

HACETTEPE UNIVERSITY
INSTITUTE OF POPULATION STUDIES

**THE UNION FORMATION AND DISSOLUTION AMONG
TURKISH IMMIGRANTS AND THEIR DESCENDANTS IN
GERMANY**

Müşerref ERDOĞAN

Department of Demography

Master's Thesis

Ankara

June 2020

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ABSTRACT

This thesis aims to find the extent to which first-generation Turkish immigrants and their descendants converge to or diverge from the partnership practices that are commonly accepted among natives in Germany. The Second Demographic Transition (SDT) guides the analysis to compare Turkish immigrants and natives, while immigrants' position will be evaluated by giving reference to integration hypotheses. This study uses the Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) survey with a reference period of 2008-2018. It employs event-history models (the Cox proportional hazard model and Kaplan-Meier survival estimates) to analyze transitions from (1) celibacy to the first partnership, (2) celibacy to the first marriage, (3) celibacy to first cohabitation, (4) cohabitation to marriage, and (5) marriage to divorce.

The results show that partnership practices linked to the SDT are not prevalent among Turkish immigrants. First and second-generation tends to marry directly and divorce less than their native counterparts. While consensual unions stay uncommon, cohabitation outcomes show that preferences regarding this partnership are not the same for descendants and their parents. While the latter keep cohabitation as short as possible and proceed to marriage, second-generation extend the duration and alternatively separate from the cohabiting partner. Unlike the first generation, second-generation significantly postpone the timing of their first marriage. Therefore, strong socialization to norms and values transformed by parents and weak adaptation to the native pattern for second-generation Turkish immigrants are found in the analysis of all four transitions except transition to first union formation.

Keywords: Turkish immigrants, Germany, second demographic transition, pairfam, event history analysis

ÖZET

Bu tez birinci ve ikinci kuşak Türk göçmenlerin Almanya’da yaygın olarak kabul edilen birliktelik kurma biçimlerine ne ölçüde yakınsadığı veya ondan farklılaştığını bulmayı amaçlamaktadır. İkinci Demografik Dönüşüm teorisi (SDT) Türk göçmenleri ve Almanları kıyaslamakta analize rehberlik ederken, göçmen kuşakların konumu entegrasyon hipotezlerine atıfta bulunularak değerlendirilecektir. Bu çalışma 2008-2018 yıllarına ait pairfam verisini kullanmıştır. Olay tarihçesi analizi yöntemleri (Cox orantısal hazard (risk) modeli ve Kaplan-Meier yöntemi) uygulanarak 1) bekarlıktan ilk birlikteliğe, 2) bekarlıktan ilk evliliğe, 3) bekarlıktan ilk evlilik dışı beraber yaşamaya, 4) beraber yaşamadan evliliğe ve 5) evlilikten boşanmaya uzanan geçişler analiz edilmiştir.

Bu çalışmanın bulguları SDT teorisinde bahsi geçen aile kurma pratiklerinin Türk göçmenler arasında yaygın olmadığını göstermektedir. Almanlara kıyasla, birinci ve ikinci kuşak göçmenler doğrudan evlenerek daha az boşanma eğilimindedir. Evlilik dışı birlikte yaşama nadir bir pratik olarak kalırken, bunu tercih eden Türk göçmenlerin sonrasında evliliği mi yoksa ayrılmayı mı seçtikleri karşılaştırıldığında, bu birlikteliğe ilişkin tercihlerin birinci ve ikinci kuşak için aynı olmadığını göstermektedir. Birinci kuşak olabildiğince kısa süreli beraber yaşama sonrası evlenirken, ikinci kuşak bu birlikteliği uzatarak alternatif olarak ayrılma yolunu da tercih etmişlerdir. İlk kuşağın aksine, ikinci kuşak ilk evliliklerini önemli ölçüde ertelemektedir. Bu nedenle, ilk birlikteliğe geçiş haricinde analiz edilen dört geçişte de ikinci nesil Türk göçmenler arasında zayıf adaptasyon ile birlikte ebeveynlerinin aktardığı değer ve normlara karşı güçlü bir sosyalleşme etkisi bulunmuştur.

Anahtar kelimeler: Türk göçmenler, Almanya, ikinci demografik dönüşüm, pairfam, olay tarihçesi analizi

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
ABSTRACT	ii
ÖZET.....	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
ABBREVIATIONS	viii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. GERMAN CONTEXT AND TURKISH IMMIGRANTS.....	4
CHAPTER 3. THEORETICAL FRAMEWORK AND LITERATURE REVIEW	9
3.1. Second Demographic Transition	9
3.2. Perspectives on the Immigrant Integration Process	13
3.3. Previous Empirical Studies	15
3.4. Summation.....	26
CHAPTER 4. DATA AND METHODOLOGY	28
4.1. Pairfam Data.....	28
4.2. Event History Analysis.....	35
CHAPTER 5. RESULTS FOR PARTNERSHIP TRANSITION	42
5.1. Transition to First Partnership.....	42
5.2. Type of First Partnership.....	49
5.3. Transition to Marriage after Cohabitation.....	60
5.4. Divorce	68
CHAPTER 6. CONCLUSION AND DISCUSSION	73
REFERENCES.....	79
ANNEX A: HAZARD RATIOS OF UNION FORMATION AND DISSOLUTION BY SEX	84
ANNEX B: MEDIAN AGE AT UNION FORMATION.....	89

LIST OF TABLES

Table 4.1. Sample Composition for the Analysis of First Union Formation, Marriage and Cohabitation; Percent Distribution of Person-Months and Events	31
Table 4.2. Sample Composition for the Analysis of Transition to Marriage after Cohabitation; Percent Distribution of Person-Months and Events	32
Table 4.3. Sample Composition for The Analysis of Ever-Married Divorce; Percent Distribution of Person-Months and Events	33
Table 5.1. Percentage Distribution of Respondents by Migration Status, Union Status and Gender	43
Table 5.2. Relative Risk of First Union Formation	48
Table 5.3. Relative Risk of the First Cohabitation	56
Table 5.4. Relative Risk of the Direct Marriage	59
Table 5.5. Percentage Distribution of Cohabitation Outcomes by Migration Status and Gender	61
Table 5.6. Relative Risk of Marriage after Cohabitation	66
Table 5.7. Percentage Distribution of Ever-Married Dissolution by Migration Status	68
Table 5.8. Relative Risk of Ever Married Divorce	72
Table A.1. Relative Risk of First Union Formation, by Sex	84
Table A.2. Relative Risk of First Cohabitation, by Sex	85
Table A.3. Relative Risk of First Marriage, by Sex	86
Table A.4. Relative Risk of Marriage after Cohabitation, by Sex	87
Table A.5. Relative Risk of Ever-married Divorce, by Sex	88
Table B.1. Median Age and Duration for Partnership Trajectories	89
Table B.2. Median Age at First Union	90

LIST OF FIGURES

Figure 4.1. Analytical sample: Number of Respondents by Union Status.....	41
Figure 5.1. Survival Estimates of Transition to the First Union	44
Figure 5.2. Survival Estimates of Transition to the First Union, by Migration Status ..	45
Figure 5.3. Survival Estimates of Transition to the First Union, by Migration Status, Men	45
Figure 5.4. Survival Estimates of Transition to the First Union, by Migration Status, Women	46
Figure 5.5. Survival Estimates of Transition to the First Union, by Type of Union.....	50
Figure 5.6. Survival Estimates of Transition to the First Cohabitation, by Migration Status	51
Figure 5.7. Survival Estimates of Transition to the First Cohabitation, by Migration Status, Men.....	51
Figure 5.8. Survival Estimates of Transition to the First Cohabitation, by Migration Status, Women	52
Figure 5.9. Survival Estimates of Transition to Direct Marriage, by Migration Status ..	52
Figure 5.10. Survival Estimates of Transition to Direct Marriage, by Migration Status, Men	53
Figure 5.11. Survival Estimates of Transition to Direct Marriage, by Migration Status, Women	53
Figure 5.12. Survival Estimates of Transition to Marriage after Cohabitation.....	62
Figure 5.13. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status	63
Figure 5.14. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status, Men.....	63
Figure 5.15. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status, Women	64
Figure 5.16. Survival Estimates of Divorce	69

Figure 5.17. Survival Estimates of Divorce by Migration Status69

ABBREVIATIONS

CAPI	Computer Assisted Personal Interview
CASI	Computer Assisted Self-Administered Interview
DFG	German Research Foundation
GGG	Generation and Gender Survey
FFS	Fertility and Family Survey
pairfam	Panel Analysis of Intimate Relationship and Family Dynamics
SDT	Second Demographic Transition
SHP	Swiss Household Panel
SOEP	German Socio-economic Panel
TDHS	Turkey Demographic and Health Survey
TFR	Total Fertility Rate

CHAPTER 1. INTRODUCTION

Since the late 1960s, the greater part of Europe has experienced ideational and structural shifts theorized as the Second Demographic Transition (SDT). This change followed a distinct course in each country in terms of pace and order, yet it can be easily tracked by looking at its reflection on partnership trajectories and other demographic trends. Delay in the timing of family formation, retreat from marriage institution, increase in divorce rate and prevalence of cohabiting partners are some of the transformations that are linked to European societies (Lesthaeghe, 2014). In parallel to this transformation, European countries have become a destination of intensive migration streams from abroad as well as within the continent. The original idea of this thesis derives from how this transformation manifests itself in family practices among the immigrant population living in Europe. Specifically, this thesis aims to analyze partnership dynamics —both formation and dissolution— among the first generation, second-generation Turkish immigrants and natives in Germany to compare the levels as well as the drivers. This study uses Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) survey with a reference period of 2008-2018. It employs event-history models (the Cox proportional hazard model and Kaplan-Meier survival estimates) to analyze transitions from (1) celibacy to the first partnership, (2) celibacy to the first marriage, (3) celibacy to the first cohabitation, and (4) cohabitation to marriage, and (5) marriage to divorce.

Germany is one of the European countries which has been hosting labor migrants, ethnic Germans and their descendants (aka second-generation) since the Second World War. While migration influxes change the social fabric of cities and neighborhoods and bring out a multicultural atmosphere, immigrants themselves produce new demographic behaviors and build up a minority culture. Especially descendants of the first-generation immigrants may find themselves in the middle of the

two diverge background, the one belonging to the host country and the other to their parents' culture. Turkish immigrants, together with their descendants, are the most populous immigrant group in Germany as well as in Europe. Their share in the population has been increasing since the labor agreement in 1961 between the Turkish Government and the Federal Republic of Germany. Today, statistics predict nearly 3 million Turkish people with migration backgrounds either by their own experience or their parents (Federal Statistical Office, 2018). As they are the most populous immigrant group in Germany, and their descendants have been entering young adulthood, it is timely to analyze the intergenerational transmission of union preferences and the position of children of first-generation compared to natives. In order to trace the direction of the transformation of family dynamics, this thesis focuses on union formation and dissolution practices of first and second-generation Turkish immigrants compared to natives in Germany. Note that, while doing this, the demographic trends related to SDT will be the guideline to assess Turkish immigrants' level of convergence. In addition to this, integration hypotheses will be utilized to interpret the findings on the position of first and second-generation compared to the native pattern.

Recently, many studies report on family dynamics among immigrants, thanks to available country-specific and cross-national data. These studies are in general belong to different immigrant origins living in Europe and U.S. While early papers focus on the timing of marriage and use descriptive tools to compare immigrant generations to natives. Currently, researchers emphasize differences on the intensity of union, type of union and to certain extent dissolution practices by using multivariate event history analysis techniques. This thesis aims to support and improve existing knowledge and extend the previous findings in the following ways. First, to the author's knowledge, this is the first study that includes both first and second-generation Turkish immigrants in a single analysis with such an extensive partnership transition framework in the German context. Second, the pairfam data provide new opportunities for analysis with detailed union histories of respondents from their first marriage, first cohabitation to the current ones and dissolution sequence. The longitudinal nature of the pairfam survey makes it

possible to follow family practices of singles each year and provide up to date information on their partnership status. This feature significantly enriches this thesis since most of the studies use cross-sectional data that does not have information on the high-order partnership of young second-generation. Last but not least, to the author's knowledge, although studies in this field use the Cox model or piece-wise constant model, this thesis is the first to discuss the proportionality assumption and to present both the average and the actual effect of time-dependent variables in the multivariate regression models. This strategy increases the accuracy and reliability of our results.

The following section outlines the demographic transition of Germany after the end of the Second World War. Likewise, some demographic indicators related to the partnership dynamics of the Turkish population living in Germany are covered. The third section discusses the concept of the Second Demographic Transition and summarizes four hypotheses addressing the immigrants' integration to the host country, namely socialization, adaptation, selection and disruption perspectives. Moreover, previous studies related to family dynamics of immigrants in Europe as well as some examples from the U.S. context and Australia, are presented. The fourth section gives the structure and scope of the pairfam data. Further, explanatory variables used in regression models are defined. There is also a detailed discussion on the idea behind event history analysis, the Cox proportional hazard model, and its assumptions. The fifth section gives the result of descriptive and multivariate analysis on the transition to union formation, cohabitation outcomes and dissolution of ever-married partnership of first-generation Turkish immigrants, their descendants and natives. Finally, overall findings and concluding remarks about the association of migration status with partnership trajectories are given by referring to the Second Demographic Transition and integration hypotheses in the sixth section.

CHAPTER 2. GERMAN CONTEXT AND TURKISH IMMIGRANTS

This section gives a summary of demographic patterns that have changed over the years and has become a characteristic of the German society. Besides, at the end of the section, there is a synopsis of living arrangements of Turkish first- and second-generation immigrants who have been living in Germany for nearly 60 years. Germany is one of the most populous European countries with a population of nearly 83 million in 2019. According to the Federal Statistical Office micro census, there are 20.8 million people who have migration backgrounds with either by their own experience or with one of their parents who immigrated to Germany (Federal Statistical Office, 2020). Immigration streams begin after the end of the Second World War and ethnic Germans, refugees, and immigrants from other European countries constitute the major immigrant groups. Apart from that, the post-war shortage in labor supply to meet rapid economic advancement in West Germany necessitated the foreign labor force. Bilateral treaties were signed to recruit workers from Italy, Spain, Portugal, Yugoslavia, Greece, Morocco, Tunisia and Turkey by 1955s. These workers were defined as ‘Gastarbeiter’ or temporary guest workers by the government. They were meant to return to their home countries after the end of their contract, yet temporary guest workers turned out to be permanent dwellers in most cases.

In fact, labor migration and bilateral agreements were not only an economic decision but also a demographic strategy of the Federal Government. Germany has been experiencing a negative rate of natural increase since the 1970s and migration streams partly balance this (Dorbritz, 2008). In 1961, Turkey sent mostly male blue-collar workers to West Germany. At the end of 12 years, the proportion of Turkish origin immigrants increased to nearly 23% among guest workers (Höhne, Linden, Seils, & Wiebel, 2014). After the oil crisis in 1973, the German government limited the arrival of new workers; however, family reunification and children of immigrants born in

Germany advanced their share in society. In 2018, 14 out of every 100 dwellers with immigration background is from Turkish origin in private households (Statistisches Bundesamt, 2020). Today, Turkish immigrants and their descendants are the biggest minority group in Germany, with nearly 3 million inhabitants (Federal Statistical Office, 2020).

Today's 'German demographic pattern' first manifests itself at the beginning of the 20th century. One of the summary indicators is the total fertility rate. Although world wars have short term boosting effects on TFR levels, 20th-century witness many periods in which TFR was below the replacement level. For instance, after the second world war, TFR reached 2.5 in 1965. Nevertheless, this effect has dissolved rapidly, and TFR has become nearly steady at the 1.5 levels, which can be defined as today's German pattern (Federal Statistical Office, 2020). The low fertility level is a natural reaction of women against the unbalance between work and family life as well as educational attainment. In the case of Germany, women are forced to choose either go through employment or live as housewives since the family policy does not support a solution to pursue a career and have a child at the same time (Dorbritz, 2008). In 2019, married or not, women have their first birth at the age of 31.3 (Federal Statistical Office, 2020). Late birth is also accompanied by childlessness trends, especially among highly educated women. Thirty-one percent of those women born between 1965 and 1969 with tertiary education are childless (Kreyenfeld & Konietzka, 2017). Therefore, the long-term low TFR and birth deficit hands down a major problem to Germany; the rapidly aging population. With the median age of 46.0 years old in 2019, Germany is the third oldest in the world after Japan and Italy (United Nations, 2020).

Speaking of the German pattern, another essential point is that as SDT suggests living arrangements have become plural. At the 'Golden age of marriage' between the 1950s and 1960s, marriage was a universal institution for partnership and formed earlier in life. During the 1970s, Germany experienced a pronounced retreat from the conjugal family formation as Europe. The connection between sex, marriage, and reproduction is

relaxed by individualization trends, advancement in women's economic position, contraception revolution and change in gender roles. According to the Federal Statistical Office, the crude marriage rate, which was 11.0 per thousand in 1950, reached its lowest level in 2007; 4.5. The proportion of never-married between 25-45 is 49.1% in 2018 among women and men (Statistisches Bundesamt, 2020). While marriage loses its prevalence among all age groups, it is also postponed to farther ages in the life course. In 1960, the mean age at first marriage was slightly below 24 among women. After 1980, the mean age at first marriage steadily increased and reached 31 in 2018 (Federal Statistical Office, 2020). This trend is partly because forming marriage is no longer the dominant way of achieving women's financial stability, and their bargaining power over partner choice and future career lead them to delay marriage formation (Köppen, 2011). The same effect reveals itself in the stability of conjugal families. The improvement of women's economic position reduces the benefits coming from marriage and the cost of dissolution to women (Kalmijn, 2007). In 1965, total divorce rate was around 12% and reached its peak in 2004, with 42 of every 100 marriages on average resulting in divorce. According to the Federal Statistical Office, in 2017, on average, 33 of every 100 married couples divorce after 15 years of duration.

These sharp changes in the living arrangements have been accompanied by the spread of cohabitation. Although it is not an entirely new form of partnership in Germany, the prevalence of consensual unions, especially at the early ages, became apparent in the late 20th and 21st centuries. According to the Family and Fertility Survey (FFS), 16% of women aged 20-24 and 9% of women aged 25-29 were cohabiting in 1996 in West Germany (Kiernan, 2002). A relatively recent report on the household structure of Europe found that 83% of German women in their twenties were cohabiting in 2007. This proportion decreased to 48.3% among women in a union between 30 to 40 years old (EUROSTAT, 2010). However, in the German pattern, it is not an alternative long-term union type to marriage but rather a stage in the marriage process. The median duration of cohabitation is short and the percentage ending in marriage is significantly high, especially in the existence of children, couples formalize their unions as marriage

(Heuveline & Timberlake, 2004). According to the result from the Fertility and Family Survey (FFS), 46% of cohabiting couples formed between 1986 and 1992 proceeded to marriage within five years, whereas 29% of them separate in West Germany (Sobotka & Touleman, 2008). Additionally, the share of extra-marital live births has been increasing from 7.6% in 1960 to 33% in 2018 in Germany (Federal Statistical Office, 2020). Considering these trends, it is safe to say that cohabitation makes its place in partnership formation and pre-traditional family arrangements.

In contrast, Turkish immigrants in Germany have different characteristics in terms of fertility, forming partnership and dissolution. Marriage and first birth occur earlier in life than that of Germans; Turkish women between ages 18-79 in Generation and Gender Survey (GGS) sample have their first birth at age 22.4 and the median age at first marriage is 21.0 (Valdés Cifuentes, Wagner, & Naderi, 2013). Another study finds that first generation Turkish immigrants have their first children at age 22.7, whereas average age at first birth is around 27 years old among descendants (Constant, Nottmeyer, & Zimmerman, 2012). As opposed to their native counterparts, Turkish immigrants only get pregnant within the institution of marriage (Valdés Cifuentes et al., 2013). Childlessness is not preferred among Turkish immigrant women as much as among German women. According to data from the 2012 micro census, childlessness among first-generation Turkish immigrant women aged between 35-49 was 5.6%, whereas 27.8% of German women chose not to have children (Naderi, 2015).

Another noteworthy demographic behavior differentiating native and Turkish immigrants is the type of union. Cohabitation is a relatively rare phenomenon among both older and younger cohorts among immigrants. Only 22 percent of Turkish immigrants between the ages of 18-29 cohabited at least once in their lives in 2005 while the share of pre, post, or non-marital cohabitation drops to 14% among males and females aged 45-59 (Naderi, 2008). Even among descendants, the conjugal family is the first and dominant choice; the TIES sample shows that 4 out of 5 children of Turkish immigrants in Germany prefer to marry rather than cohabit. Regardless of the type of

union, half of the descendants form their first union by the age of 25.5 (Hamel, Huschek, Milewski, & De Valk, 2012). This scenario partly complies with the current situation in Turkey where marriage is the most widespread family formation. However, when it comes to the timing, despite an upward trend, Turkish women still proceed to marriage in their early twenties that half of the women between 25-49 ages marry at age 21,4 according to 2018 TDHS (Hacettepe University Institute of Population Studies, 2018). Unlike German endogamous conjugal families, Turkish immigrant marriages are found to be more stable (Milewski & Kulu, 2014). Related to this, as many studies suggest, both first and second-generation Turkish immigrants marry either another immigrant from Turkey or a Turkish descendant and that appears to be a factor providing a more consistent relationship (Constant et al., 2012; Hamel et al., 2012; Naderi, 2015).

CHAPTER 3. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

In this section, the theoretical frame of this thesis and previous empirical studies on partnership trajectories of immigrants are given. First, a brief discussion on the foundations and assumptions of the Second Demographic Transition Theory gives an idea of why the research question of this thesis is relevant and on time to be analyzed. Then, four commonly referred hypotheses related to the integration of immigrants in the literature are illustrated. These perspectives may both contrast and complement each other at some point in an attempt to explain the position of immigrants and intergenerational transformation of values and norms. However, in most cases, empirical studies in the field, address these four perspectives in explaining differentials of immigrants. Finally, an extensive literature review aims to show what has been done and what kind of methodological tools are employed in early and current studies. Next, the contribution and strengths of this thesis on literature, as well as how it differs from the existing ones are covered.

3.1. Second Demographic Transition

The Second Demographic Transition (SDT) is formulated as guidance to understand the transformation of living arrangements that is beyond the nature of the First Demographic Transition Theory (FDT). SDT is a salient explanatory tool for this study. Historically, the demographic experiences of German natives in union formation and dissolution constitute a proper example within its theoretical framework. On top of that, the starting point of the thesis is to answer how separately Turkish first- and second-generation immigrants respond against or integrate into patterns of host country and the determinants of these processes, thus having a general idea of SDT is essential.

SDT intends to describe the fertility decline and variations in family formations in the Western world after the 1970s and onwards. The argument is built on

understanding the transformation of these demographic behaviors with a new lifestyle, post-materialism and Maslowian higher-order needs. SDT first manifests itself as a distinct demographic process around the 1950s in the USA and some Northern European countries with the increase in divorce. This trend spreads to other European countries in tandem with different matrimonial practices and fertility trends and has come until today. What makes this theory relevant to the current generation is that theory recapitulates three critical situations that one can easily refer to today. The first is that people start to invest their journey to improve and realize themselves in the life course so that the meaning of being a parent or having children accord with this self-fulfillment movement. Second, the more welfare increases, the more people are prone to achieve non-material aspirations in their lives, such as autonomy on body and freedom of speech. Parenthood, for instance, becomes a conscious and planned step in life rather than a duty towards society (Aries, 1980). People make individualistic decisions feeding self-actualization, and defining a place in society.

A more demographic idea behind the theory is its opposition against the assumption formulated by Easterlin Hypothesis. That is, Easterlin envisages a fertility loop or cyclical fertility between small and large cohorts. His theory posits that small cohorts come across better opportunity structures in the job market, leading them to form marriage in the early ages and higher fertility. However, a large cohort experience exactly opposite financial welfare and prefer to procreate less. This loop assumes a sustainable and stationary population. However, SDT specifies long term fertility levels under replacement, which is defined roughly 2.1 children per woman (Lesthaeghe, 2014). Since Europe has been experiencing fertility under replacement levels for decades, this theory offers a useful framework.

Theoretically formulated by Lesthaeghe and van de Kaa in 1986, SDT challenges some anticipated assumptions of the First Demographic Transition (FDT) by giving reference to the European experience. One of the major contradictions of Lesthaeghe and van de Kaa is that they oppose the idea of stationary population and sustained replacement fertility level as a general tendency and ultimate end for world

societies. Instead, they argue that society has been changing so that new trends in partnership trajectories, household structures, and gender roles correspond to the demands of the new ideational change. As mentioned before, these transformations modify the perception of fertility towards more individualistic needs. Pill revolution after the 1960s and successive control over fertility are some of the key elements which make the second demographic transition a distinct phase. In other words, women partly become liberated from their traditional child-focus and caregiver roles because of sexual and gender revolutions provided by contraception and socio-economic structure of the time. As well as strong ties between marriage, sex and procreation are relaxed. The other critic of FDT is its approach against migration. Since FDT expects a stationary population balanced by the low fluctuation of births and deaths, immigration is not a required mechanism to support a stable population size. On the other hand, SDT sees the idea of replacement migration as significant but not a long-lasting substitute for the declining population since immigrant groups have been getting older and adopting demographic behavior throughout the integration process to the host country (Lesthaeghe, 2014).

In brief, the demographic patterns referring to SDT can be summarized as follows; First, the level of fertility declines and is postponed to later stages in life by virtue of pill revolution and change in the perceptions of 'family.' Maybe the foremost is the erosion of marriage and its dominant place in family arrangements. This change does not mean that the 'value' of the family is ignored, but now alternatives are available and acceptable. The first relationships do not necessarily coincide with marriage anymore. While the marriage institution loses its commonality, it is also delayed to farther ages. As mentioned, women become partly disentangled from traditional boundaries such as typical 'leave home, marry and become parent' sequence.

This liberation is a consequence of miscellaneous transformation both in structural and moral levels. Women advance their economic position, spend more time on education, and extend control over decisions on their body and life career. In this process, especially for younger cohorts, cohabitation has become an affordable

alternative to direct marriage. Either as a long-run relationship or a kind of trial to proceed marriage, consensual unions have become a highly preferred option. Cohabitation here is not only a stage to find a proper match between partners but also a family-like constitution in which couples raise children. Therefore, extra-marital births are on the rise in most of the European countries. Another important aspect is the weakening relationships. The reduction of benefits from a married union, especially for women (i.e., financial benefit), causes an increase in divorce (Kalmijn, 2007). Thereby, post-marital arrangements such as re-marriage and also cohabitation after divorce soar. However, not only marriages but also cohabiting unions are fragile; in fact, the latter is more unstable (Sobotka & Touleman, 2008). In addition to these new trends, people are becoming more in favor of childlessness, single parenthood, or singlehood.

What Lesthaeghe and van de Kaa define as the SDT has been taking place at different pace and time in the European context. While Europe has been experiencing significant transformation in family dynamics, there are migration streams inside and outside. In many respects, migration is a life-changing decision for both movers and partly for host countries. The new social norms and values, job sector, education system, language and institutional context pave the way for different integration processes. The first comers and their children have their response to the living arrangements and the shape of sexuality. First-generation immigrants may choose to avoid 'native' type and maintain a traditional pattern from the origin. Nevertheless, the generations born and raised in the host country become a significant group to address the extent of convergence and how they respond to the practices of their parents and natives. While understanding this procedure, there are plenty of theoretical perspectives explaining the essentials of the process. In the literature of fertility behavior and partner choice of immigrants, mixed marriages and closeness of fertility practices among immigrants and natives are identified with the ideal integration of newcomers. However, immigrants' partnership trajectories get less attention due to the lack of relevant data on immigrant populations. As a result of new data opportunities, partnership dynamics have been

studied and these theoretical perspectives are applied as explanatory devices for differences in demographic behaviors.

3.2. Perspectives on the Immigrant Integration Process

This section provides a summary of the main arguments of some of the theoretical hypotheses related to the integration of immigrants. Strictly speaking, socialization, adaptation, selection and disruption hypothesis are the most relevant and well-known approaches. These perspectives are intensively applied to immigrant intermarriage and fertility behaviors. Thus the partnership trajectory of immigrant populations is a relatively new field to give reference to the hypotheses mentioned above. However, they are found to be useful tools to interpret the family dynamics of immigrants (Hannemann & Kulu, 2015).

The first hypothesis, the socialization, argues that a persons' preferences in the life course are a product of values and norms which is prevalent in where one has grown up (Kulu & Milewski, 2007). Therefore, this hypothesis assumes that union trajectories of immigrants are similar to those living in the origin country if their childhood takes place in the sending country. It also posits that experience in origin country shapes the life choices of immigrants in the long run and does not show resemblance to natives in the destination. Especially if the differences regarding family dynamics in origin and host countries are big, immigrants will persist on traditional patterns that they have in the origin. As a result, the possibility of convergence among natives and immigrants is seen relevant for future generations rather than first comers.

On the contrary, the adaptation hypothesis predicts that immigrants conform to the demographic, social and economic behavior of natives (Hervitz, 1985). This approach argues that the effect of mainstream culture is more dominant than childhood experience. Although this is not sudden transformation, gradually they are going to find and define a place in existing social structure and way of living. Accordingly, they grow accustomed to the choices of mainstream society regardless of where they come.

The third hypothesis is selectivity, which suggests that migration is a selective phenomenon in itself, that is, immigrants are already a selected group having life preferences different from sending country (Hannemann & Kulu, 2015). Their nuptiality preferences, then, are proximate to the native population before moving. This selectivity may originate from the social, cultural and economic capital of a person. One of the important points here is whether to interpret the resemblance to natives as adaptation or selectivity of immigrants before they move to host country. In order to find compelling answer to this situation, there needs to be comparable information on partnership preferences at origin and destination.

Finally, assuming that migration has some psychological, economic and social cost to immigrants, disruption hypothesis envisions that preferences of immigrants might be different from in the origin after they move to destination (Adserà & Ferrer, 2014). That is, the structure of the marriage market of the receiving country and the available opportunities may not accord with the one that immigrants familiar with, or the lack of co-ethnic partners may result in deviation from partnership practices performed in origin. They may delay the timing of partnership or accelerate the decision to divorce. Again here, for instance, this is hard to decide whether the reason for this disruption is due to migration itself or immigrants are selected group which has distinct preferences than non-migrants in origin. Therefore, this is true to say that some of these hypotheses may explain immigrant family trajectories without contradicting each other.

Migration and demographic behaviors of migrants are well documented in the U.S. and European context of international migration, especially how fertility practices of immigrants changed and how intermarriage is experienced over generations in host countries. All these four hypotheses find some evidence in empirical research on the family dynamics of immigrants. Besides, there are also other studies concerning family dynamics and dissolution patterns of immigrants, which are not relying on any of these hypotheses.

3.3. Previous Empirical Studies

One of the earliest studies on the effect of migration on the timing of union formation is about immigrants in Australia. Carlson (1985) analyses the relationship between marriage and migration phenomenon as well as the fertility behavior of immigrants. The author uses Melbourne Family Formation Survey, which is conducted in 1971 with married women. Since this paper compares the mean age at marriage and birth interval among native-born and immigrant groups, it is instead a descriptive study. The author suggests that migration has a temporary effect on both the timing of marriages and births. Those respondents who migrated single, delay marriage compared to already married ones before migrating to Australia. Nevertheless, this effect is weak among younger generations, providing evidence to the author that disruption caused by migration is short term.

Another study on the union transition analyzes Puerto Rican women aged between 15-29 in U.S. Landale (1994) works on how migration affects the transition to the first union, cohabitation and marriage separately. The author questions whether the selectivity of the migration is relevant in the case of Puerto Rican women. She incorporates two data sources; one from the origin, Puerto Rico Fertility and Family Planning Assessment and other from host country New York Fertility, Employment and Migration Survey. Thereby, the author compares four groups of Puerto Rican women; non-migrant, first-generation, second-generation and return migrants. Both data sets provide detailed event history of union formation, migration and possible explanatory variables. Demographic, socio-economic characteristics of women, as well as family background, are controlled in the analysis to understand the mechanism behind differences among migrant groups and the effect of exposure to the U.S. context. The author concludes that first-generation Puerto Rican immigrant women to the U.S. follow a more conservative pattern; they tend to form unions early and have a higher rate of both cohabitation and marriage than non-migrant women. Second-generation immigrants also have a higher rate of union, but this is not as precise as first-generation Puerto Rican

women. Return migrants, on the other hand, are less likely to cohabit than non-migrants. The author highlights that when there is simply a comparison of immigrant generations in host country and natives, there might be some misleading results such as assuming immigrants pursue practices that they bring from the origin. She found that migration from Puerto Rico to the U.S. is a selective process and those migrating single women have characteristics that increase the rate of forming union such as lower years of schooling, mother's young age at first birth and existence of sexual intercourse. This study is essential in literature since it is one of the early studies that use complex methodology and event history data. Multivariate event history analysis and author's approach to comparing practices at origin and immigrants at the host country are truly seminal. However, natives are neglected in the analysis so that there is no reference to capture the position of natives.

A similar approach is applied to Cuban immigrant women in the U.S (Arias, 2001). The focus of the study is testing the relationship between socio-economic assimilation and cultural assimilation. In both descriptive statistics and logistic regression model on the probability of being single among respondents living in Cuba, Cuban immigrants and natives are compared. The author uses Public-Use Microdata Samples of 1970, 1980 and 1990, and finds that the socio-economic gap between immigrants and natives weakens by each next cohort; thus, immigrants mirror the practices prevalent in the U.S. That is, the likelihood of marriage declines and age at union increases among immigrants and natives. Whereas the Cuban nuptiality pattern in origin shows the opposite, increasing divorce rate, cohabitation, and decline in age at the union formation. Thus, structural assimilation seems to ease cultural assimilation in the U.S. for Cuban immigrants. As a matter of fact, the question of assimilation/adaptation is investigated over Hispanic communities in America. Studies are, in general, complementing each other in their findings. By each succeeding generation, immigrants opt for dominant patterns, although the level of convergence differs according to the origin. Other studies supporting the adaptation hypothesis can be found in the studies of Brown et al., (2008) and Landale et al., (2010).

Europe is another destination of international migration around the world, offers many research opportunities both in terms of the range of origin and available data sets prepared for specifically immigrants. Integration of European Second Generation Survey (TIES) is research aiming the descendant of immigrants across Europe. This study focuses on second-generation immigrants of Turkish, ex-Yugoslavian and Moroccan origins in the Netherlands, Sweden, Spain, France, Germany, Austria, Belgium and Switzerland. Helga de Valk (2008) uses TIES to study the descendants in the context of the Netherlands. She looks at union formation, partner choice, family influence on marriage, childbearing behavior and household division of labor among Turkish and Moroccan immigrants. Comparing proportion forming union, mean age at cohabitation and marriage, the author finds that the second generation of Turkish and Moroccan immigrants tend to marry rather than cohabit. However, Turkish descendants follow a more traditional path in terms of timing of the first union than Moroccan immigrants. That is, mean age at first union and mean age difference among partners is lower for Turkish respondents than Moroccans. Thus, Moroccans seem to be in the midst of Turkish immigrants and Dutch natives. This finding is supported in the previous study of de Valk and Liefbroer (2007). The research focuses on the attitudes and preferences of Turkish and Moroccan adolescents compared to Dutch youth. According to results from the Dutch National Secondary School Pupil Survey, Turkish adolescents have stronger preferences for marriage than Moroccans and natives (H. A. G. De Valk & Liefbroer, 2007).

Thanks to TIES data, family formation behaviors of the second-generation Turkish immigrants are analyzed from different perspectives. One of the best examples of this can be seen in the work of Huschek, Liefbroer and de Valk (2010). They focus on the influence of parents, peers and institutional context on the timing of the first union of Turkish descendants in Europe by using event-history analysis. They classify a quality set of explanatory variables under three headings; i) parental human capital, family size and parent grew up in Anatolia for determining parental effect ii) proportion of natives and non-coethnic friendship in secondary school for peer effect, and iii) the existence of

multicultural or integrative policies for contextual effect. Besides, they control the results for age, cohort, level of education and sex. The results suggest that second-generation youth with parents having modern background delay entry into the first union. Yet, the role of the parent on the timing of first union formation lost its effect when the education level of the respondent included in the model. Secondly, Turkish immigrants' children having non-coethnic peers will tend to build co-residential union late since they made-up personal contact with available partnership practices of native populations. Having said that, they open up their result and find that ethnic composition of school has a delaying effect if second-generation Turkish immigrants are kind of homogeneously distributed rather than constituting minority or majority. Finally, at the macro level, multicultural policies provide the possibility to set up early partnerships among Turkish immigrants. The cross-national comparison shows that availability and access to the welfare state for both female and male descendants in the Netherlands, Belgium, Sweden and Austria provide an earlier setting for marriage or cohabitation than those of Germany, Switzerland and France. This study is the first to highlight the association of parents and peers in partnership formation. However, only the Turkish second generation is compared amongst themselves in the various national context; therefore, the position of natives seems to lack.

The following research somehow meets this requirement, that is, Hamel et al. (2012) both compare second-generation immigrants and natives amongst themselves. Thus, this suggests that the context of natives is not homogenous; they already have distinct preferences on family formation as well as various structural and institutional context feeding this process. To mention the most remarkable points of this study, in terms of timing of the first union, Turkish descendants show nearly similar behavior as second-generation natives, respectively, in Austria, Sweden, Germany, Switzerland and France. However, the median age at union alters a lot depends on the country. For instance, in the Swedish case, the welfare state system provides the same opportunity structure and financial support in housing for both immigrants and natives, thus, Turkish immigrants get a chance to follow early union formation practices of Swedish people

or traditional Turkish way of marrying early. On the other hand, in Germany, union formation is related to having access to a paid job, thus both natives and Turkish second-generation postpone partnership formation to later ages. When it comes to a union type, however, marriage is preferred over consensual union among Turkish descendants, although cases are proving that direct marriage loses its importance in some countries like Switzerland and Sweden. Nevertheless, still, attachment to marriage practices as the first choice assumes that perception of virginity is still an important social norm passed down by parents. Further, they argue that rules and regulations on a residence permit and citizenship acquisition may play a significant role in immigrants' preferences of type of union since marriage provides comprehensive legal rights over cohabitation.

Milewski and Hamel (2010) examine descendants of Turkish immigrants in France. They focus on partnership formation and partner choice by using data from TIES in 2007. Different from other studies, both quantitative and qualitative analyses are applied to comprehend matrimonial practices among second-generation Turkish immigrants. Data from TIES, including both men and women, are analyzed by using piece-wise constant event history model and Kaplan-Meier survival estimates. While comparing descendants of Turkish immigrants and French young adults, they look at the timing of first union and type of the union. Covariates of the model are the place of residence, education, birth cohort, religiosity during childhood and number of siblings. According to the study, Turkish women enter into the first union earlier than French counterparts, whereas second-generation Turkish men and French men have similar patterns. Secondly, direct marriage seems like a norm among Turkish descents specifically for women. In fact, differences among second-generation and natives are found to be related to educational level rather than cultural heritage. To answer the diversity of results, Milewski and Hamel refer to gender roles, sexuality and relation to the French environment. That is, Turkish descendants are prone to maintain Turkish patterns since attachment to virginity and commitment to their origins are still dominant.

Another study using TIES data compare Turkish second generation in Germany and second-generation Mexican immigrant in the U.S. to their native counterparts. Soehl and Yahirun (2011) investigate how the timing of first union formation is related to partner choice. Apart from TIES and they include the survey of Immigration and Intergenerational Mobility in Metropolitan Los Angeles in their analysis. The main variables of the study are age at first marriage and partner choice, while gender, education, religiosity and family background are independent variables. Natives and Mexican immigrants choose to marry at similar ages; Germans and Turkish descendants have a time gap affecting the marriage market. Briefly, they conclude that the timing of the first union influence the possibility of endogamous and exogamous marriage. For instance, since second-generation Turkish immigrants marry earlier than their German counterparts, in the marriage market, there is a small group of Turkish descendants to marry German natives. They also explain this gap by referring to the prevalent cohabitation trend among German natives. However, for the case of the U.S. marriage market, since Mexican descendants and natives have similar age patterns in forming the partnership, the likelihood of intermarriage is higher than in Germany.

There is plenty of recent research that can include both first and second-generation immigrants from different origins in their analysis since both the descendants are in proper age to study union formation and sample sizes of the country-specific surveys can capture children of immigrants. The first one instead focuses on the integration of immigrants in Germany in a broader sense. They look at many integration indicators such as fertility, education, religion, language proficiency, political interest and self-identification with Germany. Marital behavior of first and second-generation immigrants is one of them to measure the level of integration. Constant et al. (2012) work on the first marriage probability by using the German Socio-Economic Panel (SOEP) between 2005-2007. In their multivariate logit regression model, they control for cohort and years of schooling. Results suggest that regardless of gender, while first-generation have a higher probability of marriage, these practices weaken among the second generation.

The study of Guarin and Bernardi (2014) is another example of giving coverage to immigrants and their descendants in Switzerland. They apply the Cox Proportional Hazard model on the Swiss Household Panel (SHP), a longitudinal data, conducted between 1999-2011. They also use Kaplan-Meier survival estimates to visualize timing differentials and prevalence of first union formation. There are plenty of immigrant origins in Switzerland, thus the authors decide to define four groups; immigrants from Southern Europe, Western Europe, Former Yugoslavia/Turkey and other small subgroups. Results are in line with previous studies, first-generation immigrants have a higher risk of forming union than natives. Surprisingly, however, when the type of union is considered the position of first-generation persists. Former Yugoslavian and Turkish first generation have a significantly higher risk of cohabiting and direct marriage than natives and their descendants. This finding is almost conflict with the whole literature reviewed here since cohabitation is found to be rare among Turkish immigrants in many of empirical research. This might be related to combining two different origins in one group or selectivity issue related to migration, which is not controlled in this study. In addition to this, up to now most of the research shows that second-generation is between first-generation and natives in terms of intensity of union formation. However, in the case of Switzerland, the authors find that descendants are slower than their native counterparts in forming the partnership, regardless of the type of union. They suggest that descendants are able to socialize into partnership trajectories of natives since they are exposed to cultures and union practices from an early age.

Hannemann and Kulu (2015) investigate the union trajectories of immigrants and their descendants in the U.K. by using the Understanding Society study and event-history analysis. Dividing the immigrant population as Europeans, South Asians, Caribbeans and Others, they only include the female population of the first wave of the Understanding Society study, which is between 2009 and 2010. Their model works on the risk of union formation by using the birth cohort, the origin of immigrants and educational level as explanatory variables. For the dissolution dynamics, they make additional analysis to show how the risk of this phenomenon is related to the type of

union, age at first/second partnership and union duration. There are briefly three stages in their research: They first compare partnership formations and dissolution of different immigrant groups and their second-generations for both their first and second unions. Secondly, they focus on the variety among descendants of different ethnic groups. Third, a comparison between these immigrants and natives is employed. As a result, they find essential differences in union formation and dissolution among immigrants. In the first place, the direct marriage practice of older native cohorts is replaced with premarital cohabitation among younger ones. In addition to this, the dissolution rate of unions accelerates towards younger cohorts. Speaking on variations according to immigrant origins, especially, cohabitation is a dominant practice among women from the Caribbean and Europe. On the contrary, South Asian women choose to marry directly. The dissolution phenomenon is more prevalent among the Caribbean than British women, and South Asian women have lower divorce risk. As they argue, partnership trajectories of the Caribbean and South Asian women show opposite directions, while European immigrants resemble the native population, thus socialization hypothesis seems relevant among the first generation. For the union trajectories of immigrant descendants, they conclude that the second generation maintains the patterns of their parents while there are small deviations and approximation towards British natives, suggest that the second generation is under the influence of both mainstream and family culture. The authors conclude that the differences among first-generation, their descendants and natives are not due to the level of education but ethnic background and culture.

In another study which is comparing Indian, Pakistani, Bangladeshi, Chinese, Black African and Caribbean immigrants in the U.K. suggest a slightly different picture for second-generation immigrants. They use the Labor Force Survey between 2000-2008 to get estimates of the probability of partnership among women aged 18-40. As most of the research permits, first-generation Asian communities are more likely to be married whereas among the U.K. born second-generation the probability of marriage is less than white natives except Pakistani descendants (Manning & Georgiadis, 2012).

Another research on partnership dynamics across immigrants that contrast both first and second generation in France is conducted by Ariane Pailhé (2015). She analyzes how social trajectories lead union formation by referring to socialization and assimilation hypothesis. Methodologically piece-wise constant exponential models are employed to Trajectories and Origins Survey. In her model, there are three dependent variables; timing of first union, type of first union and transition from cohabitation to marriage. The results are controlled for age, birth cohort, education level, employment status, the religion of respondents and socio-economic status of the father. In general, she finds that descendants form their first union later in their life. In addition to this, there is strong evidence that descendants have lower direct marriage and increasing cohabitation trends, although it profoundly differs according to the social, cultural and economic background of immigrants. For instance, while Turkish males and females tend to maintain the traditional marriage pattern, descendants of Southeast Asian show high convergence with the French pattern. This proves that even there is an adaptation process, convergence takes a long time since prevalent behavior in origin still reflects to children of first-generation. An interesting finding of this study is that first-generation Turkish immigrants have the highest risk of converting cohabitation into marriage but women descendants have the lowest risk of marrying as opposed to natives and other first and second-generation immigrants. The author assumes that female Turkish descendants do not see cohabitation as a short-term partnership but rather an alternative to marriage. While explaining the variety among immigrant groups, the author suggests that religiosity and socio-economic status of parents have a more dominant effect on partnership practices of the second generation than educational attainment of the immigrant, which demonstrates that the socialization into parent's values and norms are still powerful besides structural ones in the French context. For further analysis of the author in the French context, another published study which is using the same data but another event history technique can be examined (Pailhé, 2014).

Similarly, Andersson, Obućina and Scott (2015) study the nuptiality patterns of immigrants and their children as an indicator of integration into Swedish society. They

comment on Swedish registration data by using both Kaplan-Meier survivor functions and multivariate event-history analyses. They work on family formation patterns by using the risks of marriage, dissolution and re-partnering among immigrants as dependent variables. Due to available data, they divide immigrants into 20 groups and found a significant difference among this diverse grouping. In their models, they control for age, education, and residence type (living in metropolitan or non-metropolitan). Additionally, the duration of marriage and origin of the spouse is included in the analysis of divorce. The re-marriage pattern shows differences according to time spent after divorce. They conclude that immigrants from Southern Europe have a lower risk of marriage, divorce and re-marriage whereas Asian, African, Arabian and Iranian immigrants have high risks of these three events although they differ in some points. They explain the convergence and divergence through the devastating nature of the migration process, family systems in countries of origin and selectivity of migration. For instance, high divorce rates among some immigrant origins are related to the stressful nature of migration and new rules in the marriage market. This disruption affects union formation is twofold; while Turkish, Arab, African and Yugoslavian immigrants have elevated risk after migration, some other countries has a low rate of marriage after migration. They also argue that family systems in sending countries (i.e. Southern Europe) may be similar or opposite (i.e. African, Arabian, Asian and Iranian) to the Swedish context, therefore the adaptation process should be treated carefully. The selective nature of migration is also responsible for differentials in patterns they investigate, that is, although countries having a similar background (i.e. Turkey and Iran) may be expected to socialize at similar levels, in fact, they act substantially differently. The authors suggest, for instance, that residential background (i.e. Iranians coming from urban areas and Turkish immigrants from the rural part of the country) is responsible for the high intensity of marriage among Turkish immigrants.

Rahnu, Sakkeus, Puur and Klesment (2015) publishes an article on partnership transition among immigrants coming from the East part of Europe in Estonia. They analyze both GGS and FFS in their paper by using proportional hazard models.

Educational attainment, birth cohort, union status before/after arrival and activity status (student, employed and not employed) are the main independent variables of the study. They also add parity pregnancy status (childless, pregnant, mother/father) of respondents to capture whether it affects union formation and dissolution. They mainly ask whether immigrants groups coming from Russia admit new family dynamics in the second demographic transition, which is prevalent in Estonia. What they mean here is the high acceptance and long duration of cohabitation and postponement of marriage. They find that migrants do not practice this new type of union formation as much as natives. Immigrants and natives differ in terms of how they form their first union and in which direction they end the cohabitation, separation or marriage. That is, immigrants tend to marry first and are less likely to cohabit in more extended periods like people in the host country. However, dissolution patterns seem to resemble each other for immigrants and natives. For the intergenerational transmission of partnership patterns, they conclude that although the second generation has been slightly accepting new family dynamics, they have been following a more conservative path and maintaining behaviors of the first generation. In other words, there is still strong socialization into parental norms and values among descendants.

González-Ferrer, Hannemann and Castro-Martin (2016) have a paper on union trajectories in the Spanish context. They compare partnership formation and dissolution among immigrants and natives in Spain by using discrete-time logistic regression. Fertility and Values Survey conducted in 2006 is utilized as a data source. In their model for first union formation age, cohort, education, and immigrant-origin are independent variables. For the first dissolution, however, union duration is added to the analysis. Again, the immigrant population is divided as migrants coming from Eastern Europe, Latin America, EU15 countries and others. The paper aims to understand union transition by referring to the timing and incidence of the event. While doing this, they do not look at the transition among descendants since their share in immigrants is very small and few have already formed their first union. Instead, in another study, they use the Chances 2011 survey asking future preferences of the adolescent in forming a

partnership. They conclude that the preferences of immigrant youth are largely shaped by the norms and values of their parents. However, although socialization seems dominant, these preferences are relaxed among second-generation adolescents as opposed to youth born in origin (1.5 generation) (González-Ferrer, Seiz, Castro-Martín, & Martín-García, 2014). Generally speaking, their results show that immigrants' risk of forming the first union specifically cohabitation is higher than natives. However, immigrants do not tend to marry directly since the disruptive effect of the new marriage market make them postpone marriage practices. Therefore, for instance, Eastern European women, instead choose to cohabit, even though sending countries' rates of cohabitation is not higher than Spain. On the contrary, immigrant women coming from EU-15 countries already have a higher incidence of cohabitation than Spain, thus, their behavior seems to be related to socialization into dominant norms and values in origin. Union dissolution in the case of the first union among immigrants is again higher than natives especially for Latin American and EU-15 countries.

3.4. Summation

Overall the findings of the empirical research point out that with limited divergence, second-generation immigrants are in between their parents and natives. They prefer to postpone partnership formation, especially marriage as an institution starts to lose its dominance among the children of the immigrants. When it comes to cohabitation, one should note that origin plays an important role since there are communities where cohabitation is highly prevalent and acceptable. Results also suggest that even though the country of origin matters, the context of the host country pave the way for various integration processes for that same immigrant origin. Another point is that a single integration hypothesis is not enough to understand the position of immigrants and their descendants. Socialization, adaptation, disruption, or selectivity of migration may explain current patterns simultaneously. Methodologically, early studies use logistic regression and/or rather descriptive tools such as mean age at marriage to compare immigrants and natives. By means of available data and detailed rhetoric

history of events, recent papers prefer to employ event history analysis and its techniques. Thereby, they are able to visualize the timing and order of events.

As seen in the literature review, there are limited studies on Turkish immigrants in the German context. This thesis will contribute to the literature in many ways. First of all, this thesis does not merely analyze partnership formation and type of union, but also marriage after cohabitation and divorce practices of immigrants. To this extent, this study seems first to include both first and second-generation Turkish immigrants and analyze multiple transitions in Germany. In the first place, the transition to the first union is compared regardless of the type of partnership. Second, the effect of type of union is discussed, whether the research population has different preferences in the transition to first marriage or first cohabitation. Third, the intensity of marriage after cohabitation among natives and Turkish immigrants is analyzed. Finally, divorce practices of natives, first and second-generation Turkish immigrants are compared.

Second, pairfam is a specific data series to study intimate relationships and family dynamics from their first to higher-order unions. Not only marriage histories but also cohabitation practices of respondents are gathered separately. Since pairfam is a panel data, it provides following family practices of single young generations each year and gives up to date information on their status.

Methodologically, event history analysis levels up existing literature on immigrant generations in Germany. To the author's knowledge, although studies in this field use the Cox model or piece-wise constant model, this thesis is the first to discuss the proportionality assumption. In the case of this assumption does not fit, results should be interpreted as the average effect (for a detailed discussion, see methodology section). Additionally, statistically fixing methods should be employed and its regression results should be presented as well. Thus, this thesis provides both the average hazard ratios and the effect of non-proportional variables in the results. In this way, the accuracy and reliability of the standard model are checked.

CHAPTER 4. DATA AND METHODOLOGY

4.1. Pairfam Data

The data used in this study is the “Panel Analysis of Intimate Relationships and Family Dynamics” or also known as the German Family Panel (pairfam), release 10.0 which is funded by the German Research Foundation (DFG) as long-term project (Brüderl, Drobnič, et al., 2019). It is initiated in 2008 and coordinated by Josef Brüderl, Sonja Drobnič, Karsten Hank, Bernhard Nauck, Franz J. Neyer, and Sabine Walper. The last release (10.0) covers ten waves of pairfam study including the survey conducted in 2018. Note that this thesis uses the first ten waves of pairfam in order to follow partnership practices of singles as well as high-order unions. The principal question in pairfam is to understand patterns of coupling and basic family trajectories in Germany. Having a holistic approach, pairfam does not only aim the respondent but also current partner, parents and children of the respondent since investigating various arrangements of union and family formation necessitates multi-actor analysis.

Within this framework, the data can be summed up under five headings; partnership, parenthood, child development, intergenerational relationships and social embeddedness. While chasing intimate relationships between couples, pairfam both asks current and past union formation lasting at least six months starting with age 13. The quality/stability of union, decision-making mechanisms, the autonomy of respondents on and expectation from the current relationship are deeply questioned throughout pairfam. They focus on how two sides of the coin, parents or potential parents, approach to expanding family, parenting goals and division of labor regarding childbearing. They also provide knowledge on how and in which direction parents’ preferences of union formation, partnership and parenting reflect on offspring or may shape their familial relationships. Finally, some sections highlight the effect of social-network and context on familial processes. For the very reason, pairfam offers a wide range of multi-

disciplinary research opportunities to investigate social, psychological, demographic and economic determinants of union trajectories.

There are four groups in pairfam; the anchor, which is the respondent him/herself, current partner, parents and child above age eight if available. Since this thesis only uses anchor data and a set of data generated through variables in anchor data, the information given below embodies the structure of it. The anchor data consist of three birth cohorts namely those born between 1991-93, 1981-83 and 1971-73. The logic behind this selection is that they would be able to realize the decision-making mechanisms of the youngest who are about to start their first partnership, the middle cohort which is already meant to experience their first union and the oldest one which is expected to form separation and high-order unions (Huinink et al., 2011). The sampling procedure is as follows; first, municipalities of Germany are selected by stratified random sampling. Then, within 343 municipalities over Germany, 350 sample points are determined. By using local population registers and considering the size of the target population, 74,969 addresses are asked from these municipalities. After cleaning procedures, addresses are selected by systematic random sampling within this provided address pool. For the first wave, 42,074 private households are checked, however, only 33,620 addresses are found to be valid. Within this net sample, only 12,402 interviews are completed, the rest is either those who cannot be contacted/ not eligible, or those who do not accept interview although they are eligible. Therefore, the response rate in total is around %29.5. Each birth cohort consists of a nearly equal number of respondents, which is 4,338 for the youngest, 4,010 for the middle and 4,054 for the oldest one (Brüderl, Schmiedeberg, et al., 2019). Each wave collects information on intimate relationships, fertility, intergenerational relationships, parenting and demographic information as a core module. There are also regular and irregular extra modules added wave by wave. Anchors are interviewed with both Computer Assisted Personal Interview (CAPI) and Computer Assisted Self-Administered Interview (CASI).

Before coming to how data are prepared for this research, the low response rate may bring the question of bias to mind. However, the quality of pairfam partnership section is compared to the German Family Survey, which is regarded as a high-quality data set. The results show that the proportion of women and men in a partnership in pairfam data nicely overlap with the trend gathered by the Family Survey (for further details see Brüderl, Schmiedeberg, et al., 2019).

As mentioned above, 12,402 respondents in the first wave of pairfam are those people speaking German and living in a private household in Germany. The anchor data consist of people born in the Federal Republic of Germany (West), German Democratic Republic (East), Turkey, Russian Federation, other European countries, Kazakhstan, Asia and North America. For this thesis, only those respondents born in the Federal Republic of Germany and those have Turkish background are used. After removing all other origins from data, the research population reaches 7,565 in total. Six thousand nine hundred fifty of the population form the first analysis group in this research, namely natives, which is defined as those respondents themselves born in West Germany and do not have a migration background. Three hundred seventy respondents are classified as Turkish descendants who are born in Germany but at least one of their parents born in Turkey. The remaining 245 anchors are first-generation Turkish immigrants born in Turkey and have a migration background. Among natives, two respondents are dropped since their gender information is missing. In addition to this, first-generation Turkish immigrants decreased to 244 in total due to missing information on the year of first union formation. Additionally, there are 8 missing values for the educational attainment of respondents in total.

The following tables present exposure times, events and their percent distribution by migration status and covariates for the analysis of partnership transitions. The first table, 4.1, shows these figures for both the formation of the first union and for separate analyses for marriage and cohabitation. Tables 4.2 and 4.3, respectively, give exposure time and occurrences of cohabitation outcomes and divorce events.

Table 4.1. Sample Composition for the Analysis of First Union Formation, Marriage and Cohabitation; Percent Distribution of Person-Months and Events

First Union	Person-months		Both Union Types		Marriage		Cohabitation	
	N	%	N	%	N	%	N	%
Migration Status								
Native	721656	94	4186	92	280	55	3905	97
1st generation	21593	3	200	4	146	28	54	1
2nd Generation	27795	4	154	3	87	17	67	2
Sex								
Male	421335	55	2033	45	209	41	1824	45
Female	349709	45	2507	55	304	59	2203	55
Birth Cohort								
1991-1993	170271	22	716	16	23	4	693	17
1981-1983	268766	35	1608	35	143	28	1465	36
1971-1973	332007	43	2216	49	347	68	1869	46
Education of Respondent								
Primary or No Education	50903	7	332	7	98	19	224	6
Lower Secondary	435514	56	2130	47	257	50	1873	47
Upper Secondary	202067	26	1210	27	81	16	1129	28
Tertiary	81844	11	876	19	77	15	799	20
Missing	716	0.1	8	0.2	0	0	0	0
Pregnancy								
Not Pregnant	767773	100	4347	96	461	90	3886	96
Pregnant	3271	0.4	193	4	52	10	141	4
Parity								
No Children	753960	98	4299	95	477	93	3822	95
1+	17084	2	241	5	36	7	205	5
Total	771044	100	4540	100	513	100	4027	100
Risk Population			7524		7524		7524	

Table 4.2. Sample Composition for the Analysis of Transition to Marriage after Cohabitation; Percent Distribution of Person-Months and Events

First Cohabitation End	Person-months		Marriage	
	N	%	N	%
Migration Status				
Native	150928	98	1841	96
1st generation	1410	1	41	2
2nd Generation	1909	1	37	2
Sex				
Male	67945	44	843	44
Female	86302	56	1079	56
Birth Cohort				
1991-1993	15903	10	53	3
1981-1983	56453	37	626	33
1971-1973	81891	53	1240	65
Education of Respondent				
Primary or No Education	7964	5	99	5
Lower Secondary	69191	45	937	49
Upper Secondary	38407	25	370	19
Tertiary	38660	25	513	27
Missing	25	0	0	0
Pregnancy				
Not Pregnant	148726	96	1542	80
Pregnant	5659	4	377	20
Parity				
No Children	128335	83	1475	77
1+	19276	12	444	23
Age at First Cohabitation				
13-18	21877	14	154	8
19-22	57958	38	652	34
23-26	44093	29	624	33
27-30	20543	13	327	17
31+	9912	6	162	8
Total	154247	100	1919	100
Risk Population			3994	

Table 4.3. Sample Composition for The Analysis of Ever-Married Divorce; Percent Distribution of Person-Months and Events

Ever Married Dissolution	Person-months		Divorce	
	N	%	N	%
Migration Status				
Native	249597	85	321	90
1st generation	28383	10	24	7
2nd Generation	14174	5	12	3
Sex				
Male	116012	40	130	36
Female	176142	60	227	64
Birth Cohort				
1991-1993	1427	0.5	6	2
1981-1983	55068	19	63	18
1971-1973	235659	81	288	81
Education of Respondent				
Primary or No Education	25672	9	41	11
Lower Secondary	150644	52	203	57
Upper Secondary	48277	17	57	16
Tertiary	67561	23	56	16
Missing	0	0	0	0
Pregnancy				
Not Pregnant	270491	93	338	95
Pregnant	21663	7	19	5
Parity				
No Children	64611	22	96	27
1+	227543	78	261	73
Age at Marriage				
15-18	32609	11	73	20
19-22	109343	37	141	39
23-26	94385	32	82	23
27-30	41234	14	46	13
31+	14583	5	15	4
Type of First Union				
Cohabitation	219340	75	265	74
Direct Marriage	72814	25	92	26
Total	292154	100	357	100
Risk Population			2429	

All variables in the analysis are computed from "anchor" data and event-history data called 'bio part' which generated the century-month code of partnership formation/dissolution dates. Having both times constant and varying, there are eight variables in total.

Migration Status; migration status of the respondent is a time constant categorical variable with three groups; 'natives' born in West Germany which have no migration history, 'first-generation Turkish immigrants' which themselves were born in Turkey and 'second-generation Turkish immigrants' that were born in Germany but at least one of their parents was born in Turkey. Natives are the reference category in multivariate analysis.

Sex of the respondent; this variable is used to analyze any different patterns related to gender in formation and the separation of partnership. This is a time constant variable having two levels; 'male' (reference category) and 'female'.

Birth Cohort; there are three categories; those born between 1971-1973, 1981-1983 and 1991-1993. This variable is constant over time and is aimed to reflect the variation of demographic behaviors across birth cohorts since they have completely different social, economic and demographic reality.

Education of respondents; this is a time-varying variable that focuses on the highest level of education completed. It is produced by using years of schooling and operationalized by giving reference to the 1997 International Standard Classification of Education (ISCED-97). There is an assumption that education starts with the age of 6 and continue without any break. The first level refers to completed six years of schooling and categorized as 'no or primary education.' While computing this reference category, those graduating from primary school and no education at all are combined since only 8 cases are getting no education before the event of interest occurs. 'Lower secondary,' 'upper secondary' and 'tertiary' are other levels analyzed to investigate the reflection of education on timing and prevalence of event. Each level, respectively, refers to completed 10, 13 and 16 or more years of schooling.

Parity; this variable is operationalized as time-varying and computed by using birth history data called ‘bio child’ by pairfam. All biological births belong to either respondent or partner of the respondent are considered. It has three categories; childless (reference category), and 1+ having 1 or more children. The logic behind this division is that there is a limited number of cases that are having more than two children before forming or separating from any union (see Table 1, 2 and 3).

Pregnancy; The pregnancy is a time-varying variable that is adjusted as 7 months before the date of birth of the children and refers to two categories; not pregnant (reference category) and pregnant.

Age at union formation; this is a categorical variable grouped under five levels among those forming a partnership with the age of 15. Age at union can take following values; 15-18, 19-22, 23-26, 27-30, 31+. Those respondents form their union between age 19-22 is taken as the reference category. For the transition to marriage after cohabitation, this variable refers to the age at first cohabitation. For the divorce model, age at union formation refers to the age at first union regardless of type of partnership.

Type of union; type of union is included in the divorce of ever-married couples to shed light on whether the type of first partnership explains the divorce pattern of respondents. Direct marriage and pre-marital cohabitation (reference category) are two levels which are defined for this variable.

4.2. Event History Analysis

Event history analysis is a statistical method to investigate a change from one state to another. It has plenty of names in different disciplines such as risk analysis, survival analysis, duration analysis, transition-rate analysis or time to event analysis, etc. It focuses on an event (e.g. union formation/dissolution) and requires a well-structured individual record of the date of the event in the order that they occurred with the same unit of time. For each *transition* (e.g. the transition from celibacy to first union formation), each observation has an origin time, which is defined as the *outset of the risk*

and *duration* until *fail* (e.g. forming partnership) occurs. Within this *duration* (*the risk period*), event history analysis concerns the rate of the nonoccurrence of that specific event until it occurs (Vermunt, 2007). There are plenty of models with different assumptions and content that one can use with event history data. Univariate and multivariate models both describe data and explain how patterns in the data relate to possible causes.

Event history models have two main features over other regression methods, the first one is how it deals with those observations which do not fail (i.e. do not experience the event), and second how it includes time-varying covariates during the risk period. That is, in a data set, there are some respondents who may not experience the event of interest. This occurs either because observation is lost to follow-up, withdrawn from the study, or the study ends before respondent experience fails (Kleinbaum & Klein, 2012). Rather than excluding these observations from analysis, it incorporates not failed cases by *censoring* to retain valuable information and not cause bias over, for instance, respondents in young and old cohorts who form union early.

Time-varying variables are those covariates, which are not constant over time and may have different values during the observation period. Therefore, taking this value as a constant prevent analysis to understand how the timing of a specific transition relates to a change in the value of that covariate. Episode-splitting is a way of dealing with these kinds of variables. By dividing the risk period into episodes so that covariate become constant within each spell, provide a better interpretation of the relationship between the event and the time-varying variable.

There are some statistical terms that are used in the event history analysis. The first one is T defined as the duration of nonoccurrence until an event occurs or failure time and is supposed to be a non-negative random variable. There is plenty of function dealing with the distribution of T s in event history analysis and in fact each can be expressed in terms of each other. However, the survivor function $S(t)$ and hazard function $h(t)$ are two statistical terms used most frequently in the event history analysis

since they are easy to interpret. The latter one is focusing on the rate of failure and the former one specifies the probability of surviving (non-occurrence of the fail event) (Kleinbaum & Klein, 2012).

The survivor function, $S(t)$, the probability of surviving before failure event occurs by time t is denoted as:

$$S(t) = \Pr(T > t). \quad (4.1)$$

Here, t describes the time point of the event. It has decreasing nature; the probability of non-occurrence is equal to 1 at the outset of risk since at $t = 0$ there is no one in the data set experiences the fail event, and as time progresses it is approaching zero. The survivor function describes the experience of observations in the data and uncovers the pattern of timing. This provides nonparametric and univariate estimates of duration times including censored observations.

Kaplan-Meier is the estimate of survivor function and formalized as follows (Cleves, Gutierrez, Gould, & Marchenko, 2010):

$$\hat{S}(t) = \prod_{j|t_j \leq t} \left(1 - \frac{d_j}{n_j}\right). \quad (4.2)$$

Let be $0 < t_1 < t_2 < \dots < t_k$ the ordered time points at which failure occurs, n_j is the number of cases at risk and d_j the number of events at time point t_j . Those censored cases that do not experience the event at t_j do not count as fail (d_j), but are included in the risk set at t_j and removed from the risk set on the proceeding fail time t_{j+1} . In this way, censored cases are also incorporated in the Kaplan-Meier analysis. As mentioned before, this is one of the descriptive tools in event history analysis providing patterns of timing (i.e. median duration of the event) and prevalence of the event based on individual experience. However, to get possible determinants of these patterns with explanatory variables, more complex models are needed.

The hazard function $h(t)$, which is defining the instantaneous risk of experiencing an event at t given that the event did not occur before t is formalized as follows:

$$h(t) = \lim_{\Delta t \rightarrow 0} \frac{\Pr(t + \Delta t > T > t | T > t)}{\Delta t}, \quad (4.3)$$

where $\Pr(t + \Delta t > T > t | T > t)$ is the probability of fail occurs in a period given that it did not occur before t , and Δt is the width of that period. The hazard rate is zero on the outset of risk period, and over time it goes to infinity. Unlike the survivor function, it does not have to be decreasing in nature, but follow any direction within the condition that it is a non-negative function and equal to or greater than zero. Most of the event history models employ hazard function with different assumptions about the time dependence or baseline hazard. Among plenty of statistical models, the Cox proportional hazard model is the one commonly used in event history analysis. It is a semiparametric model and provides various computational advantages which are mentioned in the preceding paragraph.

The model can be formalized with multiple covariates as follows:

$$h(t|x_1, x_2, \dots, x_k) = h_0(t) \exp(x_1\beta_1 + x_2\beta_2 + \dots + x_k\beta_k). \quad (4.4)$$

Here $h_0(t)$ is the baseline function and β is the hazard ratio or the effect associated with covariate x . Thus, a multivariate event history model focuses on the relationship between T (duration of survival) and potential explanatory variable x . The hazard ratio of 1 refers that there is no effect associated with specific variable x and in the result section all reference categories get a hazard ratio of 1. On the other hand, if the hazard ratio is more than 1 it is interpreted as more risk than the reference category and the opposite is valid for hazard ratio less than 1. The baseline hazard of an event can take any shape over time such as increase, decrease, stay constant or behave differently within intervals. The Cox model makes no assumption about the form of the hazard, but this unspecified $h_0(t)$ is counted as same for everyone. This is an advantage of this model since if the form of hazard is wrong, the estimate of β might be misleading in parametric models (Cleves et al., 2010). This model is robust and safe since with a

minimum of assumptions, one can get the closely approximate result of parametric models by using the Cox proportional hazard model (Kleinbaum & Klein, 2012).

Besides the aforementioned assumptions of the Cox model, the proportionality assumption that suggests constant hazard ratio over time is highly critical to use model properly and get accurate results. There are some post estimations to check the assumption of proportionality of covariates in the Cox model. In this thesis, a test based on Schoenfeld residuals is used for checking whether there is an interaction between time and effect of covariates since the graphical approaches are rather ambiguous. That is researcher is left to evaluate the position of lines in the graph, however, checking the extent of parallelism or closeness of lines may be subjective. Schoenfeld test in Stata software, on the other hand, gives objective results for individual covariates and overall model (global test). The regression tables give results of the global test for standard and stratified models. In case of these results are statistically significant, the model violates the proportional hazard assumption. Here, the concept of time-dependency should not be intermingled with the time-varying covariates. The latter means that the value of variable change over time (e.g. the level of education or pregnancy/parity), but the former one refers to the change in the effect of the covariate (value of β s) over time. In the existence of covariates violating proportional assumption or time-dependency, stratified or extended Cox model gives more accurate estimates. As an analysis strategy, the results from both the standard Cox model and stratified or extended Cox model are presented in the result section. For the very reason, the first one can be approached as an “average effect” (Allison, 2010).

Stratified Cox model has the assumption that when the model stratified according to non-proportional variables, hazard ratios are the same for each stratum defined by the combination of covariates, while baseline hazard for each stratum is allowed to be different.

The model can be formalized as follows (Kleinbaum & Klein, 2012);

$$h_z(t|x_1, x_2, \dots, x_k) = h_{0z}(t) \exp(x_1\beta_1 + x_2\beta_2 = \dots + x_k\beta_k) \quad (4.5)$$

where z is one of the strata, $h_{0z}(t)$ is the baseline hazard for that strata and x is covariate included in the model. To make it clear, let sex and cohort be non-proportional. Sex is defined as two categories, whereas the birth cohort has three categories. When the normal Cox model stratified for these two covariates, six strata are generated. While the standard Cox model baseline hazard is the same for each individual in the data, the stratified Cox model allows $h_{0z}(t)$ to differ between six strata. When interpreting the effect of coefficients, the same strategy in the standard Cox model is applied. In this model, the output does not give coefficients for stratified covariates.

The extended Cox model, on the other hand, keeps each variable in the model by multiplying non-proportional covariates by some function of time. Let x_1, x_2, \dots, x_{p1} be time-independent and x_1, x_2, \dots, x_{p2} be time-dependent variables and $h_0(t)$ is the baseline hazard.

The extended Cox model is formalized as follows;

$$h(t|x(t)) = h_0(t)\exp(\sum_{i=1}^{p1} x_i\beta_i + \sum_{j=1}^{p2} x_j(t)\delta_j) \quad (4.6)$$

where β is the hazard ratio for time-independent and δ is the hazard ratio for time-dependent covariates. The interpretation of output in the extended model includes both β and δ . In the main effect section, the hazard ratio gives the effect of covariate at $t = 0$. Estimates of the interaction section give how the effect at $t = 0$ change over time.

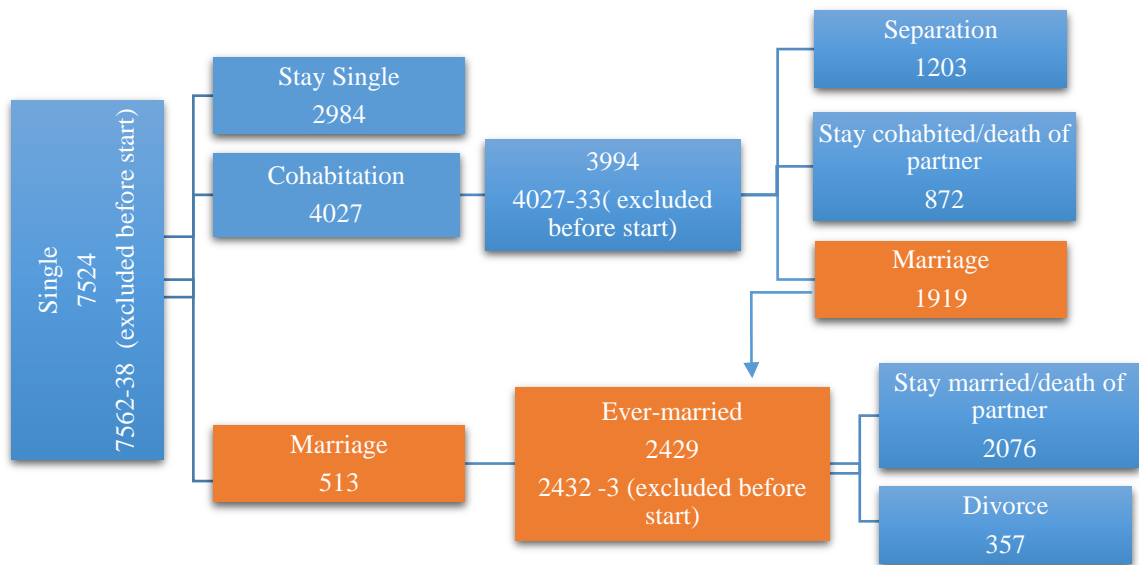
In this thesis, both stratified and extended Cox models are presented when there are variables violating proportionality assumptions. Computing stratified model in Stata software allows the limited number of variables for stratification, thus when needed, extended Cox model is preferred.

Within this framework this thesis employs Kaplan-Meier survival estimates and Cox proportional hazard model to study 1) the transition from celibacy to the first union, 2) the celibacy to direct marriage, 3) the celibacy to cohabitation, 4) dissolution of cohabited unions through marriage and 5) divorce of ever-married couples.

Figure 4.1 below shows the number of respondents analyzed in each transition. Excluded cases are those respondents who have their first union before age 15 in the

transition to the first partnership formation. The other excluded observations in the transition to marriage after cohabitation and divorce are those cases that event occurs at the same time at the beginning of the risk period. Without regarding the type of partnership, all unions are defined as co-residential unions lasting at least six months. The risk period starts with the age of 15 for the first and second transitions. Censoring is applied at the last interview date to those respondents that do not form a union. The date of cohabitation and marriage (ever-married respondents) are respectively outset of risk period for third and last transition models. Censored cases are those who do not experience any dissolution at the last interview they participated in or the date of the death of a partner.

Figure 4.1. Analytical sample: Number of Respondents by Union Status



CHAPTER 5. RESULTS FOR PARTNERSHIP TRANSITION

5.1. Transition to First Partnership

Timing and type of first partnerships are profoundly correlated with a variety of economic, social and demographic factors that an individual was born into. While this is easy for natives naturally or rather in its flow to form, recreate and reflect a certain pattern, this turns to be a rather complex phenomenon for immigrants since they are both exposed to culture and structure of origin and host country. Especially, descendants are more familiar with the preferences that are prevalent in the host country and prone to adopt these behaviors to the point that circumstances allow an integration process, such as through education or job sector. And this section presents univariate (Kaplan-Meier survival curves) and multivariate analysis (Cox proportional hazard models) to investigate the position of first and second-generation Turkish immigrants compared to natives. The analysis will be based on respondents' entry into the first partnership, regardless of the type of union. Respondents are at risk at the beginning of age 15 and followed until they form the first union or until censoring occurs at the last interview they participated without forming a partnership. In general, comparing immigrant generations and natives show that there are compelling differences among them.

In the first place, Kaplan-Meier curves give a first insight into the timing of union and prevalence of the event. The horizontal straight line at passing through the 0.5 points indicates median age or duration for transitions (for the exact numbers see Annex B). The multivariate analysis, on the other hand, including the main variable and list of explanatory covariates, provides the net effect of migration on entering into the first partnership. As an analysis strategy, univariate results are presented for the whole research population, male and female respondents separately. The multivariate results in the main text are reported without giving such a distinction, but separate analysis can be found in Annex A.

Before going into detail, it should be noted that the second generation is the youngest group and the proportion of never partnered is high (see Table 5.1). As expected, this proportion is the lowest among first-generation Turkish immigrants since they are older, as well as more, tend to form a union in an earlier fashion. That is, by the age of 21.7, half of the first-generation find their first co-residential partner (see Annex B).

Table 5.1. Percentage Distribution of Respondents by Migration Status, Union Status and Gender

Migration status	Union status				
	Single	Cohabitation	Marriage	Total	Number
Native	39.7	56.3	4.0	100.00	6948
1st Generation	16.4	22.1	61.5	100.00	244
2nd Generation	58.1	18.4	23.5	100.00	370
Total	39.8	53.3	6.8	100.00	7562

MEN					
Migration status	Union status				
	Single	Cohabitation	Marriage	Total	Number
Native	46.2	50.8	3.0	100.00	3474
1st Generation	17.4	24.0	58.7	100.00	121
2nd Generation	61.2	19.1	19.7	100.00	173
Total	46.0	48.5	5.6	100.00	3768

WOMEN					
Migration status	Union status				
	Single	Cohabitation	Marriage	Total	Number
Native	33.1	61.8	5.1	100.00	3
1st Generation	15.5	20.3	64.2	100.00	123
2nd Generation	55.3	17.8	26.9	100.00	197
Total	33.7	58.2	8.1	100.00	3794

Below, Kaplan-Meier survival estimates gives median age by migration status and gender. At the age of 25, half of the respondents have formed their first partnership

in pairfam data (see Annex B). Earlier union formation is more evident among the first generation than both descendants and natives. On the other hand, the survival curves of natives and 2nd generation are overlapped in a way that the timing of partnership is almost the same, median age at first union is respectively 25.3 and 24.5 (see Annex B). This pattern persists across the three groups when the analysis is divided as female and male (see Figure 5.3 and Figure 5.4). In line with previous studies, women tend to form any type of union earlier than men in transition to the first union. The gender gap is 3.25 years in the whole research population. By migration status, this gap is around 3.0 years in natives and first-generation, while this number increases to 4.0 years among descendants.

Figure 5.1. Survival Estimates of Transition to the First Union

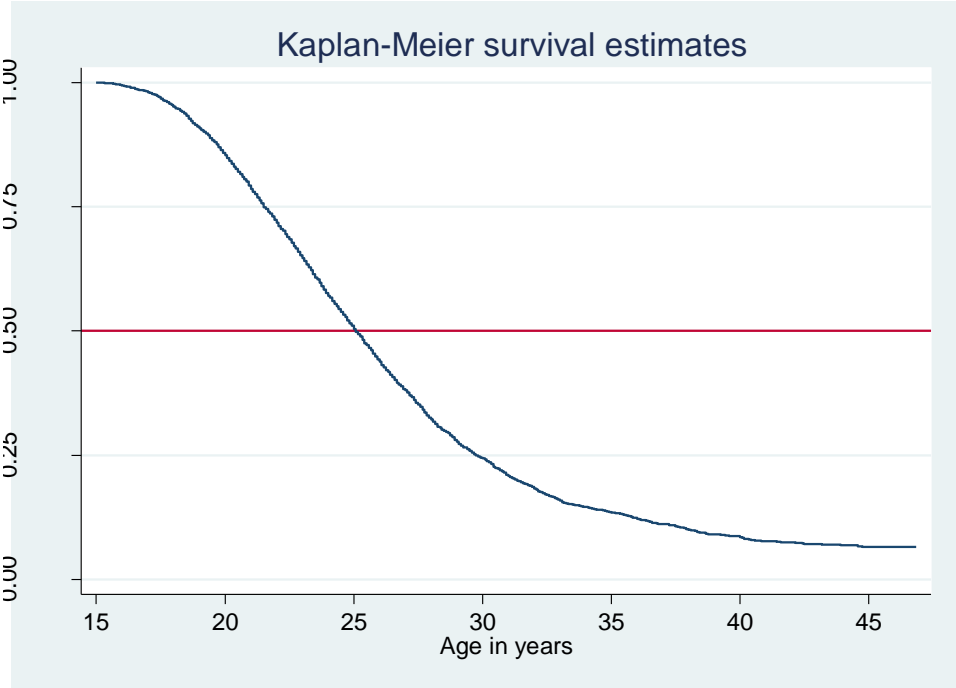


Figure 5.2. Survival Estimates of Transition to the First Union, by Migration Status

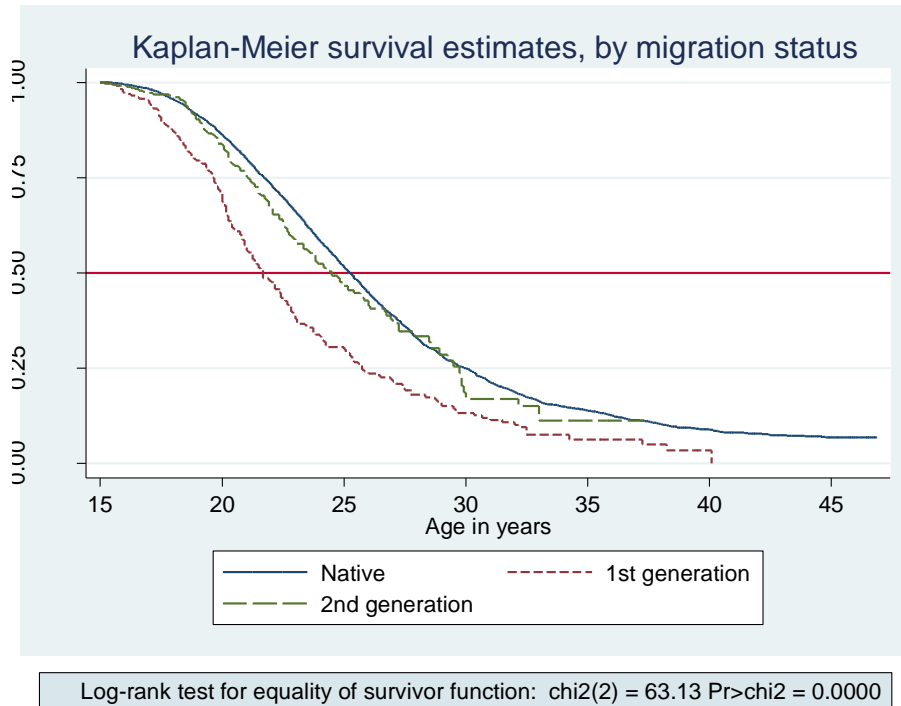


Figure 5.3. Survival Estimates of Transition to the First Union, by Migration Status, Men

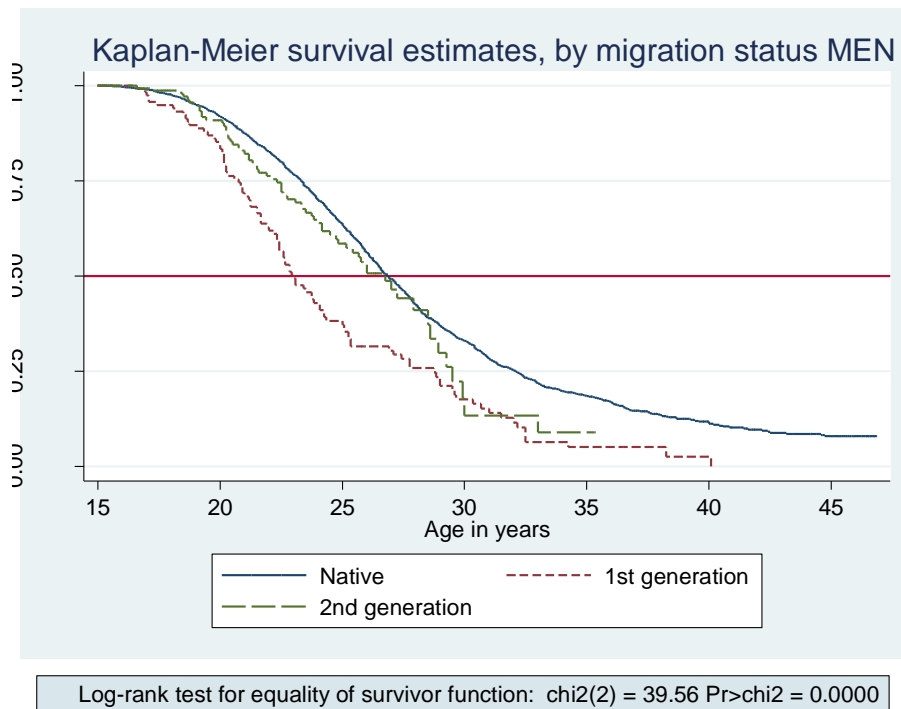
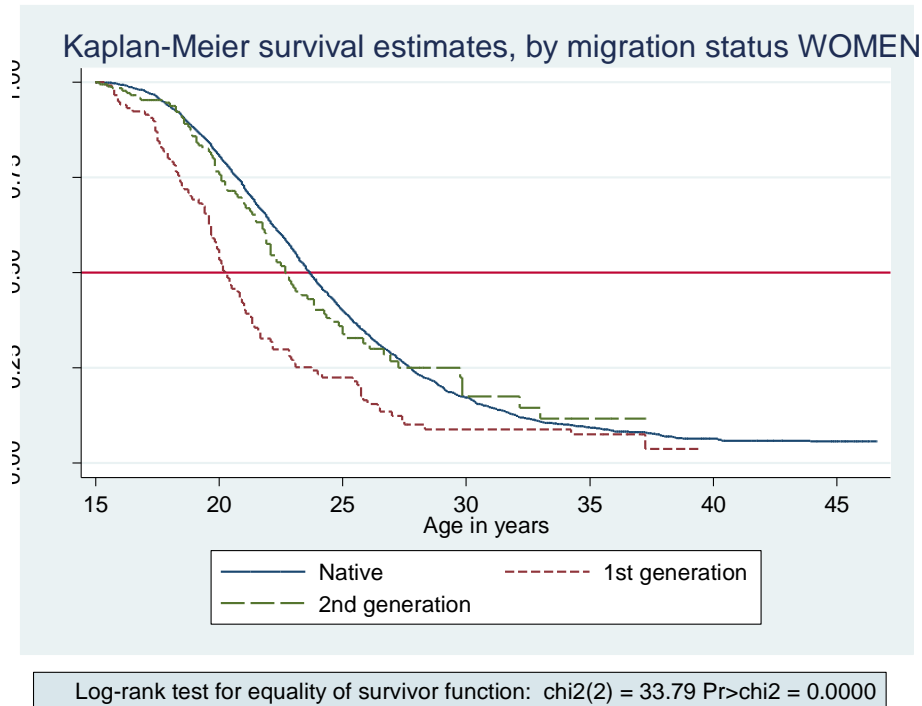


Figure 5.4. Survival Estimates of Transition to the First Union, by Migration Status, Women



Although Kaplan Meier survival curves provide initial thoughts on timing differentials among analysis groups, it does not explain the dynamics behind this variety. Next, the results of the Cox proportional hazard model and the stratified Cox model are presented.

Table 5.2 shows the relative risk of first partnership by migration status. In the Standard model, risk levels support results from Kaplan-Meier curves. While natives and descendants are almost alike; the first-generation Turkish immigrants have significantly 1.67 times higher risk than natives. Again, results are in line with univariate analysis, women form unions 64% higher risk than all-male counterparts. Contrary to most of the research in the literature, we do not see an elevated risk of first union formation through older cohorts. Rather, those respondents born between 1971-73 and 1981-83 respectively have 0.90 and 0.87 risks of the youngest group. The higher intensity of cohabitation among the youngest cohort, specifically native ones, and the fact that cohabitation comes significantly earlier than direct marriage may explain this result. The

discussion on the type of first partnership will shed light on this situation in the following sections.

Education is another explanatory variable to evaluate differences among immigrants and natives. Even though this is relatively true to say that those pursuing higher education delay union formation than those respondents having a lower level of educational attainment, in our model, there are no big differences among four categories. Exceptionally, the intensity of union formation reaches its lowest level at upper secondary, 0.76 of those respondents having no or primary education. This trend persists in all transitions that are analyzed in this thesis except the divorce of ever-married respondents.

More than 95% of respondents either do not have children or are not pregnant before forming a union. Yet this is worth to mention that pregnancy sharply advances the risk of partnership formation, pregnant women or male respondent with a pregnant partner have 6.29 times more risk to form partnership than non-pregnant. Couples who have children have similar preferences as childless couples and present 9% higher risk than the reference category.

In the stratified model, there are no profound changes in the risk levels neither across the immigrant generation nor the hazard ratios of other covariates. A closer look at the results shows that the rate of union formation of first-generation Turkish immigrants is still at a similar level. The risk of forming a union among them is 1.71 times that of their native counterparts. Descendants go through a similar path with natives rather than their parents. The decrease in hazard ratios through older birth cohorts is still precise. Those born between 1971-73 have an 11% lower risk than the reference category, while the 1981-83 birth cohort has a 9% lower risk. There is no change in the direction and the magnitude of the effect of the pregnancy variable. Conception raises the risk of partnership formation more than 6 times. Additionally, the effect of having children turn out to be significant and increasing the hazard of union formation, 1.28 times of childless respondents.

Table 5.2. Relative Risk of First Union Formation

Variable	Standard Cox Model		Stratified Cox Model	
Native	1.00		1.00	
1 st Generation	1.67	***	1.71	***
2 nd Generation	1.07		1.04	
Male	1.00			
Female	1.64	***		
Birth Cohort				
1991-1993	1.00		1.00	
1981-1983	0.90	**	0.91	**
1971-1973	0.87	***	0.89	**
Education				
No or primary	1.00			
Lower secondary	0.98			
Upper secondary	0.76	***		
Tertiary	0.98			
Pregnancy				
No pregnancy	1.00		1.00	
Pregnant	6.29	***	6.16	***
Parity				
Childless	1.00		1.00	
1+	1.09		1.28	***
Person-months	771044			
Risk population	7524			
Events	4540			
Log Likelihood	-35636.702		-27702.893	
LR chi2	814.71		425.78	
Prob> chi2	0.0000		0.0000	
Test of Proportional Hazard Assumption	0.0000		0.4561	

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on Pairfam

Standard Cox: controlled for migration status, sex, cohort, education, pregnancy and parity

Stratified Cox: controlled for migration status, cohort, pregnancy, parity and stratified by sex and education

5.2. Type of First Partnership

The second demographic transition proposes disengagement from direct marriage and the commonality of cohabited unions. The regression models and descriptive tools in this section investigate whether and in which direction natives and immigrant generations differ in terms of their preferences for the type of first entry into the union. Again, respondents are followed from age 15 until they form their first partnership and censored at the first cohabitation/marriage whichever is not the event of interest or last interview they attended without forming a union. The results assert systematic differences between immigrant generations and natives. The most important finding of this model is that the type of union is the primary force that generates and reinforces the contrast between German natives and Turkish immigrants.

As Kaplan Meier curves suggest, overall cohabitation comes before direct marriage in terms of timing and prevalence (see Figure 5.5). By the age of 25.75 half of the respondents have had their first cohabited union (see Appendix B). Direct marriage, on the other hand, is postponed to farther ages. Since less than half of the risk population directly gets married, no median age can be calculated for this transition.

What the first transition suggests loses its relevance once the type of union is considered. That is, the convergence between descendants and natives disappear, the patterns of immigrant generations resemble each other. This harmony is highly prominent in the transition to the first cohabitation, whereas obviously, descendants prefer to put direct marriage forward as opposed to the first generation (see Figure 5.6 and Figure 5.9). To put it more clearly, the median age of cohabitation is 25.6 for natives and around 30-31.5 among Turkish immigrant generations. Whereas the age gap between the first and second generation is approximately 6 years old in the transition to direct marriage (see Annex B).

Female respondents are again faster than their male counterparts in forming a conjugal family. While median age at marriage is 21 among first-generation female

respondents, by age 26.66, half of female descendants marry. The gender age gap is around 1.9 years among second-generation Turkish immigrants whereas this reaches 4 year among the first generation.

Figure 5.5. Survival Estimates of Transition to the First Union, by Type of Union

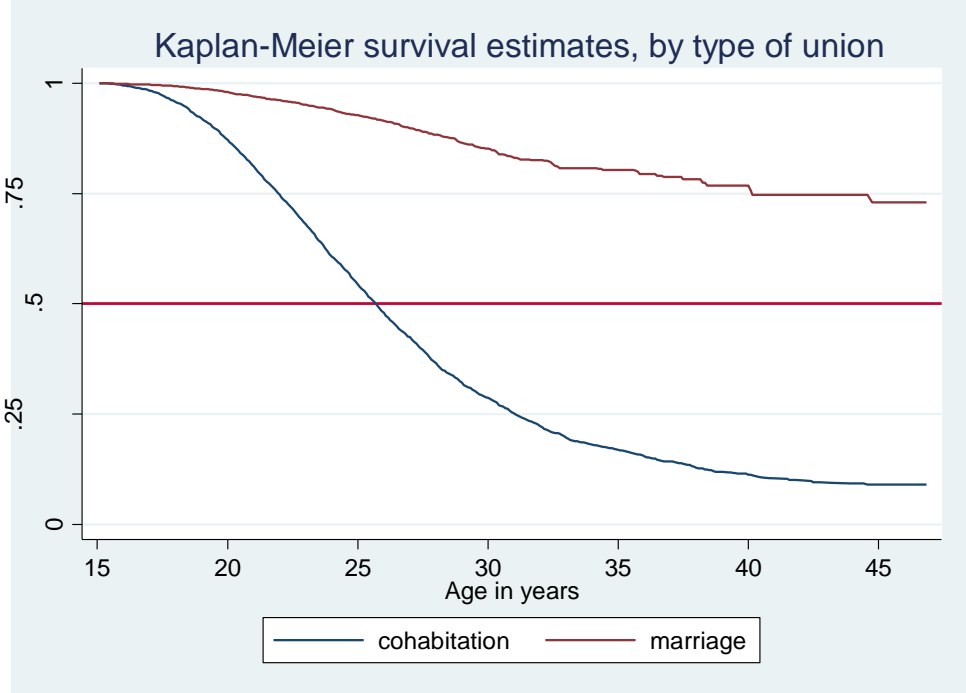


Figure 5.6. Survival Estimates of Transition to the First Cohabitation, by Migration Status

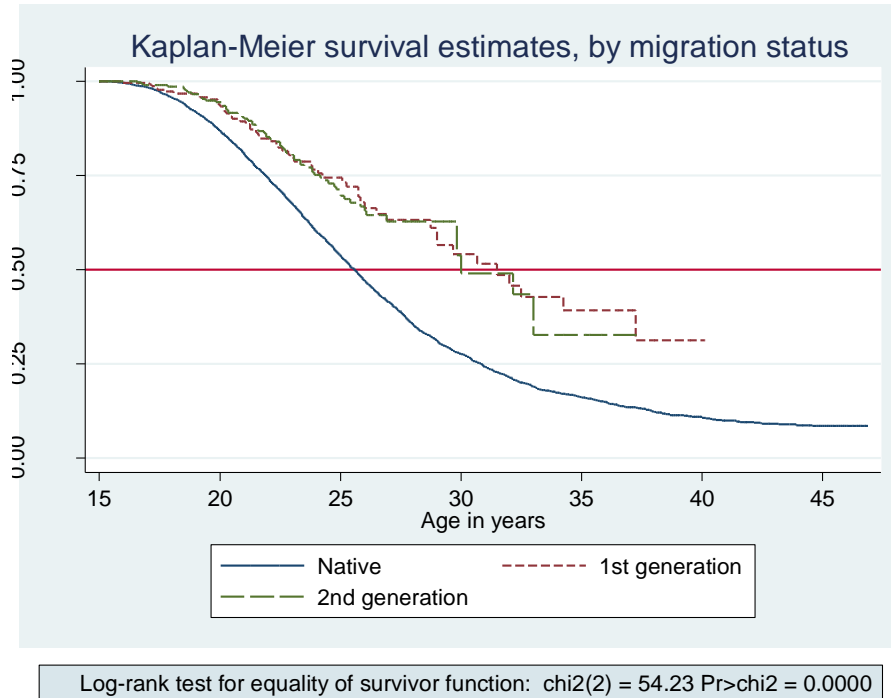


Figure 5.7. Survival Estimates of Transition to the First Cohabitation, by Migration Status, Men

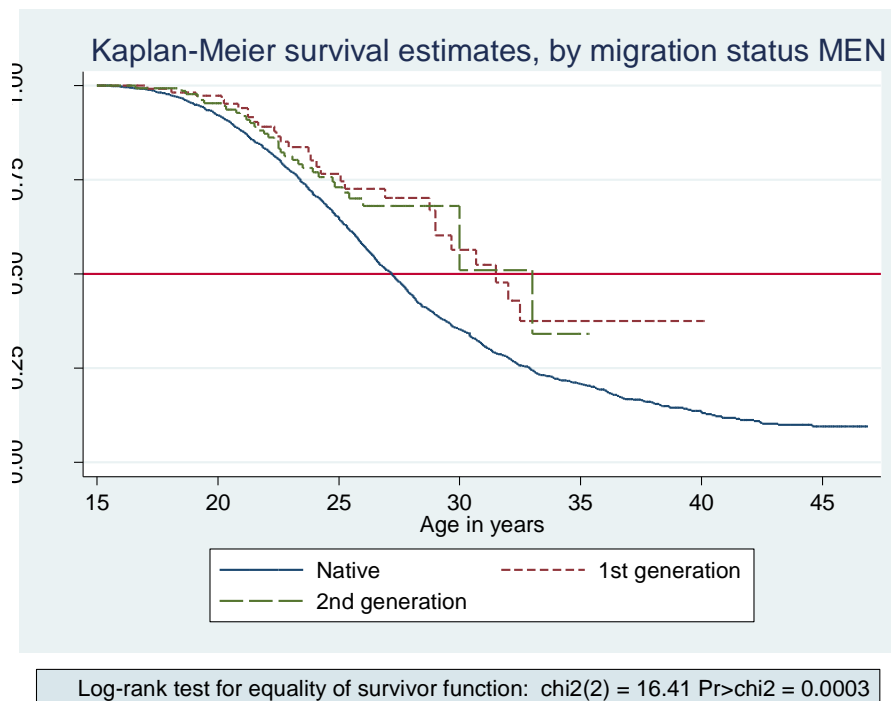


Figure 5.8. Survival Estimates of Transition to the First Cohabitation, by Migration Status, Women

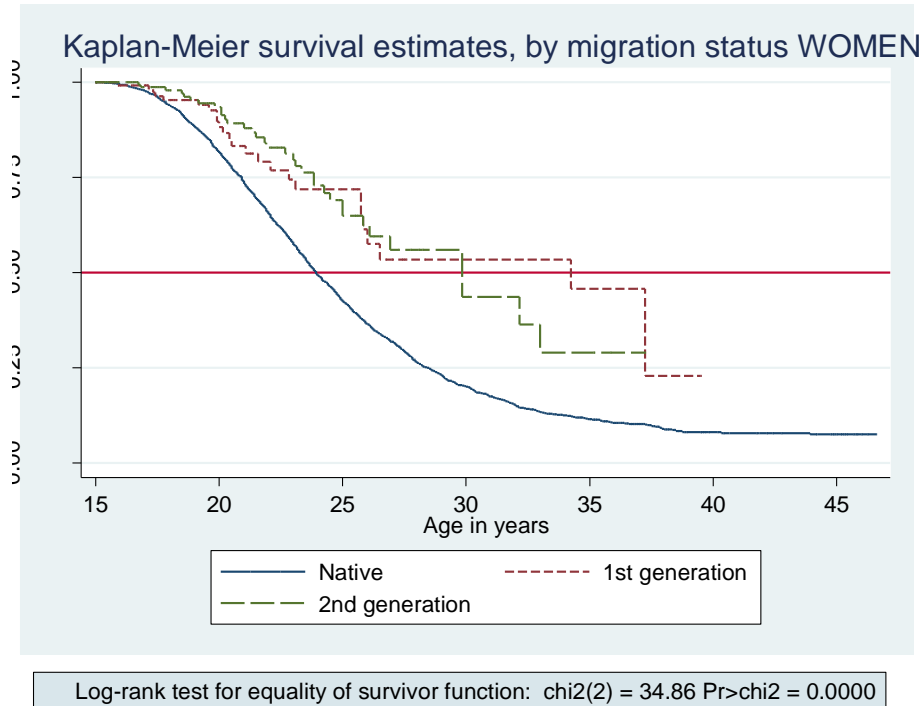


Figure 5.9. Survival Estimates of Transition to Direct Marriage, by Migration Status

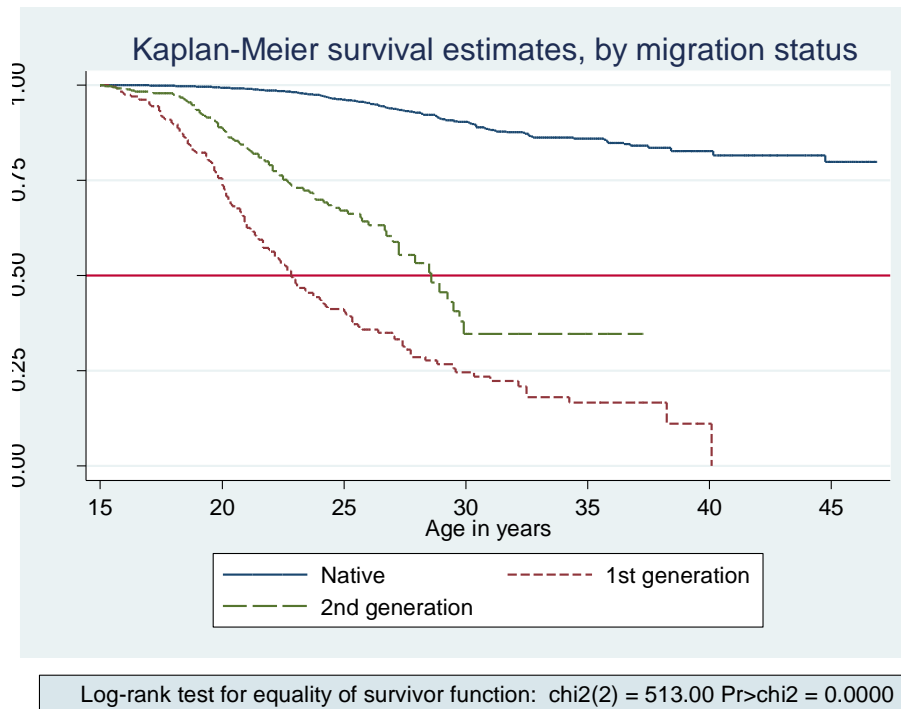


Figure 5.10. Survival Estimates of Transition to Direct Marriage, by Migration Status, Men

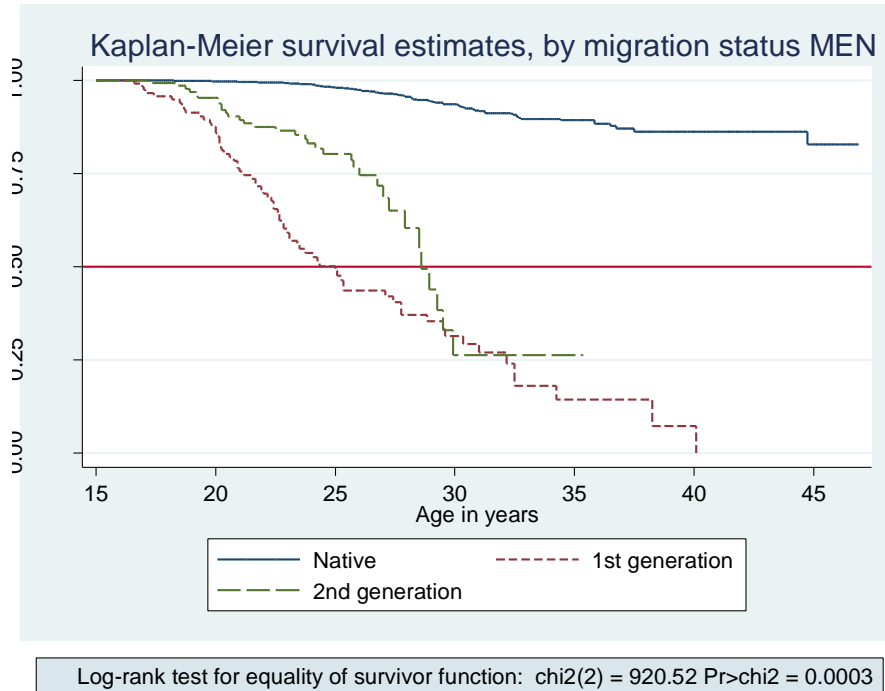


Figure 5.11. Survival Estimates of Transition to Direct Marriage, by Migration Status, Women

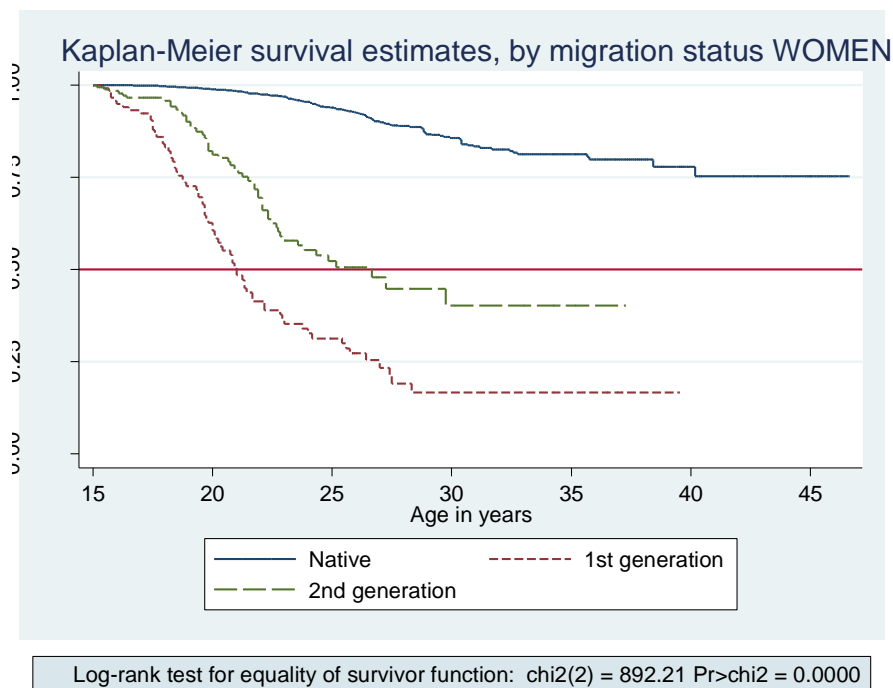


Table 5.3, the risk of cohabitation for both sexes, illustrates dramatically different characteristics of three groups. As seen on the standard model, among cohabited unions, the patterns of the descendants largely resemble those of their parents. The respondents of the first and second generation have respectively 50% and 51% lower risk of cohabitation than natives. In other words, this risk level predicts that Turkish immigrant generations produce, adapt and sustain a compatible behavioral trend with each other which is supporting Kaplan-Meier results. This is not surprising since the majority of native respondents prefer to cohabit with their partners, while only one five of Turkish immigrants form cohabited union as their first partnership (see Table 5.1).

Similar to the first transition in the previous section, female respondents have a higher risk of entering the partnership. Their risk ratios of cohabitation are 1.61 times higher than males. Since cohabitation is more prevalent through younger cohorts, the rate of risk significantly decreases through older cohorts. The hazard ratio of the oldest cohort amounts to 77% of that youngest cohort and those born between 1981-83 have a 16% lower risk of cohabitation. Although the effect of the educational level is nearly the same between those respondents having lower secondary or tertiary level education, cohabited individuals with upper secondary level education choose to form a union with 22% lower of those having primary or no education. Having a pregnant partner or being pregnant maintain its effect on the transition to cohabitation as the previous section, it plays an important role in increasing risk to more than five times. Children increase the hazard of cohabitation by 14%.

The second model is stratified by sex and educational attainment since their effect is not constant over time. The results compromise with hazard ratios from the standard model, in fact, the change of risk levels is so minimal. To summarize, descendants and their parents have a significantly lower risk of cohabitation than natives, respectively 0.48 and 0.51 times of that natives. Decreasing the risk of cohabitation through older cohorts is again pronounced in this model. That is, those born between 1981-83 have 14% times lower intensity of cohabiting than the youngest cohort

while the oldest cohort has 21% times lower risk. While the effect of conception stays the same, both the effect and significance of having children on forming cohabitation increased. A respondent having children is estimated to face a hazard ratio 1.33 times that of faced by a childless respondent.

Marriage practices are the most distinctive model in the whole analysis since this is rarely preferred by natives. On the other hand, first partnership formation highly coincides with marriage among first-generation Turkish immigrants (see Table 4). Here, again standard Cox model presents the average effect of variables and extended model discuss the initial effect and how the change in the effect occurs over time. Table 5.4., the standard model shows that Turkish immigrants have 14.2 times higher risk of marrying than that of natives. This risk level decrease to 11.0 times as much as Germans among descendants. Results comply with the Kaplan-Meier survivor graph by migration status; while immigrant generations have higher intensity to direct marriage, their preferences are not consistent as much as the once found in cohabitation. Female respondents have higher marriage risk than their male counterparts; nearly two times.

Table 5.3. Relative Risk of the First Cohabitation

Variable	Standard Cox Model		Stratified Cox Model	
Native	1.00		1.00	
1 st Generation	0.50	***	0.51	***
2 nd Generation	0.49	***	0.48	***
Male	1.00			
Female	1.61	***		
Birth Cohort				
1991-1993	1.00		1.00	
1981-1983	0.84	***	0.86	***
1971-1973	0.77	***	0.79	***
Education				
No or primary	1.00			
Lower secondary	0.99			
Upper secondary	0.78	***		
Tertiary	0.99			
Pregnancy				
No pregnancy	1.00		1.00	
Pregnant	5.35	***	5.15	***
Parity				
Childless	1.00		1.00	
1+	1.14	*	1.33	***
Person-months	771044			
Risk population	7524			
Events	4027			
Log Likelihood	-31646.618		-24709.606	
LR chi2	628.27		338.32	
Prob> chi2	0.0000		0.0000	
Test of Proportional Hazards Assumption	0.0000		0.7528	

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on Pairfam

Standard Cox: controlled for migration status, sex, cohort, education, pregnancy and parity

Stratified Cox: controlled for migration status, cohort, pregnancy, parity and stratified by sex and education

Unlike cohabitation, direct marriage has significantly higher risk through older cohorts. That is, those born between 1981-83 have 2.59 times higher intensity of marrying directly than the youngest cohort while the oldest cohort has 4.40 times higher risk. Up to here, the effect of education has the same pattern. With the increase in education, risk levels slightly decrease and reach its lowest level on upper secondary. All other variables being constant, those respondents marry after graduating from lower secondary school have 3% lower risk than those respondents have no or primary level education. Upper secondary graduates have 0.51 of the reference group and the relative risk ratio is 0.91 that of the lowest education level among tertiary. The last explanatory variables are pregnancy and parity status of respondents. The former one is a factor encouraging marriage while the latter has a reverse effect. The pregnant partner is more dominant in the escalating risk of direct marriage, more than 12.83 of not pregnant category. And the number of children decreases the rate of direct marriage by 18%, although it is not statistically significant.

So far, the standard Cox model gives the average rate of risk among first and second-generation Turkish immigrants compared to their native counterparts. The discussion on the extended model should be followed carefully since the main effect model give the risk level at the beginning of the risk period and interaction effect show how initial risk levels change as analysis time goes. The risk window opens at the age of 15 in the transition to union formation regardless of the type of union. The first-generation immigrant has 43.55 times higher risk of marriage than that of natives at $t=0$, decreasing 1% each month. Descendants still have significantly higher risk than natives, but apparently, they are in the midst of their parents and natives at the age of 15 in terms of marriage intensity. The intensity of marriage is 28.12 that of natives and decreases 1% over time. Earlier marriage is extremely pronounced among females; they have a 5.30 times higher risk than male respondents and this level has been cutting down by 1%. Since the birth cohort is not a time-dependent explanatory variable, the main effect stays nearly the same as belonging to the standard Cox model.

The effect of education becomes clear in the extended model, and it supports what most of the literature suggests; higher education postpones union formation. A closer look at risk ratios shows that lower secondary graduates initially have a 53% lower risk than those no or primary education graduates. The intensity of marriage drops out to 0.14 that of reference category among the upper secondary level. And finally, the tertiary graduates have the lowest risk of direct marriage with 0.06. As time goes on, these effects lose its dominance on further ages and approximate what standard the Cox model suggests.

Pregnancy has a significant effect on elevating direct marriage risk, at the beginning this effect is highly pronounced, 47 times that of not pregnant and diminish by 1%. The initial effect of having children, on the other hand, is negative and has been reducing the 'decreasing' effect by 1%.

Table 5.4. Relative Risk of the Direct Marriage

Variable	Standard Cox Model		Extended Cox Model			
			Main Effect		Interaction	
Native	1.00		1.00		1.00	
1 st Generation	14.23	***	43.55	***	0.99	***
2 nd Generation	11.01	***	28.12	***	0.99	***
Male	1.00		1.00		1.00	
Female	1.98	***	5.30	***	0.99	***
Birth Cohort						
1991-1993	1.00		1.00			
1981-1983	2.59	***	2.40	***		
1971-1973	4.40	***	4.25	***		
Education						
No or primary	1.00		1.00		1.00	
Lower secondary	0.97		0.47	***	1.01	***
Upper secondary	0.59	***	0.14	***	1.02	***
Tertiary	0.91		0.06	***	1.02	***
Pregnancy						
No pregnancy	1.00		1.00		1.00	
Pregnant	12.83	***	47.00	***	0.99	***
Parity						
Childless	1.00		1.00		1.00	
1+	0.82		0.24	***	1.01	***
Person-months	771044					
Risk population	7524					
Events	513					
Log Likelihood	-3572.3125		-3508.3817			
LR chi2	1021.99		1149.85			
Prob> chi2	0.0000		0.0000			

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Standard Cox Model: controlled for migration status, sex, cohort, education, pregnancy and parity

Extended Model: controlled for migration status, sex, cohort, education, pregnancy, parity, migration status*t, sex*t, education*t, pregnancy*t and parity*t

5.3. Transition to Marriage after Cohabitation

Up to here, the results reveal that cohabitation is highly preferred practices among native respondents and still rare across Turkish immigrant generations in pairfam. However, there are still questions to be answered about those respondents cohabit in the first place. What comes after cohabitation is essentially discussed in this section. Once a cohabiting partnership is formed, couples may prefer either to proceed marriage or end the relationship through separation. Secondly, duration of cohabitation points out whether cohabitation is perceived as a long-run form of relationship or rather waiting room for couples to decide to continue or not. In this respect, natives and Turkish immigrant generations may opt for a different path on what to do with the cohabiting union.

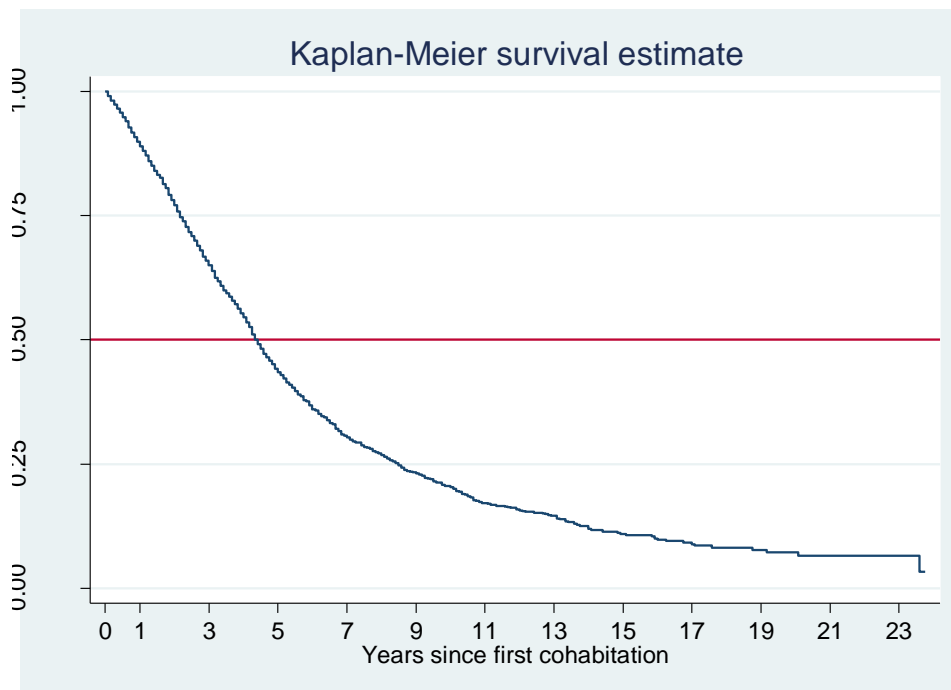
Table 5.5 shows the percentage of cohabitation outcomes by migration status and gender. In many cases, cohabitation is a step for couples to form marriage or dissolution of union through separation. Approximately 78% of pairfam sample choose one of the cohabitation outcomes rather than keeping up with their first cohabiting partners. This table partly supports the previous pattern belong to the natives, namely, their abstention from marriage. While 76% of cohabiting Turkish first-generation immigrants proceed to marriage this proportion decreases to 47% among German cohabiting unions. This table may also roughly imply that those still cohabiting unions also tend to proceed with one of the events in the future since only 806 out of 4,033 respondents are still cohabiting.

Table 5.5. Percentage Distribution of Cohabitation Outcomes by Migration Status and Gender

Migration status	Cohabitation Outcomes					Total	Number
	Marriage	Separation	Still Cohabiting	Death of Partner			
Native	47.1	30.6	22.2	0.1		100	3911
1st Generation	75.9	16.7	7.4	0		100	54
2nd Generation	55.9	30.9	11.8	1.5		100	68
Total	47.6	30.5	21.8	0.1		100	4033
MEN							
Migration status	Cohabitation Outcomes					Total	Number
	Marriage	Separation	Still Cohabiting	Death of Partner			
Native	45.6	30.1	24.3	0		100	1764
1st Generation	69	24.1	6.9	0		100	29
2nd Generation	60.6	30.3	9.1	0		100	33
Total	46.2	30	23.8	0		100	1826
WOMEN							
Migration status	Cohabitation Outcomes					Total	Number
	Marriage	Separation	Still Cohabiting	Death of Partner			
Native	48.4	31	20.5	0.1		100	2147
1st Generation	84	8	8	0		100	25
2nd Generation	51.4	31.4	14.3	2.9		100	35
Total	48.8	30.8	20.2	0.2		100	2207

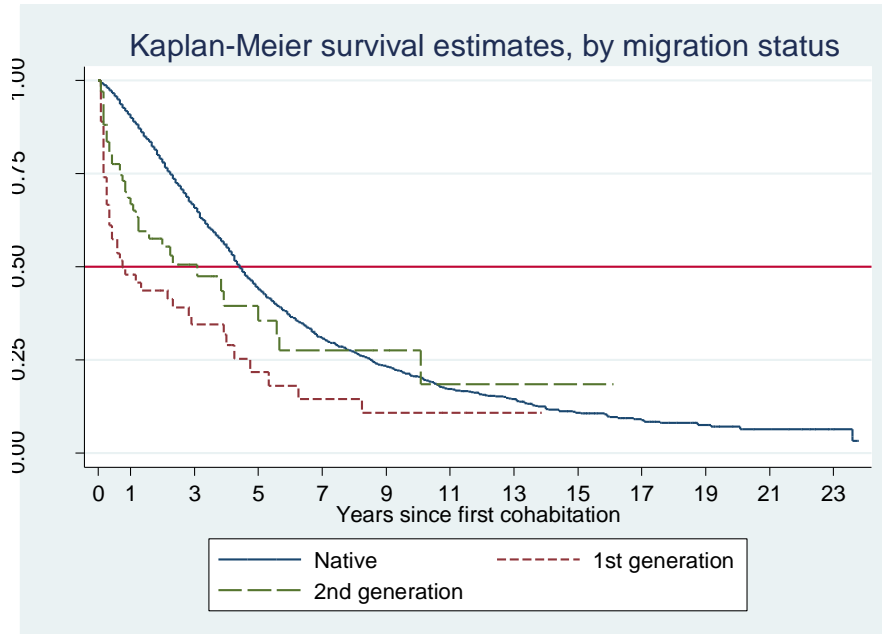
The first Kaplan-Meier survivor graph, Figure 5.12, depicts the survival function of marriage after cohabitation. Half of the cohabiting partnership gets married before 5 years, predicts rather a short relationship form than marriage (see discussion on divorce section).

Figure 5.12. Survival Estimates of Transition to Marriage after Cohabitation



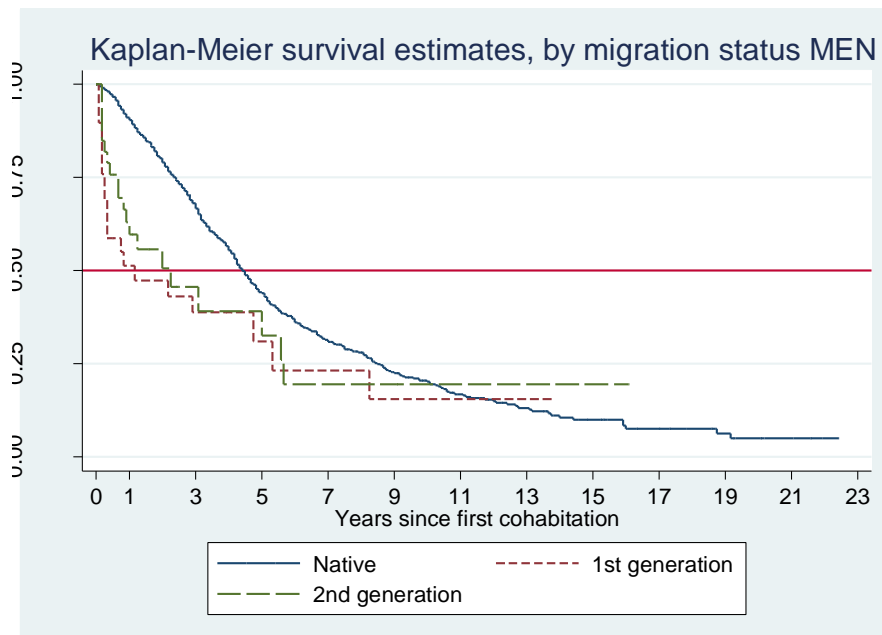
One of the highlights here is that the first-generation Turkish immigrants, men and women alike are the fastest group to pursue their relationship to marriage. On average within one year, 50% of them get married. On the other hand, while male descendant more or less follows their parents, female second-generation Turkish immigrants prone to prolong period of cohabitation before getting married. Natives, regardless of gender seem to keep the duration of cohabitation on the level of 4.4 years before they form a conjugal family (see Annex B).

Figure 5.13. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status



Log-rank test for equality of survivor function: $\chi^2(2) = 41.28$ $Pr > \chi^2 = 0.0000$

Figure 5.14. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status, Men



Log-rank test for equality of survivor function: $\chi^2(2) = 15.83$ $Pr > \chi^2 = 0.0004$

Figure 5.15. Survival Estimates of Transition to Marriage after Cohabitation by Migration Status, Women

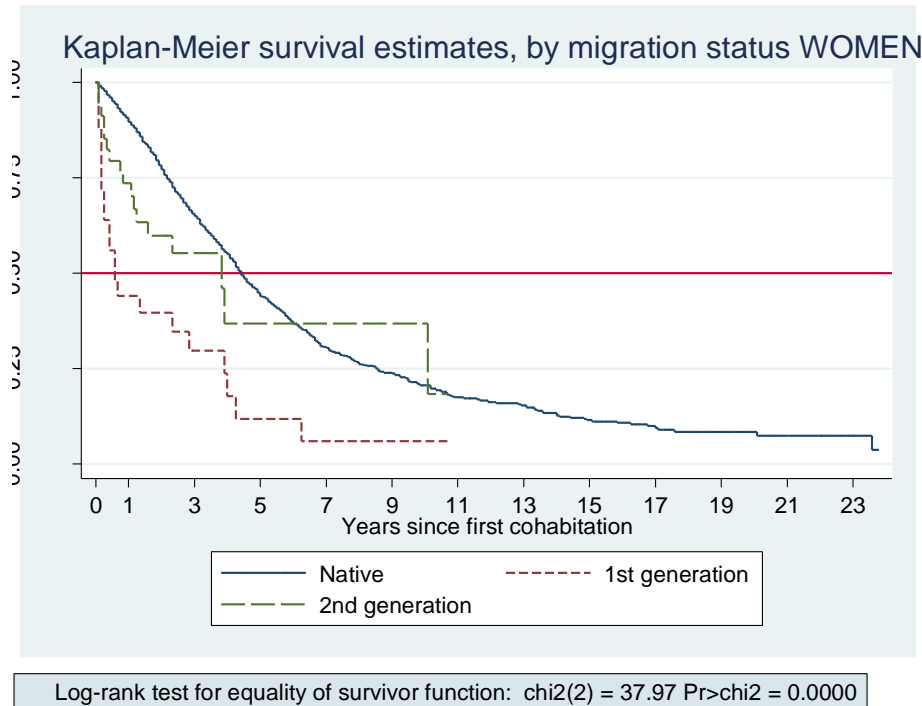


Table 5.6 presents the intensity of marriage after cohabitation with the standard Cox model and the extended Cox model. The first-generation Turkish immigrants have 1.90 times higher risk than their native counterparts on average. Although risk level is slightly lower among descendants, the intensity of marriage is 1.65 times higher than that of natives. Unlike union formation, the results are not sensitive to gender; female respondents have an 8% higher risk ratio than males, which is not statistically significant.

Age at first cohabitation is included in the model to check whether it affects duration since the median age at cohabitation is highly different for natives and Turkish immigrants. Results suggest that early cohabitation decreases the intensity of marriage. The youngest cohabiting respondents have a 38% lower risk of converting from cohabitation to marriage than those cohabiting couples formed between 19-22 years old. Although this covariate does not have a regular increasing pattern, the risk of marriage is

always high among those cohabited unions formed after 23 years old than the reference category.

The effect of the cohort has the same pattern as in transition to first marriage, older cohorts have a higher intensity of marriage after cohabitation. The oldest cohort has 3.28 times higher risk of the youngest cohort. Those born between 1981-83 have nearly 2.49 times higher intensity of marrying after cohabitation. Education totally loses its statistical significance in the transition to marriage after cohabitation. Even though lower secondary graduates have a 20% higher risk of forming marriage, among other education levels, variable weakly explain the different practices among respondents.

Approximately 20% of cohabited respondents are pregnant before marrying (see Table.4.2.). Thus, the increasing effect of pregnancy is quite dominant. Those pregnant female respondents or cohabiting male with a pregnant partner has 5.76 times higher risk that of not pregnant. Having children encourage marriage to a lesser extent; 1.25 times of childless cohabiting unions.

The extended model seems better to follow and compare natives, Turkish first- and second-generation immigrants. Considering pretty late cohabitation practices and the high proportion of marriage among Turkish generations, even though they choose to cohabit in the first place this is not perceived as a long-run relationship goal. The rate of marriage is 5 times higher than natives among first-generation Turkish cohabiting respondents, this risk level decreases by 4% every month since the start of the first cohabitation.

Descendants are estimated to face a hazard 4.15 times higher than that of natives at the beginning of the risk period, diminishing each month by 3%. The extended model suggests that transition to marriage after cohabitation actually differs by gender. Female cohabiting respondents have a higher hazard ratio than male respondents. But again this effect is reduced by 0.2% over time.

Table 5.6. Relative Risk of Marriage after Cohabitation

Variable	Standard Cox Model	Extended Cox Model				
			Main Effect	Interaction		
Native	1.00		1.00		1.00	
1 st Generation	1.90	***	5.04	***	0.96	***
2 nd Generation	1.65	***	4.15	***	0.97	***
Male	1.00		1.00			
Female	1.08		1.18	**	0.998	*
Age at first cohabitation						
15-18	0.62	***	0.55	***	1.00	
19-22	1.00		1.00		1.00	
23-26	1.20	***	1.37	***	0.996	**
27-30	1.19	**	1.61	***	0.99	***
31+	1.13		1.56	***	0.99	***
Birth Cohort						
1991-1993	1.00		1.00			
1981-1983	2.49	***	2.36	***		
1971-1973	3.28	***	3.12	***		
Education						
No or primary	1.00		1.00			
Lower secondary	1.20		1.15			
Upper secondary	1.00		0.98			
Tertiary	1.06		1.04			
Pregnancy						
No pregnancy	1.00		1.00		1.00	
Pregnant	5.76	***	7.48	***	0.99	***
Parity						
Childless	1.00		1.00		1.00	
1+	1.25	***	1.74	***	0.99	***
Person-months	154247					
Risk population	3994					
Events	1919					
Log Likelihood	-13483.079		-13427.195			
LR chi2	967.46		1079.23			
Prob> chi2	0.0000		0.0000			

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Standard Cox: controlled for migration status, sex, age at first cohabitation, cohort, education, pregnancy and parity

Extended Cox: controlled for migration status, sex, age at first cohabitation, cohort, education, pregnancy, parity, migration status*t, sex*t, age at first cohabitation*t, pregnancy*t and parity*t

Age at first cohabitation has clearly ascending patterns in this model. This may be again related to the behavior of Turkish immigrants, especially first-generation, since they postpone cohabitation to farther ages and more likely to marry. Therefore, what through older ages may be related to the effect of immigrants. Birth cohort and education level are found to be time-independent in this model, hence minimal change on hazard ratios is reported between standard and extended Cox models.

Pregnancy and parity have a more dominant effect in the beginning, each month their effect decreases by 1%. While pregnant respondents have 7.48 times higher risk that of not pregnant at $t = 0$, the effect of having children is rather on the level of 1.74 that of childless respondents.

5.4. Divorce

The increase in divorce is another core dynamic behind the idea of the second demographic transition. In this section, matrimonial dissolution practices of natives, first and second-generation Turkish immigrants are analyzed. Respondents are followed from the date that they directly married or after a period of cohabitation until divorce event. Censoring occurs at the date of the partner's death or interview date for ongoing marriages. Before that, it may be good to remember that German people prefer to delay marriage to farther ages and in most cases after a certain period of cohabitation. In addition to this, the first-generation Turkish immigrants are less prone to practice divorce and descendants are still young to proceed higher-order union. There are a small number of cases proceeding to divorce. This is why in this section, Kaplan-Meier survival estimates are presented for the whole population by migration status instead of separate analysis for females and males.

Table 5.7. Percentage Distribution of Ever-Married Dissolution by Migration Status

Migration status	Ever-married dissolution				
	Still Married	Divorce	Death of a partner	Total	Number
Native	84.2	15.3	0.6	100.00	2122
1st Generation	86.9	12.6	0.5	100.00	191
2nd Generation	89.6	10.4	0	100.00	125
Total	84.7	14.8	0.5	100.00	2438

There is a pretty small number of divorce events by migration status. Statistically speaking, only 14.8% of ever-married couples divorce among pairfam respondents. By migration status, those pursuing their marriage are 89.6% among descendants, 86.9% among first-generation and 84.2% among natives. Below Kaplan-Meier graphs shows the timing and prevalence of divorce event. Since less than half of the risk population get divorced, no median age can be calculated for this transition (Figure 5.16). Natives, first and second-generation Turkish immigrants act more or less similar in terms of timing.

Figure 5.16. Survival Estimates of Divorce

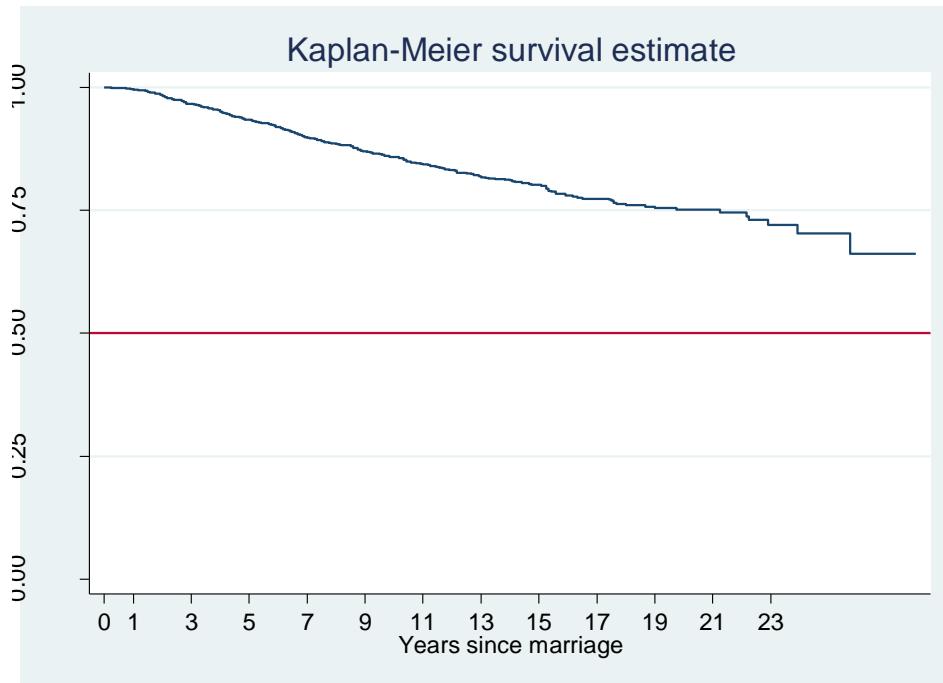
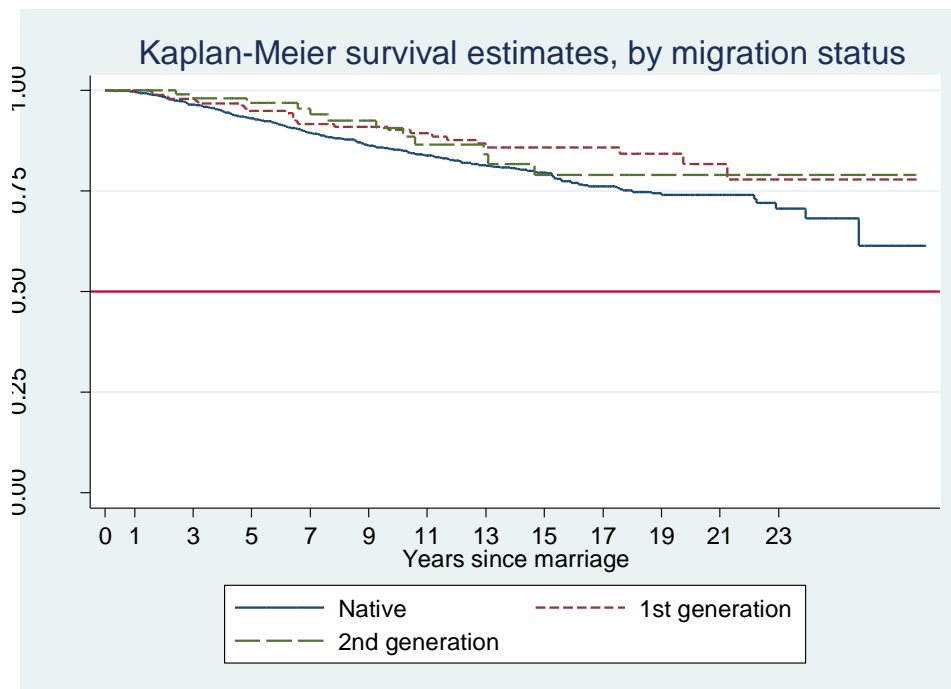


Figure 5.17. Survival Estimates of Divorce by Migration Status



Log-rank test for equality of survivor function: $\chi^2(2) = 5.60$ $Pr > \chi^2 = 0.0609$

Table 5.8 presents the estimates for the divorce of ever-married partnership. The result shows significant differences among natives and Turkish immigrants. The hazard of divorce among first-generation is 67% lower than their native counterparts. Descendants follow a similar pattern; the intensity of divorce is 0.36 of that of natives.

Age at union formation is an important indicator in dissolution literature since early marriages are found to be fragile. The results support this assumption; more mature marriage is less likely to end in divorce. Those marriages which are formed in 18 years old and before, have significantly 83% higher risk of divorce than those conjugal unions between 19 to 22 years old. The relative risk of divorce significantly decreases to 0.64 of that reference category among those respondents who choose to marry between 23-26 years old. Although marriages formed after 27 years are still more stable than the youngest group, the result fails to reach significance level.

Unlike for union formation, the hazard ratios of dissolution do not reveal big differences between male and female populations. The latter is only 6% less likely to divorce from their first married partner. When it comes to the cohort effect, the intensity of divorce is almost identical among older cohorts. Respectively, those respondents born between 1981-83 and 1971-73 have 78% and 75% lower risk than the youngest generation.

Higher education has an effect of postponing union formation; accordingly, it may contribute to more stable unions. For instance, tertiary graduates have a significantly 53% lower risk than those respondents that have no/or primary education. Those respondents who form marriage after finishing lower and upper secondary have a slightly higher risk. That is, results suggest that the relative risk of divorce is respectively, 0.68 and 0.64 of that reference category.

Pregnancy kind of loses its dominant effect that is prevalent in the transition to union formation. Yet once women or the partner get pregnant, this diminishes the hazard of divorce by 29%. On the other hand, children significantly lower the risk by 48% when compared to the childless conjugal family.

The last explanatory variable is whether marriage is formed directly or after a period of cohabitation. Cohabitation is a way of “demo” process for couples to test their matching, thus it may advance the quality of the relationship. Regression results support this assumption and provide that direct marriage make relationship prone to dissolve 1.33 times higher than those experienced premarital cohabitation.

Table 5.8. Relative Risk of Ever Married Divorce

Variable	Standard Cox Model	
Native	1.00	
1 st Generation	0.33	***
2 nd Generation	0.36	***
Age at union formation		
<18	1.83	***
19-22	1.00	
23-26	0.64	***
27-30	0.83	
31+	0.77	
Male	1.00	
Female	0.94	
Birth Cohort		
1991-1993	1.00	
1981-1983	0.22	***
1971-1973	0.25	***
Education		
No or primary	1.00	
Lower secondary	0.68	**
Upper secondary	0.64	**
Tertiary	0.47	***
Pregnancy		
No pregnancy	1.00	
Pregnant	0.71	
Parity		
Childless	1.00	
1+	0.52	***
Type of the first union		
Cohabitation	1.00	
Direct marriage	1.33	**
Person-months	292855	
Risk population	2434	
Events	358	
Log Likelihood	-2519.7837	
LR chi2	101.19	
Prob> chi2	0.0501	
Test of Proportional Hazards Assumption	0.1999	

***p<.01, **<.05, *p<.1

Source: Calculations based on pairfam

Standard Cox: controlled for migration status, sex, age at first union, cohort, education, pregnancy, parity, and type of first union

CHAPTER 6. CONCLUSION AND DISCUSSION

This study has investigated union formation and dissolution practices of first and second-generation Turkish immigrants compared to natives in Germany. After labor migration to Germany started in 1961, the share of Turkish immigrants increased through incoming workers, family reunification and descendants born in the host country. Currently, the children of Turkish immigrants are in the proper age range to analyze their first co-residential partnership. In this respect, the effect of migration status on the partnership trajectories is discussed by focusing on the risk of union formation, type of union and dissolution practices. The Cox proportional hazard model is employed in multivariate regression analysis on pairfam data. It addressed how first-generation Turkish immigrants and their descendants respond to the native pattern and the extent of convergence or divergence among generations.

First of all, the analysis shows that regardless of migration status, women enter into the first union earlier and have a significantly higher risk of direct marriage or cohabitation than their male counterparts. As described in the theory section, Second Demographic Transition suggest a gradual retreat from marriage and popularity of cohabiting unions. The findings of multivariate analysis comply with this assumption, pathways to partnership formation vary across birth cohorts. The intensity of direct marriage is evident among older generations, whereas the younger generation prefers cohabiting unions as their first partnership.

In the transition to the first union, second-generation Turkish immigrants and natives seem to converge in their practices. Both the timing and incidence comply with each other, while first-generation immigrants pursue a traditional early union formation pattern. They have significantly higher risk of a partnership than both natives and their descendants. Nevertheless, the type of union uncovers the actual distinction between natives and immigrants. Neither the first nor the second-generation Turkish immigrants have a strong inclination to follow family patterns associated with Second Demographic Transition. In the first place, the descendants mostly share practices of their parents

when it comes to cohabitation. They both do not prefer the cohabiting union and postpone it to their early 30s. On the other hand, marriage practices of descendants indicate a relative divergence from their parents. Traditional early direct marriage ceases, Turkish descendants significantly delay the decision to form a conjugal family and have slightly less risk than first-generation Turkish immigrants. Nevertheless, this cannot be interpreted as cohabitation replacing marriage.

The dominance of marriage institution is partly related to partner choice of Turkish immigrants. Studies show that national homogamy is highly typical among Turkish minorities in Europe (Constant et al., 2012; Hannemann et al., 2018; Milewski & Hamel, 2010; Soehl & Yahirun, 2011) Choosing a Turkish partner may intensify the risk of marriage and reproduce the traditional pattern. However, children of Turkish immigrants are exposed to mainstream structure and culture since their childhood. The contact with non-coethnic peers may postpone entry into the first union among second-generation Turkish immigrants in Germany (Huschek, de Valk, & Liefbroer, 2010). Further, they mostly form a conjugal family with another Turkish descendant in Germany rather than a spouse from Turkey (Gonzalez-Ferrer, 2006; Hamel et al., 2012). This trend may strengthen the peer effect. Overall, these results suggest that children of immigrants socialize into their parent's norms and values rather than mirroring native patterns in the transition to first marriage and cohabitation. The limited adaptation in the timing of direct marriage seems 'cosmetic' change rather than convergence to practices in the host country since the marriage is still dominant over cohabitation as a first choice.

One of the aims of this thesis is to find out cohabitation outcomes among natives and immigrants. As descriptive results show, cohabitation is rare among Turkish immigrants, while natives prefer it over direct marriage. This behavior is not surprising since consensual union is a culturally disapproved phenomenon among Turkish people. Even though adolescent Turkish immigrants see cohabitation as an alternative partnership formation, in real life, they abstain from the consensual union due to strong parental influence and low social acceptance, which this union brings (De Valk &

Liefbroer, 2007). Therefore, Turkish descendants still mostly reject the existence of premarital sexual activity of females in the European context (Hamel et al (2012).

At first glance, the findings predict that immigrants and natives are two distinct groups in their preferences over the cohabiting union. Based on the ideal types of cohabitation conceptualized by Heuveline and Timberlake (2004), natives treat this type of partnership as 'must-have stage' or 'trial marriage.' On average, German respondents decide to form a conjugal family within 4.42 years. In line with Naderis' finding (2008), among Turkish immigrants, the first generation tends to formalize their union within less than a year. The critical point here is that while three-fourths of first-generation people marry their first cohabiting partners, nearly half of their descendants formalize their first cohabiting union. Second-generation Turkish immigrants alternatively prefer separating from cohabiting partner as natives (see Table 5.5.). In addition to this, female descendants keep cohabiting unions significantly longer than their parents and male counterparts. This may hint a transformation regarding cohabitation among second-generation immigrants. In other words, the marginality of cohabiting unions seems to erode gradually for the female second generation. Another possible explanation for this might be that as Pailhé (2015) suggest in the context of France, Turkish second-generation female immigrants are selected group that have individual characteristics which distinguish them from their male descendants and first-generation. Note that this study is unable to control for the origin of the partner. This characteristic might also be the motive behind longer cohabitation of female descendants.

Another aim of this study is to analyze the divorce practices of Turkish immigrants as opposed to natives. As the second demographic transition indicates, divorce has an upward trend and marriage is weaker among the youngest generation. They have higher intensity than older generations in deciding to end a marriage. In line with other studies, both female and male Turkish immigrants have significantly more stable marriages than natives (Milewski & Kulu, 2014). An explanation for this practice may be again the partner choice of Turkish immigrants and also the low divorce rate in the Turkish population. Native-immigrant marriages are found to be most fragile in any

context due to socio-cultural distance between partners (Choi, Kim, & Ryu, 2019; Kaplan & Herbst-Debby, 2017; Milewski & Kulu, 2014; Zhang & Van Hook, 2009). Since the first and second-generation immigrants form a union with a co-ethnic partner, factors that can weaken the marriage institution are not common. Thus, first-generation Turkish immigrants are also successful in transmitting their preferences regarding the dissolution, which justifies the socialization hypothesis.

To mention the effect of explanatory covariates; the increasing level of education does not seem to be highly significant in decreasing the risk of union formation in all transitions (Hannemann & Kulu, 2015; Pailhé, 2015). Instead, regardless of the type of union, educational attainment may explain the relative delay in the partnership formation. That is, highly educated people do not necessarily abandon from forming marriage or cohabitation. Since they spend longer time on education, union formation occurs later in life than lower educated respondents (Kalmijn, 2007). Thus, the aforementioned differences in partnership trajectories are not influenced by human capital that education provides. Pregnancy in all transitions except divorce, increases the intensity of partnership formation. The effect of pregnancy and parity compromise with the findings of dissolution literature; couples are less likely to end a marriage in the existence of children (Choi et al., 2019; Dribe & Lundh, 2012; Kaplan & Herbst-Debby, 2017; Milewski & Kulu, 2014). As opposed to many of studies in the literature, direct marriage is found to have increasing risk of divorce compared to previously cohabiting couples.

This thesis provided information on patterns of partnership formation and dissolution of Turkish immigrant generations in Germany. It found a strong socialization effect together with weak adaptation for second-generation Turkish immigrants in the analysis of all four transitions except the transition to the first union. Descendants and their parents both stick to traditional ways of forming union and dissolution even though the former one expose to mainstream culture and structure. Therefore, there seems no sharp decrease in the differentials among natives and immigrants in terms of partnership arrangements when controlled for demographic characteristics and education of

respondents. However, there are still questions to be answered to analyze the position of Turkish immigrants.

First of all, this study was unable to control the selection hypothesis or its effect on immigrants' union trajectories. In order to address whether first-generation immigrants are selected groups that have different characteristics than the Turkish population necessitates comparable data belong to origin society. Nevertheless, available data sources on Turkish partnership practices are lack of cohabitation histories which preclude comparing the type of the first union. With some imagination, it is relatively fair to say that first-generation Turkish immigrants are not selected groups. In pairfam data 90% of Turkish first generation immigrants born between 1971-1983, this corresponds to 35-47 age group at the last wave of pairfam in 2018. The descriptive results show that the median age at first marriage is at the level of 21 for the first generation Turkish female immigrants. According to Turkey Demographic and Health Survey average median age at first marriage is 21 among women aged between 35-49 (Hacettepe University Institute of Population Studies, 2018). Therefore, there seems to be Turkish society and Turkish immigrants have similar patterns in terms of the timing of the first marriage

Further, the disruption hypothesis is not controlled in the multivariate analysis. Therefore, there is a question of whether immigrants might be affected by the immigration process and, as a result, struggle to adapt to the new partnership market in Germany. Hence the disruption stemming from immigration itself results in a decision to postpone union formation. However, when the median age at first union is compared, the age gap between those start a co-residential union before and after the migration is minimal, respectively 21 and 21.33 (see Annex B). These descriptive results suggest almost no disruption.

Second, the data put some limitations for controlling other socio-economic or demographic factors that may contribute to the convergence process of immigrants. The employment history of immigrants, the religious affiliation of respondents, partner choice, educational attainment of father and mother are some of them, which are not

included in analysis. A high proportion of missing data on these covariates leads the author to renounce using them as an explanatory variable in multivariate models to keep the analysis as accurate as possible. Further, parental influence especially the impact on partner choice should be taken into account extensively in the future analysis for Turkish generations. Most of the surveys do not ask about the existence of ‘religious partnership,’ which might be observed among first generation Turkish. The meaning and social acceptance of unregistered religious unions and cohabitation are different. Therefore, future studies may shed light on transformation across generations by referring to the details of unofficial co-residential unions.

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ANNEX A: HAZARD RATIOS OF UNION FORMATION AND DISSOLUTION BY SEX

Table A.1. Relative Risk of First Union Formation, by Sex

Variable	Men				Women			
	Standard Cox Model		Stratified Cox Model		Standard Cox Model		Stratified Cox Model	
Native	1.00		1.00		1.00		1.00	
1 st Generation	1.75	***	1.80	***	1.57	***	1.67	***
2 nd Generation	1.16		1.08		1.05		1.02	
Birth Cohort								
1991-1993	1.00		1.00		1.00		1.00	
1981-1983	0.79	***	0.80	***	0.97		0.97	
1971-1973	0.73	***	0.74	***	0.97		0.98	
Education								
No or primary	1.00				1.00			
Lower secondary	1.04				0.88			
Upper secondary	0.83	*			0.67	***		
Tertiary	1.18				0.86			
Pregnancy								
No pregnancy	1.00				1.00			
Pregnant	8.72	***	8.71	***	5.23	***		
Parity								
Childless	1.00				1.00		1.00	
1+	1.78	***			0.94		1.10	
Person-months	421335.00				349709.00			
Risk population	3749.00				3775.00			
Events	2033.00				2507.00			
Log Likelihood	-14495.87		-11904.25		-18072.06			
LR chi2	301.58		230.13		258.83			
Prob> chi2	0.00		0.00		0.00			

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Table A.2. Relative Risk of First Cohabitation, by Sex

Variable	Men				Women			
	Standard Cox Model		Stratified Cox Model		Standard Cox Model		Stratified Cox Model	
Native	1.00		1.00		1.00		1.00	
1 st Generation	0.55	***	0.57	***	0.44	***	0.44	***
2 nd Generation	0.55	***	0.55	***	0.44	***	0.42	***
Birth Cohort								
1991-1993	1.00		1.00		1.00		1.00	
1981-1983	76.00	***	0.76	***	0.91		0.93	
1971-1973	64.00	***	0.66	***	0.85	**	0.88	**
Education								
No or primary	1.00				1.00			
Lower secondary	1.16				0.89			
Upper secondary	0.86				0.69	***		
Tertiary	1.18				0.90			
Pregnancy								
No pregnancy	1.00				1.00		1.00	
Pregnant	7.93	***	7.84	***	4.23	***	4.07	***
Parity								
Childless	1.00				1.00		1.00	
1+	1.98	***			0.96		1.04	
Person-months	421335				349709			
Risk population	3749				3775			
Events	1824				2203			
Log Likelihood	-13026.12		-10755.02		-15890.89		-13625.09	
LR chi2	245.05		189.96		182.07		154.73	
Prob> chi2	0.0000		0.00		0.0000		0.0000	

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Table A.3. Relative Risk of First Marriage, by Sex

Variable	Men				Women					
	Standard Cox Model		Stratified Cox Model		Standard Cox Model		Extended Cox Model Main Effect	Interaction		
Native	1.00		1.00		1.00		1.00		1	
1 st Generation	17.67	***	17.59	***	12.01	***	66.90	***	0.98	***
2 nd Generation	14.66	***	13.79	***	9.67	***	44.59	***	0.98	***
Birth Cohort										
1991-1993	1.00		1.00		1.00		1.00		1	
1981-1983	2.66	**	2.58	**	2.60	***	2.38	***	1.002	***
1971-1973	5.38	***	5.31	***	3.94	***	3.85	***	1.01	***
Education										
No or primary	1.00				1.00		1.00		1	
Lower secondary	0.96				0.88		0.33	***	1.01	***
Upper secondary	0.62	*			0.52	***	0.11	***	1.02	***
Tertiary	1.32				0.55	**	0.03	***	1.03	***
Pregnancy										
No pregnancy	1.00		1.00		1.00		1.00		1	
Pregnant	14.63	***	15.89	***	12.12	***	78.03	***	0.98	***
Parity										
Childless	1.00		1.00		1.00		1.00		1	
1+	0.96		1.04		0.87		0.15	***	1.02	***
Person- months	421335				349709					
Risk population	3749				3775					
Events	209				304					
Log Likelihood	-1271.03		-1023.64		-1952.90		1902.03			
LR chi2	453.96		384.96		533.31		635.06			
Prob> chi2	0.0000		0.00		0.0000		0.0000			

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Table A.4. Relative Risk of Marriage after Cohabitation, by Sex

Variable	Men						Women					
	Standard Cox Model		Extended Cox Model				Standard Cox Model		Extended Cox Model			
			Main Effect	Interaction		Main Effect						
Native	1.00		1.00		1.00		1.00		1.00			
1 st Generation	1.54		6.57	***	0.95	***	2.29	***	2.14	***		
2 nd Generation	1.77	**	6.50	***	0.96	***	1.56		1.49			
Age at union formation												
<18	0.57	***	0.56	***			0.63	***	0.57	***	1.001	
19-22	1.00		1.00				1.00		1.00		1.00	
23-26	1.35	***	1.33	***			1.13		1.38	**	0.99 **	
27-30	1.40	***	1.38	***			1.05		1.43	**	0.99 **	
31+	1.35	**	1.36	**			0.94		1.14		0.99	
Birth Cohort												
1991-1993	1.00		1.00				1.00		1.00			
1981-1983	2.66	***	2.67	***			2.41	***	2.26	***		
1971-1973	3.51	***	3.55	***			3.11	***	2.92	***		
Education												
No or primary	1.00		1.00				1.00		1.00			
Lower secondary	1.18		1.16				1.28	*	1.25			
Upper secondary	0.91		0.98				1.07		1.05			
Tertiary	0.96		1.04				1.12		1.11			
Pregnancy												
No pregnancy	1.00		1.00				1.00		1.00		1.00	
Pregnant	5.72	***	5.75	***			5.81	***	8.2	***	0.99 ***	
Parity												
Childless	1.00		1.00				1.00		1.00		1.00	
1+	1.36	***	1.42	***			1.19	**	1.68	***	0.99 ***	
Person-months	421335						86302					
Risk population	3749						2187					
Events	2033						1076					
Log Likelihood	-14495.9		-				-6925.30		-6903.16			
LR chi2	301.58		5218.47				546.17		590.46			
Prob> chi2	0.0000		470.89				0.0000		0.0000			

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on pairfam

Table A.5. Relative Risk of Ever-married Divorce, by Sex

Variable	Men		Women	
	Standard Cox Model		Standard Cox Model	
Native	1.00		1.00	
1 st Generation	0.18	***	0.45	***
2 nd Generation	0.11	***	0.57	
Age at union formation				
<18	2.27	***	1.82	***
19-22	1.00		1.00	
23-26	0.52	***	0.73	
27-30	0.65		1.02	
31+	0.66		0.81	
Birth Cohort				
1991-1993	1.00		1.00	
1981-1983	0.18	***	0.31	
1971-1973	0.10	***	0.36	
Education				
No or primary	1.00		1.00	
Lower secondary	0.44	**	0.78	
Upper secondary	0.40	**	0.78	
Tertiary	0.33	***	0.51	*
Pregnancy				
No pregnancy	1.00		1.00	
Pregnant	0.81		0.67	
Parity				
Childless	1.00		1.00	
1	0.46	***	0.59	***
Type of first union				
Cohabitation	1.00		1.00	
Direct marriage	1.45		1.26	
Person-months	116012		176142	
Risk population	1050		1379	
Events	130		227	
Log Likelihood	-793.80		-1486.75	
LR chi2	66.52		46.72	
Prob> chi2	0.0000		0.0000	

*** p<.01, ** p<.05, * p<.1

Source: Calculations based on Pairfam

ANNEX B: MEDIAN AGE AT UNION FORMATION

Table B.1. Median Age and Duration for Partnership Trajectories

	Both	Men	Women
First Union			
Native	25.25	26.83	23.66
1st Generation	21.66	23.00	20.25
2nd Generation	24.50	26.75	22.66
Total	25.08	26.75	23.50
Direct Marriage			
Native	-	-	-
1st Generation	22.83	25.00	21.00
2nd Generation	28.58	28.58	26.66
Total	-	-	-
Cohabitation			
Native	25.58	27.16	23.92
1st Generation	31.50	31.50	34.25
2nd Generation	30.00	33.00	29.83
Total	25.75	27.33	24.08
Marriage after cohabitation			
	Duration since cohabitation (year)		
Native	4.42	4.42	4.42
1st Generation	0.75	1.25	0.58
2nd Generation	3.08	2.25	3.83
Total	4.42	4.42	4.33

Source: Calculations based on pairfam

Table B.2. Median Age at First Union

	Both	Men	Women
1st generation Turkish Immigrants			
Before migration	21.00	-	-
After migration	21.33	-	-
Total	21.66	-	-

Source: Calculations based on pairfam