-migrant-background subpopulations; still, the patterns observed for women (Figure 3) and men (Figure 4) in Norway are quite similar to those observed for women and men in Sweden. Like in Sweden, those who migrated before age 16 (1.5 generation) and those second generation individuals with two foreign-born parents make a faster transition to marriage. Unlike in the Swedish context, however, it is the two foreign-born parent second generation group that transitions the fastest in Norway. As in Sweden, those with no migration background and those of the second generation with one foreign-born parent are similar in their transitions to a first marriage early in life; however, as these subpopulations age, the pace of the transition accelerates for non-migrant-background Norwegians.

It will be important in subsequent analyses to further explore these findings within the context of a multivariate analysis (as described in the methods section above) in order to determine whether differences remain net of compositional differences between migrant groups, across Swedish and Norwegian country contexts.

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Tables

Table 1 Migrant Generation (birth cohorts 1972 - 1989)

	Sweden		Norway	
	n	%	n	%
Immigrated prior to age 16(Generation 1.5)	173,455	9.91	34,773	3.56
Second Generation				
1 parent migrant	172,709	9.87	59,840	6.13
2 parents migrants	98,708	5.64	13,700	1.40
3rd+ Generation, Majority	1,479,004	84.49	903,421	92.47
Total Analysis Sample	1,750,421	100	976,961	100
Source: Swedish and Norwegian administrative registers.				

Table 2a. Region of origin, Sweden

	Immigrated prior to age 16 (1.5 Generation)		2nd Generation				Non-migrant		Total	
			1 Parent migrant		2 parents migrants					
Sweden	0	0.00	0	0.00	0	0.00	1,479,004	100.00	1,479,004	76.88
Other Scandinavia	12,810	7.39	88,431	51.20	38,607	39.11	0	0.00	139,848	7.27
Europe (excluding Eastern Europe), North America, Oceania	15,441	8.90	43,718	25.31	12,281	12.44	0	0.00	71,440	3.71
Eastern Europe (EU)	9,768	5.63	7,930	4.59	3,561	3.61	0	0.00	21,259	1.11
Eastern Europe (non-EU)	27,738	15.99	9,089	5.26	12,612	12.78	0	0.00	49,439	2.57
Asia	73,132	42.16	11,504	6.66	22,770	23.07	0	0.00	107,406	5.58
Africa	10,628	6.13	3,761	2.18	2,837	2.87	0	0.00	17,226	0.90
South and Middle America, Other	23,938	13.80	8,276	4.79	6,040	6.12	0	0.00	38,254	1.99
Total	173,455	100	172,709	100	98,708	100	1,479,004	100.00	1,923,876	100.00
Source: Swedish administrative registers.										

Table 2b. Country of origin, Norway

	Immigrated prior to age 16 (1.5 Generation)		2nd Generation				Non-migrant		Total	
			1 Parent migrant		2 parents migrants, same origin					
Norway	0	0.00	0	0.00	0		903,421	100.00	903,421	46.96
Other Scandinavia	2,760	7.94	21,092	35.25	820	5.99	0	0.00	24,672	1.28
Europe (excluding Eastern Europe), North America, Oceania	2,047	5.89	18,678	31.21	678	4.95	0	0.00	21,403	1.11
Eastern Europe (EU)	1,329	3.82	7,776	12.99	562	4.10	0	0.00	9,667	0.50
Eastern Europe (non-EU)	5,989	17.22	808	1.35	615	4.49	0	0.00	7,412	0.39
Asia	16,576	47.67	6,330	10.58	9,333	68.12	0	0.00	32,239	1.68
Africa	4,067	11.70	2,780	4.65	1,195	8.72	0	0.00	8,042	0.42
South and Middle America, Other	2,005	5.77	2,376	3.97	497	3.63	0	0.00	4,878	0.25
Total	34,773	100	59,840	100	13,700	100	903,421	0.00	1,011,734	52.59
Source: Norwegian administrative registers.										

Table 3a. Marriage and Time to first marriage, by migrant background status, Sweden

| | Immigrated prior to age 16 (1.5 Generation) | | 2nd Generation | | | | Non-migrant | |
| | | | 1 Parent migrant | | 2 parents migrants | | | |
	n	%	n	%	n	%	n	%
Women								
First marriage observed	20,131	23.81	13,679	16.20	9,809	20.49	131,007	18.22
Time to first marriage (months)								
Mean	66.7		104.4		80.9		110.6	
SD	48.3		46.4		49.4		43.3	
25%	26		71		39		81	
50%	57		107		78		113	
75%	101		139		118		142	
N	84,546		84,413		47,881		719,210	
Men								
First marriage observed	11,573	13.02	9,379	10.62	5,942	11.69	93,810	12.35
Time to first marriage (months)								
Mean	89.2		122.3		105.4		126.0	
SD	46.7		43.5		46.7		40.0	
25%	52		93		71		99	
50%	87		125		107		128	
75%	123		155		140		155	
N	88,909		88,296		50,827		759,794	

Source: Swedish administrative registers.

Table 3b. Marriage and Time to first marriage, by migrant background status, Norway

| | Immigrated prior to age 16 (1.5 Generation) | | 2nd Generation | | | | Non-migrant | |
| | | | 1 Parent migrant | | 2 parents migrants | | | |
	n	%	n	%	n	%	n	%
Women								
First marriage observed	4,621	27.89	5,302	18.28	1,828	27.35	103,988	23.56
Time to first marriage (months)								
Mean	62.1		100.4		61.1		99.4	
SD	42.6		45.0		40.8		42.5	
25%	28		67		28		68	
50%	54		100		54		98	
75%	89		134		87		129	
N	16,570		29,000		6,684		441,310	
Men								
First marriage observed	3,392	18.63	3,798	12.32	1,259	17.94	72,969	15.79
Time to first marriage (months)								
Mean	84.5		116.0		80.1		116.4	
SD	42.5		41.9		39.4		40.8	
25%	52		86		50		87	
50%	80		116		77		117	
75%	113		147		107		146	
N	18,203		30,840		7,016		462,111	

Source: Norwegian administrative registers.

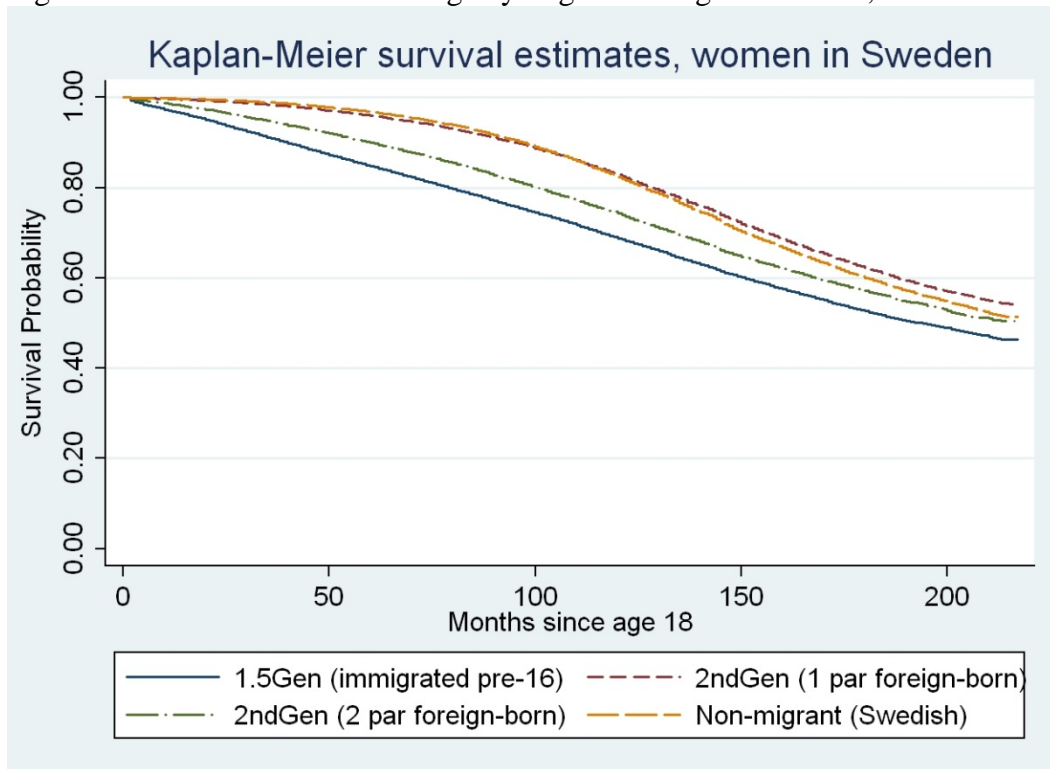Figure 1. Transition to first marriage by migrant-background status, women in Sweden

Figure 2. Transition to first marriage by migrant-background status, men in Sweden
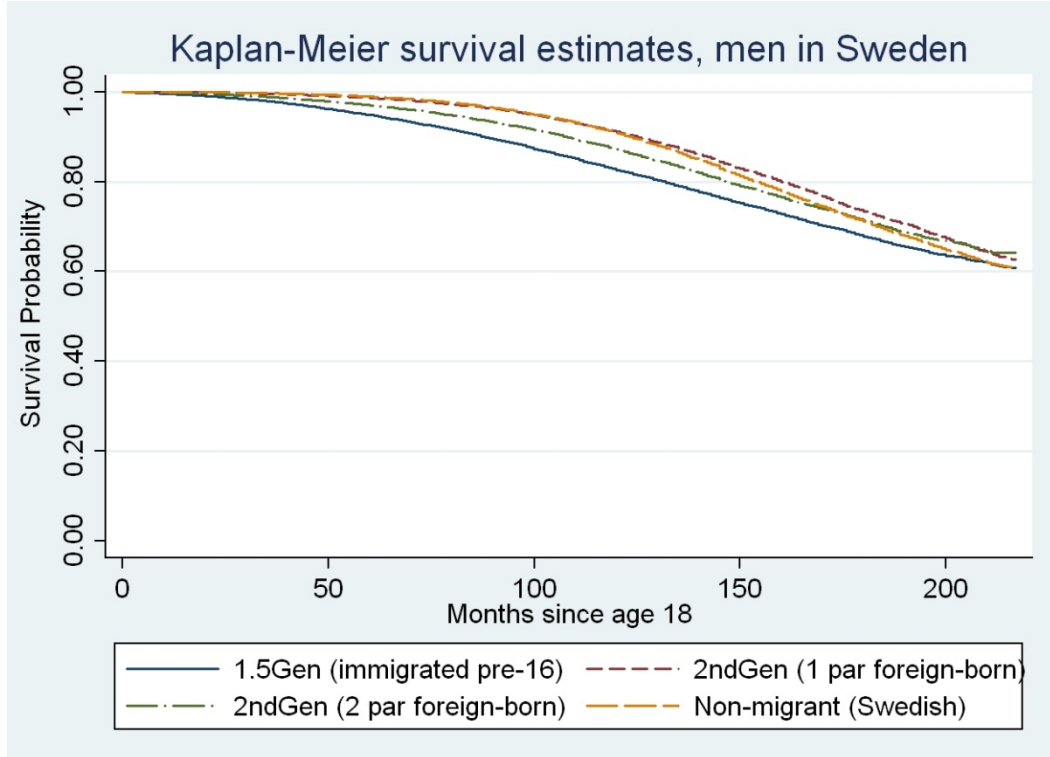
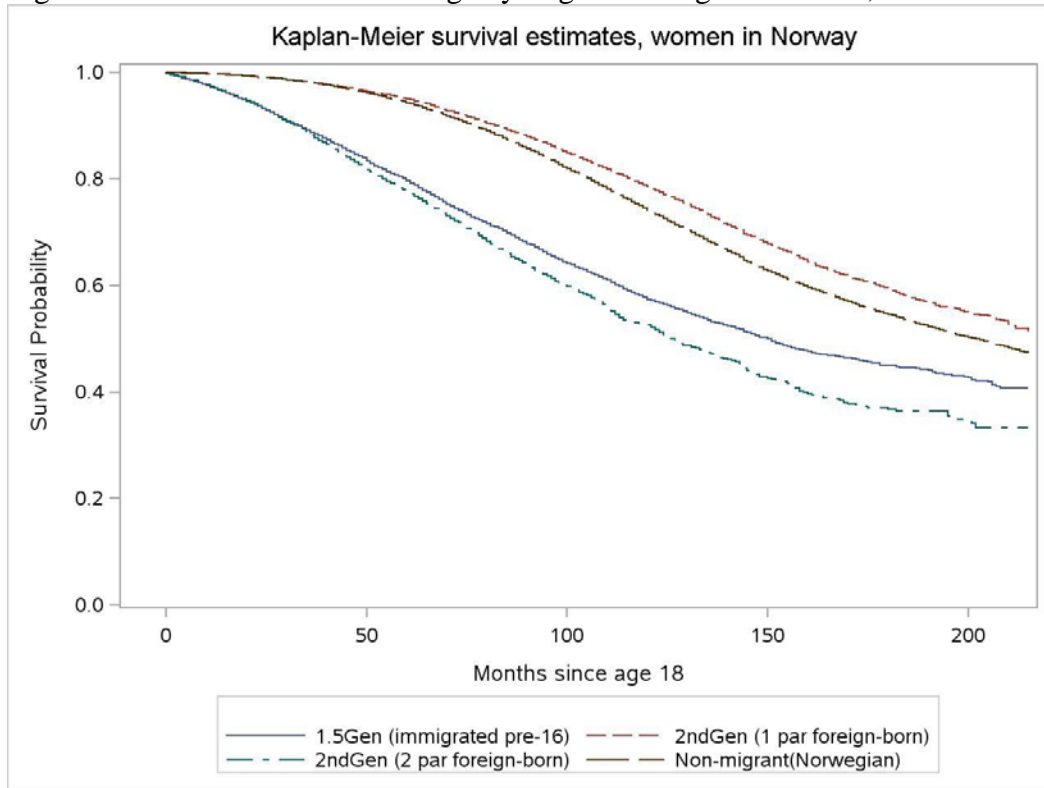Figure 3. Transition to first marriage by migrant-background status, women in Norway

Figure 4. Transition to first marriage by migrant-background status, men in Norway