The London School of Economics and Political Science

A Life Course Perspective on Social and Family Formation Transitions to Adulthood of Young Men and Women in Mexico

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Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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Abstract

This research examines the trajectories that young men and women in Mexico experienced during their transition to adulthood in the 1980s and 1990s. The study, particularly, considers two groups of significant markers of adulthood: social transitions (leaving education, entry into the labour force, parental home leaving), and family formation transitions (first sex, first partnership, and first birth). The thesis investigates the ways that these transitions were experienced among Mexican youth: first, by establishing the main interactions between social transitions and family formation transitions to adulthood; and second, by providing evidence of the main trajectories followed by young men and women in their passage to adulthood from a life course perspective.

Applying Event History techniques to retrospective data from the 2000 Mexican National Youth Survey, results show that young men and women experienced different patterns of trajectories in their transit to adulthood marked by a strong gender component. While young men showed a lag between the experience of social and family formation transitions characterized by work-oriented trajectories, young women often experienced almost simultaneous occurrence of social and family formation transitions leading to predominantly family-oriented trajectories to adulthood. Differences between urban and rural respondents were also found to be significant.

Another conclusion of the study is that many young people found great difficulty in obtaining their first job after leaving education, leading to high unemployment. Despite the lack of employment opportunities for Mexican young people, family formation transitions were not substantially postponed until later ages unlike many developed nations. The findings also confirm the importance of education on the experience of transitions to adulthood. The study shows the need to restructure the Mexican educational system to enable young people to work and study simultaneously, without having to leave education immediately after entering the labour force. These findings highlight the need to strengthen and reinforce current education policies to stimulate labour force participation of young women.

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Chapter 1. Introduction

> *"When Oedipus reached the gates of the city, the terrible monster with the body of a lion and the head and torso of a woman posed her riddle: Which creature in the morning goes on four feet, at noon on two, and in the evening upon three? Oedipus successfully answered the riddle posed by the sphinx, answering "Man". Man crawls on all four in infancy, walks upright on two legs in adulthood, and uses a cane as a third leg in old age".* Extract from Oedipus and the riddle of the sphinx.

1.1 Transitions to Adulthood in Mexico: Objectives and Research Question

This research examines the trajectories that young men and women in Mexico experienced during their transition to adulthood during the 1980s and 1990s. The distinctive process in which an individual becomes an adult can have several different meanings. In the socio-demographic literature, becoming an adult usually involves a number of key transitions. These are marked by a series of interrelated events, including the achievement of economic independence and the establishment of a family. However, not everyone experiences all of these "markers" of adulthood (Billari 2001), and individuals who experience all or only a few of these transitions follow trajectories with different sequences in the order of events.

Transitions and *trajectories* are two central concepts in the contemporary study of this particular process that involves becoming an adult. They represent two analytical possibilities or scopes: the short and the long view, respectively. Transitions are inserted within trajectories (Elder 1985) and, at the same time, transitions shape the form of trajectories. Thus, trajectories also include the creation of different sequences of transitions or events, generating "disordered trajectories". *Disordered trajectories* imply

the experience of transitions to adulthood out of the "*socially expected normative*[1]" sequence (Elder 1974; Hogan 1978; Hogan 1980).

Contemporary research in the field of transitions to adulthood has moved to the importance of the sequencing of individual transitions from an holistic perspective to understand the life course of young adults. Based on sequence analysis, Aassve, Billari et al. (2007) studied young women's work and family trajectories in Great Britain, and Robette (2008) analysed the rise of a "modern" pathway to adulthood followed by French men and women. Both studies analysed the experience of heterogeneous trajectories to adulthood. However, there were distinctive patterns in each society in the experience of transitions to adulthood. For instance, young women in Great Britain have mainly followed work oriented trajectories rather than family oriented ones (Aassve, Billari et al. 2007), while French young men's and women's trajectories are frequently characterized by unmarried unions and late childbearing (Robette 2008). In the French case, the great diversity of trajectory typologies have been mostly linked to the orientation between both work and family for women, and a delayed entry into adult roles for men (Robette 2008).

Researchers interested in the study of transitions to adulthood from an holistic approach have also applied entropy analysis. However, this tool is entirely different from sequence analysis, as its focused is not on trajectories but on quantifying the amount of heterogeneity in the young adult years. Among this research there is the work of Fussell, Gauthier et al. (2007) and Grant and Furstenberg (2007). The first one studied the transitions to adulthood by examining multiple events in the context of Australia, Canada and the United States. Although the transitions to adulthood have increasingly been prolonged in all three countries, each country presented distinctive patterns in the way in which young people experienced the transitions to adulthood. The authors found that young people in the United States experienced a more uniform and shorter transition to adulthood than their peers in Australia and Canada. The article also shows that young men's and young women's levels of heterogeneity were similar during adolescence but sharply differed after the early twenties. The article by Grant and Furstenberg extends the analysis of entropy to the case of less developed countries.

[1] *The concept of the normative timetable implies a preferred sequence of related activities or stages in a line of activity"* (Elder 1974 p. 176); "*Normative concept extends to specify not only the ideal age for each event, but also suitable age ranges*"(Hogan 1980 p. 261).

Using data from 6 Latin American and African countries (Colombia, the Dominican Republic, Peru, Cameroon, Ghana, and Kenya), the authors found important changes in the timing of key events of the transitions to adulthood of young women, partly due to the increases in female educational attainment (Grant and Furstenberg 2007).

Studies in the developing world that have considered young men's and women's trajectories to adulthood are scarce. However, research on transitions to adulthood indicates that individual transitions to adulthood vary by gender (Lloyd and Grant 2004; Echarri and Perez Amador 2006), area of residence (Echarri and Perez Amador 2006), amongst others. For instance, Echarri and Perez Amador found that Mexican young women experienced their transitions to adulthood earlier than men and rural young people commenced their transitions to adulthood at an earlier age than urban young people. The article by Lloyd and Grant (2004) examined gender differences in the transitions to adulthood in Pakistan. Lloyd and Grant found that young people who attended school eventually assumed gender-stereotyped roles. However, these young people delayed the process of transitions to adulthood compared with young people that never attended school. For both young men and women, there appeared to be a lag of some years between assuming the social role of worker and assuming family roles. While for young men this lag was between entry into the labour force and marriage, for young women the lag was between school exit and marriage or, if never in school, between the assumption of domestic responsibilities and marriage.

Though some contributions in the timing of transitions to adulthood have been made in Mexico (Echarri and Perez Amador 2001; Echarri and Perez Amador 2006), studies that focus on the relationship between both social and family formation transitions, sequencing of transitions to adulthood or trajectories to adulthood are scarce. In the majority of demographic and reproductive health studies in Mexico, women were the unit of analysis. The available studies that have considered relationships between transitions have used information only for women (Tuiran 1998; Lindstrom and Brambila 2001). A full understanding of trajectories to adulthood of Mexican young people requires the analysis of the relationship between the various transitions to adulthood, and, in particular, the inclusion of both young men and young women.

This study considers two groups of significant markers of adulthood: social transitions to adulthood and family formation transitions to adulthood. The first group comprises the experience of leaving education, entry into the labour force and leaving the parental home. The second includes the experience of first sexual intercourse, first partnership and first birth. On the one hand, the experience of social transitions leads to the achievement of social roles, such as that of worker; or leads to the loss of social roles – that is the case of young people that interrupt or complete education and leave the role of student. On the other hand, the occurrence of family formation transitions gives individuals family role status, such as those of spouse and parent.

This research investigates how Mexican young men and women have experienced different trajectories of adulthood with the conjuncture that gender played a key component in the way young men and women experienced their transition to adulthood in Mexico during the 1980s and 1990s. It is believed that Mexican young men and women have been experiencing different trajectories with different sequencing in the order of transitions or *disorder trajectories*. In order to prove this, it is necessary to *decompose* whole trajectories into their individual components to establish the exact relationships among transitions for young men and for young women, i.e. examine the interrelationships between individual transitions for young men and young women. Thus, to fully understand how trajectories to adulthood are constructed between genders, it is essential to first establish the associations of the individual components of the whole trajectory between young men and young women. This is a critical aspect to obtain a more accurate picture of the way that transitions to adulthood interact between one another by gender. In other words, in order to reach accurate estimates that reflect the actual experiences of Mexican youth, it is crucial to study the relationship of transitions at a micro level by estimating the way that these markers interact between one another to form these trajectories. Despite the recent advances in the techniques to build whole trajectories to adulthood (Aassve, Billari et al. 2006; Aassve, Billari et al. 2007; Robette 2008; Billari c2001), this work seeks to emphasize the importance of studying the relationships between individual transitions to adulthood from a life course perspective for both young men and women.

The inclusion of both Mexican young men and young women into the study of transitions to adulthood is possible due to the very recent recognition of young men as

key actors in the reproductive and sexual health of young women, and in particular, in their own experience in the family formation process. Young men play a key role in society, particularly in Mexico, which is characterized by traditional gender roles, and where the decisions of men are of paramount importance within the family, the work place, etc.

In the Mexican literature regarding gender roles, socioeconomic status and generational differences come across as the main two factors associated to gender inequalities among Mexican population (Szasz 1993; Szasz, Rojas et al. 2008). While in older cohorts and less privileged socioeconomic classes the relationship between couples is based on the role of men as household authority and provider (breadwinner) and on the role of women in domestic work, household and reproductive activities, among younger generations and better-off socioeconomic groups, the relationship between couples is based on the wellbeing within the marital couple and the idea of "romantic love" (Szasz, Rojas et al. 2008). Although, gender inequalities are common among all socioeconomic and intergenerational groups in Mexico, young women with access to economic resources and education opportunities show more possibilities of autonomy and negotiation (Amuchastegui and Rivas Zivy 2004).

This study examines the process involving social transitions and family transitions to adulthood among different groups of Mexican young people, and the main associations between transitions that lead to different trajectories followed by young men and women. Consequently, the main aim of this research is to understand the way that the various social and family formation transitions considered in this research have shaped trajectories towards adulthood in Mexico for young men and women. The importance of focusing on the sequencing of the various social and family formation transitions is to explore the dynamics involved in the transition to adulthood by young men and women in Mexico. This thesis contributes to our understanding of the process of transitions and trajectories to adulthood in the context of Mexico. Thus, this research seeks to make a contribution in two ways: first, by establishing the main relationships between social and family formation transitions to adulthood of Mexican young men and women; and second, by providing evidence of main trajectories followed by young men and women in their passageway to adulthood in Mexico from a life course perspective. Therefore, the research's unique contribution lies in its study of individual

sequence of events in order to better understand whole trajectories to adulthood between Mexican young men and women.

In studying the process involved in the transitions to adulthood in Mexico, two main questions arise:

- How did social and family formation transitions interact with each other among young men and women in Mexico and how did they differ by area of residence and birth cohort?
- How were social and family formation transitions to adulthood shaping trajectories to adulthood among Mexican young men and women? What were the most common trajectories to adulthood of young men and women in Mexico and how did these differ between young men and women?

The study is central in understanding the sequences of both social and family formation transitions in shaping this crucial period of the life course of individuals. This thesis aims to study transitions to adulthood by investigating the timing and sequencing of key indicators happening for the first time. Therefore, this work does not analyse the reversibility of first transitions or repeated transitions, such as marital dissolution, periods of unemployment, periods of returning to the parental home, etc. Hence, the analysis treats transitions as "irreversible" processes.

1.2 The Importance of Transitions to Adulthood

The study of the pathway in which an individual becomes an adult is an important research area due to the influence the trajectories to adulthood have on the future role of individuals in society. Therefore, the transition from adolescence to adulthood, as a process itself, has always been an important field of research in human development and other disciplines.

As a concept, the *life course* of an individual has been defined as the "sequence of socially defined events and roles" (Giele and Elder 1998 p.22) experienced during the life span. The importance of focusing on the life course of adolescents and young people through the study of their transitions to adulthood lies in the fact that it is during this period of life that almost all fundamental decisions and choices will occur. However, it is during this period of development that multiple decisions or pathways have to be taken, for instance, to continue studying or to enter the labour force, to marry or to postpone marriage, etc.

Adolescence is a crucial period where major decisions are taken that will affect the future life course. From a macro perspective, the changing trajectories of young people are of great importance to the country, as for example, young people of today will represent the future labour force of the nation. The pathways to adulthood chosen in this process of development will determine future life outcomes – but in some cases there will not even be a choice because of their precarious economic conditions or inability to take decisions or make choices.

The transitions to adulthood have been addressed by a series of different disciplines. Among them, there are studies in the fields of human development, sociology, biology and psychology. In recent years, one field that has attracted increasing interest in the study of transitions to adulthood is the research into the demographic life course (Billari, Fürnkranz et al. 2000). When it comes to analytical strategies, demography has been prominent in the study and research of transitions to adulthood (Shanahan 2000). Nonetheless, other disciplines have had an enormous impact in the way that the study of transitions to adulthood has been addressed.

1.3 Recent Demographic Trends in Mexico: Why is the study of Transitions to Adulthood relevant in Mexico?

In recent decades, Mexico has undergone significant economic, political, social, and demographic changes. After various severe economic crises, the economy has gone through a process of restructuration while experiencing a rapid modernization (Tuiran

1998). In the political sphere, the country has seen the renovation and consolidation of the main political forces and political parties of the country (Tuiran 1998). Consequently, after achieving deep and structural institutional reforms, the first signs of a true democracy have been seen. In the social context, the rapid processes of urbanization and industrialization resulted in an increase of female participation in the labour force and the expansion of the education system (Tuiran 1998). For instance, rural population decreased from 41.3% in 1970 to 23.5% in 2005 (Table 1.1).

Demographically, in the past three decades, the Mexican population doubled its size. The 1970 Population Census registered a total of almost 50 million people, and according to the 2005 Mexican Population Count[2], population size reached 103 million. The 1970's population growth rate was extremely high, at a level of 3.1%. By 2005, it had fallen to 1.0%. The expansion of female participation during the 1970s coincided with the reduction in fertility, as Mexico's reductions in fertility started to occur in the decade of the 1970s. For instance, fertility began its decline during the early 1970s, going from a Total Fertility Rate (TFR) of nearly 6.5 children per woman in 1970 to 2.2 by the year 2005 (Instituto Nacional de Estadistica y Geografia 2005). Since the mid 1970s, the use of contraception in Mexico has been a successful mechanism to reduce fertility, especially among married women who have already completed their desired family size (Zavala de Cosio 2001). According to the estimates, the rates of use of contraception among married women increased from nearly 10% in 1970 (Tuiran 1998), to almost 70% in the late 1990s (Instituto Nacional de Estadisitca y Geografia 2007). Nevertheless, the average number of children per single women over 12 years old increased from 0.1 children in 1970 to 0.2 in the year 2000 (Instituto Nacional de Estadisitca y Geografia 2000).

Both increases in female labour force participation and a successful family planning programme have been key elements in the steady decline in fertility seen in past decades. As a result, a process of aging within the Mexican population has been initiated. Nevertheless, the country's age profile remains still young. In 1970, the median age of the population was 17 years. By 2005, it increased to 24 years. In terms of mortality indicators, levels of mortality in Mexico initiated a declining trend since the

[2] In Mexico, Population Censuses are carried out every 10 years in years ending in 0 and Population Counts are also carried every 10 years but in years ending in 5. Population Census are far reaching in terms of topics covered than Population Counts, which as their name indicate, are a limited count of population and specific demographic indicators.

1940s until the 1980s, period in which the reduction slowed down. Infant Mortality Rate (IMR) declined from 65 per thousand in 1970 to 16.8 per thousand in 2005, affecting fertility levels, and also the experience of family formation transitions to adulthood. Life expectancy at birth rose from 60 years in the late 1960s to 75 years in 2005 (Instituto Nacional de Estadisitca y Geografia 2007).

Table 1.1 Main demographic and social variables of Mexico 1970-2005

Variables	1970	1990	1995	2000	2005
Total Population (in millions)	**48**	**81**	**91**	**97**	**103**
Total fertility rate (children p/women)	6.5	3.4	2.9	2.8	2.2
Life expectancy (years)	60	70.6	72.4	73.9	74.6
Infant Mortality Rate (per 1000)	65 [d]	39.2	27.7	19.4	16.8
Median Age of population (years)	17	19.0	21.0	22.0	24.0
Average educational attainment (years)[a]	3.4	6.6	n.a.	7.3	8.1
Rate of incomplete basic education (%)[b]	n.a.	62.8	57.2	53.1	44.8
Rate of economic participation (%)[c]	n.a	53.6	55.6	55.7	n.a.
Rural population (%)	41.3	28.7	26.5	25.4	23.5

[a] Population 15 years old and over.
[b] Refers to population 15 years old and over that have not completed basic education
[c] Population 14 years old and over.
Source: INEGI (2007); [d] Direccion General de Estadsitica 1989.

The increasing age at leaving education of both young men and women in the past decades brought as a result increases in educational attainment. The effects were reflected in the average number of years in education that increased from 3.4 years in 1970, to 6 years in 1990, and to 8.1 years in 2005. Despite the increases in educational attainment, there still is a large sector of the population that is unable to stay long enough in medium and higher education. In terms of population 15 years and more that did not complete basic education, the proportion reduced to 63% in 1990 to 45% in 2005 (Table 1.1).

Concerning the sphere of labour force participation, with smaller family sizes and higher educational attainment, more labour force opportunities have become available, particularly for women. In 1970 the net rate of participation in the labour

force for women was 16.4%. In less than 30 years, the rate doubled to levels of 34.5% in 1995 (Oliveira, Ariza et al. 2001). Although educational attainment has significantly increased in the past decades, entry into the labour force has been experienced at very young ages (Echarri and Perez Amador 2001).

All the changes that have occurred in Mexico have modified, and are still modifying, the practices of population, establishing a process of "modernization" of the Mexican society with effects and consequences in all aspects of daily life. As a result of these societal changes, today's Mexican young people are experiencing different conditions compared with those lived by their parents when they were young. Past cohorts had more restricted options of life course. For instance, unmarried pregnant women, *certainly,* had to get married or enter cohabitation; men were "sole" bread winners and heads of household; leaving the parental home could only occur through marriage.

Mexican young people of today are facing different circumstances; they can opt from a variety of alternatives not available in the past. For example, there has been an increase in the number of women in the labour force (Garcia and Pacheco 2000); the meaning of marriage has changed among young people (Quilodran 2006); premarital sex is more common and more accepted (Stern 2007); pregnant unmarried women can choose to become single mothers avoiding forced marriages (Mejia-Pailles 2002); young people are leaving home for other reasons than marriage (Perez Amador 2006), and so forth.

These changes in the pathways towards adulthood available to young people are partly attributed to the effect of the modernization of the country. Mass media are responsible for some of these new emerging pathways to adulthood (National Research Council and Institute of Medicine 2005). For instance, Western films, radio, and television have contributed to a *global teen culture* in aspects such as music and fashion. Moreover, mass media are also extremely influential on young people's aspirations, values and attitudes, often opposite to those of their traditions and values of their own culture (Condon 1988).

Mexico remains a country with a young population in terms of the number of young people currently experiencing their transitions to adult life and the number of young people that will experience their transitions to adulthood in years to come.

Therefore, the study of transitions to adulthood is of utmost importance given the nation's young profile, as current conditions will affect the transitions to adulthood, and at the same time, the experience of transitions to adulthood will affect the economic, social and demographic condition of Mexico.

Nevertheless, modernization of Mexican society is accompanied by some negative effects and some unresolved issues. For example, poverty not only represents a great challenge, as young people in deprived conditions are unable or find it very difficult to develop their full potential. Labour markets are more competitive and obtaining a job is more difficult. Due to the persistent economic crisis[3], the Mexican labour market has become less stable. Thus, the times of recovery of employment seen before the 1970s no longer exist (Tuiran 1999). The economic growth of the country has remained low to generate the amount of jobs required for the growing number of young people making their entry into the labour force each year, forcing them to engage in the informal sector (Benitez Zenteno 2000). Moreover, with the insufficient supply of employment, young people of today are facing difficulties in finding a job once they become unemployed (Benitez Zenteno 2000).

Despite the recent demographic trends, the reduction in fertility was achieved in very poor circumstances of economic progress. In terms of development, poverty in Mexico continues to be the nation's main problem. The development of the country has been characterized by great inequality (Mier y Teran and Jones 1993). Large sections of the population in both rural areas and in the cities have had little or no access to the benefits of development. According to recent World Bank estimates, half of the population lives below the national poverty line; 20.4% are considered to live in extreme poverty, with an income equivalent to less than $2 US per day, and 4.5% with a daily income of less than $1 US per day (World Bank 2007). Moreover, poverty is a powerful mechanism of social exclusion and unequal opportunities for young people. These inequalities are reflected in terms of the diverse experiences of transitions to adulthood among different groups of population. Therefore, the nation's biggest challenge ahead is not to grow old and with large sectors of the population in deprived conditions.

[3] Since the 1970s, the country has faced persistent crisis every decade. During the 1970s the Mexican economic model of import substitution collapsed, leaving the country in a vulnerable state to external conditions. In the 1980's the country saw one of its most profound recession. In the 1994, the Mexican peso collapsed causing the country's economy to fall again in recession.

A very important issue in the study of transition to adulthood of young men and women in Mexico are a series of gender issues affecting adolescents into their passageway to adulthood. Gender determines the idea of how young men and young women built their identities in Mexican society (Amuchastegui 2001), especially in the way Mexican population build relationships between men and women. Poverty diminishes the chances of better and equal gender opportunities and prospects. Given the huge existing inequalities in wealth distribution among Mexican population, Mexico is one of the countries with some of the largest gender inequalities in the Latin American region (Szasz, Rojas et al. 2008). Thus, Mexican society has been characterized by significant gender differences, which cover most aspects of daily life, such as education enrolment, labour force participation, sexuality and marital unions, among others. Consequently, a gender component is critical in the study of transitions to adulthood.

1.4 Framework for Analysing Transitions to Adulthood in Mexico

In the past years, the study of transitions to adulthood has been carried out taking into consideration a series of conceptual frameworks. These frameworks have usually included macro-level factors and micro-level determinants in the occurrence of the transitions to adulthood and the different trajectories derived from the first ones. Macro-level factors mainly refer to large social forces, such as employment markets and welfare states. These factors shape micro level variables that refer to individual characteristics, such as demographic determinants and socio-economic background (Marini 1984).

1.4.1 Existing Conceptual Frameworks for Analyzing Transitions to Adulthood

Most of the evidence of the study of transitions to adulthood comes from empirical inquiry. The work of Marini (1984) was one of the first attempts in trying to find some of the causal factors that determine the differences in the order of events in the life course. Consequently, Marini's (1984) framework consisted of two key elements: the influence via the involvement in transitional roles and the influence via the timing of adult role entry. The former were viewed as activities mediating the transition to adulthood, and the timing of adult role entry included the measurement of the opportunity to enter an adult role and an individual's orientation toward the role.

Based on Giele's and Elder's (1998) framework, the IUSSP Scientific Panel on Transitions to Adulthood in Developed Countries (2003) has used a framework based on the influence of macro and micro level variables on individual and group level transitions to adulthood. The Panel has included 4 main factors affecting each other: location in time and place defining history and culture; human agencies setting the development of individuals; social relationships; and finally, timing placed by the intersection between age, period and cohort. All these 4 macro level variables generate the different trajectories of the life course in a micro level perspective.

Another important conceptual framework for analysis has been adopted by the National Research Council and Institute of Medicine (2005) to study the changing transitions to adulthood in developing countries. The panel has proposed 3 levels that affect individual behaviour and, in consequence, changes in the experience of transitions to adulthood. The first level has been defined by the global context, followed by the national context, and the last level has been defined as the local context. The way in which one level influences the other(s) follows a specific direction. For example, global context determines national context and local context. However, both the national and the local contexts influence each other. At the same time, the local context determines and is determined by changes in individual characteristics, which establish and are established by changes in the transitions to adulthood.

1.4.2 Adopted Conceptual Framework for studying Transitions to Adulthood in Mexico

Due to the process of globalization, the world has never experienced before such a great amount of changes in all aspects of economy, society and daily life in such a short period of time. New technologies have emerged. New ideas have come into play coexisting with traditional values and norms. Globalization has had a rapid effect on population, by transforming many attitudes and behaviours. In consequence, young people of today are facing different circumstances in terms of labour force markets and life experiences (Caldwell, Caldwell et al. 1998; Zlidar, Gardner et al. 2003; National Research Council and Institute of Medicine 2005).

In Western societies, the passageway to adulthood has not been marked by a single event (Marini 1978), as in certain societies with less complex forms of organization sometimes occurs (Hogan 1978). Adult status has usually been reached by the occurrence of several processes. The Panel on Youth (1974) established that some of the most important markers of adult life were the completion of formal schooling, the achievement of economic independence through the beginning of full time employment, and the formation of one's nuclear family through marriage. Existing socio-demographic literature has taken into account a set of transitions to adulthood that have usually included processes such as leaving education, entry into the work force, parental home leaving, first marriage and first birth as classic markers of transitions to adulthood (Hogan 1978; Marini 1986; Echarri and Perez Amador 2001). However, the selection of the transitions to adulthood is a subjective decision associated with the importance of the processes in determining adult roles in a particular context. In some cases, the selection of transitions to adulthood also has to do with the availability of information to study the process of becoming an adult.

This research focuses on six first time experiences consider to be important markers of transitions to adulthood in the context of Mexico and that have not been all included before in the literature of trajectories to adulthood of the country. These six markers of adulthood are used in order to establish the main trajectories to adulthood followed by Mexican adolescents and young people during this part of their life course. Based on their nature, the thesis considers these six transitions into two separate groups:

Social Transitions to Adulthood. The first group of transitions comprises the following transitional markers:

- ***Leaving Full Time Education.*** The first transition considered in the analysis is completing or leaving education. Education serves as a formative stage to pursue adult roles. In this thesis leaving education is defined as the interruption or completion of education. On the one hand, interrupting education refers to dropping out from education. On the other hand, when leaving education occurs after achieving higher educational attainment, then leaving education refers to completing education.

- ***Entry into the Labour Force, including both part time and full time employment.*** Entry into the labour force implies the transition into the labour market for the first time, including both part time and full time employment. The Mexican National Institute of Statistics and Geography (INEGI for its acronym in Spanish) has defined population in the labour market as population that worked at least one hour or one day in a given week of reference to produce goods and/or services. This definition includes both paid and "directly" unpaid employment (Instituto Nacional de Estadisitca y Geografia 2008). Due to the data limitations, it was not possible to differentiate between full time and part time employment, and whether this was paid or unpaid. Therefore, the term of *entry into the work force* used throughout this thesis includes both paid and unpaid employment, and both part-time and full-time jobs.

- ***Parental home leaving***. Leaving the parental home was defined as the transition experience through which individuals achieve independent residence from that of their parents or nuclear/extended family household. The difficulties of measuring this transition reside in the non necessary financial independence of individuals when experiencing parental home leaving. Given the nature of the data, it was not possible to differentiate between these two types of new residences. Therefore, the concept refers to young people who were no longer living in the parental house regardless of whether they were financially independent or not. Moreover, as young people can leave home several times, leaving home constitutes a reversible transition. To simplify the analysis

involved in measuring such a complex process, this analysis focuses on leaving home for the first time.

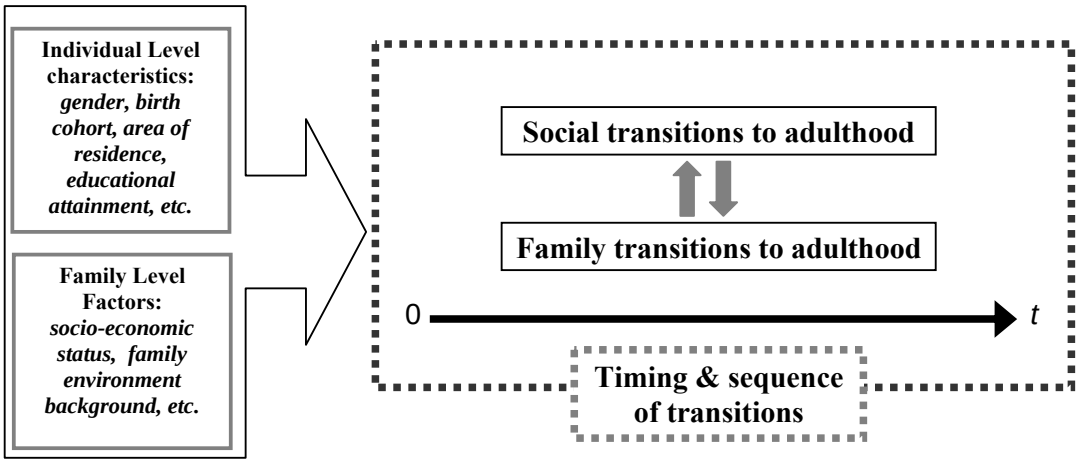
Family Formation Transitions to Adulthood. This second group of transitions includes the following transitions to adulthood:

- ***First sexual intercourse.*** First sexual intercourse refers to the first time individuals had sexual relationships. The term "first sex" is also used throughout this research. The inclusion of this transition is rather relevant in the study of family formation transitions to adulthood in the context of countries like Mexico, given its direct relation with partnership and childbearing (Miller and Heaton 1991; Parrado and Zenteno 2002; Stern 2007).
- ***First partnership, including both cohabitation and marriage.*** In case of first partnership, the marker was used to measure the timing at which both male and female respondents entered cohabitation or marriage for the first time. The data used in the analysis did not distinguish between these two forms of partnership. Therefore, the term first partnership used throughout this document comprised both marital and non-marital unions (see section 2.4.3 for further explanation).
- **Entry into childbearing.** This transition constitutes the transition to parenthood for the first time. In other words, entry into childbearing, also refer to as first birth, implied the birth of the first offspring, regardless of the marital status of respondents.

Markers of transitions to adulthood do not necessarily need to have a standard inclusion for their analysis. The selection of the social and family formation transitional markers can be different from the ones used above in completely different settings or even in a similar one. For instance, in developed societies the connection between leaving education has directly been linked to entry into the work force. Therefore, some studies have not taken into account both transitions due to the strong association implied in leaving education and the immediate entry into the work force, and have only focused on the transition into the labour force (Robette 2008). Nevertheless, other studies have included both completion of education and first employment as independent events, as

women in particular do not necessarily join the work force after completing or leaving education (Marini 1984). Another example has been the relatively rare inclusion of age at first sex when studying transitions to adulthood in developed societies (Billari 2001), due to the weak association between first sex, first partnership and first birth (Miller and Heaton 1991). In contrast, in developing countries first sex constitutes a very important indicator of adulthood, as it serves as an important marker to begin the path towards family formation roles, particularly for young women (Singh, Wulf et al. 2000).

Figure 1.1 Conceptual Framework for the study of Social and Family Formation Transitions to Adulthood in Mexico



Source: Author's own interpretation and construction.

Figure 1.1 presents the conceptual framework used to guide the study of transitions to adulthood in Mexico, the relationship between one another, and the form these transitions have been shaping trajectories of adulthood in Mexico. It also serves as a way to structure this thesis. The proposed conceptual framework merges some of the main concepts from the IUSSP Scientific Panel on Transitions to Adulthood in Developed Countries (2003) and National Research Council and Institute of Medicine (2005). However, the conceptual framework used in this analysis operates based only

on the micro level of analysis. It is acknowledged the existence of macro level factors in the influence of transition to adulthood, and the different levels these macro level factors operate upon. However, these factors were not addressed in this research given the type of micro-level data[4] used in the analysis. Moreover, the analysis of macro level influences was beyond the scope and interests of this study. Therefore, the proposed conceptual framework focuses on micro level influences given the main objectives of this research in exploring patterns of the transitions to adulthood in Mexico in recent years.

Following a life course approach, which considers the sequencing of transitional markers to adulthood, the timing of transitions to adulthood is given by a series of (micro level) determinants. These micro level factors are responsible for shaping the timing and sequence of social and family formation transitions to adulthood that subsequently lead to the different trajectories of adulthood during the life course. Among these micro level factors are individual level and family level factors. Individual levels factors include characteristics such as gender, birth cohort, area of residence and educational attainment; family level factors are given by determinants such as parental educational attainment, household composition, intergenerational patterns and family environment background.

Equally important, the experience of transitions to adulthood is also affected by the earlier occurrence of certain transitions to adulthood. Consequently, both social and family formation transitions interact between one another, creating important associations that generate sequences of transitions. The different sequences lead to a series of trajectories to adulthood. Therefore, both the sequence and speed (timing) of the trajectory are also a function of the various micro level determinants, as well as other transitions experienced earlier.

The terms "youth," "adolescents," and "young people" have been all used to describe people in the stage of life that marks the transitions from childhood to adulthood. The World Health Organization (WHO) defines "adolescents" as people between 10-19 years old, "youth" as those between 15-24 years old, and "young people" as those age 10-24 (World Health Organization 1989). Experiencing the

[4] Unfortunately the data set used through out the analysis does not include macro data indicators to study the roles of such kind of factors in shaping social and family formation transitions in Mexico.

transitions to adulthood could start during childhood or teenage years. Moreover, transition to adulthood can continue well past age 24 (Furstenberg, Cook et al. 2002). The population used for the analysis includes information on Mexican men and women between 20 to 29 years old, from a representative sample of the 2000 Mexican National Youth Survey. Therefore, in this research the term "young people" is used to make reference to the experiences of men and women in their passageway to adulthood, commencing at early ages and well past age 24, as the research includes a broader group of men and women compared with WHO's definition.

1.5 Thesis outline

The main idea in this research is to move from the particular to the general picture of the trajectories to adulthood in Mexico. Therefore, the thesis is structured to move from the basic levels by analysing single social and family formation transitions to adulthood each at a time, continuing with the main associations between one another, and from there, move to the general picture of the trajectories to adulthood in Mexico from a life course perspective.

In order to do so, after this introduction, Chapter 2 reviews the main research done in the field of life course literature, in particular, transitions to adulthood in both developed and developing countries by showing the state of knowledge and main contributions in this field of research and the relevance to the present study.

In order to study the social and family formation transitions in Mexico, it was necessary to count with the suitable source of information that included the relevant information for this analysis. Chapter 3 describes the data and methods used to carry out the analysis. The first part of the chapter introduces the survey, presenting a description of the information used throughout the thesis. The chapter also states the necessary assumptions made in order to use the information, the way covariates were estimated, as well as the data limitations during the process of analysis. The second part of the chapter describes the methods for the analysis. Given the nature of the data, the analysis used time to event models, mainly consisting of Survival Analysis.

The construction of trajectories in Mexico consists of two key elements: timing and sequencing between social and family formation transitions to adulthood. Therefore, in order to understand the occurrence of the different trajectories to adulthood of young men and women, it was important to first understand the occurrence of each of the social and family formation transitions included in the analysis.

The determinants that lead to the occurrence of the transitions to adulthood in developing countries has not been exactly the same to that of developed societies (Corijn and Klijzing 2001; National Research Council and Institute of Medicine 2005). To begin with, developing countries tend to present earlier patterns at starting transitions to adulthood than developed countries (Echarri and Perez Amador 2001). Not only that; the circumstances that influence the occurrence of certain events is different depending on the different contexts. Chapters 4, 5 and 6 present the findings on social and family formation transitions to adulthood. Chapter 4 presents the outcomes of leaving education and entry into the labour force. Chapter 5 shows the findings regarding family formation transitions, i.e. first sexual intercourse, first partnership and first birth. Chapter 6 presents the outcome of leaving the parental home in Mexico. These three chapters also show the results from the main interactions between each social and family formation transition on one another. The effect of one transition on the occurrence of another transition is estimated, as well as the variations according to a series of individual and family level determinants.

Chapter 7 shows the main trajectories to adulthood of young people in Mexico derived from the main associations between social and family formation transitions presented in Chapters 4, 5 and 6. As gender is a key issue in the process of transitions to adulthood in Mexico, analyses were run separately for young men and women.

Finally, Chapter 8 summarizes and discusses the main findings and conclusions arising from this research. Gender turns out to be one of the most important determinants in shaping trajectories to adulthood of young men and women in Mexico. The study concludes that both social and family formation transitions were marked by a strong gender component. Given that there was not a gender inequality component in the data, the results are consistent with the gender differences in Latina America. Despite the gender similarities in education attainment in Mexico (Echarri and Perez Amador 2006; Urquiola and Calderón 2006), our findings showed that young men and

young women in Mexico experienced different patterns of trajectories in their transition to adulthood. While young men showed a lag between the experience of social transitions and family formation transitions characterized by work-oriented trajectories, young women often experienced almost simultaneous occurrence of social and family formation transitions that predominantly led to family-oriented trajectories to adulthood. In addition to the gender differences, both individual and family level factors were important determinants in the timing and occurrence of both social and family formation transitions, amongst them, area of residence. This research also highlights the importance of educational attainment to fully develop skills and the capacity to face the challenges in adult life. Based on the results from the analysis, this chapter also puts forward an agenda for policy recommendations to enable young people to reach their full potential in the experience of transitions to adulthood in Mexico. Given the scope and limitations of this research, the last section provides a series of lines for further research on the field of transitions to adulthood in Mexico.

Chapter 2. Transitions to Adulthood: A Review of the Literature

The following review of the existing literature brings together some of the most relevant research in the field of transitions to adulthood. Since the study of transitions to adulthood was derived as a fragment of the trajectory of individuals during their life spans, the first section deals with the origins of the life course as a field of research and the way transitions to adulthood were originally studied by researchers. Given the availability of data, most of the evidence on transitions to adulthood comes from developed societies. Therefore, the second section continues with some of the most important contributions in the literature of these societies, and moves forward to the exiting literature on developing countries. The next section presents evidence on social and family formations transitions in both developed and developing countries, including empirical findings from a series of studies that have included individual and family level factors in the study of these two groups of transitions. Finally, the last section shows the early and recent research in the study of trajectories to adulthood. This part of the chapter mainly discusses the literature available on developed societies.

2.1 Transitions to Adulthood: a Study of Early Experiences in the Life Course

The first studies to focus their analysis on the stage formed by the transitions to adulthood were those by life course research. The *life course* approach found its theoretical and research origins in the early Chicago School of Sociology (Elder 1978). Since its first stages, the life course approach went through two main schools of thinking (Elder 1985). The first school covered the period before the decade of the 1940s, associated with the Chicago School of Sociology. The second era started to develop since the 1960s. In both of them, the main objective was to study the way in which individuals and society, as a whole, were responsible and, at the same time, part of social change.

The first era of the life course dynamic centred its interests in the rapid migration processes, which resulted in the rapid growth of cities in the United States of America. This high speed of expansion was mostly due to the favourable social and economic development that those cities were experiencing at the time. The Chicago School focused its attention on social changes and the problems taking place in the various urban contexts, such as the consequence of the waves of immigrants to large cities, increases in crime rates and family disorders.

However, the *theoretical* frameworks were not enough to explain the social changes reflected in the new trajectories followed by individuals in the following decades (Elder 1985). The existing body of knowledge did not fit the new *positivism* of the Social Sciences after the Second World War. Even though a new and very popular school of thinking had been created, researchers needed to update *theoretical* frameworks to the new empirical evidence. For that reason, the second wave of the life course approach introduced new and updated theoretical models, longitudinal data collection and advanced statistical models for analysis (Elder 1985). The second era highlighted its attention in three main developments: the importance of the relationship between social changes and the life course of individuals, the relationship involving social history and the lifespan of individuals, and the interaction between theoretical and pragmatic approaches (Elder 1985).

Changes in fertility behaviour and family formation in Western countries since the 1960s – also referred to as the Second Demographic Transition[5]- focused the attention of the scientific community interested in the field of population. Scholars became aware of the importance of understanding the transitions to adulthood experienced by post-war cohorts of young people. These transitions were affected by delays in both marriage and parenthood and increases in non-marital cohabitation and non-marital fertility (Berrington 2001). Three major transformations were taking place among these cohorts of people: the timing, frequency and stability of union formation; contraception behaviour; and levels and patterns of fertility (Berrington 2001).

In the 1970s, Elder (1978) made a *significant* formulation about the life course approach. In his formulation, Elder left enough space to generate a variety of theoretical

[5] The term "Second Demographic Transition" was first used by D.J. Van de Kaa in 1987 in *Europe's Second Demographic Transition*: Population Bulletin 42.

body of knowledge, taking into consideration suitable variables and factors to get a better understanding of the life course of individuals:

> *The life course refers to pathways through the age-differentiated life span, to social patterns in the timing, duration, spacing, and order of events; the timing of an event may be as consequential for life experience as whether the event occurs and the degrees of type of change. ... Socio-cultural, demographic and material factors are essential elements in a theory of life course variation.* (Elder 1978 p. 21)

A great example of research on the life course dynamics was the Michigan Panel Study of Income Dynamics. The research worked under the hypothesis that poverty was "*self-perpetuating"* (Elder 1985). It was thought that people could have entered poverty through three main mechanisms: misfortune, inheritance from their parents or by other circumstances. Apparently, individuals' own adaptation to poverty increased the likelihood to continue in that state. The study tried to find if poverty and welfare were passed from one generation to another. The research found that chronic cases of poverty could be found in one or more of the following categories: blacks, elderly and women. Findings suggested that household composition, employment status and earnings were the main causal factors for entering, remaining or leaving poverty (Elder 1985).

From the Michigan Panel Study of Income Dynamics, new lines of study in the life course approach emerged. One of them focused its attention on families and individuals. This line analysed the models of interaction between economic change and family adaptations (Moen, Kain et al. 1983). As a result of economic adversity, individuals were forced to an accelerated process of adaptation outside their household to increase earners within the family. This line of study developed a series of dynamic models that paid particular attention to the reciprocal effect between family units and economic conditions in an on-going process. These circumstances changed the static concept of *income* and *occupation*.

Despite the amount of studies carried out on the life course analysis, in most cases they were conducted without a "theoretical" body of knowledge. Marini (1984) argued that most of the analyses did not use an *appropriate conceptual framework* in the study of the different transitions to adulthood and the changing order of the

transitions involved into the passageway to adult life. For instance, the Michigan Panel Study of Income Dynamics commenced without a conceptual framework for its analysis. Nevertheless, the contribution of such empirical study represents an outstanding contribution in the field of science dedicated to the life course analysis.

From its origins to the present, the life course perspective represents a theoretical model of analysis "*that defines a context for empirical inquiry*" (Elder 1985 p. 27). In identifying key variables, this approach has been generating new evidence for further research hypotheses. Moreover, research on theoretical aspects has been equally important. Unexpected findings and the discovery of new data has helped researchers and scholars to continue developing existing and "incomplete" knowledge, producing new theory suitable and adequate for fresh and new evidence.

The developments and advances in the field of the life course approach in the analysis of the passageway from one stage to another have been joined by important technical contributions. Among these contributions are the modelling of causal factors and various types of methodological models, such as event history analysis and prospective longitudinal samples. These methods provide an empirical richness and invaluable resources for the improvement in this area of investigation (Elder 1985 p. 27).

To sum up, the research of transitions to adulthood was originally studied as a fragment of the life course and therefore, first studies tended to consider fixed sequences of events. New lines of study in the life course approach appeared along the way. In addition, many contributions to the field were made, including a theoretical body of knowledge that emerged from empirical research, as well as key technical contributions.

2.2 Transitions to Adulthood in Developed Countries

One of the main contributions of the *life course* perspective in the study of the transitions to adulthood is that it provides a dynamic view of events as they take place

across the life span of individual against a static picture of the observable phenomena. It is through a life course approach that it is possible to describe and understand competing risks of different events that a person undergoes and that are influenced by own experiences and the current historical, social, economic and demographic situation of a country. Thus, the study of the transitions to adulthood was naturally incorporated into this field of research.

Role changes are amongst the most significant events marking the transition from adolescence to adulthood (Marini 1984; Marini 1986). These role changes suppose the assumption of adult responsibilities such as entry into the role of worker, spouse and parent. Usually, entry into one adult role increases the chances of entering another adult role. Marini (1985) argued that the main determinants in the trajectories are "a function of the duration of time spend in transitional roles, the availability of an opportunity to enter adult roles and the orientation to fulfil those roles" (p. 309). The first one refers to the possibility to enter a role, and the second to the personal preferences of individuals to experience the transitions in a particular order.

Based on the timing of entry into the labour force, entry into marriage and entry into parenthood, Marini (1986) identified the role change that occurred first, and thereby initiated the process of adult role entry. Using data from a 15 year follow up study of high school students born during the early 1940s in the United States of America (U.S.) surveyed in 1957-58 and resurveyed in 1973-74, findings reflected that the transitions most often initiating the process of adult roles for both sexes was entry into the labour force. However, for a minority of both men and women, entry into marriage initiated the process to adulthood. Moreover, those who came from relatively low socioeconomic backgrounds and who attained a relatively low level of education tended to initiate the process of adult roles earlier than those who came from relatively high socioeconomic backgrounds and who attained a relatively high level of education.

Hogan and Astone (1986) argued about the different cultural expectations among societies in the process constituted by the transition from adolescence to adulthood. The authors also discussed the heterogeneity of patterns towards adulthood within the same society in the expectation about major subgroups of population. Characteristics such as gender, cohort, social class, amongst others, played a significant

role in shaping transitions to adulthood. The authors concluded that group differentials in the transitions to adulthood deserved further investigation.

Using both cross-sectional and longitudinal data to explore the transitions to adulthood from ages 18 to 30 for American males and females, Rindfuss (1991) looked at the order of transitions across the life course in a family (marriage, childbearing) and non-family (schooling, labour force entry) setting. The author pointed that the "density of events during the young adult years would be even more dramatic during periods of rapid social change because young adults typically are the engines of social change" (Rindfuss 1991 p. 499). By "dense", the author implied that more demographic events tended to occur during these years than during any other stage in the life course. The findings suggested that the sequences of roles in both family and non family spheres were diverse within a population. Moreover, young men and women followed similar trajectories. Nevertheless, the U.S. was marked by "substantial" diversity given by a series of characteristics.

In the context of Great Britain, Kiernan (1991) examined the dynamics of transitions in young adulthood over the age range of 16 to 23 years old by making use of data of a British cohort born in 1958. The author focused on four main transitions: completion of full time education, first full time job enrolment, exit from home and first marriage. Kiernan described the main trajectories that included these transitions in pairs in the various possible sequences. The author concluded that the main transitions to adulthood were entry into the first employment, marriage and parenthood. Employment provided financial autonomy; marriage constituted a long term commitment and, typically, a joint responsibility to maintain a separate household; and parenthood was "*essentially irreversible*" and also implied a long term commitment of supporting another person who remained dependent for a long period of time. Kiernan suggested that exit form education, leaving home and cohabitation, though important markers of transitions to adulthood, represented less significant processes to adulthood. Characteristics such as gender, social class and educational attainment were found to affect the timing, prevalence, sequencing and interaction between transitions.

In contrast, using country specific data for 10 European countries to explore transitions to adulthood, Corijn and Klijzing (2001) concluded that given the late age at marriage and late age at first childbearing, transitions such as first marriage and first

parenthood were no longer the most important indicators of adulthood among European young people. Findings showed that the age relatedness of the transitions to adulthood among post-war cohorts of young people in Europe had become "increasingly" weaker, as well as the negative effect of education enrolment on family formation transitions that had also weakened with age. For instance, among post-war cohorts of women, there was a disconnection between work and family formation processes. The authors concluded that although trends in the transitions to adulthood looked similar, there was a country specific experience in the transitions to adulthood, as levels varied between countries. For instance, Europe has been characterized by three regional patterns (Iacovou 2002). Postponement in parental home leaving and direct transitions from the parental home to marriage and parenthood have been characteristic of southern Europe (Iacovou 2002; Billari 2004). In northern Europe, young people have experienced early parental home leaving and more commonly have lived alone or in non-marital cohabitation. An extreme pattern has been the Scandinavian model, characterized by particular early home leaving and high levels of non-marital cohabitation. Nevertheless, it has recently been argued that western countries have been witnessing the simultaneous development of standardization of pathways to adulthood (Robette 2008).

In summary, through the study of role changes, timing of transitions, cultural expectations, individual characteristics amongst others, developed countries have seen the shift of transitions to adulthood at later stages, with the specificities of each country within the region. Therefore, some authors have argued that traditional markers of adulthood need to be re-examined as young adults are usually the engines of social change.

2.3 Studying Transitions to Adulthood in Developing Countries

Different world regions have been characterized by specific patterns in the way transitions to adulthood have been experienced. Globalization is occurring. More convergence than divergence exists in the patterns of transitions to adulthood, and a more homogeneous world is coming into existence (National Research Council and

Institute of Medicine 2005). Whether this change is an entirely good thing is debatable (Caldwell 2005).

One of the main problems to study transitions to adulthood in developing countries has been the lack of relevant data on adolescents and young people (Lloyd and Grant 2004). To date, one of the most important contributions in the study of transition to adulthood in the developing world has been the work of the National Research Council and Institute of Medicine (2005). The Council has not only proposed a framework for analysis, but it has also focused its attention on two stages in the transitions to adulthood: the preparation for adult roles through schooling and health, and the experience of adult roles per se, including employment, citizenship, marriage and parenthood. The main conclusion of the authors to "a way forward" included significant reductions in poverty, more schooling, better employment opportunities, greater advances toward gender equality and empowerment of women, and better health, including both sexual and reproductive health. One of the research's most important finding was the role of schooling, as one of the most important factors to prepare for adult roles.

In addition, developing countries are facing the challenges imposed by the historical context of globalization and rapid changes. A broad perspective in the developing world has presented the transitions to adulthood with the following characteristics (National Research Council and Institute of Medicine 2005):

- Young people in developing countries are spending more of their adolescence in school than ever before. Despite these trends, there remain large differences in school attendance rates according to wealth and residential status, with poor girls suffering particular disadvantage.
- The rise in school enrolment and the delay in the timing of school exit have resulted in a delay in the timing of labour force entry. However, household poverty is strongly associated with a strong likelihood of young people participating in the labour force at very early ages.
- In the past decades, age of marriage for both men and women has risen in many countries, and women are less likely to be married during the teenage years than in the past, resulting in substantial delays in the timing of first marriage.

- Despite the substantial postponement in the timing of marriage among most young people, rates of early childbearing remain high in many parts of the developing world.

It is important to draw attention to a series of pioneer studies in the context of Latin American countries that have investigated the life course events, mainly of young women, as a result of the advanced stage of the demographic transition[6] in the region. The first piece of research investigated the effects of the demographic transition on changes and differential in the organization of early life course of Colombian women (Florez and Hogan 1990). The second, explored the effects of the demographic transitions on family formation processes during the life course of Mexican women (Tuiran 1998). Using longitudinal rural and urban surveys in Colombia to capture changes in the lives of young females aged 12 to 25 over the course of the demographic transition, Florez and Hogan (1990) included the transitions from school to labour force, cohabitation and motherhood. Findings showed the increase in the time spent during these years in school and/or paid work compared to the past. A key conclusion of the study was that cultural constrains on the acceptance of young women combining employment with family responsibilities limited the type of trajectories followed by young women in their early adult life.

The work of Tuiran (1998) explored the life course of Mexican young women under the assumption that the demographic transition led to the formation of new life patterns. For example, as a result of lower mortality, young women lived longer and, consequently, were able to dedicate more time to the roles of daughters, spouses, parents, and grandparents. The author argued that the extension of family roles demanded a restructuration of family formation roles, as parents and children lived longer. A key finding of the investigation was the important intergenerational changes in terms of increases in the timing at experiencing non-family formation transitions, but not on the family formation ones, such as marriage and partnership. A similar conclusion was reached by Fussell (Fussell 2004a). Using Mexican census data from 1970 and 2000, the author examined the change of patterns of transitions to adulthood

[6] Demographic transition is the change that countries go through when they progress from a population with low life expectancy and high fertility to one with high life expectancy and low fertility levels.

by the estimation of demographic statuses. Although young people spent slightly more time in school in 2000, the transition from school to work still occurred in the mid-teens. Marriage and childbearing continued to occur in the late-teens to early twenties. Only among urban men and women there was a prolongation of schooling and co-residence with parents. The main finding of the study was that transitions to adulthood during those decades saw almost no change between past and recent cohorts of young men and women in Mexico. In other words, although Mexican young people spent more time in education, the lives of young people in 2000 did not look too different from those of their parents' generations (Fussell 2004a).

Among other significant contributions within the Latin American region that used data specifically for the purposes of studying life course events, there is the work of Echarri and Perez Amador (2001). Using retrospective data for a group of Mexican youth, the timing of school leaving, first work, home leaving, first union, and entry into parenthood was captured (Echarri and Perez Amador 2001). Results of this study showed that women experienced their transitions to adulthood earlier than men and rural young people commenced their transitions to adulthood at an earlier age than urban young individuals. The authors' conclusions highlighted the need of further investigation on the factors associated to the transitions to adulthood in the context of Mexico, as existing frameworks on developed countries did not adjust to the reality of developing ones.

Along other work that has included gender differences in the study of transitions to adulthood, Lloyd and Grant (2004) examined the separate experiences of males and females in the context of Pakistan. Based on a nationally representative survey of young people aged 15–24, the authors' main findings confirmed the fundamental importance of schooling in the process of transitions to adulthood. Young people with no education entered the work force, prematurely assuming adult roles. Besides, these individuals were deprived from the opportunity of learning in a different setting outside their own families. On the contrary, young people who attended school tended to delay the experience of transitions to adulthood, but eventually took up stereotyped gender roles. For both males and females, there appeared to be a large gap in years between the assumption of adult work roles and the assumption of adult family roles as marked by the timing of first marriage. Recent delays in the timing of first marriage for young

women were accompanied by a rise in the proportion working for pay during later years in adolescence. The research concluded that opportunities available to young people appeared to reinforce traditional gender role stereotypes.

In the line of research that focuses on role changes as markers of transitions to adulthood in developing countries, Lindstrom and Brambila (2001) explored role incompatibility among women in Mexico. Using data of two cohorts of Mexican women, the authors studied the role of education and work on family formation. The research concluded that women who were students had a very low risk of marriage and first birth. The same low risk of marriage and first birth was found for women who were working for a salary. The authors found no evidence that these women left school to enter partnership. Although education was strongly associated with positive attitudes towards women's work and a significant increase in the likelihood of employment before and after marriage, the direct effects of education on family formation transitions was found to be relatively low (Lindstrom and Brambila 2001).

Summing up, given the limitations of the availability of data in developing countries, the first studies on transitions to adulthood have used information available only on women in the study of the life course of young people. Given the regional differences between developed and developing societies, many studies on developing countries have based their analysis on the role of schooling on the outcomes of transitions to adulthood. Most studies on transitions to adulthood in developing countries have centred their attention on the timing of transitions rather than the direct relationship between each other. Therefore, trajectories to adulthood in developing countries have not been thoroughly explored, including the patterns of both young men and women.

2.4 Studies on Social and Family Formation Transitions to Adulthood

Transitions to adulthood implied the acquisition of adult roles in two spheres: the work sphere or public life and the family sphere or private life (Hogan and Astone

1986). Traditional gender roles place males more in the public life domain and females more in the private life domain.

2.4.1 Social transitions to adulthood

Schooling represents a formative process in the lives of individuals as education constitutes the main preparatory stage for the acquisition of adult roles, such as those of worker, spouse, parent, etc. (Panel on Youth 1974; Kiernan 1991). Education is not only a source of knowledge. It also facilitates the "transformation" of attitudes and is an important tool for social mobility, as it opens better economic opportunities (Castro Martin and Juarez 1995). However, not all individuals complete full time education.

Since the transition from education has been related to an increasing compulsory age for leaving education (Corijn a2001), the expansion of education has been reviewed extensively in the literature on more developed countries. For most of these countries, the median age at school dropout increased for cohorts born between 1950s and 1960s (Baizan 2001; Berrington 2001; Corijn and Klijzing 2001; Jansen and Aart 2001). Moreover, research has shown that people enrolled in education in their early twenties increased strongly during the decade of the 1990s.

Education is one of the key components to build a more equal society in terms of same opportunities for both men and women (Parker and Pederzini 2000). However, in most developing countries, there has been a general tendency of enrolment rates disfavouring the attendance of young girls (National Research Council and Institute of Medicine 2005). In contrast, the Latin American region has some of the lowest gender differences among regions in the developing world. Moreover, during the past decades in Mexico, gender differences in educational attainment have been narrowing down (Parker and Pederzini 2000). In spite of this, rural young girls still show important dropout rates when they reach medium education.

Literature has identified educational attainment as one of the main determinants in explaining levels and trends of a series of demographic issues. In developing

countries, the evidence has proven that female educational attainment has been particularly important for lowering fertility (Caldwell 1967; Ketkar 1978; Caldwell 1980; Cleland and Rodriguez 1988; Shapiro and Tambashe 1992; Capo-chichi and Juarez 2001), delaying marriage (Blackwell 1992; Shapiro and Tambashe 1992), improving the quality of childrearing (Jones 1992), increasing labour force participation (Morris, Nelson et al. 1999), and in the use of family planning (Suri 1989; Jones 1992; Kraft and Coverdill 1994).

On the specific line of transitions to adulthood, there is the research carried out in terms of the transition out from education on the effects of other transitions to adulthood. For instance, there is a series of studies that have examined completion of education and school dropout as a key determinant in the timing and sequence of the other transitions to adulthood (Kiernan 1991; Hannan and Ó Riain 1993; Corijn and Klijzing 2001). Kiernan (1991) argued that "*education is a preparatory stage*" (p. 113), since it affects the prevalence, timing, sequencing and interrelationships among other transitions to adulthood. In addition, age at leaving education is an important indicator in the study of later transitions to adulthood, as age at leaving education determines educational attainment that influence future outcomes.

Regarding the effect of family formation transitions, there is a wide body of literature that has stressed the impact of early pregnancy, childbearing and marriage on leaving education in developing societies (Hanna 2001; Fessler 2003). Nevertheless "… *the problem with assumptions about the link between early marriage and/or early childbearing and schooling is that they overlook the possibility that teenage marriage and/or childbearing may be endogenous to school completion*" (Lloyd and Mensch 2006: p. 3). In traditional societies, women's primary roles tend to be as wives and mothers. Hence, social pressure pushes women to family roles earlier than in the developed world (Hanna 2001). Consequently, early partnership and childbearing have been common features of developing countries.

The most common step after completing or leaving education is entry into the labour force. After all, education serves as a formative stage to acquire the necessary tools for the labour market. Perhaps, work force enrolment constitutes one of the most decisive transitions to adulthood. Entering the labour force has an enormous effect on

education dropout and on commencing family roles once the necessary resources have been obtained.

During the 1980s, American society saw the order of leaving education and entry into the labour force following the expected pattern (Hogan 1980): exit from education was usually followed by entry into the labour force (Marini 1984). However, recent studies have found that the diversity of patterns in the trajectory between work and schooling has increased, resulting in the simultaneity of both school and work to be more common (Cooksey and Rindfuss 2001).

In the developed world, labour force participation tends to be delayed while young workers obtain the necessary education demanded by the challenging economic environment (Cantrell and Clark 1982). Individuals tend to spend more years in education and focusing on employment (Corijn and Klijzing 2001). Therefore, a main concern in developed countries about transitions to adulthood has been the delay in experiencing the processes which has resulted in significant reduction in fertility. In consequence, young adults have been having fewer children, contributing to the aging[7] of population. However, in the context of developing countries, one of the main difficulties has been the increasing difficulty in providing appropriate employment for its most highly educated young people when entering the labour market (Franco 1980), while educational attainment of the overall work force remains low.

Female participation in the labour force in Mexico started to increase during the 1950s, attributed mainly to increases in education, modernization and urbanization (Garcia and Pacheco 2000). For the most privileged women, new opportunities in the labour market have increased. However, the acceleration of female participation into the labour market started to increase notably during the 1980s as a mechanism of family survival to bring extra income into the household economy to overcome the effects of the persistent economic crisis. Following a qualitative approach, Garcia and Oliveira (1994) have stressed the importance of the uncertainty of the Mexican economy in bringing other family members into the labour market. Moreover, Echarri and Perez Amador (2001) concluded that among Mexican young people entry into the labour force

[7] An older population age structure assumes that a relatively smaller proportion of people in the labour force has to support a larger number of old people.

was often imposed by family circumstances at a premature age rather than a personal choice.

Leaving education and entry into the work force share a very important relationship with each other. Despite this strong association, other transitions to adulthood also affect the experience of these two social transitions to adulthood. For instance, existing evidence on the U.S. based on multivariate models has shown that young adults who left home before leaving education obtained higher educational attainment, no matter their age at leaving home (White and Lacy 1997).

In the case of entry into the labour force, existing literature has mainly focused on the role of this social transition as an important factor to experience other transitions such as parental home leaving (Perez Amador 2004) and the availability of financial resources - obtain through employment - to enter first partnership (Quisumbing and Hallman 2003). However, the relationship of other transitions on entry into the work force has received little attention.

In developed societies, Goldscheider and Da Vanzo (1985) have argued that leaving home has been "*often independent of other transitions and should be studied directly to understand recent patterns of family change*". For instance, using event-history techniques, Buck and Scott (1993) found that U.S. American youth were more likely to leave the parental home for independent living than for marriage. The consequences of the experience of living away from home prior to marriage proved to cause young adults to change their attitudes, values, plans, and expectations, moving away from a traditional family orientation (Waite, Goldscheider et al. 1986). Moreover, young adults in recent cohorts were leaving the parental home earlier and marrying later than they did several decades ago, resulting in an increased period of independent living (Goldscheider and Waite 1987).

In the context of developing countries, leaving the parental house among young people has followed different patterns than those of developed societies. In most developing countries, the process of leaving the parental home has been highly associated with other transition to adulthood: entry into marriage or cohabitation (De Vos 1989). Until recently, it has kept little association with leaving education and entry into the work force. For instance, Perez Amador (2004) found that Mexican young women were increasing the simultaneous experience of parental home leaving and

completion of education in urban contexts, and parental home leaving and entry into the labour market in rural ones (Perez Amador 2004).

To sum up, social transitions to adulthood present important differences between developed and developing countries. To begin with, this group of transitions tends to be delayed in developed societies. While education tends to be universal in the context of developed countries, in developing countries there has been a tendency to favour the attendance of young boys. Nevertheless, the Latin American region has some of the lowest gender differences in the developing world. Education serves as a preparatory stage for adult roles. In developed societies, entry into the labour force is delayed while young people obtain the necessary education. However, in developing countries, young people experience this social transition at an early age. Regarding parental home leaving, this social transition tends to be experienced simultaneously with entry into partnership in developing contexts. In contrast, in developed contexts, leaving home has little associations to other transitions to adulthood.

2.4.2 Review of Individual and Family Level Factors affecting Social Transitions to Adulthood

This section presents empirical findings from a number of studies that included a series of factors that influence the occurrence of leaving education, entry into the labour force and parental home leaving. These factors are divided into two main groups. The first one incorporates individual level factors. The second group consists of family level factors. Both individual and family characteristics are responsible for shaping social transitions to adulthood. The following paragraphs offer a brief review of the effects of individual and family level factors affecting leaving education, entry into the work force and leaving the parental home in different regions of the world, as well as in the context of Mexico.

2.4.2.1 Individual Level Factors

Gender. The role of gender has shown to have a significant effect on educational attainment (Sewell and Retherford 1993). In Latin America, enrolment rates are very similar between men and women (Urquiola and Calderón 2006). Moreover, recent evidence found no statistically significant differences for leaving education between young Mexican men and women (Echarri and Perez Amador 2001).

Using information of the 1980s and 1990s, studies on Mexico show that female labour force participation rates have increased as a result of rising educational attainment. However, female participation rates in Mexico are lower compared with patterns observed in developed countries (Cerruti and Zenteno 2000). Men are still primary breadwinners among Mexican families. For instance, 6 in 7 Mexican households had a male breadwinner in 1992, whereas the number decreased to 4 in 5 in 2002 (Instituto Nacional de Estadistica y Geografia 2005; Instituto Nacional de Estadisitca y Geografia 2007). Therefore, a gender perspective in the study of these two social transitions to adulthood is considered to be of key importance.

The effect of gender proves also to be an important determinant for leaving the parental home. In Italian society, young women tend to leave home more than young men after leaving education regardless of their occupation (Aassave, Billari et al. 2000). Evidence on Latin American countries shows that males are more likely to stay longer than females in the parental household, as they are more valued economically due to their contribution towards supporting the parental household economy (De Vos 1989). This pattern has also been found in American society (Goldscheider and Goldscheider 1991).

Birth Cohort. Recent studies show that educational attainment continues to increase among younger cohorts of people in the developing world (National Research Council and Institute of Medicine 2005). However, unemployment tends to affect young people more. Youth[8] unemployment rates tend to be higher than those of the adult population (O'Higgins 1997). For instance, Mexico's youth unemployment rate was 11.4% in 1996, almost twice the general unemployment rate situated in 5.5% (Laborista

[8] 15-24 years old.

2009). In 2000, youth unemployment rate dropped to 5.4% in 2000, and the general unemployment rate decreased to 2.2% (Laborista 2009). This phenomenon is attributable to the fact that during past decades, Mexico has seen an increasing number of family members in the work force as a strategy to overcome the uncertainty of household economies due to the recent and persistent financial crises in Mexico (Garcia and Oliveira 1994). As a result of the frequent financial and economic crises that have disabled the Mexican economy to generate the necessary employment, more people have been employing themselves in the informal sector (Portes and Schauffler 1993).

Regarding parental home leaving, research carried out in the context of the U.S. in the 1980s shows that younger cohorts of adults were leaving the parental home long before entering into marriage resulting in an increased period of independent living (Goldscheider and Waite 1987). In Mexico, the mean age at first marriage has increased from 23.5 years in 1980 to 26 years in 2000 for men and from 21 years in 1980 to 24 years in 2000 for young women (Quilodran 2001). Nevertheless, the literature concerning patterns of cohort effect on parental home leaving in Mexico is not conclusive. For instance, the comparisons of three different cohorts, born in the 1930s, 1950s and 1960s, found that the mean age at leaving the parental home was decreasing among younger cohorts (Zavala de Cosio 2000). However, Perez Amador (2004) found that daughters were staying longer in the parental home compared with their mothers, particularly urban young women.

Area of Residence. Past studies show that the progress of education of rural areas in developing countries has been less substantial than in larger urban areas (Franco 1980). In most countries of Latin America, despite the efforts to increase the coverage of the education system, rural areas have been underserved by educational facilities, with consequently lower educational attainment (Franco 1980; Arias de Blois 1986). Therefore, in rural areas illiteracy rates remain higher and educational attainment lower than in urban regions (Instituto Nacional para la Evaluacion de la Educacion 2005).

In Latin America, urban young people are earlier home leavers compared with rural young people, as young people in rural areas tend to form stem families (De Vos 1989). Moreover, in Mexican society, existing evidence found a high tendency among rural women to leave home to go and live in their partners' home (Echarri 2004).

Following this pattern, available evidence on Mexico has proven that urban young men were more likely to seek home independence than rural ones, but rural young women tended to speed the process of leaving the parental home compared with urban women (Perez Amador 2004; Echarri and Perez Amador 2006). Nevertheless, the evidence regarding area of residence in Mexico has not been conclusive either. Tuiran (1999) found that younger cohorts of urban women were speeding the process of leaving the parental home. In contrast, the author did not find any difference between younger and older cohorts of rural young women. In addition, patterns of union formation placed rural respondents earlier into first partnership. Therefore, early parental home leaving among urban young people could have been the result of a longer period of independent living.

Respondent's Educational Attainment. The role of education plays a significant factor in parental home leaving. Nevertheless, the effect has been different in different regions. In the U.S., Goldscheider and DaVanzo (1985) found that education was an important reason for leaving home. The authors showed that full time students were less likely to be residentially dependent. Moreover, many young adults were found to return home after dropping out from college. However, in developing countries, education attainment has been positively related to the likelihood of continue living in the parental house. Existing evidence has found that young adults with secondary education or higher education were more likely to live in the parental house (De Vos 1989). Therefore, the longer the young people stayed in education, the longer they were taking to leave the parental home.

2.4.2.2 Family Level Factors

Socio-economic Status (Father's and Mother's Educational Attainment). Father's and mother's educational attainment have been used as suitable proxies of socioeconomic status. Parental education has demonstrated to have a substantial positive effect on completing high school in the U.S. (Haveman, Wolfe et al. 1991). For instance, young adult children of more educated parents have been more likely to delay exit from education than young adult children of less educated parents. Also in the U.S.,

father's and mother's educational attainment have also shown to have a significant effect on the timing at experiencing entry into the labour force. Under the assumption that well educated people usually earn enough to cover children's educational costs (Tienda and Glass 1985), young adult children of highly educated parents have reduced the likelihood of early entry into the work force compared with young adult children of very low educated parents. In the context of Norway, Sorensen (1986) used life history data for three birth cohorts of men to examine aspects of men's life experiences during young adulthood in the light of family background. The research concludes that families exercise important influences on their adult children's lives by placing adolescents in school and work roles, which influence subsequent life course patterns.

Educational attainment research has indicated that the later the education transition is experienced, the lower the effect of social background (Mare 1980). However, Lucas (2001) argues that social background has an effect even for nearly universal educational attainment. According to the author, the effect of social background occurs in at least two ways: it determines who completes a level of education (if completion of that level was not nearly universal), and it determines the kind of education a person receives within levels of education. The research concludes that a more privileged social background seems to work to secure children's higher educational attainment.

Continuing with the line of research that has investigated the effect of socioeconomic status on social transitions, studies based on the U.S. show that parental income proved to affect parental home leaving differently depending on the route followed (Avery, Goldscheider et al. 1992). High parental income discouraged leaving home via marriage. Moreover, high parental income proved to decline intergenerational co-residence among unmarried young adults (Goldscheider and Lawton 1998). Nevertheless, parents and close kin were more likely to offer housing to young adults who were in need to stay home and co-reside (Goldscheider and Lawton 1998; Goldscheider, Thornton et al. 2001). Relevant literature on Mexico shows that young women with highly educated mothers delayed the experience of parental home leaving (Perez Amador 2004). Therefore, socioeconomic status seems to operate differently in different world regions. In Western European countries, it has been demonstrated that

leaving home was positively related to young adult's income, whereas the effect of parent's income was less clear (Blanc and Wolff 2006).

Intergenerational Patterns (Mother's Age at Respondent's Birth). The study of parental home leaving has also been analyzed including the effect of family level factors on this social transition. For instance, young adult children are influenced by patterns experienced by their own parents. Therefore, the continuation of intergenerational patterns on leaving the parental home has also been studied. A good proxy of intergenerational patterns is mother's age at child's birth, which has also been used as a proxy of socioeconomic status. This covariate proved to be a significant determinant of parental home leaving. Existing evidence on the UK found that being born to a younger mother was associated to an earlier departure from the parental home (Murphy and Wang 1998).

Household Composition (Person in charge of the Costs of Education. Household composition is likely to affect educational attainment and has proven to influence labour force participation. In the context of the U.S., living or being brought up in female headed households showed to have a negative effect on the number of years in education (Beller and Chung 1988). Nevertheless, Giorguli (2006) argues that women in Mexico tend to spend most of the household income on the education of their children, reducing the likelihood of their children to leave education. However, it has been found that the exclusion of women from high paying job opportunities persists in the developing world with significant costs to overall socio-economic development (United Nations Economic Commission for Europe 2006). Only more educated women have benefited from better employment prospects. Besides, male income tends to be higher than female income (Tienda and Glass 1985). Existing evidence has found that household headship is important as it largely determines the number of adults that serve as providers (Tienda and Glass 1985). For instance, Giorguli (2006) analyses the enrolment and labour force status of Mexican adolescents linked to family structures. The author concludes that living in a traditional home (with both parents and a non-working mother) delayed leaving education and entry into the labour market. In consequence, household structures are important for the study of the relationship between leaving education and entry into the work force.

Family Background Environment (level of parental restriction and parental support). The evidence of family background environment on leaving education and entry into the labour force is limited. However, among the existing evidence there is the work of Aluede and Ikechukwu (2003) on Nigerian homes and the effect of family background on young adult children's decision to continue in education or leave education. The authors found that family interactions, such as inconsistency in affection, discipline, and unhappy family situations, increased school dropout rates.

Among other factors associated to parental home leaving, family environment characteristics have played an important role in the experience of this transition to adulthood. In societies such as the British, Spanish and Norwegian, good family support has been a key factor in facilitating parental home leaving (Holdsworth 2004). Good family support positively affect parental home leaving, as parents tend to encourage the decision to leave home in both financial and emotional terms. In contrast to this pattern, Perez Amador (2004) found that Mexican young women living in restrictive households tended to accelerate their exit from the parental home. In addition, in the U.S., early parental home leaving due to a difficult or unsupportive family environment has proven to have negative implications for a stable and successful trajectory into the labour force and family life (Goldscheider and Goldscheider 1998).

From the above evidence, it is expected to find important gender differences in the experience of social transitions, as well as delays among younger birth cohorts. In addition, it is expected an earlier experience of social transitions in rural areas of residence and also among respondents with low levels of educational attainment. Based on what it is known from previous studies regarding family level factors, it is expected to find delays in the experience of social transitions among young adult children of highly educated parents, respondents with older mothers, as well as respondents from households with male headship. Family background environments with low levels of restriction and good support are expected to delay respondent's experience of social transitions as well.

2.4.3 Family Formation transitions to adulthood

In developed societies, the direct link between first sexual intercourse and marriage has significantly grown weaker (Miller and Heaton 1991). In contrast, in the developing world the importance of focusing on age at first sexual intercourse is its direct relation with partnership and childbearing (Wulf and Singh 1991; Meekers 1994).

Using data from the Demographic and Health Surveys for Latin America countries, Wulf and Singh (1991) found that the likelihood of a woman to have sexual intercourse before age 20 ranged between 46% to 63%. Overall, teenagers in these countries are better educated than they were in the past. However, findings also showed that among women with primary education or less, among those aged 20-24 were more likely than those aged 40-44 to have had first intercourse, first union and first birth before age 20. Among women who had secondary education or more, the relationship between education and the likelihood of these three events was more erratic.

Many surveys had documented trends in adolescent sexuality and fertility in Latin America. However, few data were available to describe factors associated with the beginning of sexual activity in the Latin American context. Using multivariate logistic regression techniques on a sample of urban Chilean students aged 11-19, Murray and colleagues (1998) examined the influence of variables such as family structure, parental education and academic performance toward the experience of first sexual intercourse and early parenthood. The results showed that 21% of young women and 36% of young men who ever had sex shown median ages at first intercourse of 15 years and 14 years, respectively. The absence of the father from home was significantly associated with early sexual initiation among women but not among men. Factors such as the presence of the father at home and academic achievements were significant determinants, but only for young women. The authors concluded that family and academic environments shaped choices related to sexual behaviour.

In terms of sexual relations, Mexican society is relatively conservative and traditional (Marston, Juarez et al. 2004). Moreover, gender plays a key role in the way the Mexican population thinks about sex. Mexican society has been characterized by well defined gender “stereotypes” that show a strong “double standard” about the way young men and young women should live and experience their sexual initiation

(Amuchastegui 2001; Marston, Juarez et al. 2004). Evidence shows that this "double standard" affects the way Mexican society perceives young men's sexual initiation and young women's sexual initiation (Amuchastegui 2001; Marston, Juarez et al. 2004). For instance, as a social norm, Mexican young men are expected to have sex before marriage (Szasz 1993; Marston 2001). However, Mexican young women are expected to retain their virginity until marriage (Szasz 1993). Although, this vision is becoming weaker, it is not disappearing from the discourse (Amuchastegui 2001).

Although gender is present in all social classes and intergenerational groups in Mexico, it has been found that women from more privileged socioeconomic groups have more empowerment and autonomy (Amuchástegui & Rivas 2004 in Szasz, Rojas et al. 2008). Among less privileged socioeconomic groups, the relationship between men and women within the marital couple revolves around the role of men as primary breadwinners and decision makers among household members. Therefore, gender differences tend to be more pronounced in less privileged socioeconomic groups.

Among the many transitions that young people experience as they enter adulthood, perhaps marriage has been one of the most significant processes. Life course researchers have linked variation in age at first marriage to factors such as educational attainment and employment opportunities (Marini 1978). In American Society, Marini (1978) studied the differences between educational attainment and the postponement to enter marriage. One of the key findings of this investigation was that educational attainment and age at marriage were related factors determining the evident changes in the timing of the transitions to adulthood which occurred over the course of the twentieth century.

Timing of first union has usually been of interest in terms of its direct link with the commencement of childbearing. Thus, the focus on women has usually neglected the role of men in entering marriage, for whom it also constitutes a very important life course transition as well. Moreover, first unions - in the form of marriage or cohabitation - have broader implications in terms of initiation of reproduction, gender relationships, the ways family life is organized, and social change (Malhotra 1997; Quisumbing and Hallman 2003; Mensch, Singh et al. 2005).

Union formation patterns have been changing across the globe, in both the developed and the developing world. The observed increases in age at marriage are

associated with major social and structural changes, such as increases in educational attainment, urbanization, and the emergence of new roles for single women. Despite the gains in education in Latin America, marriage is almost universal and still occurs at young ages (Fussell and Palloni 2004). Early marriage patterns have been attributed to the economic uncertainties in the region, where families work as mechanisms to accumulate and share resources to cope with the instability, a phenomenon seen in all socioeconomic classes.

In the case of Mexico, the most important changes in age at first partnership started to occur in the 1960s. Until then, women entered marriage on average at age 20 and men three years later (Quilodran 2001). According to census information, women slowly started to delay age at marriage around the 1970s, while for men the most significant increases were seen during the 1990s (Quilodran 2001). In general, increases have been small. However, the increasing trend of age at first marriage continues. Given the slow and small increases in age at marriage and cohabitation in Mexico, certain authors have concluded that with the recent evidence it is not possible to identify the beginning of a second demographic transition in Mexico (Gomez de Leon 2001; Quilodran 2001): characterized by increase in cohabitation and significant proportions of people who remain unmarried all their lives, in particular women.

In Latin America, marital unions take two forms: legal marriage and cohabitation. While legal marriage is more prestigious, consensual unions offer practical advantages (Goldman and Pebley 1981). Given the historical context in Mexico, cohabitation has had a relatively important role in the family formation process for centuries (De Vos 1987; Quilodran 2001; Castro Martin 2002). The article by Castro Martin (2002) focuses on the persistence of a dual nuptiality system in Latin America. The aut80hor argued that the coexistence of formal marriages and consensual unions has long been a distinctive feature in Latin America and the Caribbean. However, the social meaning attach to these unions, as well as their historical, socioeconomic and cultural roots, differ substantially from those observed in the developed world (Castro Martin 2002). Quilodran (2006) has argued about the coexistence of a "traditional" and "modern" consensual union model in Latin America. The former is the enrooted model associated with the less privileged groups of population, whereas the latter refers to the recent model of developed societies, which is associated with the behaviour of more

privileged classes in Mexico. The author found no clear evidence to conclude whether the increase in cohabitation in the region was due to increases in the traditional model or in the modern model.

The birth of the first child is one of the most significant events in life, regardless of age or gender. Male fertility is studied much less often than female fertility, in part because men are less certain than women when they become parents, especially if they are unmarried (Michael and Tuma 1985).

Research has suggested that unmarried adolescent childbearing is a social problem in many countries, because it tends to lead to school drop outs, illegal abortions, and child abandonment (Grogger and Bronars 1993; Hoffman, Foster et al. 1993; Musick 2002). The motivation for adolescent childbearing remained hardly understood. However, the counter argument has pointed that adolescent childbearing has been a form of rational adaptation as a means to achieve a specific goal (Lloyd and Mensch 2006). For instance, in Sub-Saharan Africa, girls might choose to become pregnant if they believe that a pregnancy would lead to marriage (Meekers 1994).

The circumstances of a first birth occurring during adolescence or early adulthood are highly significant. The context in which this transition is experienced at early ages is crucial. The connotation of parenthood during adolescence is highly related to well-documented negative consequences related to health issues and adverse social outcomes. In terms of health, both mothers and children are exposed to risks, such as higher risk for premature delivery (Magadi 2006), and higher rates of morbidity and mortality (Zabin and Kiragu 1998). In the social sphere, early childbearing is seen as an important cause of school dropout and lack of better economic opportunities, which results in a negative impact on children (Card and Wise 1978; Hofferth and Moore 1979; Mott and Marsiglio 1985; Waite and Moore 1978 in Miller and Heaton 1991; Gest, Mahoney, & Cairns 1999; Maynard 1995; 1997 in Mersky and Reynolds 2007). However, recent research reveals that the outcomes from the birth of children to young mothers are diverse and complex (Miller and Heaton 1991; Fessler 2003; Mersky and Reynolds 2007). Moreover, in the developing world, the evidence has not been sufficient to confirm the negative outcomes of early childbearing (National Research Council and Institute of Medicine 2005).

In Mexico, entry into parenthood at early ages has different meanings depending on the socioeconomic background (Stern 1995; Stern 2007). Qualitative evidence has found that in rural settings, adolescents have limited choices, and traditional and more conventional norms accept adolescent motherhood as the starting point for family formation. The disadvantaged urban sector is also characterized by high levels of early childbearing. Nevertheless, family support towards early motherhood is very variable, as young women perceive pregnancy and motherhood as a means to escape parental control or family instability. Among lower-middle class women, parents and children have higher aspirations for better education. Thus early unmarried parenthood is perceived as a limitation for upward social mobility. Finally, young people from the middle and upper classes tend to have planned pregnancies, as they are more likely to use contraception and exercise their reproductive choices. Consequently, childbearing patterns differ among different groups, resulting in the coexistence of different fertility regimes within the same Mexican society (Castro Martin and Juarez 1995).

In summary, the link between family formation transitions has grown significantly weaker in developed societies in recent decades. However, in developing countries, first sexual intercourse, partnership and childbearing are closely related, particularly among young women. The age at experiencing family formation transitions continues to increase in the developing world attributable to increases in educational attainment and urbanization. Given the historical contexts in Latin America, the coexistence of formal marriages and consensual unions has long been a distinctive feature in the region. However, the social meaning attached to these unions, as well as the socioeconomic and cultural roots, differ substantially from those observed in the developed world. Although in the developed world, the connotation of early childbearing has been related to well documented negative consequences, in the developing world the evidence has not been sufficient to conclude the same.

2.4.4 Individual and Family level factors affecting Family Formation Transitions: Review of Previous Research with a Focus on Developing Countries

This section presents empirical findings of a series of individual level and family level factors that have proved to affect the outcome of first sexual intercourse, first partnership and first birth among young men and women. The effect was expected to be reflected on the outcomes of family formation transitions presented throughout Chapter 5, including the timing and trajectories of first sexual intercourse, first partnership and first birth.

2.4.4.1 Individual Level Factors

Gender. Early childbearing is deeply embedded in Latin American culture, as it is in many other parts of the developing world. Marriage and childbearing are often perceived as key events in a young woman's life (Wulf and Singh 1991). Consequently, young mothers have tended to perceive childbearing in more positive terms than young fathers (Groat, Giordano et al. 1997). Moreover, gender has proven to be a significant determinant of entry into marriage (Quisumbing and Hallman 2003). In Mexico, patterns of union formation in the last decades have shown that women enter marriage or cohabitation earlier than men (Quilodran 2001; Echarri and Perez Amador 2006). However, as previously mentioned, in the vast majority of developing countries, first sexual intercourse during teenage years occurs predominantly outside marriage among men, but mainly within marriage among women (Singh, Wulf et al. 2000). Moreover, Mexican young men are expected to be sexually active before first partnership, whereas young women are expected to have first sexual intercourse within first partnership (Szasz 1993; Amuchastegui 2001; Marston 2001; Marston, Juarez et al. 2004).

Birth Cohort. In developing countries, the evidence regarding birth cohort has shown that despite the increase in mass media exposure to less traditional ideas about premarital sex (Caldwell, Caldwell et al. 1998; Zlidar, Gardner et al. 2003; National Research Council and Institute of Medicine 2005), recent patterns among adolescent

women have shown increases in age at first sexual intercourse and age at first partnership. The corresponding trends have brought the gap between these two to an increase across birth cohorts (Blanc 2001), as prolonged participation in the educational system has made younger cohorts experienced even later age at first marriage (Billari 2001a). In addition, fertility has declined at a rapid pace in the majority of developing countries (Bongaarts 2008). In Mexico, the Demographic Transition occurred late, but at a very fast pace (Juárez, Quilodrán et al. 1989). Given the increases in age at first partnership and the association between first partnership and first birth in developing countries, recent birth cohorts have delayed the experience of childbearing (Singh 1998).

Area of Residence. Due to the different exposure to modernization between urban and rural areas, the pace of first sexual intercourse has been different between young people in the two different areas (Singh, Wulf et al. 2000). Important rural-urban differences in age at marriage have been observed also in developed countries. For instance, in the developed world, Carter and Glick (1970) found that rural residents married about a year earlier than urban residents. Delays in age at marriage have also been attributed to the urbanization growth in the developing world. Nevertheless, evidence in the developing world appears to be mixed. Whereas data on India revealed that the mean age at marriage for urban women was higher than that for rural women (Bloom and Reddy 1986), Echarri and Perez (2006) found that rural residence in Mexico affected negatively the likelihood to enter first marital union. Nevertheless, greater modernization has also proven to reduce the risk of childbearing (Singh 1998). Rural settings provide young people fewer options, favouring family formations transitions at younger ages (Stern 1995).

Educational Attainment. Education plays a very important role in the timing at experiencing family formation transitions. Regarding first sexual intercourse, previous work by Singh, Darroch et al. (2001) on developing countries found that young women who had little education were more likely to initiate sexual relations during adolescence than those who were better educated. The evidence seemed contradictory, as in many developing countries the level of sexual abstinence among young women has been weakly associated with educational attainment (Khan and Mishra 2008). In other words, less educated young women were found to exercise more sexual abstinence compared

with more educated young women. In addition, education plays one of the most significant roles in determining age at marriage. It has been argued that education has been largely responsible for timing at entering marriage (see De Silva 1997; Islam and Ahmed 1998; Choe et al. 2001 in Mensch, Singh et al. 2005). On the one hand, there is a wide body of research that has stressed the importance of education in delaying age at first marriage (Marini 1984a; Singh and Samara 1996; Mensch, Singh et al. 2005). Nevertheless, there is a line of thinking that has stressed that young people with high expectations of entering marriage at a young age are more likely to leave education early, while people who intend to marry later would be more likely to stay longer in education as they have other expectations (Lloyd and Mensch 2006). In addition, higher levels of educational attainment have been associated with lower levels of early childbearing (Singh 1998). Regarding educational attainment in Mexico, existing evidence has situated women with higher levels of education among the group of women that has postponed partnership and childbearing (Juarez and Quilodran 1990; Castro Martin and Juarez 1995).

2.4.4.2 Family Level Factors

Intergenerational Patterns (Mother's Age at Respondent's Birth). Concerning the factors affecting the transitions to adulthood, the life course transitions experienced by one generation highly determine the next generation's life course transitions. Studies have shown that having a mother who gave birth as a teenager significantly increased the odds of early sexual relations (Paul, Fitzjohn et al. 2000; Forste and Haas 2002). Aquilino (1991) explored the continuity and changes between parents' and children's relations during the transitions to adulthood in the U.S. Using data from the 1988 National Survey of Families and Households, the author concluded that more supportive, closer and less conflicted intergenerational relations were positively associated with transitions to marriage, cohabitation and full time employment, but not to parenthood. The author concluded that the pattern of interactions suggested that variations in childhood family structure exercised a greater influence on girls' than on boys' transitions to adulthood.

Socio-economic Status (Father's and Mother's Educational Attainment). The level of father's and mother's educational attainment are used as proxies of socioeconomic status. Existing evidence has shown that low educational attainment of fathers and mothers have been linked to earlier sexual intercourse among males (Paul, Fitzjohn et al. 2000). Although more educated fathers and mothers would be more likely to encourage their teenage children to postpone first sexual intercourse, it has also been found that more educated fathers and mothers also have more liberal attitudes towards premarital sex, increasing their children's likelihood of early sexual activity (Forste and Haas 2002). In many developing countries, primary abstinence levels have been lower among young women living in wealthier households (Khan and Mishra 2008). However, father's educational attainment has proved to postpone significantly age at entry into marriage (Billari 2001a). In addition, previous research has demonstrated the positive association in the likelihood of early parenthood with low parental income and low levels of parental education. Consequently, the likelihood of early childbearing decreases as parental education levels rise (Michael and Tuma 1985).

Based on a sample of women aged 13-49 surveyed in Kinshasa, Zaire in 1990, Tambashe and Shapiro (1996) found that family related characteristics, such as parental education, parental survival status, and number of siblings were important for women's sexual activity, marriage and motherhood. The authors concluded that increases in education levels contribute to significant delays in these transitions to adulthood, and consequently to important reduction in fertility.

Family Background Environment (level of parental restriction and parental support). Entry into parenthood has been highly associated with family circumstances and a good social support system (National Research Council and Institute of Medicine 2005). This social support system could include many aspects such as nursing places and family members to help in the nurturing of children. Nevertheless, evidence from Mexico has found that family support towards early motherhood has been very variable. Previous research on Mexico has found that young women living in restrictive families perceived early pregnancy and motherhood as a means to escape parental control or family instability (Stern 1995; Stern 2007). Therefore, young people with a very restricted family environment found in first partnership a way to leave a restrictive setting within the family environment. On the other hand, as a consequence of an

exposure to less traditional ideas and less restricted upbringings, young people living in low restricted family environments with good parental support were more likely to have first sexual intercourse (Forste and Haas 2002). Parents in these types of households were more likely to support their young adult children with their decision making towards family formation transitions.

Based on the empirical evidence presented in the above two subsections, it is expected to find significant gender differences in the experience of family formation transitions to adulthood between Mexican young men and women. In addition it is expected to find delays among younger birth cohorts, urban residents and highly educated young people. Concerning family level factors affecting the experience of transitions to adulthood, it is expected to find that young adult children of younger mothers and low educated parents accelerated the process of family formation transitions. Finally, it is expected to find that restrictive and unsupportive family background environments initiated earlier family formation transitions.

2.5 Trajectories of Early Life Course Experiences

The life course developed under the assumption of a "predetermine sequence" of events, an idea which at the time was original and suitable to analyse social change. Early studies in transitions to adulthood that incorporated a life course approach also paid particular attention in the timing of the occurrence of the series of events involved in the pathways of individuals throughout their lifetime. To be more precise, these type of studies analysed the "appropriate" and socially expected age of occurrence of a series of transitions (Neugarten, Moore et al. 1965; Neugarten and Datan 1973). This approach was attributable to the fact that one of the key factors to be analysed when studying the life course of individuals was age at which transitions to adulthood were taking place. However, these studies treated transitions to adulthood as a fixed sequence of processes (in Marini 1984). The work was focused on a predetermine sequence in the occurrence of the transitions involved across the life span of individuals. For instance, people were expected to complete their education before entering the labour force; leaving the

parental home would be associated with entry into first union; the inevitable consequence of first union would parenthood; and within the years, retirement from the labour force would come (Panel on Youth 1974).

It was until the late decade of the 1970s, that researchers started to look at the life course transitions of those individuals whose trajectories through life were taking place *off-time* and *off-sequence*. The first concept refers to individuals that experience transitions before or after the median age of the rest of the population. The second to individuals that do not follow an expected "established" order of events.

Hogan (1978) argued that the passageway to adulthood in the American society occurred "optimally" in a prescribed order of events, which was a function of cohort historical and educational experiences. He referred to a *hypothesized* normative pattern, which in many cases differed from the real life phenomena. In this sense, the longer individuals stayed in education the more likely they were going to experience off sequence trajectories, as individuals would have tended to experience other events while still in education. Later on, Hogan (1980) launched a paper in which he studied the "non-normative" expected pattern in the life course in American society. Some of this later findings proved the hypothesis that men who did follow a disorder pattern in their transition to adulthood had inferior employment positions and lower earnings in their later career compared with the rest of men.

Although there was some interest in the changing order in the sequence of events to adulthood, Marini (1984) discussed that at the time, almost all studies on transitions to adulthood were only based on a series of two simultaneous events at a time. Usually studies focused on two events for the complexity implied in this approach, for example, entry into parenthood prior to the entry into marriage. Therefore, studies did not seek to explore the whole influence on the rest of the transitions from one stage to another or the influence of the transitions that were taking place simultaneously and that might have a major effect on the other transitions from adolescence to adulthood.

Using data on the U.S., Marini (1984) examined the order of exit from education, entry into the labour force, entry into first marriage and entry into first birth. The author found that about half of respondents experienced exit from school first, followed in order by entry into labour force, entry into marriage, and entry into parenthood; while the other half experienced different sequences of events. These

variations were related to the timing of exit from the transitional roles of student and soldier (military service) and the timing of entry into the adult roles of worker, spouse and parent. Marini also found significant gender differences in the effect of causal variables. Males were more likely to enter the labour force before finishing full-time schooling. Males were also more likely to experience family roles (marriage and fatherhood) more compatible with the continuation of education than females. On the other hand, women who attained high levels of education were more likely to delay entry into family roles until the completion of schooling.

Even when the life course approach had its origins considering a sequence of events taking place in a predetermined order across the lifespan of individuals, research has proved that not all individuals follow the "normal" expected trajectories during their lives. Rindfuss and colleagues (1987) argued that the historical context was a major determinant of life patterns of both men and women. The authors looked at the order of events across the life course to adulthood in a family (marriage, childbearing) and non family (schooling, labour force entry) environment. Using data of the National Longitudinal Study of the High School Class of 1972, the authors found that over half of men and women included in their study followed a disorder sequence in their transitions compared to what was often assumed to be the "normal" pattern. Some of these disorders referred to early school abandonment and/or returning to school after a period of absence. The authors applied some models to follow certain patterns to parenthood, such as having an important economic activity and the patterns of schooling (especially continuing in school after high school without interruption). They found that these patterns had a more striking effect on entering parenthood than disorder life courses. However, education did not give predictive power to the model. The authors showed that the education variable needed to be categorized in order to obtain significant results in the prediction of parenthood. However, Rindfuss and colleagues (1987) did not hypothesize the expected sequence of transitions in the "disorder" patterns.

Contemporary research in the field of transitions to adulthood has moved to the importance of the sequencing of events. The research on the transitions to adulthood life course has become more and more complex. Competing risks come into play, the heterogeneity of individuals need special consideration, etc. Quantitative analysis of

transitions to adulthood has to deal with complex patterns of interrelated events and trajectories (Billari 2001). Such complex patterns need complex measurement tools. In order to "simplify" the analysis, Billari, Fürnkranz et al. (2000) have argued about the need to study transitions to adulthood adopting an "holistic" approach, where different trajectories should be considered as units of analysis to study the most common clusters of trajectories.

In recent years, the use of Sequence Analysis has been proposed to study whole trajectories to adulthood adopting an *holistic* approach to deal with the complexity of analysing the life course of the various transitions to adulthood (Billari c2001). The approach was introduced into the field of social sciences by Abbott and Forrest in the 1980s (Abbott and Forrest 1986), and thereafter, widely used applying Optimal Matching Analysis (Aassve, Billari et al. 2006; Aassve, Billari et al. 2007; Robette 2008). The method is based on a set of dynamic algorithms mainly used in molecular biology to analyse similarities of DNA strings. Its principle is based on the notion of similarities between pairs of sequences. The principle of Sequence Analysis is based on assigning similarities or dissimilarities costs among different sequences. One of the strengths of sequence analysis is the estimation of strings of transitions based on detailed information.

In this line of research, Aassve, Billari et al. (2007) recently studied young women's work and family trajectories in Great Britain following an *holistic* life course approach. The authors concluded that young women followed heterogeneous trajectories where "the increasingly complex life-course trajectories were generated by women aiming to combine work and family" (Aassve, Billari et al. 2007 p. 386). The evolution of pathways to adulthood in France has also been studied through trajectory typologies for men and women using sequence analysis (Robette 2008). The author argued that in this context, young people identified individualistic indicators of maturity as the new markers of adulthood and demographic markers were considered of secondary importance. Nevertheless, results showed a great diversity of trajectory typologies, mainly linked to the orientation of women between work and family, and a delayed entry into adult roles for men. The author concluded that the contemporary French population has experienced the rise of a "modern" pathway to adulthood, characterized by frequent non-marital cohabitation and late childbearing.

To sum up, many methodological advances have been made throughout the years in the study of trajectories to adulthood, from the early study of fixed sequences, to the contemporary use of sophisticated methods, such as sequence analysis to deal with the complexity implied when dealing with so many events at a time.

2.6 Conclusion

The transitions to adulthood have become a very important area of research in the field of life course studies. The review of the literature shows the importance of focusing on the life course of transitions to adulthood. This phase during the life course has been described as a "dense" period of events during the life spans of individuals (Rindfuss, Swicegood et al. 1987).

The increasing variability in pathways to adult roles through historical time has necessarily updated the idea of a "predetermine sequence" of transitions to adulthood. Off time and off sequence trajectories have occurred, and are more common than expected. Ignoring the different trajectories to adulthood would be keeping a narrow vision of the vast and complex real life phenomena occurring in different social contexts, which cannot be generalized to human behaviour and attitudes. Therefore, the diversity of trajectories should be taken into account in the current analysis of the process that involves the passageway to adulthood from a life course perspective.

The exposure to new ideas due to the process of the world's globalisation is making the experiences of adolescents and young people converge towards a more homogenous world (National Research Council and Institute of Medicine 2005). Nevertheless, significant regional differences between developed and developing countries can still be identified. While developed societies are facing fertility decline, postponement of marriage and parenthood (IUSSP Scientific Panel on Transitions to Adulthood in Developed Countries 2003), in developing countries the main challenges require reductions in poverty, more schooling, gender equal opportunities, and better health (National Research Council and Institute of Medicine 2005). Therefore, specific

concerns about the passageway to adulthood between different settings are crucial to undertake necessary action to enhance opportunities and fulfil individuals' needs.

Preparation for adult roles through schooling is a key determinant in the rest of the process to adulthood. Factors such as gender, educational attainment and family background characteristics represent important influences in the timing at experiencing different transitions to adulthood. Moreover, gender greatly determines the "social construction" of both social and family formation roles played by both young men and young women in Mexico. Therefore, a gender component (covariate) is essential in the analysis of the transitions to adulthood in the context of Mexico and developing countries from the Latin American and Caribbean region and outside the regions.

In the case of Mexico, the evidence has shown that transitions to adulthood occurred at very young ages (Echarri and Perez Amador 2001; Fussell 2004a). For instance, the transition from school to work still occurs in the mid teenage years; marriage and childbearing occurs in the late-teens to early twenties; among urban men and women, there is a prolongation of schooling and co-residence with parents (Fussell 2004a). The transitions to adulthood are also characterized by early entry into the labour market and leaving home is closely related to marriage (Echarri and Perez Amador 2001; Fussell 2004a). Despite the economic, social and demographic changes that have taken place in Mexico during the last thirty years, young people did not look very different from their parents (Fussell 2004a). In the case of young women, the roles of student and worker have been incompatible with those of wife and mother (Lindstrom and Brambila 2001). But can we extrapolate this result for Mexican young men?

In spite of the research carried out, there is a lack of studies on transition to adulthood in the Mexican literature that focus on both young men and women, specially studies with a *life course* approach. This was partly due to the insufficient data of the country in the past. Most of the surveys were designed to study the fertility patterns of women. However, recent data sources have the potential of being analyzed to explore the various transitions to adulthood with a *life course* approach including both men and women. Therefore, once the relevant evidence on transitions to adulthood has been reviewed, the next chapter describes the data and methods used throughout the analysis.

Chapter 3. Data Description and Methodology

When it comes to analytical strategies, Demography has been prominent in the study of transitions to adulthood (Shanahan 2000). As information usually consists of *time to event* data, research usually applies Event History Models to estimate the frequency and timing of different transitions.

The analysis of first transitions to adulthood from a life course perspective requires longitudinal data. In theory, the *ideal* type of longitudinal study would be the information obtained throughout direct observation of the various transitions from adolescence to adulthood in the exact moment of their occurrence. However, one of the main constrains of this analysis is that it requires a huge effort in collecting data. Therefore, a more practical and feasible form of longitudinal studies is that in which individuals are asked about past events in their lives. In this approach, the analysis is bases on retrospective information. This research used data from the 2000 Mexican National Youth Survey (ENAJUV 2000 for its acronym in Spanish).

The first part of this chapter, introduces the data used in this thesis for the analysis of the transitions to adulthood among young men and women in Mexico. The first section describes the nature of the survey, followed by a description of the main covariates that were expected to have a significant effect in the occurrence of the different transitions to adulthood: the occurrence of individual transitions and in the sequencing of the different trajectories to adulthood. The second part of the chapter describes the main method of analysis. The data used in this research has a retrospective nature, and as such, the method applied here incorporated changing rates over time. For the purposes of this thesis, Survival Analysis methods were used.

3.1 The Mexican National Youth Survey 2000

The ENAJUV 2000 consists of a one-round longitudinal retrospective survey. It collected the information of past and current events as well as future expectations of respondents in one interview in a fix point in time. The ENAJUV 2000 date was fixed on 30th August 2000, date when the fieldwork was finished and 100% of the selected households were covered.

The main objective of the ENAJUV 2000 was to obtain statistical information of Mexican young people, including demographic, social, economic and cultural characteristics (Instituto Nacional de la Juventud 2000a). In total, the questionnaire of the ENAJUV 2000 included 15 modules concerning issues related to social and demographic characteristics, family characteristics, schooling, employment, leisure activities, religion, parental home leaving, courtship, contraception, AIDS and STIs (sexually transmitted infections), marital life, fertility, political culture, social participation, and opinion on several issues, such as abortion, drugs and violence.

The sample procedure of the ENAJUV 2000 was designed by the Mexican National Institute of Statistics and Geography (INEGI for its acronym in Spanish) based on the same procedure used for the 1995 Mexican Population Count[9]. The design of the sample was random, stratified, multistage and clustered. The coverage of the ENAJUV 2000 had a nationally representative character. The unit of selection was the household and the unit of analysis were people between 12 to 29 years of age. The sample included 54,500 households. In each household, all people aged 12 to 29 years old were interviewed. However, 33.4% of the households had no people between 12 to 29 years old. In the other 66.6%, the average number of people aged 12 to 29 years old was 1.5 individuals per household (Instituto Nacional de la Juventud 2000a). In total, 22,631 men and 27,028 women between 12 to 29 years old were interviewed.

Since the main objectives of this research is to capture and analyse the trajectories to adulthood of Mexican young men and women, a subsample of 9,235 men and 12,541 women aged 20 to 29 years old at the time of the survey was used. The

[9] In Mexico, population censuses take place every 10 years in calendar years ending in "0". Since 1995, population counts take place every 10 years in calendar years ending in "5". Whereas the Mexican Population Censuses obtain thorough information on both population and household characteristics, population counts obtain basic demographic information of population.

purpose of this subsample was to include individuals which at the time of the interview had experienced as many social and family formation transitions as possible. Therefore, in order to capture as much information as possible on the occurrence of both social and family formation transitions, respondents less than 20 years of age at the time of the survey were not included in the analysis.

All the analysis was run in STATA (Statistics Data Analysis Software). As the study design had a random nature, the data-sets included sampling weights. STATA allows the selection of 3 types of weights: frequency, sampling and analytic weights. Consequently, the "sampling" weight command was used to inflate the estimations at a national level.

3.2 The variables

From the conceptual framework adopted in this thesis to study transitions to adulthood in Mexico, a series of individual and family level covariates were used to estimate their effect on the occurrence of social and family formation transitions to adulthood. The following sections describe the covariates in detail, including how these covariates were estimated. The covariates could be either fixed in time or time varying. Fixed time covariates referred to variables that remained unchanged over time, such as gender, birth cohort, etc. On the contrary, time varying covariates referred to variables which values change over time. This time, time varying covariates measured the time changing effect of one transition on another one, such as the hazards of experiencing first birth after first partnership. Before describing the way that individual and family level covariates were estimated, it is important to describe transitional variables that measured whether respondents had experienced a given transition, and the way the times of exposure of transitional covariates were estimated.

3.2.1 Social Transitions and Times of Exposure

Leaving/completing education. The ENAJUV 2000 explicitly asks respondents whether they "had ever left education for more than 6 months". The variable measuring the process of leaving education was built as a dichotomous variable with values of 1 for "yes" and 0 for "no". The final variable with a value of 1 included all those individuals who had ever left education for more than 6 months and those individuals who completed their education. The value of 0 included all those individuals who had never left education and, in consequence, were still studying at the time of the survey. The results showed that 82.8% of young men and 82.6% of young women had ever left education by the time of the survey (Table 3.1). The survival time for leaving education was measured through the final age at leaving full time education or completing full time education. Age at leaving education was built based on the question "How old were you when you finished/left education?". However, 5.4% of the cases were imputed because the information was not available. The imputation consisted on assigning the average age at leaving education based on the age at leaving education of the respondents with the same educational attainment. Depending on the level of education ever achieved, the average age in years at leaving education was assigned to the missing cases.

Entry into the labour force. In order to obtain the people that had experienced the transition into the labour force, the ENAJUV 2000 explicitly asked the interviewees whether they had ever worked. In case of a negative answer, respondents were then asked whether they had worked in a family owned business, had sold any product, had made a product to sell, had helped in agricultural or with farmed animals, or had done household work in exchange for payment. A total of 607 cases, which represented 17% of the negative responses, were reassigned to the ever worked category. The final outcome was a dichotomous variable stating "yes=1" for people who had ever worked and "no=0" for people who had not entered the work force. However, the survey did not specify if the nature of the first employment was full time or part time. Therefore, the variable included both forms of employment, without making a distinction between these two forms of employment. The time of exposure in years (age at entry into the work force) was obtained from the direct question "age at first entry into the work

force". In total, 45 cases, which represented 0.24%, were excluded from the analysis, as it was not possible to estimate their age at entering the labour force.

Table 3.1 Social Transition Covariates: Frequency and Percentage for Men and Women 20-29 years old, Mexico 2000.

Social Transitions to Adulthood	Men		Women	
	Frequency	Percentage	Frequency	Percentage
Ever left/completed education				
Yes	7,647	82.8 %	10,363	82.6 %
No	1,588	17.2 %	2,178	17.4 %
Total	9,235	100.0 %	12,541	100.0 %
Ever worked				
Yes	8,777	95.0 %	10,088	80.4 %
No	458	5.0 %	2,453	19.6 %
Total	9,235	100.0 %	12,541	100.0 %
Ever left home				
Yes	4,565	49.4 %	7,351	58.6 %
No	4,670	50.6 %	5,190	41.4 %
Total	9,235	100.0 %	12,541	100.0 %

Source: Author's estimates based on ENAJUV 2000.

First parental home leaving. The module on parental home leaving in the ENAJUV 2000 included a set of question asking individuals whether they had ever left the parental house for more than six months and whether they had ever come back to live with their parents. The difficulty in assessing parental home leaving lies in the fact that it is complex to establish the exact date of its occurrence. Some of the difficulties in estimating this transition include individuals that leave the parental home and are not necessarily financially independent from their parents. Moreover, people tend not to consider the periods when they return to the parental home (Murphy 1995) or when they form stem families within a same residence (De Vos 1989). Given the nature of the data, even when the questionnaire asked respondents whether they returned to leave to the parental home, other questions concerning related timings at the occurrence of this events, such as if they left again and how old were they at the time of leaving again, were not asked. Therefore, the analysis here focused on the first time respondents left the parental home, regardless of parental financial dependence or independence. The

final outcome was a dichotomous variable with values of "1=yes" for those people who had ever left the parental home for more than 6 months without considering if they ever return to live or not to the parental home, and "0=no" for those people who had never left the parental home. The age at leaving the parental home was estimated based on the age in years at leaving the parental home for the first time. A total number of 95 cases presented missing information. For 44 cases, it was possible to estimate the age at first leaving the parental home, as the reason for leaving the parental home was partnership. Therefore, based on age at first partnership, the age at first leaving the parental home was estimated. The rest of the cases (51) were excluded from the estimations on parental home leaving, as it was not possible to estimate the age at leaving the parental home.

3.2.2 Family Formation Transitions and Times of Exposure

First sexual intercourse. Young people who had ever experienced sexual intercourse by the time of the survey were obtained from the question asking whether they had ever had sex. The outcome of this variable was "yes" for young people who answered positively to ever having sex and "no" for those who had not experienced this transition. The survival time for first sexual intercourse was estimated based on the age at first sexual intercourse. The age at first sexual intercourse indicated the age in years of the first sexual intercourse. The question was asked only to respondents that had answered positively to the question related to whether or not they had ever had sex. In total, 1.4% of the cases were omitted from the analysis as the information was not possible to be imputed or estimated based on other variables.

In general, responses were high. One major concern about age at first sexual intercourse is the accuracy of the information. The problem in estimating age at first sexual intercourse are the inconsistencies of self reported sexual initiation among adolescents (Lauritsen and Swicegood 1997; Khan and Mishra 2008). Females are more likely to offer consistent responses, while men are less likely to do so. However, in traditional societies, respondents, particularly women, might not feel free to talk about

their sexual experiences due to cultural and social taboos on sexual issues. On one hand, many unmarried women might underreport whether they are, in fact, sexually active. Also, married women might underreport their sexual activity prior to enter partnership or make it coincide with their entry into first partnership or marriage. On the other hand, the tendency of men to declare that they are sexually active, when in fact they are not, is still common, or report younger ages at first sexual relationship in order to fulfil the role they think society "expects" from them (Singh, Wulf et al. 2000). In addition, respondents whose first sexual experience was involuntary may be underreported, as respondents might feel embarrassed by the situation, or simply they do not like to talk about such traumatic experience (Singh, Wulf et al. 2000). The analysis included young people which at the time of the survey were between 20 to 29 years of age. Since respondents were no longer adolescents at the time of the interview, it was expected to obtain more accurate information than at younger ages. Nevertheless, it is important to emphasise that interpreting the results from this variable needs to be with caution.

First partnership. From the marital status and the history of marital unions, the variable *ever been in partnership* was generated. Even when respondent's current marital status was stated as *single*, some of them had experienced previous partnership(s). These cases contained information concerning first partnership. The new variable took values of 1 if individuals had ever lived in partnership and 0 in the opposite case. The information provided by the survey did not make possible to distinguish between cohabitation or marriage. Therefore, this thesis considers both forms of marital unions as "partnership"[10]. The results showed that 45.6% of men in the sample had ever lived in partnership, while 54.4% had never experienced a marital union in their lives (Table 3.2). In contrast, 60.3% of the women had ever been in partnership, and 39.7% remained single at the time of the survey. The survival time for this transition was obtained from the *age at first partnership*. The age at partnership was the variable that gave information about the age in years when young people in the sample got married or entered cohabitation for the first time. For 219 cases, representing 1.82% of the total people ever in partnership, it was not possible to estimate age at first partnership.

[10] For further evidence on the changing patterns of cohabitation in Latin America, and in particular Mexico, see Quilodran (2006) and Castro Martin (2002).

First birth. In order to obtain the information about the occurrence of first childbearing, the ENAJUV 2000 contained the question whether the interviewees *had ever been pregnant (for women)* or had *ever gotten someone pregnant (for men)* and the *number of children ever born.* Because not all pregnancies end in the birth of a new born, the transitional variable was estimated based on a positive figure equal or greater than one for the number of children ever born. The outcome variable was assigned with values of 1 for "*yes*" and 0 for "*no*". Missing cases represented less than 0.12% of the answers. The *age at first childbearing* was asked to those people that had answered positively to the questions related to ever have a pregnancy. The variable kept the values of the original variable in years of age. However, 114 cases presented no information available, which represented 1.06% of the young people that ever experienced parenthood.

Table 3.2 Family Formation Transition Covariates: Frequency and Percentage for Men and Women 20-29 years old, Mexico 2000.

Family Formation Transition to Adulthood	Men		Women	
	Frequency	Percentage	Frequency	Percentage
Ever had sex				
Yes	7,538	81.6%	8,737	69.7 %
No	1,697	18.4%	3,804	30.3 %
Total	9,235	100.0	12,541	100.0 %
Ever in partnership				
Yes	4,331	46.9 %	7,686	61.3 %
No	4,904	53.1 %	4,855	38.7 %
Total	9,235	100.0 %	12,541	100.0 %
Ever pregnant				
Yes	3,875	42.0 %	7,497	59.8 %
No	5,360	58.0 %	5,044	40.2 %
Total	9,235	100.0 %	12,541	100.0 %
Ever had a child				
Yes	3,596	38.9 %	7,162	57.1 %
No	5,639	61.1 %	5,379	42.9 %
Total	9,235	100.0 %	12,541	100.0 %

Source: Author's estimates based on ENAJUV 2000.

Similar to first sexual intercourse, inconsistencies are also found regarding the estimation of this variable. Two particular situations could be possible for underreporting this transition. In the first one, young men that did not live with their children might have a greater tendency to underreport the birth of their offspring (Ratcliffe, Hill et al. 2002). In the second one, if the pregnancy was ended due to an abortion, respondents might not report the pregnancy itself and all the relevant information relevant to the pregnancy. In Mexico, abortion became legal only in 2007 and the law applies only in Mexico City (Salazar 2008). Hence, at the time of the survey, respondents were unlikely to report an abortion given the illegal nature at the time of the interview. This was thought to be more common among women. Despite legalization of abortion in Mexico City, there is still a great stigma among the Mexican population towards its practice (Salazar 2008), and consequently, its report.

3.2.3 Individual Level Covariates

Gender. In order to assess the differences or similarities in the transitions to adulthood between young men and women in Mexico, one of the main variables in the analysis was *gender*. More than *sex*, a gender component is essential in the analysis of the transitions to adulthood in the context of Mexico given the strong gender inequalities. Gender was expected to show important differences between men and women in the frequency and timing in the occurrence of transitions to adulthood. This covariate was estimated from the information available in the data sets from the ENAJUV 2000. The variable took values of 1 for males and 2 for females. Based on the subsample used, 42% of the cases corresponded to men, and the remaining 58% corresponded to women.

Birth Cohort. The *birth cohort* variable referred to the year of birth of individuals. Birth cohort was obtained from the actual age at the time of the survey and then turned into year of birth ranging from 1970 to 1979. The idea to use birth cohort instead of "age" was to use this covariate as fixed in time, as birth cohort does not change over time unlike age. Moreover, individuals from different birth cohorts could

have experienced a given transition the same year of age, without reflecting possible changes over time between birth cohorts in the experience of the different social and family formation transitions in Mexico. Even when "… cohort is not homogeneous with respect to the occurrence of the marker event (Hobcraft, Menken et al. 1982)", this variable was expected to have an important effect on the outcome of the different transitions and in the sequencing of the various trajectories.

Urban/Rural Area of Residence. An important social indicator was the area where individuals resided, which also served as a proxy of local and community context. This variable identified individuals that lived in urban or rural areas at the time of the survey. According to the definition of the stratification of the sample (Table 3.3), rural localities consisted of areas of 2,500 or less inhabitants, whereas urban areas consisted of regions with more than 2,500 inhabitants. The final variable took values of 1 for urban areas and 2 for rural areas.

Table 3.3 Stratification of the sample of the ENAJUV 2000.

Zone	Description
Urban high	Cities with 100,000 and more inhabitants and/or state capitals.
Totally urban of high density	Localities from 20,000 to 99,999 inhabitants Localities from 15,000 to 19,999 inhabitants
Totally urban of low density	Localities from 2,500 to 14,999 inhabitants
Rural	Localities with less than 2 500 inhabitants

Source: ENAJUV 2000.

Assumptions: An important aspect to take into account for the analysis and interpretation of the results was the way that this variable was estimated. Ideally this variable should have been treated as a time-varying covariate. The survey did not provide the information referring to this variable at the time of experiencing each one of the various social and family formation transitions, but at the time of the survey. Therefore, it was decided to set this variable as a fix covariate in time assuming no migration as patterns of rural to urban migration in Mexico declined since the 1970s

(Partida-Bush 2006). Besides, the young people included in this study were born during the 1970s. The main internal flows of migration occurred between the decades of the 1940s and 1970s as a consequence of industrialization and modernization (Fussell 2004; Partida-Bush 2006). The main process of urbanization came along with the industrial activity concentrated mostly in Mexico City, Guadalajara and Monterrey. However, in the 1970s the model of economic growth based on import-substitution industrialization declined and Mexico became heavily in debt (Fussell 2004). During the early 1980s, the economic crisis continued. Consequently, during the 1980s and 1990s the patterns of migration shifted. Smaller and medium cities became attraction poles for migration rather than the traditional large metropolitan areas of Mexico City, Guadalajara and Monterrey. Internal migrants moved between urban spheres seeking more permanent employment rather than temporary agricultural work typical of rural agricultural areas (Fussell 2004). Besides the well established flow originated in rural areas moved directly to the U.S (Fussell 2004; Partida-Bush 2006). Therefore, patterns of internal migration might have not significantly affected rural to urban migration, but urban to urban migration. Nevertheless, it is important to say that results coming from this variable have to be read carefully and with certain caution, as they represent estimates of rural-urban patterns.

Respondent's educational attainment. The Mexican Educational System is composed of Primary school or *Basic Level* (consisting of 6 years of education), followed by Secondary School or *Medium Level* (consisting of 3 years of education), Preparatory school[11] or *Medium-High Level* (which also consists of 3 years of education), First Degree or *High Level* (which in most cases last between 4 to 5 years), and Postgraduate Studies. Level of education was built as a categorical variable, with values of Very Low, Low, Medium and High (Table 3.4). "Very Low" included cases with less than Primary education (6 years of education or less). The category of "Low" included respondents that achieved 7 to 9 years of education (Secondary school). Medium was built with those respondents with 10 to 12 years of education (Preparatory School) and "High" contained the cases that achieved more than 12 years of education (at least one year of university attendance)**.**

[11] In Mexico, Preparatory School is the equivalent of U.S. High School education, which prepares students for higher education at a university level. The term has no association with "Prep Schools" in the UK (private schools designed to prepare pupils under 13 for entry into the fee-required schools).

Table 3.4 Respondent's Educational Attainment Covariate: Frequency and Percentage for Men and Women 20-29 years old, Mexico 2000.

Variable	Men		Women	
	Frequency	Percentage	Frequency	Percentage
Respondent's Educational Attainment				
Very low	2,543	27.5 %	4,192	33.4 %
Low	2,895	31.4 %	3,683	29.4 %
Medium	2,248	24.3 %	2,936	23.4 %
High	1,549	16.8 %	1,730	13.8 %
Total	9,235	100.0 %	12,541	100.0 %

Source: Author's estimations based on ENAJUV 2000.

Assumptions: The level of education was fixed to the time at experiencing each of the different transitions to adulthood. Therefore, each level of education was treated as a fixed covariate in time in the different models where it was used. Level of education was excluded from the analysis of leaving education and entering the work force for the obvious and direct association implied between these two transitions. In total, 4 different covariates for each one of the other remaining transition were created. Only the relevant one was used in the respective models. To estimate respondent's level of education at the time of experiencing family formation transitions to adulthood and parental home leaving, two possible paths were followed. In case respondents were no longer studying at the time of experiencing a given transition, the estimation of level of education used the level of education ever achieved. However, when the respondents were still in education at the time of experiencing each transition, level of education was estimated based on the level of education related to the age at leaving education reported by those who were no longer studying. Based on the age at experiencing each transition, the corresponding level of education was matched with those with the same age at leaving education. For first partnership, a total of 2.0% of the total cases were imputed on their level of education at the time of entering first partnership. For first birth, 243 young people out of 21776 (1.15%) were imputed. In the case of first sex, 11.4% of the observations (1796) experienced first sex before leaving education, whose information was reassigned. Finally, 1796 individuals (8.2% of the subsample) left the parental home prior to leave education.

3.2.4 Family Background Characteristics Covariates

Father's Educational Attainment and Mother's Educational Attainment. Father's level of education and mother's level of education are important proxies of socio-economic status. The covariates were originally coded as primary school, secondary school, preparatory school and university degree and postgraduate studies. The covariates were recoded as follow: Primary school or less were assigned to the category of "Very Low", Secondary school to "Low", Preparatory school to "Medium" and university and more to "High". Therefore, the final two categorical variables took values of *very low, low, medium* and *high* (Table 3.5). If it was considered that parents married people with similar level of education, it would only be necessary to use the educational attainment of one of the parents. The information of the ENAJV 2000 showed that these two variables had a positive correlation of 54.9%, which correspond to an association of slightly more than half between these two covariates. Both covariates were included, as mother's level of education was considered to be a significant predictor of a series of transitions to adulthood, especially for young women.

Mother's age at respondent's birth. In order to estimate the repetition of intergenerational patterns in the experience of transitions to adulthood, *mother's age at respondent's birth* was used as a proxy of intergenerational patterns. This covariate, as its name says, referred to the age of the mother in years at the time of the birth of the respondent. The variable was estimated based on the difference in years of the date of birth of the mother and the date of the birth of the respondent. Based on the original values in years, this variable was categorized as follows: *mothers less than 20 years older than their children, mothers between 20 and 24 years older than respondents,* and *mothers 25 and more years older than the respondents.*

Person in charge of the costs of education. The person in charge for paying the costs of education was used as a proxy of household composition. The covariate was estimated from the question that made reference to the main person in charge of paying the costs of education. Based on the original categories of the main person(s) responsible to cover the costs of education, the final covariate was recoded to include the following categories: "father", "both parents", "mother" and "other". The category

of "other" included respondents that received a scholarship or that were responsible themselves for covering the costs of education.

Table 3.5 Family Level Covariates: Frequency and Percentage for Men and Women 20-29 years old, Mexico 2000.

Family Level Covariates	Men		Women	
	Frequency	Percentage	Frequency	Percentage
Father's level of education				
Very low	6,965	75.4 %	9,845	78.5 %
Low	961	10.4 %	1,124	9.0 %
Medium	540	5.9 %	626	5.0 %
High	750	8.1 %	933	7.4 %
Missing Cases	19	0.2 %	13	0.1 %
Total	9,235	100.0 %	12,541	100.0 %
Mother's level of education				
Very low	7,125	77.2 %	10,116	80.7 %
Low	1,036	11.2 %	1,171	9.3 %
Medium	599	6.5 %	707	5.6 %
High	464	5.0 %	545	4.4 %
Missing Cases	11	0.1 %	2	0.0 %
Total	9,235	100.0 %	12,541	100.0 %
Mother's age at birth				
<20 years	1,804	19.5%	2,466	19.7%
20-24 years	4,240	45.9%	5,726	45.%
25 + years	3,191	34.6%	4,349	34.7
Total	9,235	100.0 %	12,541	100.0 %
Person in charge for the cost of education				
Father	6,046	65.5%	7,997	63.7%
Mother	1,130	12.2%	1,790	14.3%
Both parents	1,287	13.9%	1,589	12.7%
Other	772	8.4%	1,165	9.3%
Total	9,235	100.0 %	12,541	100.0 %

Source: Author's estimations based on ENAJUV 2000.

The ENAJUV 2000 includes a series of questions related to the family environment and the relationship with the parents. Based on these sets of questions, two indicators were built to determine the impact of other family related characteristics on the occurrence on social and family formation transitions to adulthood in Mexico. The

first indicator was the level of parental restriction and the second one was the level of support among household members, in particular, parental support.

Level of parental restriction. As its name says, this indicator quantified the degree to which individuals were allowed by their parents or had the freedom to do certain activities or not. The activities included having a boyfriend or a girlfriend, going out with friends, dressing the way the wanted to and coming back home late. The four questions were asked whether respondents were still living with their parents at the time of the interview, and in case the respondents were no longer living with their parents, the questions were asked with a connotation to the times they did. The original values of each of these activities went from 1 to 3, being 1 "never", 2 "sometimes" and 3 "always". To obtain the final variable, first the average value for the given activities was calculated. The *level of parental restriction* was then obtained from the 33% percentiles of the distribution of the average sum of values. The values of the three categories were: "high" for the first 33% percentile, representing respondents with high levels of parental control, "medium" for the second 33% percentile, constituted by respondents with medium levels of parental restriction, and "low" for the last 33% percentile, corresponding to the last group of people with low levels of parental control. It was not possible to estimate the level of parental restriction for 4.3% and 7.0% of men and women, respectively. Therefore, these respondents were treated as missing cases.

Assumptions: An important assumption had to be considered at the time of introducing this variable into the analysis. Since the level of parental restriction (and possibly the respondent's perception of this level) might have changed in time, the level of parental control constituted a time varying covariate by nature. The level of restriction was unlikely to be the same for a 15 year old as for a 29 year old. Respondents that were no longer in the parental home might give different responses to about past experiences compared with what they might have when they were still in the parental home. These respondents were no longer in the family environment; therefore they could have remembered family environment circumstances differently than they in fact were, as circumstances are perceived differently with time.

The information collected in the ENAJUV 2000 gave a level of restriction that was fixed in time. However, when individuals were no longer in the parental home, the reported level of parental restriction was assumed to be the same as at the time of

experiencing the transitions. In order to do so, categories were adjusted towards the next higher level of parental restriction depending on the age at experiencing the different social and family formation transitions. Depending on the level of restriction showed at different ages, it was assigned to a higher level of restriction corresponding to the age at experiencing each transition. Therefore, the level of parental restriction was fixed at the time of experiencing the different social and family formation transitions. Consequently, the interpretation of results needed to consider these assumptions which constitute a limitation of this study.

Table 3.6 Family Background Covariates: Frequency and Percentage for Men and Women 20-29 years old, Mexico 2000.

Variable	Men		Women	
	Frequency	Percentage	Frequency	Percentage
Level of parental restriction				
High	1,316	14.2%	7,034	56.1%
Medium	3,627	39.3%	3,613	28.8%
Low	3,896	42.2%	1,012	8.1%
Missing cases	396	4.3%	882	7.0%
Total	9,235	100.0%	12,541	100.0%
Level of family support				
Low	4517	48.9%	5,961	47.5%
Medium	2724	29.5%	3,537	28.2%
High	1536	16.6%	2,482	19.8%
Missing Cases	458	5.0%	561	4.5%
Total	9,235	100.0%	12,541	100.0%

Source: Author's estimates based on ENAJUV 2000.

The ***level of family support among household members*** measured the degree of support the respondents had from their parents. The indicator was obtained from a series of seven questions that referred to the frequency of actions the parents would do if respondents did specific activities. For instance, in case respondents did something good or correct, how often would parents say anything/do anything, say encouraging words, give a hug/kiss, eat together with family, go to the movies with the family, watch TV together, and, go on holidays with parents. As in the previous covariate, the seven questions were asked whether respondents were still living with their parents at the time

of the interview, and in case the respondents were no longer living with their parents the questions were asked with a connotation to the times they used to do it. For each of these actions, the answer had values that ranged from 1 to 3, being 1 "always", 2 "sometimes" and 3 "never". Depending on the negative or positive connotation of the action, the original values of the answers were inverted or remained the same in order to keep lower values representing low levels of family support. The sum of the answers was then averaged. The final *level of family support* was obtained from the 1/3 percentile distribution of the average of the inverted and original answers, with values of 1 for "low", 2 for "medium" and 3 for "high" levels of family support, respectively. Level of family support outcomes are shown in Table 3.6.

3.2.5 Social and Family formation transitions as time varying covariates

One important part of the analysis is dedicated to establish the main associations between social and family formation transitions. In order to establish these relations, it was necessary to estimate if a transition "triggered"[12] the effect of another one. Based on the timing at experiencing each of the various social and family formation transitions, it was possible to estimate the effect of a transition given the prior occurrence of another transition. With the information of the ENAJUV 2000, it was possible to quantify the effects of the different social and family formation transitions upon one another. It was reasonable to assume that hazard ratios for experiencing a given transition changed over different periods of time. Depending on the transitions experienced before the outcome transitions, it was expected that hazard ratios of the outcome transitions were not constant (decrease or increase) throughout different periods of time. Therefore, social and family formation variables were treated as time varying categorical covariates.

In order to generate the time varying categories of this kind of covariates, it was necessary to first split into year episodes the time between transitions t_1 and the

[12] The experience of a transition might not necessarily have an effect on experiencing a transition. Therefore, the inclusion of a transition as a covariate on the likelihood to experience another transitions reflects mainly sequence rather than causality.

outcome transition, transitions t_2 and the outcome transition, and so forth. Thus, if leaving education was considered to be the outcome variable, the split consisted in dividing the time between entering the labour force and leaving education in year episodes, the time between leaving home and leaving education in year episodes, etc. Time varying transitions were generated creating split episodes between a given transition and the outcome transition depending on the previous experience of the given transitions. Sample sizes changed according to the pair of transitions to be tested, as respondents that had experienced the outcome transitions before the specific given transitions were taken out of the analysis. Therefore, it was not possible to combine in the models more than two transitions at a time on the outcome transition. Consequently, the models that estimate the hazards ratios of the outcome transition given the prior experience of a specific transition tested the transitions in pairs, i.e. the hazard ratios of experiencing the outcome transition given the occurrence of transitions t_1, the hazard ratios of experiencing the outcome transitions given the occurrence of transition t_2, etc. There was a particular interest to see the effect on the short, medium and long term effect of social and family formation transitions on other social and family formation outcome transitions. Therefore, time varying transitional covariates included the effect within year 0, year 1, year 2, separately. From there onwards, intervals were created in 2 years window episodes: between 3-4 years, between 5-6 years, and 7 and more years.

Assumptions: The information was provided in whole years. Therefore, when two transitions were experienced during the same year of age (simultaneously), the sequence between pairs of transitions was assumed in order to generate the direction of the "causality". In cases where leaving education and entry into the work force occurred the same year of age, it was possible to determine which transition occurred first as the survey specifically included a question asking respondents whether they were still in education or not at the time of entering the work force. For the rest of the transitions, this information was not available. In order not get meaningless results, the sequences between simultaneous pairs of transitions were based on the order of the "causality" to be tested.

3.3 Potential drawbacks of the survey

The main limitation of the data is that the information was captured in whole years, without including the month of the occurrence of the different transitions. This limited the estimates to have a more detailed picture of the sequences of events, and the exact time between transitions. Similar to other secondary data analysis, another limitation of the data was that most of the information captured made reference to the time when the interview took place and not at time of experiencing the different social and family formation transitions. In order to have a better understanding of the various social and family formation transitions in Mexico, other relevant information was not available, such as the type of first employment (full or part time), duration of first employment, type of first partnership (cohabitation or marriage), etc.

Adolescence and early adulthood are important periods of migration of people. During these period, young people are looking for better life conditions and expectations, concerning educational opportunities, employment prospects and family stability (Partida-Bush 2006). During the last two to three decades, migration from Mexico to the U.S. has become a significant issue. Considerable flows of Mexicans are migrating to the U.S. The well established flow originated in rural areas has moved directly to the U.S. rather than metropolitan areas (Fussell 2004; Partida-Bush 2006). Even more, the profiles of those migrating to the U.S. does not correspond to the traditional rural agricultural worker characteristic until the 1970s. The past decades have also seen an important presence of migrants also coming from urban areas (Corona and Tuiran 2001). Consequently, an important issue to consider in the study of transition to adulthood are migration patterns of adolescents and young adults, information that was not available in the survey. The ENAJUV 2000 could have fallen short of eligible young people due to the selective process that migration implies, i.e. the information on transitions to adulthood of those who have migrated was not capture by the survey. Estimates on migration between Mexico and the U.S. are difficult to obtain, because most of the flow has an illegal nature. One of the main challenges is quantifying the actual migratory flow. A number of diverse methodological and technical problems usually arises. Estimates have shown that around 1.5 million people emigrated to the

U.S. between 1995 and 2000 (Instituto Nacional de Estadisitca y Geografia 2000), of which 69% corresponding to men and 31% to women.

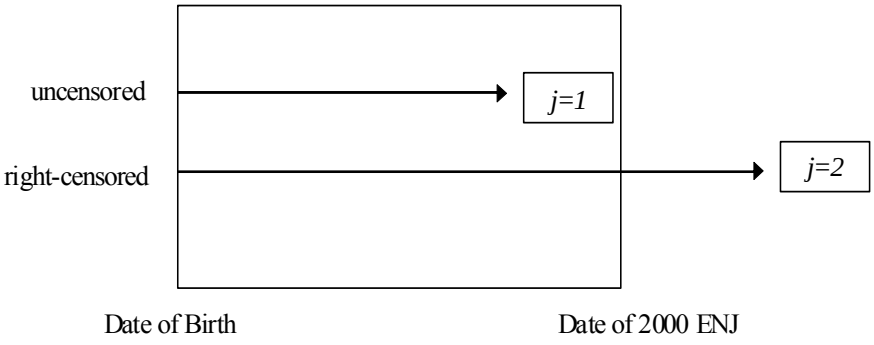
3.4 Methodology of research

Research on transitions to adulthood has usually applied event history models to estimate the frequency, timing and determinants of transitional variables (Marini 1984a; Kiernan 1991; Billari 2001; Echarri and Perez Amador 2001; Lloyd and Grant 2004; National Research Council and Institute of Medicine 2005).

The information of the ENAJUV 2000 consisted of time to event data, also known as transitional data or survival time data (Jenkins 2005). This data referred to information that provided the starting and ending dates of the event (in this case transition) of interest. The technique used to analyse the data was Survival Analysis. The survival time data of the ENAJUV 2000 was derived as follows: the starting date of all the transitions was provided by the respondent's date of birth, while respondent's first age at experiencing the different transitions constituted the ending dates (case j=1 in Figure 3.1).

The data of the ENAJUV 2000 also included some cases for which some or all of the transitional events of interest were not recorded simply because they did not occur before the date of the survey (case j=2 in Figure 3.1). For example, respondents whose date at first partnership was unknown, because they had not experienced first partnership by the time of the survey. These cases are known as *right censored cases*. For these cases, the total length of time from the entry time until the exit time (time of experiencing a given transition) was not known exactly. However, Survival Analysis is a suitable statistical tool for incomplete spell data. Thus, the data-set contained a combination of survival times in which both the entry and exit dates were known (complete spell data), and in which entry dates were known, but the exit dates were not observed (right censored incomplete spell data).

Figure 3.1 Uncensored and Right-Censored cases in the ENAJUV 2000



Arrow-head indicates time when the transition occurred

j = 1 represents cases where start and end time are known.

j = 2 represents cases where the end time is outside the observation period, i.e. *right-censored cases.*

In longitudinal studies, like the ENAJUV 2000, individuals were asked about a series of events of interest. The nature of longitudinal studies, either prospective or retrospective, makes reasonable to assume that rates of exposure of a given event do not remain constant over time, even over short periods of time (Kirkwood and Sterne 2003). Survival Analysis methods permit the analysis of rates of such nature.

3.4.1 Survival Analysis

Survival Analysis focused on two main concepts (Kirkwood and Sterne 2003):

- the **hazard** *h(t)*: the instantaneous rate at time *t*, which are assumed not to remain constant within time periods, and

- the **survival function** *S(t)*: or survival curve. This is the probability that an individual will survive (has not experienced the transition of interest) up to and including time *t*.

3.4.1.1 The Survival function

The surviving length of a spell is the achievement of a continuous random variable T with a Failure function F(t) and a probability density function f(t). Hence, the Survivor function is S(t) = 1 – F(t).

The Failure function (Jenkins 2005):

$$\Pr(T \leq t) = F(t) \qquad (3.1)$$

which implies a Survivor Function (Jenkins 2004):

$$\Pr(T>t) = 1 - F(t) = S(t) \qquad (3.2)$$

The probability density function is defined as the slope of the Failure function (Jenkins 2004):

$$f(t) = \lim_{\Delta t \to 0} \frac{\Pr(t \leq T \leq t + \Delta t)}{\Delta t} = \frac{\partial F(t)}{\partial t} = -\frac{\partial S(t)}{\partial t} \qquad (3.3)$$

where Δt is a very small ("infinitesimal") interval of time.

The Survivor function S(t) and the Failure function F(t) are probabilities. Thus, both lie within the properties of probabilities, falling between zero and one. The

Survivor function is a decreasing function of t. It is equal to 1 at the start of the spell (t=0) and zero at infinity (Jenkins 2005). In other words, the Survival function represents the probability that an individual has not experienced a transitional event before time t.

It is also important to specify that the density function is a non negative function, which could be greater than one, as it does not summarize probabilities

$$f(t) \geq 0$$

3.4.1.2 Hazard rate

The Hazard rate is defined as (Jenkins 2005):

$$\theta(t) = \frac{f(t)}{1-F(t)} = \frac{f(t)}{S(t)} \qquad (3.4)$$

Both the hazard rate $\theta(t)$ and the probability density function f(t) may be greater than one

$$\theta(t) \geq 0$$

The hazard rate is not a probability, as it refers to the exact time t, and not to the tiny subsequently intervals. The probability density function summarizes the concentration of exit times at each instant of time along the time axis, conditioning survival to the transition up to that instant.

The hazard rate and the Survivor function have a one to one relationship. It is known that

$$\theta(t) = \frac{f(t)}{1-F(t)} \qquad (3.5)$$

$$= \frac{-\partial[1-F(t)]/\partial t}{1-F(t)} \qquad (3.6)$$

$$= \frac{\partial\{-\ln[1-F(T)]\}}{\partial t} \qquad (3.7)$$

$$= \frac{\partial\{-\ln[S(t)]\}}{\partial t} \qquad (3.8)$$

using the fact that $\partial \ln[g(x)]/\partial x = g'(x)/g(x)$ and S(t) = 1 – F(t). Now integrating both sides:

$$\int_0^t \theta(u)du = -\ln[1-F(t)]\Big|_0^t \qquad (3.9)$$

but F(0) = 0 and ln(1)=0, so

$$\ln[1-F(t)] = \ln[S(t)] = -\int_0^t \theta(u)du, \text{ i.e} \qquad (3.10)$$

$$S(t) = \exp\left(-\int_0^t \theta(u)du\right) \qquad (3.11)$$

$$S(t) = \exp[-H(t)] \qquad (3.12)$$

where H(t) is the integrated or cumulative hazard function

$$H(t) = \int_0^t \theta(u)du \qquad (3.13)$$

$$H(t) = -\ln[S(t)] \qquad (3.14)$$

The importance of this result is that once a shape for $\theta(t)$ is chosen, one can derive S(t), F(t) from it, and also f(t), and H(t). In principle, following this result, one can start with any function or rate and obtain the others from it.

3.4.1.3 Estimation of the Survivor Function

In this analysis, the choice of methods was determined by the nature and type of the data used. The survival curves were estimated using Kaplan Meier Analysis. Kaplan Meier models are used when the exact survival time of each individual is known, Kaplan Meier Analysis estimates the survival curve using exact failure and censoring time (Kirkwood and Sterne 2003) reaching more precise estimations of the survival curve. Nevertheless, Kaplan Meier Analysis can also be used with rounded data. Given that the information was provided in whole years of age, this was the approach that was adopted for the analysis.

To derive the Kaplan Meier function estimates, the **risk sets** of individuals still being studied at each time *t* were estimated at times when a transition occurred. If there were n_t individuals in the risk set at time t, and d_t events occurred at that precise time, then the estimated risk r_t of the transition at time t is d_t/n_t, and so the estimated survival probability a time t is (Kirkwood and Sterne 2003):

$$S(t) = 1 - r_t = \frac{n_t - d_t}{n_t} \qquad (3.15)$$

At all times at which no transition occurs, the estimated survival probability is 1.

To estimate the survivor function, it is needed the use a conditional probability. The times at which transitional events occur are numbered as t_1, t_2, t_3 and so on. Let $t_1 < t_2 < t_3 < \ldots < t_j < \ldots < t_k < \infty$ represent the survival times that are observed in the data-set. As the estimated survivor probability until just before t_1 is 1 then:

$$S_{t1} = 1 \times s_{t1} = s_{t1} \qquad (3.16)$$

The survival probability remains unchanged until the next transition event at time t_2. Thus, the survival function a time t_2 is

$$S_{t2} = S_{t1} \times s_{t2} = s_{t1} \times s_{t2} \qquad (3.17)$$

In general, the survival probability up to and including event j is:

$$S_{tj} = S_{tj-1} \times s_{tj} = s_{t1} \times s_{t2} \times \ldots \times s_{tj} \qquad (3.18)$$

This product is known as the **product-limit** formula (Kirkwood and Sterne 2003). And, the Kaplan Meier *estimate* of the Survivor function is given by the product:

$$\hat{S}(t_j) = \prod_{j|t_j<t} \left(1 - \frac{d_j}{n_j}\right) \qquad (3.19)$$

The estimate of the hazards and the survival functions for each social and family formation transition were obtained straightforwardly using the statistical package STATA.

3.4.1.4 Regression Analysis of Survival Data.

In order to estimate the main determinants of the different transitions to adulthood, regression analysis of survival data was used. The most commonly used approach of the regression analysis of survival data is *Proportional Hazards Regression*, also known as *Cox Regression* (Kirkwood and Sterne 2003). Cox Proportional Hazard Regression models estimate the relationship between the hazard rate and the explanatory variables without having to make any assumption about the fixed shape of the hazard function. The main strength of this technique is that it provides semi-parametric hazards and estimates of the coefficients for each covariate included in the model, allowing the assessment of the impact of multiple covariates in the same model.

The mathematical form of the Cox Proportional Hazard Regression model is (Kirkwood and Sterne 2003):

$$Log(h(t)) = \log(h_0(t)) + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_p x_p \qquad (3.20)$$

where h(t) is the hazard at time t, $h_0(t)$ is the baseline hazard for an individual in whom all exposure variables = 0 at time t, and x_1 to x_p are the p exposure variables.

On the ratio scale the model is (Kirkwood and Sterne 2003):

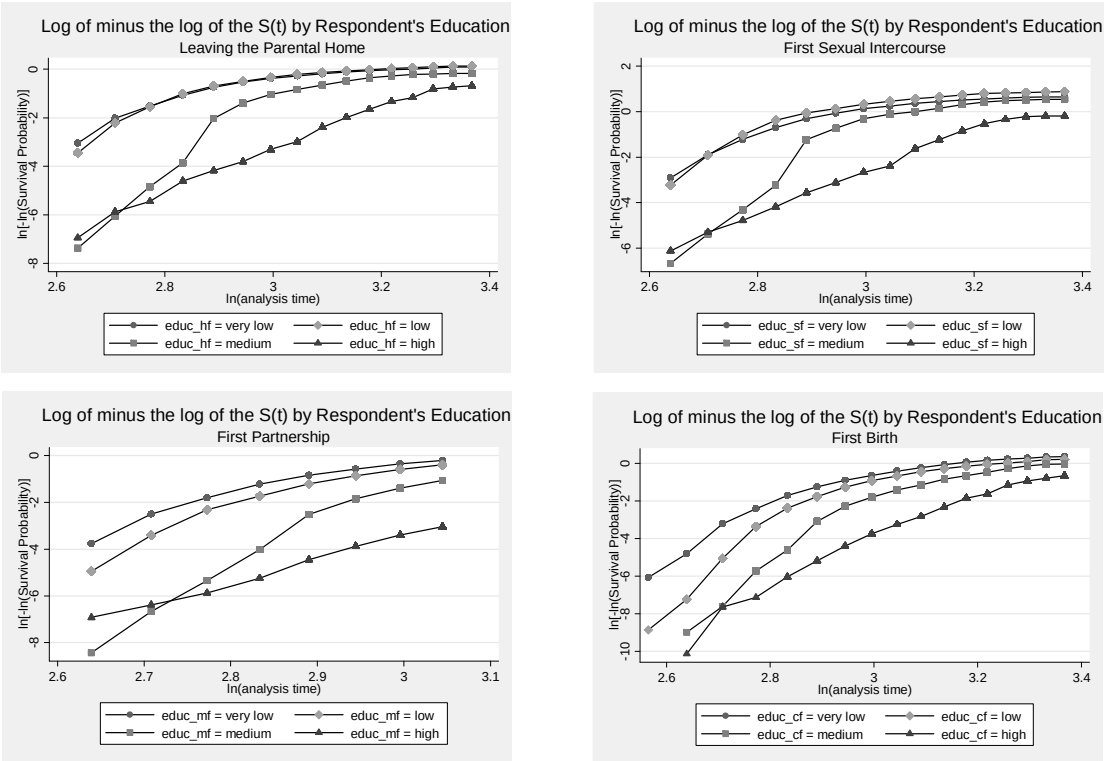
$$h(t) = h_0(t) \times \exp(\beta_1 x_1 + \beta_2 x_2 + ... + \beta_p x_p) \qquad (3.21)$$

For the analysis of the data of the ENAJUV 2000, the Cox Proportional Hazard Regression models for the different social and family formation transitions were run using STATA, as well as the estimation of social and family transitions as time varying covariates.

3.4.1.5 Testing the Proportionality Assumptions

When modelling Cox Regressions, a key assumption is the proportionality of the hazard ratios of the covariates included in the model (Bruin 2006). In other words, although the hazard rate $\theta(t)$ is allowed to vary over time, the hazard ratios are assumed to be constant over time (Bellera, MacGrogan et al. 2010). When a hazard ratio is not constant over time, the covariate has a time varying effect or is non-proportional (Bellera, MacGrogan et al. 2010). As covariates may be either fixed in time or time varying, covariates may be both time-varying and have an effect that may change over time (Bellera, MacGrogan et al. 2010). There are several methods for verifying that a model satisfies the assumption of proportionality.

Figure 3.2 Log minus the log of the Survival Function curves as a function of time (log scale) of Respondent's Educational Attainment for Different Transitions to Adulthood.



Source: Author's calculations based on ENAJUV 2000.

In order to test the proportionality assumptions, the research started with a graphical check by plotting the log minus the log of the survival functions as a function of time, where log represents the natural logarithm. As it is rare to obtain perfectly parallel curves, the decision to accept proportional hazards often depends on whether curves cross each other or not (Bellera, MacGrogan et al. 2010). Figure 3.2 shows the plot of log(-log(S(t))) of respondent's educational attainment as a function of time. The plots suggested non-proportionality hazard ratios for respondent's educational attainment in the models for different transitions to adulthood. However, based on Bellera's, MacGrogan's et al. (2010) criteria, some covariates suggested proportionality, such as gender, area of residence, parental restriction and parental support (see Appendix Chapter 3).

Table 3.7 P-Values of Test for non-proportionality based on the scales Schoenfeld Residuals from conventional Cox models.

Covariates	Leaving Education	Entry into the Labour Force	Leaving the Parental Home	First Sexual Intercourse	First Partnership	First Birth
Gender: male	0.000	0.000	0.103	0.000	0.000	0.000
Cohort	0.000	0.000	0.000	0.026	0.000	0.000
Area: rural	0.000	0.000	0.000	0.000	0.000	0.000
Respondent's Education: low			0.001	0.000	0.000	0.000
Respondent's Education: medium			0.000	0.000	0.000	0.000
Respondent's Education: high			0.000	0.000	0.000	0.000
Mother's Age: <20 yrs. Old			0.000	0.000	0.372	0.001
Mother's Age: 20-24 yrs. old			0.033	0.124	0.001	0.545
Father's education: low	0.000	0.120	0.000	0.366	0.000	0.000
Father's education: medium	0.006	0.183	0.002	0.000	0.787	0.003
Father's education: high	0.000	0.005	0.000	0.119	0.000	0.000
Mother's education: low	0.000	0.000	0.023	0.063	0.348	0.686
Mother's education: medium	0.000	0.000	0.000	0.000	0.000	0.000
Mother's education: high	0.227	0.000	0.000	0.036	0.022	0.000
Level of Restriction: high	0.000	0.000	0.000	0.000	0.000	0.000
Level of Restriction: medium	0.000	0.000	0.000	0.000	0.000	0.000
Level of Support: low	0.000	0.000	0.000	0.136	0.000	0.541
Level of Support: medium	0.000	0.000	0.167	0.001	0.003	0.921
Education Costs: mother	0.001	0.000				
Education Costs: both parents	0.000	0.000				
Education Costs: other	0.000	0.000				
Global Test	0.000	0.000	0.000	0.000	0.000	0.000

Source: Author's calculations based on ENAJUV 2000.

As graphic checks do not provide formal testing (Bellera, MacGrogan et al. 2010), the next approach was to use Schoenfeld and scaled Schoenfeld residuals to run the global test of proportionality assumptions. Although the visual inspection of the graphs suggested proportionality for some covariates, the global test suggested clear evidence of non proportionality ($p < 0.01$) in the different models (Table 3.7).

As the criteria to reject proportionality depends on the test to be either individually or collectively statistically significant, results also showed that some covariates suggested proportionality in different models when testing their likelihood on specific transitions (Table 3.6). For instance:

- gender suggested proportional hazards for leaving home
- birth cohort for first sexual intercourse
- mother's age at respondent's birth for leaving home (20-24yrs), first sex (20-24yrs), first partnership (<20yrs old), and first birth (20-24yrs)
- father's education for entering the work force (low, medium), first sex (low, high) and first partnership (medium)
- mother's education for leaving education (high); leaving home (low); first sex (low, high); first partnership (low, high), first birth (low)
- parental support for leaving home (medium); first sex (low); first birth (low, medium)

A way to try to minimise the effect of non-proportionality (although not eliminate it) was to censor respondents at a relatively younger age (24 years old) and hence to consider a smaller age range. Results from the global proportionality tests still suggested evidenced of non-proportionality (see Table A.1 Appendix Chapter 3). Another way to deal with the non-proportionality is to stratify by the covariate with a time varying effect. Although stratifying by the non-proportional covariates is a useful way to deal with the non proportionality, it precludes estimating the effect of such covariates in the model. As some covariates suggested non proportionality, such a method of stratification to deal with the non-proportionality would restrict the analysis of the effect of such covariates in the different models. Besides, it will be difficult to

compare different models if different ways of correcting the non-proportional hazards are carried out.

The importance of the proportionality assumptions is acknowledged. However, large samples usually produce significant results since (in general) tests will find small deviations to be significant. With large samples, non proportionality will be almost inevitable. As the standard error used to estimate proportionality are not corrected for clustering, tests for non-proportionality would tend to over-estimate the number of covariates. Moreover, the purpose of fitting transitions as time dependent covariates in the different models was to account for the non-proportional effect of some of these processes. Therefore, models provide a useful insight into the different process involving the transitions to adulthood. If one is interested in one single process, it is reasonable to go into great detail. Nevertheless, the aim of this thesis is to provide a general comparable overview across a wide range of outcomes for which proportional hazards with their acknowledged limitations provide an appropriate framework since the coefficients of the proportional and non-proportional hazards in this analysis represent average effects over the durations of interest here.

3.4.1.6 Unobserved Heterogeneity among individuals

In studying the associations between transitions as time varying covariates, the main problem is the selectivity or unobserved heterogeneity. Unobserved heterogeneity or frailty refers to the unobserved individual effects that affect the experience of transitions to adulthood (Jenkins 2005). In other words the frailty approach is a statistical modelling concept which aims to account for heterogeneity, caused by unmeasured covariates (Wienke 2003). For instance, young people with a orientation towards family roles will be more likely to anticipate the experience of partnership, pregnancy and childbearing (Billari 2005).

There are two kinds of frailty models. The first one is the *unshared frailty* model, in which the heterogeneity counts among individuals that do not share characteristics with each other (see Gjonca 2007). On the other hand *shared frailty*

models refer to models where the unobserved heterogeneity is shared among groups of individuals or observations (the same individual or the same family). Because of episode splitting to incorporate time-varying covariates, each separate record counted as an observation. As the group of observations belong to the same individual, the treatment of frailty was shared or common to the same individual.

The **stcox** command for Cox regression in STATA includes an option for estimating models with shared frailty, assuming a Gamma mixture (Jenkins 2005). It is acknowledged the effect of shared unobserved heterogeneity in the occurrence of a transition given the prior experience of another one. However, given the non parametric approach of Cox Regressions and in order to control as much as possible the effect of the shared frailty, a series of models were run separately regarding specific characteristics of individuals.

3.4.2 Estimation of the Trajectories

The study of trajectories to adulthood has not presented a standard method in the existing literature. Particularly, in the analysis of more than one event at a time, the picture becomes complex and many different approaches are feasible (Billari 2001). Some of these approaches have included the use of Event History Analysis (Lloyd and Grant 2004) and Multi-State Life Tables (Schoen, Landale et al. 2007). As mentioned in section 2.6, in recent years, the use of Sequence Analysis has been proposed to study whole trajectories to adulthood adopting an *holistic* approach to deal with the complexity of analysing the life course of the various transitions to adulthood (Aassve, Billari et al. 2007; Robette 2008; Billari c2001). Although sequence analysis is a useful tool to summarise different strings of transitions, one of the main flaws of this approach is the lack of explanatory power when it comes to determinants and consequences of trajectories.

As this research moves from the particular (individual transitions) to the general picture (whole trajectories), passing though some of the main relationships between transitions, an idea of the main strings of transitions to adulthood was obtained

throughout the analyses in Chapters 4, 5 and 6. Therefore, the additional value of using sequence analysis to obtained additional descriptive summaries of the complete trajectories to adulthood was limited. However, the main reason for not using sequence analysis was that the objective of this research is to give a comprehensive analysis of the relationships between individual transitions to adulthood concentrating on hazard models.

In this research, an algorithm was built to determine the different trajectories of social and family formation transitions. The algorithm used as a principle the permutations (order with no repetition of events) of the six social and family formation transitions, generating a total outcome of 720 complete trajectories to adulthood. However, not all of these were possible since three restrictions were applied:

- Age at first childbearing had to be equal or greater as age at first sexual intercourse.
- If first sexual intercourse had not occurred before first partnership, age at first sexual intercourse was assumed to be equal as age at first partnership (other transitions between these two were assumed not to be possible).
- When two events occurred simultaneously, the most frequent sequence between pairs of transitions was assumed in order to generate the direction of the trajectory.

Taking into consideration the above restrictions, the total number of sequences for all six transitions was narrowed down to 300 possible complete trajectories. The next step was the combination of the number of transitions experienced (1, 2, 3, 4, 5 and 6 transitions) by the 300 possible sequences or permutations of transitions. Not all possible sequences were experienced, and the number of transitions experienced determined a series of complete (all 6 social and family formation transitions experienced) and incomplete (less than 6 transitions experienced) trajectories that satisfied the conditions in the order of the permutations (sequences). The final number of all sequences for young men resulted in 427 different complete and incomplete trajectories and in 500 different complete and incomplete trajectories for young women.

As the description of such number of trajectories becomes an overwhelming task without some method of summarising the main patterns, the following step was to use a synthesising method to find relationships in common among the numerous sequences experienced by both young men and women. The clustering to find common patterns among trajectories in this research was based on the number and type of social and family formation transitions experienced at the time of the survey. However a key issue in building different clusters was the common beginning of the different trajectories, i.e. different sequences were clustered based on the order of the first few transitions experienced. Consequently, each trajectory was included in a clustered based on the number, type and order of the first few transitions experienced by young men and young women by the time of the survey. The final estimates of the rest of the sequences in each trajectories was based on the chronological order of the different transitions to adulthood in each cluster (Marini 1984). The order was estimated based on median ages obtained using Kaplan Meier failure estimates at which half of the respondents in each cluster experienced each of the social and family formation transitions included within a cluster. The sequence obtained based on median ages was named as the "median trajectory" within each cluster.

For example, the three respondents in Table 3.8 were clustered into the same trajectory (EWSHPB) as they had experienced all six transitions to adulthood by the time of the survey commencing with leaving education before or the same year of age of entering the work force (EW…). Although other transitions were experienced in different order by each respondent, median ages for each transition in this cluster suggested that first sexual intercourse was the third transition followed by parental home leaving. The last two transitions were entry into first partnership and first birth.

Table 3.8 Age at Experiencing different Social and Family Formaiton Transitions.

Respondent	Cluster	Leaving Education	Entry into the Labour Force	Leaving the Parental Home	First Sexual Intercourse	First Partnership	First Birth
1	EWSHPB	18	18	20	16	19	19
2	EWSHPB	15	18	20	20	20	22
3	EWSHPB	19	19	20	16	20	20

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth.
Source: Author's calculations based on ENAJUV 2000.

In order to measure the homogeneity or, in its case, heterogeneity within each cluster, the first approach estimated the "*median* range" between the first and last transitions in each median trajectory and the standard deviation as a measure of dispersion in each cluster. By computing the average range within a cluster, the dispersion describes if a given cluster was highly heterogeneous, or alternatively, highly homogenous (Aassve, Billari et al. 2007).

The second approach to estimate the dispersion within a cluster was to estimate a "mean difference" of each cluster. The "mean difference" in each cluster was estimated using the statistical mean of the difference between the "median range" of the "median trajectory" in each cluster and the "actual range" of each respondent's individual trajectory within a cluster. The "actual range" was defined as the time in years to complete each trajectory based on the starting point, established as the age at experiencing the first transition to adulthood in the individual trajectory, and the end point, established as the age at experiencing the last transition in each individual sequence. In case the difference between the "median range" and the "actual range" generated a negative number, the differences between ranges were converted into positive integer numbers.

Once the "mean difference" and the "mean difference's standard deviation" were estimated for each cluster of trajectories, the following step was to interpret the dispersion within each cluster. A homogenous cluster contained sequences that were not that different from the median trajectory, whereas heterogeneous clusters included sequences of trajectories that were very different from the median trajectory within each cluster (Aassve, Billari et al. 2007).

3.5 Conclusion

Most of the data contained in the survey referred to information at the time of the interview, and not at the time of experiencing the different transitions to adulthood. Thus, there was a significant lost of information. Nevertheless, the available information proved to be relevant to generate estimations and built appropriate

covariates to be used during the analysis. Throughout the analysis, it is important to keep in mind the assumptions applied to build transitional covariates, times of exposure, individual and family level covariates, and social and family formation time varying transitional covariates. The choice of methods was determined by the nature and type of the data used in this analysis. Thus, Kaplan Meier failure estimates and Cox Regression Models were the most adequate methods for the purposes and objectives of this thesis.

The following Chapters show the results obtained using Survival Analysis, including Kaplan Meier failure estimates and a series of Cox Regression Models. In addition, the results from the main trajectories to adulthood experienced by young people in Mexico are described.

Chapter 4. Experience of Social Transitions to Adulthood of Young Men and Women in Mexico

The present chapter explores the beginning of the trajectories to adulthood of young[13] men and women in Mexico by looking at the outcomes of leaving education and first entry into the work force. As these events establish social roles – student and worker – both transitions together comprised the previously defined *social transitions to adulthood*.

Leaving education and entry into the labour force will often be closely related. After all, education serves as a formative stage to acquire the necessary tools for the labour market. For some young people, labour force participation is delayed while they obtain the necessary education demanded by the challenging economical environment (Cantrell and Clark 1982). For others, entry into the labour force is a precondition for continuing in education (Gomes 1990). But for some, entry into the labour force leads to school abandonment (Gomes 1990).

In Mexico, the relationship between leaving home and entry into the labour force has not been that clear (Echarri and Perez Amador 2001). Despite the achievement of almost universal education enrolment in recent decades in Mexico,[14] an important proportion of young men and women drop out from education at very young ages (Echarri and Perez Amador 2001; Giorguli 2006) without reaching the first nine years of basic compulsory education established for all Mexicans. For a substantial number of Mexican young people, the transition from education coincides with an early entry into the labour force. Given the early experience of entry into the labour force in Mexico, Echarri and Perez (2001) have argued that this transition should not be considered an

[13] The term "young people" refers to men and women born between 1970 and 1979, who at the time of the survey were between 20 to 29 years old.

[14] According to the Instituto Nacional para la Evaluacion de la Educacion (2005), 0.3% of people between 15 to 19 years old were illiterate, while among people aged 60-64 years old the level reached 25%. Iliteracy rates obtained using the 2000 ENAJUV revealed that for the cohorts of people born between 1970 and 1979, 2.3% of young men and 3.3% of young women never attended education. However, the rates diverged from 1.8% for urban young men never attending education to 4.0% for rural men. Illiteracy rates between urban and rural women also presented significant differences: 2.6% of urban women against 6.1% of rural women.

important marker of adulthood. This research takes a different view by believing that work force first enrolment constitutes a very decisive transition to adulthood. Entry into the labour force is not only occurring at ages were it is illegal - before 14 years of age (Giorguli 2006). Entry into the labour force has proven to affect education drop out (Gomes 1990; Cooksey and Rindfuss 2001), continuation in education (Gomes 1990), commencement of family roles (Lindstrom and Brambila 2001), and an it also constitutes an important trigger to leave the parental home (Aassve, Billari et al. 2000; Perez Amador 2006).

Although enrolment and labour force statuses of Mexican adolescents have been recently analysed (Giorguli 2006), in Mexican literature few studies have paid attention to the effect of these two social transitions on one another. In such context, the strong connection between leaving education and entry into the labour force requires simultaneous analysis to understand the relationship between these two very important markers of adulthood and their relationship with other transitions to adulthood. As the sequence of these two transitions becomes relevant in terms of the mutual effect on one another, this chapter's main objective is to analyse the way these two social transitions to adulthood have been taking place among young men and women in Mexico. In doing so, a series of research questions are addressed:

- Were certain patterns for leaving education and entry into the labour force more characteristics of specific groups of young people, e.g. urban and rural young men and women?
- Did entry into the labour force take place immediately after leaving education and vice versa?
- How did other transitions to adulthood affect leaving education and entry into the labour force? Were their effects on leaving education and entry into the labour force immediate or delay?

The chapter is divided into 4 main sections. The first one presents a descriptive analysis of leaving education and entry into the work force. The section begins by estimating the main patterns in the timing of leaving education and entry into the labour force. The sequencing between leaving education and entry into the labour force is then

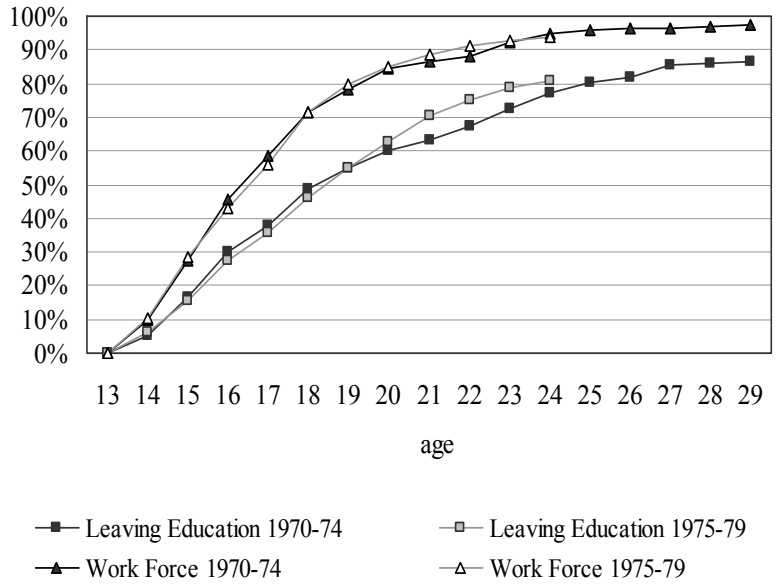
explored by estimating the main trajectories between these two social transitions to adulthood followed by Mexican young men and women. The second part considers the explanatory factors. The section begins by analysis the timing between transitions using a series of Cox Regression Models that quantify the effects of leaving education and entry into the labour force upon one another. This section also analyses the main determinants, including individual level and family level covariates that affect the timing between transitions. The third section presents the estimates of the effects of other transitions to adulthood included in this research on leaving education and entry into the labour force. Finally, the main implications of the findings are discussed in the chapter conclusions.

4.1 The Timing of Leaving Education and Entry into the Work Force

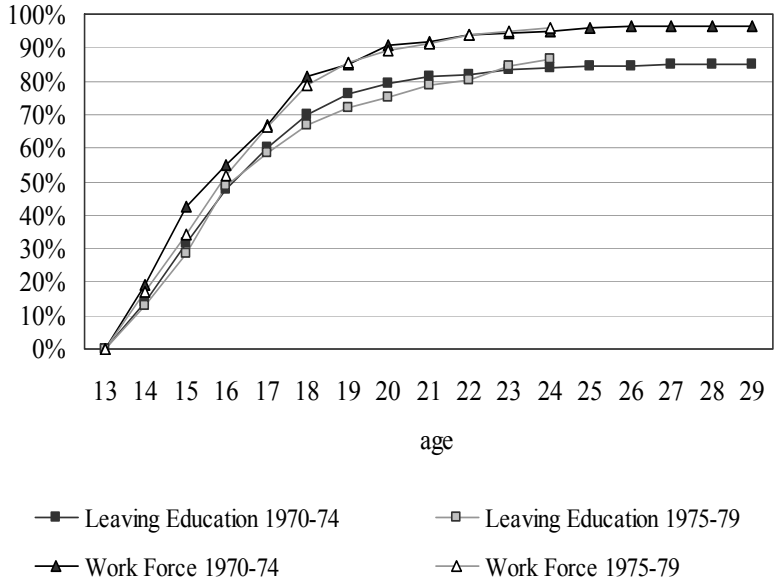
In order to estimate the proportions of young people included in the analysis that did not continue in education in relation to the proportion of young people who had entered the work force, Kaplan Meier failure estimates were used to estimate age at leaving education of those completing each level of education and age at entering the labour force. In Mexico, the official entry age for Primary School is 6 years old. Therefore, entry age in the different Survival Analysis estimates for these two social transitions was set at this age. The other selected ages coincided with the estimated ages at completing Primary (approx. 12 years old), Secondary (approx. 15 years old) and Preparatory school (approx. 18 years old), respectively.

Figure 4.1 Kaplan Meier failure estimates of Leaving Education and Entry into the Labour Force by Gender, Area of Residence and Birth Cohort.

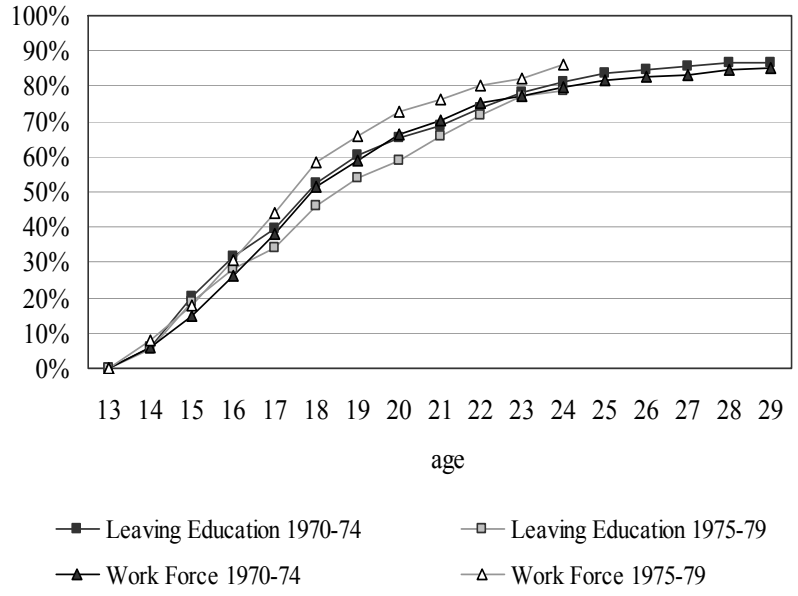
(a) Urban Young Men



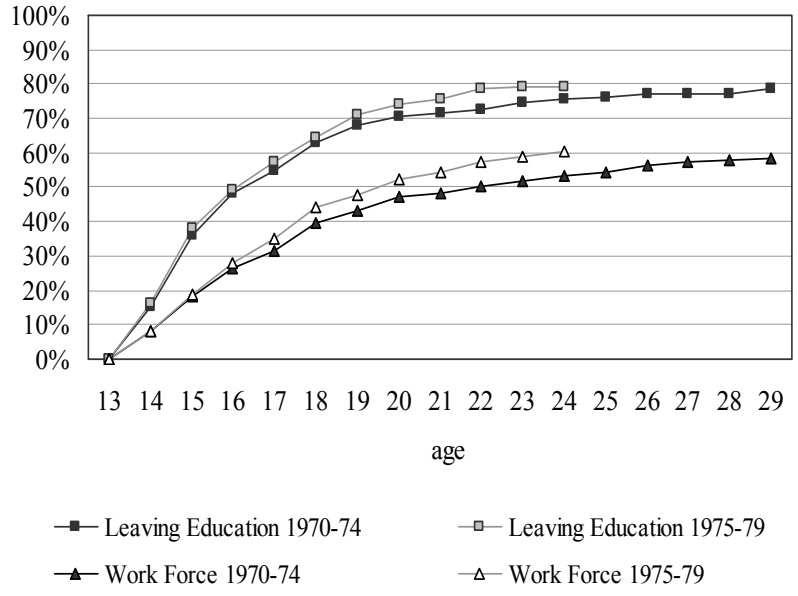
(b) Rural Young Men



(c) Urban Young Women



(d) Rural Young Women



Source: Author's calculations based on ENAJUV 2000.

Figure 4.1 shows that there were substantial differences in leaving education between areas of residence. However, patterns of entry into the labour force not only differed by areas of residence, but also considerably by gender. In both transitions, patterns between younger and older birth cohorts were very similar between each other.

Regarding the transition from education to work, the results showed that higher educational attainment was more common among urban young male and female respondents whereas rural respondents mainly completed only Primary school. By age 12, the highest proportions that completed Primary School were found among urban young men and women. Whereas 93% of urban men and 88% of urban women completed Primary School, 75% of rural men and 69% of rural women completed Primary School. For both rural young men and women, an important change occurred between ages 12 and 15. Among rural young men and women, the proportion enrolled in Secondary school dropped considerably. By age 18, the proportion of rural young people that completed Preparatory school was less than 20% compared with nearly 50% and 40% for urban young men and women, respectively.

On the other hand, looking at the proportions of young people that had entered the labour force by given ages, it can be seen that young men tended to enter the labour force earlier than young women. In particular, young men from rural areas entered the work force earlier than their urban peers. By age 15, 45% of urban young men had entered the labour force compared with 26% of urban young women, whereas 61% of rural young men had experienced the transition into the labour force compared with 32% of rural young women. By age 18, the corresponding proportions increased to 78% and 60% for urban young men and women and to 87% and 51% for rural young men and women, respectively. In case of rural females, the cumulative proportions entering the labour force slowed down after age 18, remaining below the proportions already in the labour force compared with their urban peers. These results suggest a traditional norm towards female labour force participation in rural areas, where Mexican men are main breadwinners.

The experience of leaving education and its relationship with entry into the labour force suggested three different patterns (Figure 4.1). The different timings at

leaving education and entering the labour force generated different sequences[15] for different subgroups of young people regarding gender and areas of residence.

The first pattern is that in which entry into the labour force was experienced before leaving education. This was mostly the case among young men living in urban areas. The proportions in the labour force were higher than the proportions no longer in education by different ages. By age 12, about 1 in 10 urban young men had left education before completing primary education, whereas 2 in 10 urban young men had already entered the labour force. By age 15, nearly 3 in 10 urban young men had left education and 4 in 10 were already in the labour force. By age 18, 5 in 10 urban young men had left education and 8 in 10 had entered the labour force, as well. Therefore, a significant proportion of urban young men entered the labour force as students. The results suggest that many urban young men made an early entry into the labour force probably managing to delay exit from education, increasing their chances of better employment opportunities over time. In general, young people in urban areas seemed to have more options in terms of educational and employment opportunities, which allowed them to combine the roles of student and worker.

The second pattern is that in which both leaving education and entry into the labour force presented very similar proportions by different ages, suggesting the simultaneity of both transitions. This pattern was seen among rural young men and among urban young women, but with a shift of the survival (failure) curves to older ages compared with rural young men. For instance, by age 12 almost 3 in 10 rural young men had not completed Primary School, and the same proportion was already in the labour force. By age 15, 6 in 10 rural young men had left education and were in the labour force. Finally, by age 18, slightly more than 8 in 10 young rural men had left education and nearly 9 in 10 were in the labour force. In case of urban young women, the pattern showed delays in the age at experiencing both social transitions. By age 12, almost 1 in 10 urban young women had left education and 1 in 10 had entered the labour force. By age 15, almost 4 in 10 had left education and almost 3 in 10 had entered the labour force. The simultaneity between these two transitions became more obvious by the late teen years. By age 18, 6 in 10 urban women had left education and the same proportion had also entered the labour force. These results suggest that many

[15] This conclusion is not based on whether one event occurred before the other, since this can not be established from univariate analyses such as this.

rural young men most probably were leaving education as a result of an early entry into the labour force or vice versa. In contrast, many urban young women seemed to benefit from a later age at experiencing both transitions in terms of higher educational attainment and, consequently, more employment opportunities in urban areas.

Finally, a third pattern was common among rural young women who delayed entry into the labour force after leaving education. About 3 in 10 rural young women did not continue their education after leaving Primary School, and only 1 in 10 had entered the work force by age 12. By age 15, 1 in 3 rural young women were neither in education nor in the work force. By age 18, almost 9 in 10 rural young women had left education, but only 5 in 10 had entered the labour force. In other words, many rural women did not enter the work force after leaving education. These results suggest that rural women instead of entering the labour force as urban young women probably had to undertake the burden of household work once they left education, following more traditional roles that placed them in the private sphere.

The above patterns suggest two noteworthy relationships. The first one was the similarities between urban young women and rural young men in the almost simultaneous experience of both leaving education and entry into the labour force. The next one was the dissimilarities between urban young men and rural young women regarding these two social transitions. On the one hand, rural young men accelerated both leaving education and entry into the labour force, while urban young women delayed both leaving education and entry into the labour force. On the other hand, urban young men speeded up entry into the work force and slowed down exit from education, but rural young women speeded leaving education and delayed entry into the labour force, if the transition into the labour force ever occurred. These patterns suggest the primary role of men as main breadwinners within the household, and the traditional role of women as housewives and mothers within the household, more obvious in rural contexts.

To sum up, the timing at experiencing leaving education and entry into the labour force generated different patterns specific to different groups of population. For instance, urban and rural young men experienced an early entry into the labour force. However, while urban young men delayed exit from education, rural young men seemed to experience both transitions the same year of age. Among young women, rural young

women experienced early exit from education, but felt short in their entry into the labour force. In contrast, urban young women delayed the experience of these two social transitions, which seemed to occur simultaneously.

4.2 Trajectories between Leaving Education and Entry into the Work Force

One of the limitations of using Kaplan Meier failure estimates is that it produced cumulative proportions of each transition at a given age, so the estimates provide patterns that did not consider individual trajectories between the transition from education and the labour force and vice versa. In consequence, the sequencing of the relationship between leaving education and entry into the work force is now considered in further detail.

Table 4.1 displays the different trajectories (sequences) achieved by age 18 between leaving education and entry into the labour force by gender, residence and birth cohort. Given that individuals were last observed by the survey at different ages, trajectories were built up to age 18 considering the same exposure time in the experience of both leaving education and entry into the work force for all respondents. In order to be able to facilitate inter-cohort comparisons, sequences were right truncated at age 18. This age was selected to estimate the proportion of individuals that continued in higher education past age 18. The first trajectory includes respondents that left education and subsequently entered the labour force (E→W) by age 18; the second trajectory is that in which both transitions occurred during the same year of age (EW simultaneously) by age 18; the third trajectory includes respondents that experienced entry into the work force at least one year before leaving education (W→E) by age 18. The next three sequences correspond to respondents that after leaving education did not enter the work force by age 18 (E); those who entered the work force without leaving education (W) by age 18; and finally, those who did not experience neither of these two social transitions and were in education (student) by age 18.

Table 4.1 Proportion of Mexican Young Men and Women having followed different Social Trajectories by Gender, Birth Cohort and Area of Residence by age 18.

	Men			
	Urban		Rural	
Trajectories achieved by age 18	1970-74	1975-79	1970-74	1975-79
E → W	20%	17%	36%	33%
EW (simultaneous)	10%	10%	13%	13%
W → E	21%	22%	27%	24%
E	5%	5%	6%	6%
W	28%	30%	13%	16%
Initial State (student)	16%	16%	5%	7%
Total	100%	100%	100%	100%
N	3,227	4,211	792	1,005
	Women			
	Urban		Rural	
	1970-74	1975-79	1970-74	1975-79
E → W	20%	21%	29%	27%
EW (simultaneous)	7%	7%	6%	7%
W → E	14%	13%	11%	12%
E	20%	16%	35%	36%
W	20%	21%	8%	9%
Initial State (student)	19%	22%	11%	12%
Total	100%	100%	100%	100%
N	4,542	5,419	1,101	1,479

Key: E= Leaving Education; W= Entry into the Labour Force

Source: Author's calculations based on ENAJUV 2000.

As stated in Chapter 3, Section 3.2.5, for this particular pair of transitions, when leaving education and entry into the work force occurred the same year of age, it was possible to determine which transition occurred first as the survey specifically included a question asking respondents whether they were still in education at the time of entering the work force.

The analysis considers two genders, two areas and two birth cohorts, together with two transitions, with six possible outcomes (since no change is also an option). This means that there are up to 48 different results to look at. Therefore, the main patterns that come out on this analysis are summarised in the following paragraphs.

Table 4.1 shows important differences between urban and rural young men in the experience of social trajectories. Urban young men clearly showed a tendency to

enter the work force before leaving education (W + W→E), suggesting the combination of both the roles of student and worker at the same time.[16] Both trajectories together included 1 in 2 urban young men compared with 1 in 5 rural men. In contrast, rural young men showed a reverse tendency in the experience of social transitions, i.e. exit from education was followed by entry into the work force (E→W) or was experienced simultaneously (EW). These two trajectories contained 1 in 2 rural young men compared with 3 in 10 urban young men. These patterns suggest that rural young men tended to leave education in order to enter the labour force compared with their urban counterparts, which seemed to leave education as a "consequence" of their entry into the labour force. Given the higher proportions in the initial state (of students) of urban young men, the results show the delay in the experience of transitions by urban young men compared with rural male respondents by age 18. For instance, 54% of urban men had left education compared with 84% of rural young men by age 18. However, 5% of urban young men and 6% of rural young men had only left education (E) implying that they were neither studying nor working.[17]

Regarding inter-cohort differences, trajectories between leaving education and entry into the labour force were similar between older and younger cohorts of both urban and rural young men. Both older and younger cohorts of urban young men presented the same proportions in the initial state (of student) by age 18. Older cohorts of both urban and rural men showed slightly higher proportions leaving education before entering the work force (E→W) by age 18, while younger cohorts of urban and rural men were to a certain extent postponing exit from education by having only experienced entry into the work force (W) by age 18. The proportions in this trajectory would certainly add to the W→E trajectory later on by having delayed exit from education after age 18. The lowest proportions who were still students by age 18 were rural young men from the 1970-74 cohort. These young men had higher proportions experiencing at least one social transition by age 18. As younger cohorts of rural men showed only a slightly higher proportion in the initial state compared with older

[16] But, for how long did young men combine both the roles of student and worker? This question will be addressed in Section 4.3, where the effect of leaving education on entry into the labour force and vice versa is quantified.

[17] One question became relevant: For how long were these young men not studying nor working? This question will be addressed in Section 4.3, where the effect of leaving education on entry into the labour force and vice versa is quantified.

cohorts, trajectories of younger cohort of rural men also suggested a small delay in the experience of these two social transitions.

Table 4.1 also shows that rural young women tended to leave education before entering the work force (E→W + EW). However, most urban young women that experienced entry into the work force by age 18 did so before leaving education (W→E + W), experiencing entry into the labour force as students. Given the proportion in the initial state, rural young women had the highest proportions having experienced only one social transition by age 18. This was explained by the fact that over 1 in 3 rural female respondents did not enter the labour force after leaving education (E) compared with nearly 1 in 5 urban young women that were neither studying nor working by age 18 (E). This pattern suggests that rural young women tended to follow more traditional roles by undertaking unpaid household activities after leaving education compared with their urban counterparts.

Younger and older cohort of urban and rural women presented very similar proportions in the different trajectories. The only proportions that slightly stood out were found among younger cohorts of women that delayed both their exit from education and entry into the labour force. These young women not only showed lower proportion having only left education (E) by age 18 compared with older cohorts, but also had the highest proportion as students by age 18 and had not experienced any of the given transitions (initial state) by the same age among all groups of respondents.

In summary, the trajectories between leaving education and entering the labour force showed important differences between genders and within genders by age 18. Urban young men tended to enter the work force as students, whereas rural young men entered the work force after leaving education. In case of young women, urban respondents tended to enter the labour force before leaving education. However, rural young women followed a traditional role that placed them at home, as many rural young women did not enter into the work force after leaving education.

4.3 The Relationship between Leaving Education and Entry into the Labour Force

After estimating the most common trajectories between leaving education and entry into the work force, the next step was to estimate the effect of leaving education and entry into the labour force on one another. In order to quantify these effects, a series of Cox Regression Models were fitted for each transition to estimate the influence of entering the work force on leaving education and vice versa, by including into the models the transitions as covariate. As explained earlier (Section 3.2.5), it was assumed that the effect of one transition on the other was not going to be constant over periods of time. Therefore, the effects of leaving education and entry into the labour force on one another were treated as time varying covariates. Based on the age at experiencing entry into the work force, time varying episodes were created prior to the occurrence of leaving education, and the same was done for leaving education on entry into the work force.

Given the different social trajectories completed by age 18 by young men and women, separate sets of models were tested for young men and women. Once more, the age at entry into the models was set at 6 years old based on the minimum official entry age into Primary education in Mexico. Maximum exit time was given by the age at which individuals experienced the transitions or were last observed by the survey.

The analytical strategy for the set of models that tested the effect of entry into the labour force on leaving education including those individuals that had experienced entry into the work force prior to leave education as well as those that had not entered the labour force (W + WE + W → E + E + none, as E could had been experienced passed age 18), taking this last group as the reference category (E + none). Individuals that had left education before entry into the labour force were excluded from the analysis (E → W). The same procedure was carried out to assess the impact of leaving education on entry into the work force.

Based on previous research and availability of information in the survey, the models included a series of covariates that were expected to have a significant effect on the likelihood of experiencing each transition given the prior experience of the other. The covariates included gender, birth cohort, area of residence, father's and mother's

educational attainment as proxies of socioeconomic status, level of parental restriction and level of family support as proxies of family environment, and finally, the main person in change of paying for the costs of respondent's education as a proxy of household composition.

The Cox regressions were performed separately for each one of these two social transitions. The inclusion of the same covariates follows the simultaneous analysis of each other's effect on one another. Despite the inclusion of the same covariates, the effects of some covariates were not expected to be the same on leaving education and on entering the work force.

Table 4.2 Cox Hazard Ratios of Leaving Education in relation to Entry into the Labour Force.

Covariates	Men		Women	
	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Birth Cohort	1.021***	0.006	0.989*	0.005
Area: Ref Urban				
Rural	1.494***	0.061	1.607***	0.057
Father's Educ:				
Ref. Very Low				
Low	0.897*	0.044	0.824***	0.040
Medium	0.809**	0.054	0.806**	0.051
High	0.699***	0.047	0.722***	0.043
Mother's Educ:				
Ref. Very Low				
Low	0.820***	0.039	0.800***	0.039
Medium	0.686***	0.045	0.722***	0.045
High	0.704***	0.058	0.772**	0.059
Parental Restriction:				
High	1.253***	0.056	1.396***	0.072
Medium	0.995	0.032	1.069	0.058
Ref. Low				
Family Support:				
Low	1.304***	0.049	1.281***	0.042
Medium	1.114**	0.044	1.069	0.038
Ref. High				
Cost of education:				
Ref. Father				
Mother	0.985	0.044	1.042	0.040
Both Parents	0.862**	0.037	0.973	0.040
Other	0.7157***	0.0446	0.796***	0.044
Time between entry into the labour force on leaving education:				
Ref. not having entered the labour force				
0 yrs	1.701***	0.148	0.399***	0.015
1 yr	2.852***	0.269	1.077	0.055
2 yrs	2.922***	0.277	1.013	0.056
3-4 yrs	2.746***	0.246	1.058	0.050
5-6 yrs	2.531***	0.236	0.993	0.058
7+ yrs	2.508***	0.228	0.767***	0.051
-2LL	36265.00		44376.84	
Chi square	887.76***		1865.71***	
N	5704		6960	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table 4.3 Cox Hazard Ratios of Entry into the Labour Force in relation to Leaving Education.

Covariates	Men		Women	
	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Birth Cohort	1.000	0.005	1.025***	0.005
Area: Ref Urban				
Rural	1.121**	0.041	0.738***	0.025
Father's Educ:				
Ref. Very Low				
Low	0.869*	0.048	0.990	0.048
Medium	0.759***	0.056	0.841*	0.057
High	0.730***	0.050	0.905	0.053
Mother's Educ:				
Ref. Very Low				
Low	0.948	0.052	0.992	0.048
Medium	0.900	0.064	0.990	0.063
High	0.974	0.080	0.935	0.069
Parental Restriction:				
High	2.715***	0.122	1.548***	0.092
Medium	1.936***	0.084	1.056	0.067
Ref. Low				
Family Support:				
Low	1.176***	0.044	1.078*	0.034
Medium	1.131**	0.045	1.058	0.035
Ref. High				
Cost of education:				
Ref. Father				
Mother	1.162**	0.054	1.184***	0.045
Both Parents	1.019	0.045	1.090*	0.042
Other	1.298***	0.073	1.086	0.053
Time between leaving education on entering the labour force:				
Ref. not having left education				
0 yrs	0.677***	0.028	0.654***	0.027
1 yr	2.664***	0.125	2.600***	0.111
2 yrs	2.147***	0.124	1.834***	0.090
3-4 yrs	1.714***	0.103	1.257***	0.059
5-6 yrs	1.217*	0.106	0.707***	0.044
7+ yrs	0.688***	0.073	0.382***	0.026
-2LL	35821.99		51974.46	
Chi square	2174.97***		2067.78***	
N	5045		8274	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table 4.2 shows the results of quantifying the time varying effect for leaving education in relation to entering the labour force. Results show that the effect of entry into the labour force on leaving education was more immediate for young men, but not for young women. Time varying hazard ratios show that young men were 70% more likely to leave education the same year as entering the labour force compared with young men that had not entered the labour force, whereas young women were 60% less likely to leave education the same year as entering the labour force compared with young women that had not experienced entry into the labour force. Moreover, time varying hazard ratios show that entry into the labour force statistically significantly affected the likelihood of leaving education for young men, but not for young women. In case of young men, time varying hazard ratios continued to increase the likelihood of leaving education after one year of having entered the labour force, reaching a maximum value in the 2nd year after having entered the labour force. In case of young women, most time varying hazard ratios for leaving education after entry into the labour force lacked statistical significance. The results suggest that young men were not able to combine the role of student and worker for very long, as they had to leave education once they had experienced the transition into the labour force. It is likely that young men constituted an important contribution towards household income. Whether as the main source or secondary household income, results suggest that young men prioritized economic activity rather than combining the role of worker and student simultaneously. In case of young women, the evidence was not statistically significant to suggest a similar pattern, except for a delayed exit from education that was achieved during the same year of age after entry into the labour force (year 0).

Table 4.3 shows the results from the time varying hazard ratios for entering the labour force after leaving education. Results showed that many young men and women were taking over a year to find a job after leaving education. Young men and women reduced the likelihood of entering the labour force by one third the same year of age after leaving education (year 0). However, the following year after leaving education (year 1), both young men and women were 2.6 times more likely to have obtained their first job compared with a person who had remained in education. Young men's likelihood was higher for longer compared with young women's likelihood, which after 5 or more years after leaving education was significantly reduced. This last result suggests that after leaving education, if young women waited to enter the labour force,

the likelihood to do so later significantly decreased. This result is attributable to women's traditional roles after leaving education, which most likely prioritized partnership and childbearing than entry into the labour force.

The effect of individual and family level factors on the experience of leaving education given the prior experience of entry into the labour force and vice versa was estimated by the use of control covariates. In spite of the increases in education in Mexico (Secretaria de Educacion Publica 2000; Echarri and Perez Amador 2006; Giorguli 2006), Table 4.2 shows that only younger cohort of women were delaying exit from education. The opposite trend was found among younger cohorts of men, who were slightly more likely to leave education after controlling the effect of entering the labour force and other covariates. Consequently, whereas younger cohorts of men were more likely to speed their exit from education after entering the labour force, younger cohorts of women were to some extent more likely to combine the roles of student and worker compared with older cohorts of women. On the other hand, birth cohort was only statistically significant to enter the labour force after leaving education among young women (Table 4.3), but not among young men. This result suggest that whereas older cohorts of women kept a traditional role within the household after leaving education, younger cohorts of women have been "slightly" more likely to join the work force following less traditional role that also placed them more in the public sphere. In contrast, older and younger cohorts of men alike kept a main role as primary breadwinners in Mexican society. Whether as a strategy to overcome the uncertainty of household economies due to the recent and persistent financial crises that has seen an increasing number of family members in the work force (Garcia and Pacheco 2000) or as an act of emancipation (Garcia and Oliveira 1994), results suggest that younger cohorts of men experienced their entry into the labour force while still in education, whereas younger cohorts of women were more likely to enter the labour force after leaving education.

Area of residence was a very important determinant of leaving education after controlling the effect of entering the labour force and other covariates, increasing the likelihood of leaving education 49% for rural young men and 61% for young rural women compared with their urban peers (Table 4.2). Whereas rural young men accelerated entry into the labour force compared with their urban counterparts, rural

young women significantly decreased the likelihood of experiencing this social transition compared with their urban counterparts after controlling the effect of leaving education and other covariates. In case of young men, residing in rural areas increased by 12% the likelihood of entering the labour force, but reduced by 27% the likelihood of rural young women of entering the labour force compared with their urban peers, respectively. These results suggest once more the early establishment of traditional gender roles amongst young people in rural area. Whereas rural young men assumed the adult role of worker at an early age straight after leaving education, rural young women left education at an early age without subsequently entering the labour force. This result indicates that despite government efforts, rural areas have been underserved by education facilities (Secretaria de Educacion Publica 2000; Jensen 2007). Rural areas have an insufficient supply of higher education (Muñiz 2000) to enable young people to continue in education (after entry into the labour force). For instance, Primary education has been offered in different types: regular for urban areas and bilingual (Spanish and indigenous) in rural areas. However, there are fewer options for Secondary school[18] than for Primary school: regular for urban areas, and tele-secondary[19] for rural areas (Moura Castro, Wolff et al. n.d.). Moreover, the availability of different *turnos* or shifts, seemed to have also affected age at leaving education between urban and rural young people. Urban areas are served by 3 *turnos* (Johnson and Hernández 2002): morning, afternoon and evening school. In contrast, rural areas are served by morning school, and in the best of cases, and in exceptional circumstances, also by afternoon school (Moura Castro, Wolff et al. n.d.).

Given the different patterns of leaving education and entry into the labour force between urban and rural young people, an estimate of the number of hours worked per week was obtained to identify whether employment was mainly part time (less than 24 hours per week) or full time (24 or more hours per week). As the information of the ENAJUV 2000 did not specified whether first employment was full time or part time, the information was obtained from the XII Censo General de Poblacion y Vivienda 2000 (XII Mexican Population and Household Census 2000). Census information showed that rural young men between 12 to 14 years old had higher proportions in full

[18] See section 4.1.

[19] ***Telesecundaria*** is a system of distance education program for secondary school students created by the government of Mexico in 1968 and available in rural area of the country. The program consists of the broadcast of pre-recorded lessons transmitted via satellite.

time employment than corresponding urban young men (see Table 4.4). Number of hours worked per week at older ages did not show important differences between urban and rural areas. Consequently, young men from urban areas seemed to have more part time working options at early ages, and also seemed to benefit by more education options, such as availability of schools and different shifts not available to rural young people at older ages.

Table 4.4 Proportion of hours worked per week by gender, area and age groups. Mexico 2000.

		Age Groups			
Area	**Hours per week**	**12 – 14**	**15 – 19**	**20 - 24**	**25 – 29**
Men					
Urban	Part time (<24 hrs)	36%	13%	8%	6%
	Full time (24+ hrs)	57%	83%	88%	90%
	Not specified	7%	4%	4%	3%
	Total	100%	100%	100%	100%
	N	199,256	1,538,066	2,517,255	2,747,941
Rural	Part time (<24 hrs)	35%	14%	10%	10%
	Full time (24+ hrs)	60%	81%	86%	87%
	Not specified	5%	5%	4%	3%
	Total	100%	100%	100%	100%
	N	152,445	694,829	760,492	679,473
Women					
Urban	Part time (<24 hrs)	33%	14%	13%	14%
	Full time (24+ hrs)	59%	83%	84%	83%
	Not specified	8%	3%	3%	3%
	Total	100%	100%	100%	100%
	N	102,638	942,417	1,487,182	1,489,419
Rural	Part time (<24 hrs)	32%	16%	17%	21%
	Full time (24+ hrs)	60%	80%	79%	74%
	Not specified	8%	4%	5%	5%
	Total	100%	100%	100%	100%
	N	51,841	251,541	235,317	175,216

Source: INEGI. XII Censo General de Población y Vivienda 2000.

Regarding the effect of family characteristics, the effect of parent's educational attainment showed that having a highly educated father and highly educated mother

significantly reduced the likelihood of leaving education compared with young people with very low educated parents (Table 4.2). Young adult sons of highly educated fathers reduced the likelihood to enter the labour force by 27%, and only daughters of medium educated fathers reduced the likelihood to enter the labour force by 16% (Table 4.3). For both young men and women, mother's educational attainment made no difference on entering the labour force once father's education was included. The results implied the role of men as primary sources of income to support their dependents in Mexico by affecting their likelihood to enter the labour force. Moreover, there was not statistically significant evidence to conclude that highly educated mothers would encourage their daughters to enter the labour force after leaving education or while still in education to pursue a career in the public sphere.

Other family characteristics, including level of parental restriction and parental support, showed some significance on the likelihood to experience both social transitions. Results showed the statistically significance of a restrictive family environment as an important determinant for entering the work force, but less statistically significant for leaving education (Table 4.2 and Table 4.3). For instance, high levels of parental restriction among young men increased 2.7 times the likelihood for entering the labour force compared with 1.3 times for leaving education, and among young women by 1.5 times for entering the labour force and 1.2 times for leaving education. In the case of family support, the covariates turned out to be more statistically significant for leaving education than for entering the labour force. For instance, whereas very low levels of family support increased the likelihood for leaving education 1.3 times among young men and 1.3 times among young women, very low levels of family support increased the likelihood for entering the labour force 1.8 times among young men and only 1.1 times among young women compared with the reference category. These results suggest that high levels of parental restriction made young people more likely to seek financial independence via entry into the labour force, also affecting, but to a lesser degree, the likelihood of leaving education as a "consequence" of entering the labour force. On the other hand, results suggest that if parents did not encourage their young adult children to continue in education, the likelihood for leaving education significantly increased, reflecting this poor family support on entering the labour force as a "consequence" of leaving education.

The covariate that indicated the main person in charge of paying for the costs of education was a significant predictor for both leaving education and entry into the work force. However, the effect of the different categories of this covariate was different on leaving education than on entering the labour force. Whereas mothers paying for the costs of education had no effect on leaving education, this category increased the likelihood for entering the work force compared with young people whose fathers paid for their cost of education. Given the persistent inequalities in salaries among women compared with men in developing countries (United Nations Economic Commission for Europe 2006), the results confirmed previous evidence regarding the effect of female household headship on increasing the number of adult children in the labour market in Mexico (Giorguli 2006). When both parents were in charge of the educational costs, the likelihood of leaving education was reduced, and the category showed almost no effect on entering the labour force. However, the category of "other" worked in the opposite direction: it reduced the likelihood of leaving education but increased the likelihood of entering the work force. This category comprised respondents themselves and scholarships. The hazard ratios of this category were explained by the fact that respondents most probably entered the work force to cover the costs of education, reducing their likelihood of leaving education.

In summary, entry into the labour force had a more pronounced and immediate effect on leaving education on young men than on young women. In contrast, the likelihood to enter the labour force after leaving education in the short run was similar between young men and women. However, finding a job after leaving education often took more than a year after leaving education. Factors such as residing in urban areas, highly educated parents, and a good family environment background delayed exit from education. Characteristics such as being male, residing in rural areas, low educated parents, poor family background environments and female household headships accelerated entry into the labour force.

4.4 The Relationship of Leaving Education and Entry into the Labour Force with other Transitions to Adulthood

Continuing with the off sequence perspective between transitions (Chapter 1, Section 1.1) , this section presents information on the occurrence between leaving education and entry into the labour force in relation to leaving the parental home, first sexual intercourse, first partnership and first birth. Before presenting the results of the time between transitions, it is important to first look at the sequencing given as information of the order between events, in order to estimate the time respondents spent between transitions.

4.4.1 Sequencing between Family Formation Transitions and other Transitions to Adulthood

Table 4.5 and Table 4.6 show the proportions of young men and women experiencing the main types of sequences between leaving education and other transitions to adulthood by age 18, and between entry into the labour force and other transitions to adulthood by age 18, respectively.

In this section, the focus is to establish the effect of other transitions on leaving education and on entry into the labour force. Therefore, more emphasis is given to the previous experience of other transitions before these two social transitions to adulthood.

Table 4.5 Distribution (%) of Leaving Education in Relation to Other Transitions to Adulthood by age 18, by Sex, Birth Cohort and Area of Residence.

Leave Education (E) & Transition Tx	Transition Tx							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Men								
Urban								
E → Tx	10%	8%	20%	17%	7%	6%	4%	4%
ETx (simultaneous)	3%	3%	6%	5%	2%	2%	1%	1%
E	39%	38%	21%	22%	47%	45%	52%	49%
Tx → E	4%	4%	9%	9%	1%	1%	0%	0%
Tx	10%	8%	24%	24%	2%	2%	1%	1%
Initial State	34%	38%	20%	23%	41%	45%	42%	46%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural								
E → Tx	19%	15%	31%	29%	13%	9%	5%	3%
ETx (simultaneous)	5%	2%	6%	4%	1%	0%	0%	0%
E	55%	57%	38%	39%	67%	67%	77%	74%
Tx → E	3%	3%	7%	5%	0%	0%	0%	0%
Tx	6%	6%	9%	10%	2%	2%	1%	1%
Initial State	12%	17%	9%	13%	16%	22%	17%	23%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005

Continues on next page …

Continuation Table 4.5

Leave Education (E) & Transition Tx	Transition Tx							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Women								
Urban								
E → Tx	16%	14%	20%	19%	18%	16%	14%	12%
ETx (simultaneous)	5%	5%	6%	5%	5%	4%	1%	1%
E	35%	34%	31%	30%	37%	36%	45%	43%
Tx → E	4%	4%	3%	3%	1%	1%	0%	1%
Tx	9%	9%	8%	7%	5%	4%	3%	3%
None	31%	33%	32%	35%	35%	39%	36%	40%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural								
E → Tx	31%	25%	33%	30%	31%	25%	23%	20%
ETx (simultaneous)	5%	5%	5%	4%	4%	4%	1%	1%
E	40%	46%	41%	44%	44%	50%	56%	58%
Tx → E	4%	3%	2%	1%	1%	0%	0%	0%
Tx	8%	7%	7%	5%	6%	4%	4%	3%
None	12%	14%	13%	15%	14%	17%	15%	18%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: E= Leaving Education; Tx= Other Transition.

Source: Author's calculations based on ENAJUV 2000.

Table 4.6 Distribution (%) of Entry into the Labour Force in relation to Other Transitions to Adulthood by age 18, by Sex, Birth Cohort and Area of Residence.

Entry into the Labour Force (W) & Transition Tx	Transition Tx							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Men								
Urban								
W → Tx	15%	13%	31%	30%	9%	7%	5%	5%
WTn (simultaneous)	5%	4%	8%	7%	2%	1%	1%	0%
W	56%	59%	30%	33%	68%	70%	74%	74%
Tx → W	4%	4%	10%	10%	0%	0%	0%	0%
Tx	3%	3%	9%	9%	1%	1%	1%	1%
None	17%	18%	11%	11%	20%	20%	20%	20%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural								
W → Tx	20%	15%	36%	32%	14%	10%	5%	3%
WTn (simultaneous)	6%	6%	5%	5%	1%	1%	1%	0%
W	59%	63%	41%	44%	73%	77%	83%	84%
Tx → W	5%	3%	7%	6%	0%	0%	0%	0%
Tx	3%	2%	6%	4%	1%	1%	1%	0%
None	9%	10%	6%	9%	10%	12%	11%	13%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005

Continues on next page …

Continuation Table 4.6

Entry into the Labour Force (W) & Transition Tx	Transition Tx							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Women								
Urban								
W → Tx	13%	12%	18%	17%	15%	14%	10%	10%
WTn (simultaneous)	5%	5%	3%	4%	2%	2%	1%	1%
W	37%	40%	36%	38%	42%	45%	49%	50%
Tx → W	5%	5%	3%	4%	1%	2%	1%	1%
Tx	11%	10%	12%	10%	10%	8%	7%	5%
None	28%	28%	27%	27%	30%	30%	33%	32%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural								
W → Tx	15%	13%	21%	19%	19%	17%	13%	13%
WTn (simultaneous)	9%	8%	2%	3%	1%	2%	1%	0%
W	24%	30%	29%	32%	32%	37%	39%	42%
Tx → W	6%	4%	2%	1%	1%	1%	1%	1%
Tx	20%	15%	22%	17%	20%	14%	14%	10%
None	27%	29%	25%	28%	26%	30%	33%	34%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: W=Entry into the Labour Force, Tn= Other Transition

Source: Author's calculations based on ENAJUV 2000.

Table 4.5 shows that the experience of other transitions was considerably lower compared with the experience of leaving education alone (E), and also after leaving education (E→Tx) by age 18. Nevertheless, some sequences presented noteworthy differences between young men and women, between areas of residence and/or birth cohorts.

To begin with, urban young people showed higher proportions compared with rural ones having left home without leaving education (Tx) by age 18. Nearly 1 in 10 urban young men and the same proportion of young women had left home to continue in education by age 18, whereas 1 in 16 rural young men and 1 in 13 rural young women left home to continue in education passed age 18. Taking into account only urban young people that had not left education (Tx + none) by age 18, 1 in 5 urban young men left home (only Tx) to attend higher education (most probably attend college or university), and 1 in 4 urban young women left home (Tx) to continue in higher education passed age 18.[20]

Regarding the experience of leaving education in relation to family formation transitions, the main differences were seen between genders. However, different transitions showed different patterns. For instance, for first sexual intercourse, two sequences presented important differences between genders. The first one consisted of urban young men that showed higher proportions having reported first sexual intercourse without leaving education (Tx) by age 18 compared with urban young women. Urban young men had three times the proportion in this sequence compared with urban young women (1 in 4 for young urban men Vs. 1 in 12 for young urban women). The second one included rural young men that after having first sexual intercourse also left education (Tx → E) by age 18, presenting a ratio of almost 4 to 1 compared with rural young women.

For first partnership, young women from both urban and rural areas had higher proportions with the simultaneous experience of leaving education in conjunction with first partnership (ETx) and also having entered first partnership without leaving education (Tx) by age 18 compared with their corresponding male counterparts. Urban young women had double the proportions in these two sequences compared with urban

[20] But, for how long were these people delaying exit from education? This question will be addressed in Section 4.4.1, where the effect of other transitions to adulthood on leaving education and entry into the labour force is quantified.

men. However, different cohorts of rural respondents also showed some changes in these sequences. For the ETx sequence, no rural men belonging to the younger cohort reported leaving education simultaneously with first partnership. For first partnership alone, older cohorts of rural women had three times the proportions compared with younger cohorts of rural men, but younger cohorts of rural women had twice the proportions compared with older cohort of rural men. These last results suggest a postponement of first partnership among younger cohorts of rural women.

Table 4.5 also shows the very low proportions regarding the sequences between leaving education and first birth. Results showed that almost no respondents entered parenthood and subsequently left education (Tx → E) by age 18, except 1% of younger cohorts of urban women. About 1% of male and female respondents experienced both transitions simultaneously (ETx). The only exception was found among rural young men, as no rural young man had experienced this sequence by age 18. More young women experienced motherhood without leaving education by age 18 (Tx). While 3%-4% of urban and rural women experienced motherhood without leaving education by age 18, only 1% of urban and rural young men experienced this sequence.

Table 4.6 shows the sequencing between entry into the labour force in relation to the other transitions to adulthood. Concerning the experience of each of the other transition before entering the labour force, leaving the parental home without having entered the labour force (Tx) by age 18 showed lower proportions among young men than among young women. Even among urban and rural young women, there were important differences in the experience of leaving the parental home (Tx) by age 18. While 1 in 10 urban young women had left home without entering the labour force by age 18, approximately 2 in 10 rural young women had left the parental home without entering the labour force. These results reflect the commencement of family roles earlier for rural young women than for urban young women by leaving home for a different reason than entry into the labour force. However, results showed that more rural young women left home due to entry into the work force compared with other respondents (WTx). For instance, nearly 1 in 10 rural young women experienced these two transitions simultaneously compared with 1 in 20 among other respondents, suggesting their entry into the labour force probably as live-in domestic workers.

Regarding entry into the labour force in relation to first sexual intercourse, young men showed higher proportions in the simultaneous experience of entry into the labour force together with first sexual intercourse (WTx) and on the experience of first sexual intercourse followed by entry into the labour force (Tx → W) by age 18 compared with young women. However, young women showed higher proportions having experienced first sexual intercourse alone without entering the labour force (Tx) by age 18, particularly rural young women. Proportions for rural young women having followed this sequence were 4 times higher than for rural men and almost twice higher for urban young women than for urban young men.

Table 4.6 also shows the important differences between genders in the experience of entry into the labour force in relation to entry into first partnership and first birth. These two groups of sequences between young men and women suggest the early establishment of traditional gender roles, which placed many young men in the labour market and a lot of young women in the private life as wives and mothers, particularly rural young women. For instance, for every 10 urban women that entered first partnership without entering the labour force (Tx) by age 18, only 1 urban man followed the same pattern. In contrast, for every 7 urban men that entered the labour force (W) by age 18, 4 young urban women followed the same pattern. In rural areas, results were even more marked. Proportions showed that for every 20 rural young women that entered first partnership without entering the labour force (Tx) by age 18, only 1 rural man did so. In contrast, for every 8 rural young men that had entered the labour force (W) by age 18, nearly 4 rural young women had also entered the labour force by age 18. Regarding the proportions between entry into the labour force and first birth, a similar pattern as in first partnership was found, with 7 urban young women entering motherhood without entering the labour force (Tx) by age 18 per 1 urban young man, and 14 rural women from older cohorts per 1 rural young man from older cohorts and 10 rural young women from younger cohorts, but no rural men from younger cohorts.

Thus, the experience of leaving education predominantly occurred before other transitions to adulthood by age 18. One of the exceptions was the experience of first sexual intercourse, which among young men also tended to occur before leaving education. Regarding the experience of entry into the labour force and other transitions

to adulthood by age 18, young men mostly experienced this social transition before other ones. However, larger proportions of young women had not entered the labour force by age 18, suggesting the early establishment of traditional gender roles, which placed many young men in the labour market and many young women in the private life as wives and mothers, especially rural young women.

4.4.2 Quantifying the Time Varying Effect of Other Transitions to Adulthood on Social Transitions to Adulthood

In order to quantify how long it took respondents to leave education and enter the work force after experiencing other transitions to adulthood, a series of Cox Regression Models were used to estimate the time varying effect of other transitions on the likelihood of these two social transitions. Separate models were tested for each outcome transition, i.e. leaving education and entry into the labour force. For each social transition, the effect of each of the other transitions on the outcome transitions was tested one at a time[21].

As the information was provided in whole years of age, the exact sequence between leaving education and other transitions to adulthood and between entry into the labour force and other transitions to adulthood had to be assumed when transitions occurred simultaneously (during the same year of age). Give the very small proportions experiencing transitions simultaneously (see Table 4.5 and Table 4.6) and in order not get meaningless results, the sequence between pairs of transitions at year 0 was tested assuming that each of the other transitions had occurred before leaving education or entry into the labour force according to the corresponding models.

These sets of models included respondents whether or not they had experienced other transitions prior to leaving education (E + Tx + TxE + Tx → E + none, as E could had been experienced passed age 18), and entry into the labour force (W + Tx + TxW +

[21] As explain in section 3.2.5, the time varying transitions were generated creating split episodes between a given transition and the outcome transition. As sample sizes changed according the pair of transitions to be tested, it was not possible the inclusion of more than one time varying transition at a time into the Cox Regression Models.

Tx → W + none, as W could had been experienced passed age 18), taking as reference category respondents that had not previously experienced a given transition before each outcome transition (E + none and W + none, respectively). The corresponding models excluded respondents that left education before other transitions (E → Tx) and respondents that entered the labour force before other transitions to adulthood (W→ Tx).

As the effect of other transitions was expected to present differences between genders on leaving education and entry into the labour force, the results come from a series of models that were conducted separately for young men and young women.

Table 4.7 Time Varying Hazard Ratios for Leaving Education in relation to other Transitions to Adulthood, by Gender.

	Transition Tx:							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
Time Varying Hazard Ratios	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Men								
Time between Leaving Education & Transition Tx: *Ref. not having experienced Transition Tx*								
0 yrs	0.405***	0.022	0.360***	0.019	0.425***	0.026	0.243***	0.023
1 yr	1.032	0.083	1.213**	0.070	1.381**	0.143	0.861	0.131
2 yrs	0.990	0.088	1.090	0.070	0.905	0.134	0.788	0.144
3-4 yrs	0.987	0.071	1.123*	0.064	0.640**	0.097	0.467***	0.093
5-6 yrs	1.050	0.089	1.074	0.076	0.318***	0.086	0.271***	0.091
7+ yrs	1.010	0.079	0.995	0.074	0.474**	0.120	0.582	0.175
Women								
Time between Leaving Education & Transition Tx: *Ref. not having experienced Transition Tx*								
0 yrs	0.480***	0.020	0.575***	0.025	0.620***	0.027	0.310***	0.021
1 yr	1.000	0.070	1.556***	0.097	1.180	0.100	0.857	0.093
2 yrs	0.923	0.073	1.214*	0.095	0.896	0.097	0.685**	0.092
3-4 yrs	1.018	0.063	1.033	0.076	0.556***	0.062	0.453***	0.061
5-6 yrs	0.926	0.075	0.574***	0.070	0.315***	0.056	0.272***	0.057
7+ yrs	0.803**	0.064	0.474***	0.065	0.344***	0.059	0.306***	0.067

*** p < 0.001; ** p < 0.01; * p < 0.05.

(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.

Source: Author's calculations based on ENAJUV 2000.

Table 4.8 Time Varying Hazard Ratios for Entering the Labour Force in relation to other Transitions to Adulthood, by Gender.

	Transition Tx:							
	Leaving home		First Sexual Intercourse		First Partnership		First Birth	
Time Varying Hazard Ratios	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Men								
Time between Entering the Labour Force & Transition Tx: ***Ref. not having experience the transition***								
0 yrs	0.462***	0.0226	0.418***	0.020	0.335***	0.025	0.236***	0.026
1 yr	1.158	0.0928	1.197**	0.069	0.961	0.126	0.348***	0.093
2 yrs	0.829	0.0904	1.209**	0.077	0.454***	0.103	0.321***	0.098
3-4 yrs	0.755**	0.0714	1.150*	0.073	0.249***	0.063	0.158***	0.056
5-6 yrs	0.869	0.0987	1.073	0.100	0.184***	0.070	0.245***	0.088
7+ yrs	0.682***	0.0727	0.947	0.104	0.229***	0.072	0.211***	0.089
Women								
Time between Entering the Labour Force & Transitions Tx: ***Ref. not having experience the transition***								
0 yrs	0.450***	0.018	0.296***	0.015	0.190***	0.011	0.108***	0.008
1 yr	0.842**	0.053	0.743***	0.047	0.387***	0.033	0.409***	0.037
2 yrs	0.689***	0.050	0.597***	0.043	0.359***	0.033	0.303***	0.034
3-4 yrs	0.627***	0.040	0.382***	0.028	0.226***	0.020	0.204***	0.022
5-6 yrs	0.591***	0.048	0.252***	0.027	0.169***	0.021	0.250***	0.031
7+ yrs	0.663***	0.050	0.335***	0.033	0.247***	0.027	0.298***	0.038

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.

Source: Author's calculations based on ENAJUV 2000.

Table 4.7[22] and Table 4.8[23] present the time varying hazard ratios for leaving education (except for entry into the labour force, which its effect on leaving education has already being discussed in section 4.3) and entry into the labour force (except for leaving education, which its effect on entry into the labour force has also being discussed in section 4.3) in relation to other transitions to adulthood for young men and women, respectively. Results showed that both young men and women seemed to benefit immediately after leaving the parental home to continue in education. Young men reduced by 60% and young women by 52% the likelihood of leaving education the same year (year 0) as they left the parental home (Table 4.7). Afterwards, the effect of leaving home did not seem to affect the likelihood of leaving education for young men nor for young women.

The effect of family formation transitions on leaving education showed very similar patterns between young men and women, but the magnitude of the time varying hazard ratios showed certain differences. For instance, both young men and women were statistically significantly less likely to leave education the same year they reported first sexual intercourse (year 0). However, young men reduced the likelihood of leaving education by 64% the same year of first sexual intercourse whereas young women reduced the likelihood on the outcome variable by 43%. Within the first year of having first sexual intercourse, both male and female respondents increased the likelihood of leaving education. However, young women showed a slightly more dramatic shift between year 0 and year 1 compared with young men. This time young men were 21% more likely to leave education within one year after having experienced first sexual intercourse (year 1), while young women increased the likelihood to leave education by 55%. Time varying hazard ratios did not show an immediate effect on leaving education the same year of entering first partnership (0 years) for neither young men nor young women, as young men and women were 57% and 38% less likely to leave education compared with single respondents, respectively. Young women were not affected on the transition out of education by previously entering into first partnership within the following year after experiencing this family formation transition (1 year) since

[22] Table 4.7 only presents the Time Varying Hazard Ratios of the Cox Regression Models for leaving education in relation to other transitions to adulthood tested separately for young men and women. For the complete models including the effect of control covariates see Appendix Chapter 4.

[23] Table 4.8 only presents the Time Varying Hazard Ratios of the Cox Regression Models for Entering the Labour Force in relation to other transitions to adulthood tested separately for young men and women. For the complete models including the effect of control covariates see Appendix Chapter 4.

estimated hazard ratio lacked statistical significance. In contrast, within the first year after entry into first partnership (year 1), young men were 38% more likely to leave education compared with single young men. First birth actually reduced the likelihood of leaving education regardless of the time varying episode tested. Due to the very small number of cases that experienced first birth before leaving education, results showed that leaving education was going to be more likely to be experienced before entering parenthood.

Table 4.8 shows the time varying hazard ratios for entering the labour force after the experience of other transitions. In case of young men, leaving home did not have an immediate effect on entering the labour force and, in general, it did not seem to have any relation to experience entry into the labour force. Family formation transitions did not showed an immediate effect on the outcome transition (year 0). However, young men increased the likelihood of entering the labour force by almost 20% within 1 year after having first sexual intercourse and by 21% within the second year after first sexual intercourses (year 2) compared with the reference category. However, it seems that entry into first partnership had a negative relation with entry into the labour force, since the time varying hazard ratios showed decreased likelihood of entering the labour force after first partnership compared with young men that did not enter first partnership. Therefore, young men were more likely to experience first sexual intercourse before entering the labour force, but needed to accumulate the necessary resources via entry into the labour force to enter partnership. The same was found for experiencing fatherhood, which reduced the likelihood of entering the labour force compared with young men that had not experienced first birth. In other words, young men were more likely to enter the labour force before experiencing entry into parenthood.

Results from the time varying hazard ratios showed that young women reduced the likelihood to enter the labour force after the experience of other transitions compared with young women that had not experienced other transitions, particularly entry into first partnership and motherhood. Results suggest the establishment of traditional gender roles at early ages among young women that experienced family formation transitions as their first transitions to adulthood, by not entering the labour force. In contrast, young women that did enter the labour force before other transitions

seemed to follow less traditional roles that placed them in the public sphere, as well as in the private one.

In summary, after quantifying the impact of other transitions on each of the social transitions included in this chapter, results showed that social transitions tended to lead the rest of the trajectory as most family formation transitions were likely to occur after social ones. Nevertheless, analysis of time varying hazard suggests that once young women had experienced family formation transitions, the likelihood of entering the labour force was significantly reduced. Although the experience of family formation transitions was less likely to trigger leaving education and entry into the work force, the relationship between transitions helped to establish that leaving education and entry into the labour force were more likely to be the first transitions in the trajectory towards adulthood. However, it is important to keep in mind that the previous occurrence of other transitions do not necessarily mean that these transitions affected the outcome transitions regarding social roles. Time varying hazard ratios of other transitions helped construct patterns in the trajectories to adulthood, by pointing the most expected directionality between sequences of transitions. Therefore, results suggest estimated sequences between transitions.

4.5 Conclusion

Throughout this chapter, the outcome of experiencing leaving education, entry into the work force and the relationship between these two social transitions was explored. The main conclusion was that although the survey did not include a gender inequality module, gender played a very important component in the way these two social transitions were experienced by Mexican young men and women. Regarding the patterns between leaving education and entry into the labour force, the findings showed that trajectories (sequences) of social transitions were not only significantly determined by gender, but also by areas of residence. Despite apparent gender equity in terms of leaving education between both urban and rural young men and women (see Appendix Chapter 4), the experience of entry into the labour force showed great gender

inequalities. Traditional gender roles were established at very early ages for those that did not postpone exit from education. Among young men, rural areas of residence positively affected the likelihood of these two social transitions compared with urban areas. However, rural young women seemed more likely to follow traditional gender roles after an early exit from education by becoming young housewives and mothers compared with their urban counterparts, i.e. many rural women were less likely to experience the transition into the labour force after leaving education. Therefore, it is of upmost importance to enhance education and open more employment opportunities for rural young women to delay the process of family formation.

The association between leaving education and entry into the work force presented an interesting pattern regarding their simultaneity according to gender and areas of residence. On the one hand, for many young people (particularly men) when entry into the labour force was experienced as the first of this pair of social transitions, the process was more likely to be simultaneous, i.e. entry into the labour force increase the likelihood for leaving education. Findings showed that a significant proportion of individuals entered into the work force as students, which led young men and women to an immediate exit from education, particularly rural ones. On the other hand, when leaving education was the first transition experienced, the transition out of education and into the labour force did not occur simultaneously. Therefore, an important proportion of young men and women were neither studying nor working, suggesting that it was taking young people at least a year to find a job. In other words, the process between transitions was less likely to occur simultaneously.

These findings suggest two important policy recommendations. The first one is related to the immediate effect that entry into the labour force had on leaving education. Results suggest the need to restructure the Mexican education system to a more open system, such as in the U.S. (Cooksey and Rindfuss 2001), to enable young people to study and work at the same time. The second one is related to the period that young people were neither studying nor working. For many young people, time varying hazard ratios showed that it was taking at least a year to find a job after leaving education. Therefore, new policies are required that allow young people to enter the labour force faster. Employers need to offer opportunities to young people to enable them to gain experience in order to join the labour market shortly after leaving education, without

affecting their education. Policy implications regarding education and employment in Mexico will be discussed further in Chapter 8.

This chapter shows that leaving education and entry into the labour force usually preceded other transitions to adulthood. The above sections examined the effect of other transitions on social roles. Consequently, the following chapter explores the impact of social transitions on family formation ones, as the final stage of the trajectories of the transition to adult life in Mexico. Chapter 5 presents the outcome of various determinants of family formation transitions to adulthood in Mexico, as well as the impact of social transitions on family formation ones. It also estimates the effect of social transitions on experiencing family formation transitions, and whether family formation transitions occur shortly after the experience of social transitions.

Chapter 5. The Transitions to Adult Life through the Experience of Family Formation Transitions

Continuing with the construction of trajectories to adulthood of young men and women in Mexico by considering the relationship between individual components or groups of transitions, the present chapter presents the outcomes of family formation transitions to adulthood. As previously defined, this group of transitions includes the experience of first sexual intercourse, entry into first partnership - including both marriage and cohabitation - and birth of the first child.

From a policy point of view, the main interest concerning first sexual intercourse during adolescence and early adulthood is a series of issues revolving around young people experiencing their sexual debut with lack of knowledge and options (Dixon-Mueller 1993; IUSSP Scientific Panel on Transitions to Adulthood in Developed Countries 2003). These factors are linked to potential risks of unwanted pregnancies, abortion and sexually transmitted infections (STI), including HIV/AIDS (Singh, Wulf et al. 2000). In developed societies, early childbearing is perceived as a negative outcome for both young mothers and for their children, as well as for society at large, given the high economic costs (Trussell and Menken 1978; Grogger and Bronars 1993; South 1999; Hanna 2001). However, in the developing world this outcome has not been that clear (National Research Council and Institute of Medicine 2005). In developing societies, considering the strong preference towards family formation at early ages, early partnership is strongly associated with early entry into childbearing as well (National Research Council and Institute of Medicine 2005).

In Mexico, the effects of family formation transitions on one another have received little attention. Moreover, there is still little evidence regarding young men's patterns in the family formation process. For example, the relationship between first sexual intercourse on first partnership and on first birth has not been looked at in detail in Mexico before, as well as the effect of first partnership on first birth and vice versa. The topic is relevant since the experience of family formation transitions determines roles such as those of spouse and parent. Consequently, the occurrence of family

formation transitions requires further investigation in terms of the effect of family formation transitions on one another and their implications for Mexican population. The main objectives of this chapter are to analyse the individual components of family formation transitions and the way these transitions interact with one another. Therefore, a series of questions are posed:

- Which were the main patterns of family formation transitions for Mexican young men and for Mexican young women? Were the patterns different between both genders for all three transitions considered?
- How did the previous experience of first sexual intercourse, first partnership and first birth affect one another?
- How did other transitions affect family formation transitions? Were the effects of social transitions on family formation transitions immediate or delayed?

Consequently, the chapter describes the main trajectories of family formation transitions by estimating the timing and sequencing of the occurrence of first sexual intercourse, first partnership and first birth among young men and young women in Mexico. Using a similar approach as in Chapter 4, the chapter establishes the way each family formation transition to adulthood is affected by the previous experience of other transitions to adulthood, including both social and family formation transitions. Therefore, the effect of first sexual intercourse, first partnership and first birth is quantified on one another, as well as the effect of social transitions on family formation transitions. As the occurrence of family formation transitions is also expected to be affected by a series of individual level and family level factors, the chapter also estimates the effect of such covariates.

The chapter is divided into four main sections. The first part focuses on descriptive aspects of first sexual intercourse, first partnership and first birth, such as the timing at which family formation transitions were experienced among Mexican young men and women. It continues by integrating the occurrence of family formation transitions into trajectories. On the second part, a series of individual and family level determinants are tested as their effect was expected to influence the outcome of first sexual intercourse, first partnership and first birth. The third part discusses the impact

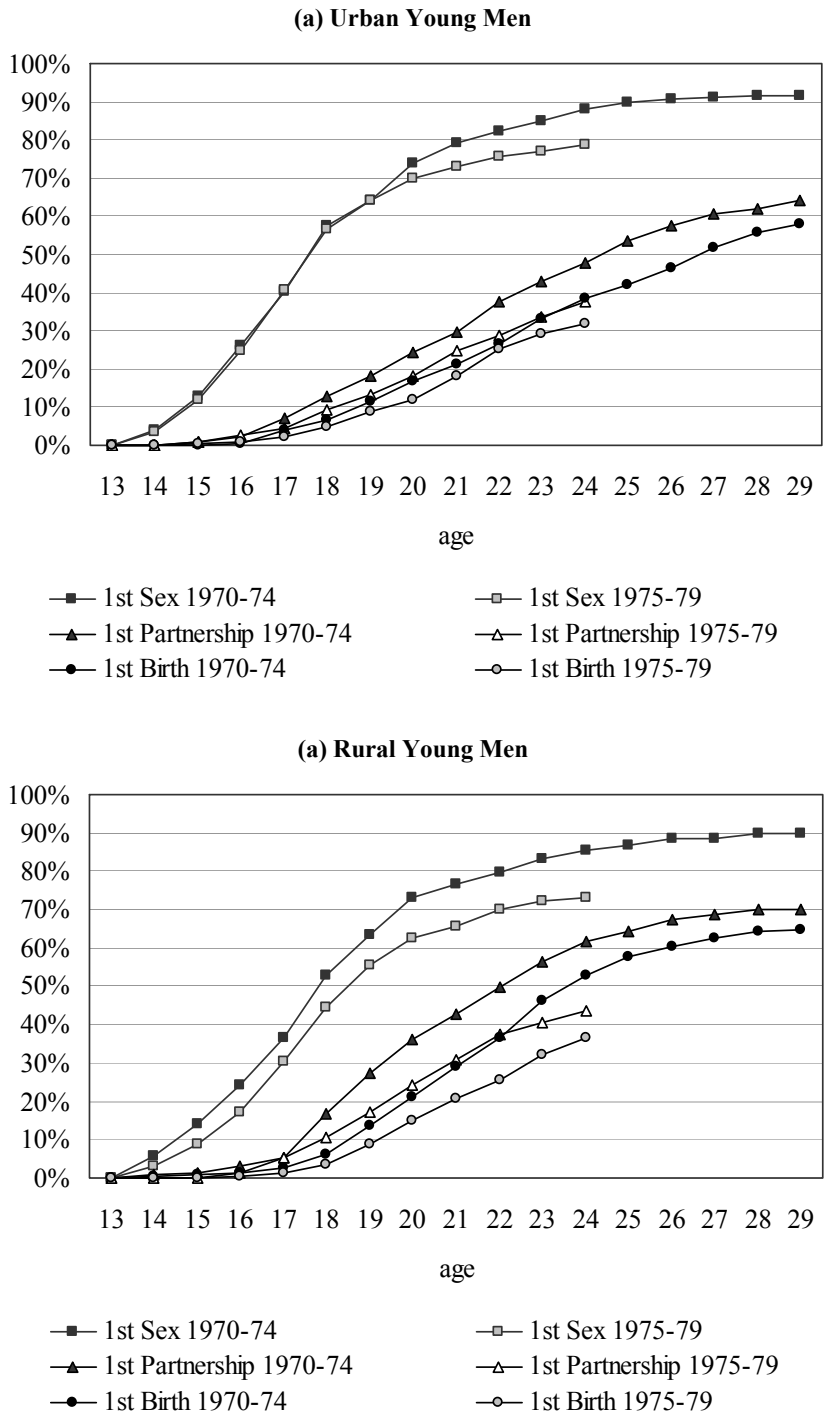
that family formation transitions have on each other, as well as the effect of social transitions on family formation. Finally, the last section presents the conclusion derived from the main findings, in terms of its implications for policy making.

5.1 The Timing of Family Formation Transitions in Mexico

Figures 5.1 and 5.2 present the results of the Kaplan Meier failure estimates of reported first sexual intercourse, first partnership and first birth of young Mexican men and women by birth cohort and area of residence. Given the median age of menarche in Mexico, the starting age to analyse family formation transitions was set at 13 years old (Knaul 2000)[24] and the final age was set at 24 and 29 years old for the cohorts born in the periods 1975-79 and 1970-74, respectively, age at which respondents were last observed by the survey.

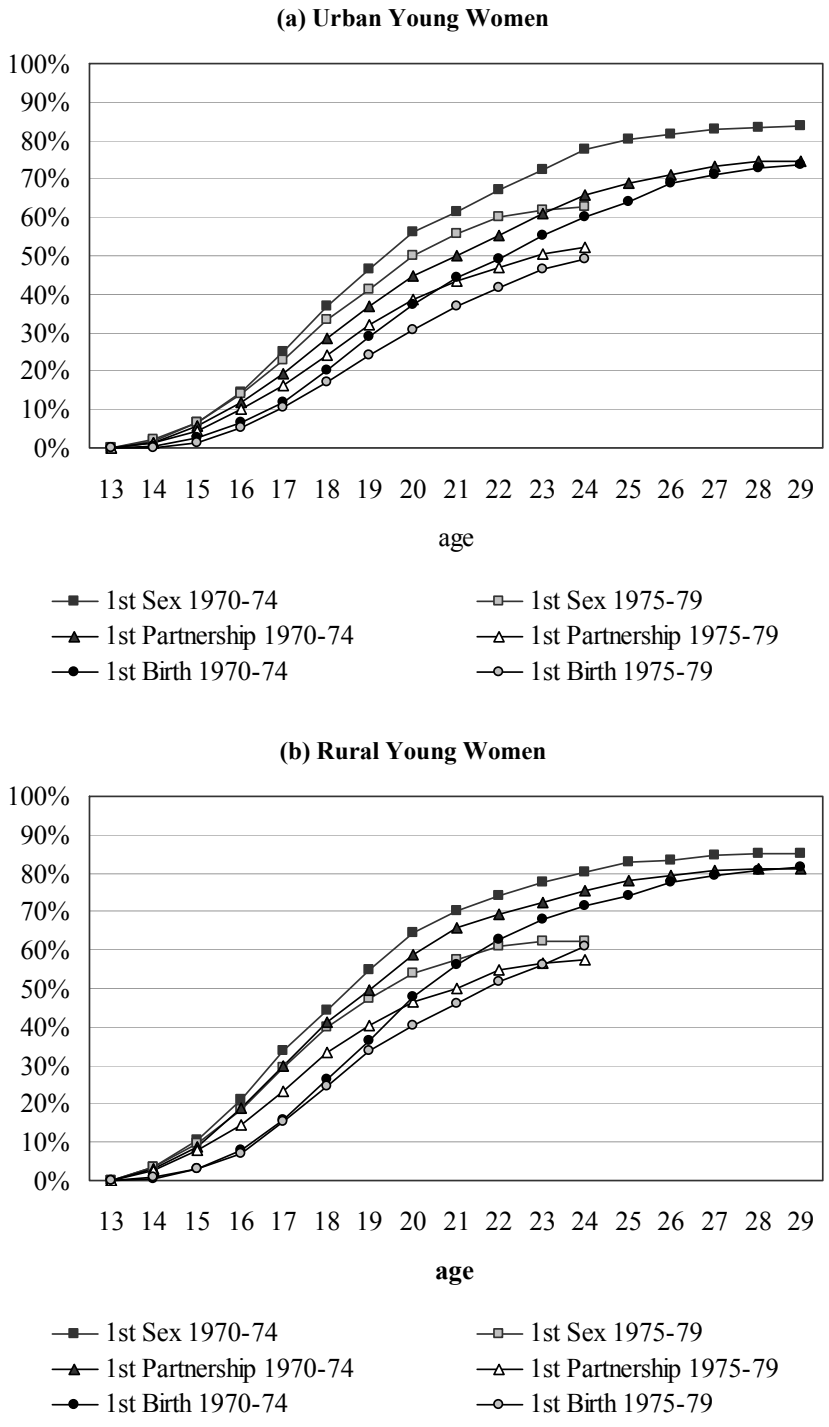
[24] The author used data from 1994 to estimate age at menarche in Mexico. Results showed that age at menarche for women between 12 years old and 17 years old was 13.1 years old.

Figure 5.1 Kaplan Meier Failure Functions of Family Formation Transitions to Adulthood of Mexican Young Men, by cohort and area of residence.



Source: Author's calculations based on ENAJUV 2000.

Figure 5.2 Kaplan Meier Failure Functions of Family Formation Transitions to Adulthood of Mexican Young Women, by cohort and area of residence.



Source: Author's calculations based on ENAJUV 2000.

Figure 5.1 and Figure 5.2 show important gender differences in the experience of family formation transitions between Mexican young men and women. The proportions of both urban and rural young men that had experienced first reported sexual intercourse was much higher than for first partnership and first birth at each age. In contrast, it can be seen that among young women, the three family formation transitions showed very similar proportions at each age, particularly in age at first sexual intercourse and first partnership. The results suggest[25] that whereas young men delayed the experience of subsequent family formation transitions once they started with the experience of first sexual intercourse, young women seemed to have experienced all three transitions close together.

Urban young men showed higher proportions having experienced first sexual intercourse than the rest of the family formation transitions compared with rural respondents. For instance, 6 in 10 urban young men but less than 5 in 10 rural young men reported having experienced first sexual intercourse by age 18. In contrast, 1 in 9 urban young men and 1 in 7 rural young men had already experienced first partnership by age 18. The cumulative proportions of first partnership and first birth among young men increased in their early 20s, particularly among rural young men.

Older and younger cohorts of urban men presented very similar proportions having experienced first sexual intercourse by given ages. However, recent cohorts of rural young men presented slightly lower proportions experiencing first sexual intercourse than previous cohorts at each age, suggesting a postponement in the experience of family transitions among younger cohorts of rural men. Recent cohorts of both urban and rural young men presented important postponement in the timing of experiencing first partnership and first birth compared with older cohorts. For instance, 1 in 2 rural men from older cohorts had experienced first partnership by age 23, and 1 in 2 had entered parenthood for the first time one year later (age 24). In contrast, by age 24, 2 in 5 rural young men from recent cohorts were in partnership and only 1 in 3 had experienced first birth by age 24. Therefore, modernity (development) seemed to act differently in the different areas of residence. While urban young men experienced the same early patterns of first sexual intercourse, among rural young men this transition was delayed for younger cohorts.

[25] This conclusion is not based on whether one event occurred before the other, since this can not be established from univariate analyses such as this.

Figure 5.2 shows that rural young women started the process of family formation earlier than their urban counterparts. For instance, while 3 in 10 urban young women reported having experienced first sexual intercourse and first partnership by age 18 compared with 4 in 10 rural young women, 2 in 10 urban young women had entered first partnership also by age 18 compared with 3 in 10 rural young women. The results suggest that among young women there was a stronger norm towards the early experience of family formation in rural contexts than in urban contexts.

Older cohorts of both urban and rural young women started the process of family formation earlier than recent cohorts. Proportions experiencing all three family formation transitions among younger cohorts of rural young women were lower than proportions of earlier cohort. Whereas half of rural young women from older cohorts had experienced first sex and first partnership by age 19, and first birth by age 21, half of rural young women from younger cohorts had first sex by age 20, first partnership by age 21 and first birth by age 22. However, among urban young women, recent cohorts presented lower proportions for first partnership and first birth compared with the proportions that reported first sexual intercourse at each age, suggesting a delay of these two transitions after first sexual intercourse. For instance, half of urban young women from older and younger cohorts had experienced first sexual intercourse by age 21, whereas first partnership and first birth were experienced by age 21 and 23 among older cohorts, and by age 23 and 24 among younger cohorts, respectively. These results suggest a more established norm among rural respondents regarding first sex and its direct link with first partnership (Singh and Samara 1996; Quilodran 2001). Rural young women presented lower age at first reported sexual intercourse as these respondents entered into first partnership earlier than urban young women. However, these results also suggest the double standard regarding first sexual intercourse in Mexico between the early experience of first sexual intercourse before first partnership among young men, but within first partnership among young women (Amuchastegui 2001; Marston 2001).

In summary, the timing at experiencing family formation transitions showed important differences between Mexican young men and women. To begin with, whereas young men delayed the experience of subsequent family formation transitions once they started with the experience of first sexual intercourse, young women seemed to

experience all three transitions close together. These patterns were more common among rural respondents compared with their urban counterparts. These last ones commenced the process of family formation later then rural respondents. Therefore, development seemed to act differently in the different areas of residence.

5.2 The Trajectories of First Sexual Intercourse, First Partnership and First Birth

In order to obtain additional insight of the sequences in the experience of family formation transitions, this section presents the different trajectories of first sexual intercourse, first partnership and first birth that young men and women had achieved by age 18 and age 21, respectively. Given that individuals were last observed by the survey at different ages, trajectories were built up to age 18 and 21 to ensure the same exposure time in the experience of family formation transitions for all respondents. In order to be able to include inter-cohort comparisons, sequences were right truncated at age 18 and at age 21, respectively. The analysis was also conducted taking into account birth cohort and area of residence.

As stated in section 3.4.2, in order to estimate family formation transitions, two important and obvious considerations were taken into account. The first one was that if first birth had occurred, first sexual intercourse had to occur before or at least in the same year of age as age at first birth. The second consideration was that if first sexual intercourse had not occurred before first partnership, age at first sexual intercourse was assumed to be equal as age at first partnership intercourse (simultaneous). In other words, another transition between these two was not possible.

Given these restrictions, the sequencing of first sexual intercourse, first partnership and first birth comprised 8 different family formation trajectories, plus the initial state of not having experienced any of the three family formation markers by given ages. Family formations trajectories included the sequences between first sexual intercourse, first partnership and first birth. In the first set of trajectories, first sexual intercourse was the first transition experienced on its own (S). Trajectories also included

the experience of first sex before first partnership (S→P). In case that first birth had also occurred, first birth could have coincided with first partnership (S→PB) or could have been experienced at least one year after first partnership (S→P→B). The trajectories also considered the occurrence of premarital first birth, without entering first partnership by given ages (SB + S→B) and before first partnership (SB→P + S→B→P). The remaining trajectories included the experience of first partnership as the first transition, with the simultaneous experience of first sexual intercourse (PS). Additionally, these sequences included the experience of first birth the same year of age (PSB) or at least one year after first partnership in conjunction with first sexual intercourse (PS→B), these last two trajectories grouped as one category.

Table 5.1 and Table 5.2 show the different family formation transitions that young men and women had achieved by age 18 and age 21, respectively.

Table 5.1 Distribution of young men having achieved different family formation trajectories by age 18 and by age 21, by area of residence and birth cohort.

	By age 18		By age 21	
	1970-74	1975-79	1970-74	1975-79
Urban				
None	78%	64%	22%	28%
S	17%	31%	45%	44%
S → P	0%	0%	7%	6%
S → PB	1%	1%	3%	3%
S → P → B	1%	1%	8%	6%
SB + S → B *	0%	1%	2%	2%
SB → P + S → B → P **	0%	0%	1%	1%
PS	0%	1%	4%	4%
PSB + PS → B ***	2%	2%	9%	7%
Total	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211
Rural				
None	83%	73%	24%	34%
S	11%	23%	33%	35%
S → P	0%	0%	8%	5%
S → PB	1%	0%	2%	3%
S → P → B	1%	1%	10%	6%
SB + S → B *	0%	0%	2%	1%
SB → P + S → B → P **	0%	0%	1%	1%
PS	1%	1%	5%	5%
PSB + PS → B ***	3%	1%	14%	10%
Total	100%	100%	100%	100%
N	792	1,005	792	1,005

Key: S= First Sexual Intercourse; P= Entry into First Partnership; B= Birth of First Child
* Given the small proportions experiencing SB and S→B, these two trajectories were combined into a single category.
** Given the small proportions experiencing SB→P + S→B→ P, these two trajectories were combined into a single category.
*** Given the small proportions experiencing PSB, this trajectory was combined with PS→B into a single category.
Source: Author's calculations based on ENAJUV 2000.

Table 5.2 Distribution of young women having achieved different family formation trajectories by age 18 and by age 21, by area of residence and birth cohort.

	By age 18		By age 21	
	1970-74	1975-79	1970-74	1975-79
Urban				
None	84%	82%	38%	46%
S	1%	3%	7%	7%
S → P	0%	0%	2%	2%
S → PB	1%	2%	3%	3%
S → P → B	1%	1%	4%	3%
SB + S → B *	0%	1%	2%	3%
SB → P + S → B → P **	0%	0%	1%	1%
PS	1%	1%	9%	8%
PSB + PS → B ***	12%	10%	33%	27%
Total	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419
Rural				
None	76%	78%	30%	43%
S	0%	1%	3%	3%
S → P	0%	0%	1%	1%
S → PB	2%	2%	3%	3%
S → P → B	1%	1%	3%	2%
SB + S → B *	0%	1%	3%	4%
SB → P + S → B → P **	0%	0%	1%	1%
PS	1%	1%	10%	7%
PSB + PS → B ***	20%	16%	46%	36%
Total	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479

Key: S= First Sexual Intercourse; P= Entry into First Partnership; B= Birth of First Child

* Given the small proportions experiencing SB and S→B, these two trajectories were combined into a single category.

** Given the small proportions experiencing SB→P + S→B→ P, these two trajectories were combined into a single category.

*** Given the small proportions experiencing PSB, this trajectory was combined with PS→B into a single category.

Source: Author's calculations based on ENAJUV 2000.

Table 5.1 shows that one of the most outstanding differences was the proportions of family formation trajectories achieved by age 18 and by age 21 for both urban and rural young men, respectively. Urban young men showed higher proportions having undergone at least one family formation transition by age 18 compared with rural respondents. By age 18, young men that had experienced at least one family formation transition were mainly concentrated among those that had only experienced first sexual intercourse (S). Even within areas of residence, there were differences between younger and older cohorts in the proportions having experienced specific family formation trajectories. While 22% of urban young men from older cohorts had experienced at least one family formation transition by age 18, particularly first sexual intercourse (S), 36% of urban young men from younger cohorts had already experienced at least one family formation transition, more specifically, 31% had experienced first sexual intercourse (S) by age 18. In rural areas or residence, whereas 11% of rural young men from older cohorts had experienced first sexual intercourse (S) by age 18, 23% of rural young men from younger cohorts had experienced this family formation transition (S) by age 18.

By age 21, three quarters of urban and rural young men had experienced at least one family formation transition. Urban young men had mainly experienced first sexual intercourse as the only family formation (S). In contrast, many rural young men had not only experienced first sexual intercourse (S), but had experienced other family formation trajectories as well. For instance, 1 in 2 urban young men had only experienced first sexual intercourse compared with nearly 1 in 3 rural young men. Other important trajectories included the simultaneous experience of first partnership and first sex followed by first birth (PSB + PS→B), notably higher among rural young men than urban ones and more common among older cohorts than younger ones. These results show the earlier completion of family formation among older cohorts of rural young men than urban ones, following a more traditional pattern regarding the experience of first sexual intercourse within first partnership. Other common trajectories included the experience of first sexual intercourse before first partnership (S→P and S→P→B), more common among older cohorts of both urban and rural young men.

By age 18, almost no urban and no rural young men had experienced a premarital birth (SB→P + S→B→P and SB + S→B). By age 21, the proportions

increased to 3%. However, among urban young men, it was more common not to have entered first partnership by age 21 after a premarital birth (SB + S→B). The result suggest a less established norm towards first partnership among urban areas of residence, as young urban men were not pushed into first partnership after a premarital birth.

While older cohorts of both urban and rural young men showed higher proportions having not experienced any family formation transition by age 18, this pattern was reversed by age 21. The results suggest that although older cohorts of young men started the experience of family formation transitions later than younger cohorts, the experience of family formation transitions was faster compared with younger cohorts of men.

Table 5.2 shows that most young women had also not experienced any family formation transition by age 18. Rural respondents showed higher proportions having gone through at least one family formation transition compared with urban ones. For instance, 1 in 3 rural young women had experienced at least one family formation transition by age 18 compared with 1 in 5 urban young women. Among both urban and rural young women, the next most common trajectory was the experience of all three family formation transitions starting with the experience of first partnership simultaneously with first sexual intercourse, simultaneously (PSB) or followed by first birth (PS→B). This result suggest that those young women that experienced family formation transition at early ages (by age 18) followed more established patterns and at a very fast pace, as all three family formation transitions had been experienced by age 18.

By age 21, proportions of young women not having experienced any of the three family formation transitions dropped considerably, particularly rural young women showed the lowest proportions in the initial state[26]. However, younger cohorts of both urban and rural young women showed higher proportions not having experienced any family formation transition by age 21 compared with older cohorts. For instance, whereas 4 in 10 urban women from older cohorts had not experienced any family formation transition by age 21 compared with 1 in 2 urban women from younger

[26] In this case the initial state makes references to not having experienced any of the three family formation transitions either by age 18 or by age 21, included on Table 5.1 and Table 5.2 as "none".

cohorts, 3 in 10 rural women from older cohorts had not experienced any family formation transition by age 21 compared with 4 in 10 rural women from younger cohorts. In contrast to the results found between urban and rural young men, results showed that not only rural young women experienced family formation earlier than their urban counterparts, but faster.

PS→B moved from the second most common trajectory by age 18 to the most common trajectory by age 21 among rural young women, but it remained the second most common trajectory among urban young women after the initial state. Results shows that rural young women moved from the initial state by age 18 to the experience of first partnership simultaneously with first sexual intercourse and first birth by age 21. The results also show the earlier completion of family formation among rural young women compared with urban ones.

Regarding the experience of first sexual intercourse (S) as the first family formation transition, urban young women presented higher values than their urban counterparts both by age 18 and by age 21, respectively. The proportions suggest less established family formation trajectories among urban young women. The experience of first sex followed by first birth without entering first partnership (SB + S→B), although with very small proportions, presented higher values among rural young women than urban young women, particularly among younger cohorts. The results suggest that given a more establish and traditional norm in rural contexts, rural young women were more limited in their partnership options after having experienced a first birth compared with urban young women. In addition, the result suggest that rural young women had more limited access to contraception in order to prevent a premarital birth compared with urban young women that after first sexual intercourses presented lower proportions as single mothers by age 21.

Both urban and rural young women presented important differences regarding birth cohorts. Given the higher proportions by ages 21 that had experienced at least one family formation transition, older cohorts of women showed that the experienced of family formation transitions occurred faster compared with younger cohorts of women. In other words, younger cohorts of women presented delays in the experience of all three family formation transitions, in particular urban young women.

Therefore, young men and women followed gender-established and traditional patterns in the trajectories of family formation transitions. Common trajectories among young men included the experience of first sexual intercourse before first partnership (S→P). In contrast, common trajectories among young women included the experience of all three family formation transitions, starting with the experience of first partnership simultaneously with first sexual intercourse, simultaneously (PSB) or followed by first birth (PS→B). Although older cohorts of young men started the experience of family formation transitions later than younger cohorts, the experience of family formation transitions was faster compared with younger cohorts of men. The results also suggested that those young women that experienced family formation transition at early ages (by age 18) followed more established patterns and at a very fast pace, as all three family formation transitions had been experienced by age 18.

5.3 The Determinants of Family Formation Transitions

This part presents the results from a series of Cox Regression Models tested on each of the family formation transitions included in this analysis. Each model estimated the effect of the individual level and family level factors discussed in Section 2.5.4. The covariates included gender, birth cohort, area of residence, respondent's educational attainment, mother's age at respondent's birth as proxy of intergenerational patterns, father's and mother's educational attainment as proxies of socioeconomic status, and level of parental restriction and level of family support as proxies of family environment background.

The Cox Regressions were performed separately for each of the three family formation transitions. In addition, separate model were also tested for young men and young women (see appendix Chapter 5). The age at entry into the models was left truncated at 13 years old, given patterns of age at menarche in Mexico (Knaul 2000).

Table 5.3 Cox Hazard Ratios for First Sexual Intercourse.

	Model S1		Model S2		Model S3		Model S4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	1.492***	0.048	1.422***	0.044	1.417***	0.043	2.032***	0.068
Women (ref.)								
Birth cohort	0.962***	0.006	0.970***	0.005	0.969***	0.005	0.968***	0.005
Area								
Urban (ref.)								
Rural	0.991	0.028	0.793***	0.025	0.813***	0.026	0.809***	0.027
Respondent's Education								
Very low (ref.)								
Low			1.170***	0.043	1.158***	0.043	1.180***	0.046
Medium			0.597***	0.026	0.574***	0.025	0.660***	0.031
High			0.197***	0.017	0.187***	0.017	0.221***	0.022
Mother's Age at Birth								
Less 20 yrs					1.307***	0.059	1.177***	0.053
20-24 yrs					1.187***	0.040	1.144***	0.038
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					1.044	0.058	1.140	0.060
Medium					1.086	0.084	1.165	0.094
High					0.974	0.074	1.046	0.084
Mother's Education								
Very low (ref.)								
Low					1.040	0.054	1.054	0.054
Medium					1.212*	0.100	1.162	0.105
High					1.191	0.115	1.211	0.130
Level of Restriction								
High							2.787***	0.129
Medium							1.465***	0.074
Low (ref)								
Level of support								
Low							1.057	0.040
Medium							0.945	0.040
High (ref)								
-2LL	147608.4		146102.3		145720.3		128859.1	
Chi square	216.9***		842.7***		938.0***		1667.7***	
N	21066		21066		21026		18936	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on 2000 ENJ.

Table 5.4 Cox Hazard Ratios for First Partnership.

	Model P1		Model P2		Model P3		Model P4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	0.588***	0.025	0.594***	0.025	0.590***	0.025	0.990	0.049
Women (ref.)								
Birth cohort	0.940***	0.006	0.949***	0.006	0.949***	0.006	0.957***	0.006
Area								
Urban (ref.)								
Rural	1.320***	0.046	0.924	0.038	0.920*	0.037	0.883**	0.037
Respondent's Education								
Very low (ref.)								
Low			0.802***	0.042	0.818***	0.042	0.860**	0.045
Medium			0.487***	0.027	0.501***	0.029	0.557***	0.033
High			0.173***	0.015	0.178***	0.016	0.222***	0.020
Mother's Age at Birth								
Less 20 yrs					1.539***	0.091	1.414***	0.082
20-24 yrs					1.371***	0.066	1.307***	0.063
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.921	0.076	1.005	0.081
Medium					1.053	0.112	1.164	0.118
High					1.089	0.174	1.109	0.164
Mother's Education								
Very low (ref.)								
Low					0.838	0.066	0.858*	0.067
Medium					0.851*	0.100	0.785*	0.093
High					1.066	0.146	1.071	0.150
Level of Restriction								
High							3.407***	0.221
Medium							1.347***	0.086
Low (ref)								
Level of support								
Low							1.028	0.053
Medium							0.970	0.058
High (ref)								
-2LL	105876.1		104616.0		104295.3		90851	
Chi square	295.3***		896.7***		1012.3***		1604.0***	
N	21465		21465		21425		19,260	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table 5.5 Cox Hazard Ratios for First Birth.

	Model B1		Model B2		Model B3		Model B4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	0.519***	0.025	0.523***	0.024	0.521***	0.024	0.821**	0.050
Women (ref.)								
Birth cohort	0.953***	0.007	0.962***	0.007	0.962***	0.007	0.970***	0.007
Area								
Urban (ref.)								
Rural	1.325***	0.049	0.914*	0.041	0.905*	0.039	0.867**	0.039
Respondent's Education								
Very low (ref.)								
Low			0.783***	0.043	0.797***	0.043	0.820***	0.046
Medium			0.462***	0.028	0.480***	0.030	0.524***	0.035
High			0.170***	0.016	0.178***	0.018	0.219***	0.022
Mother's Age at Birth								
Less 20 yrs					1.463***	0.090	1.358***	0.086
20-24 yrs					1.297***	0.068	1.257***	0.068
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.947	0.082	1.023	0.090
Medium					0.960	0.109	1.031	0.112
High					1.097	0.205	1.132	0.211
Mother's Education								
Very low (ref.)								
Low					0.830*	0.074	0.848	0.078
Medium					0.843	0.100	0.762*	0.099
High					0.922	0.148	0.895	0.149
Level of Restriction								
High							2.781***	0.209
Medium							1.263**	0.088
Low (ref)								
Level of support								
Low							1.044	0.061
Medium							0.961	0.066
High (ref)								
-2LL	95521.62		94347.67		94094.40		81951.48	
Chi square	279.38***		826.70***		903.14***		1278.83***	
N	21,549		21,549		21,509		19,336	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Tables 5.3 showed that young men had a very strong positive effect on first reported sexual intercourse compared with young women. The hazard ratio increased the likelihood of first sex more than twice for young men compared with young women, confirming the strong gender attitude towards first sexual intercourse in the context of Mexico. Despite young men showing to be less likely to enter first partnership (Table 5.4), the result lacked statistical significance when introducing all covariates into the model, particularly family background covariates. In other words, the effect of gender on entry into first partnership was explained by the level of parental restriction. The result implied that being a male respondent did not prove to have any statistical delaying effect on entry into first partnership compared with female respondents, as the effect of level of parental restriction was an enhanced explanatory factor of entry into first partnership. The model confirmed the expected effects regarding the birth of the first child (Table 5.5). Young men were significantly less likely to enter childbearing compared with young women. In consequence, the hazard ratios suggest and confirm the delaying process of young men in the experience of family formation transitions after having experienced first sexual intercourse. In contrast, the hazard ratios suggest that among young women the experience of family formation transitions occurred almost simultaneously.

The net effect of birth cohort was also statistically significant on the experience of family formation transitions. Recent birth cohorts of young men and women were slightly more likely to delay the experience of first sexual intercourse, first partnership and first birth compared with previous birth cohorts. The effect of birth cohort pointed in the expected direction, showing that previous birth cohorts of young men and women were somehow more likely to experience first sexual intercourse compared with recent birth cohorts, partly as the result of later marriage and cohabitation in Mexico (Quilodran 2001). Moreover, the important change in patterns of union formation in Latin America have shown that age at marriage continues to increase (Quilodran 2001). This finding was confirmed by the model, which proved that recent cohorts of both young men and women were to some extent less likely to enter first partnership and first birth compared with previous birth cohorts.

The results showed that area of residence had an important effect on the pace of family formation transitions between urban and rural respondents. Due to more

traditional norms in rural contexts, rural young people showed a later effect on first sexual intercourse. Young people from rural areas were less likely to initiate sexual activity compared with their urban counterparts. However, the trend in the likelihood was also found for entry into first partnership and first birth with the inclusion of all covariates. The series of models that incorporated groups of covariates at a time to found possible cofounding effects between covariates showed that the negative likelihood of rural area of residence was explained by the confounding effect caused by educational attainment. As seen in section 4.3, area of residence turned out to be one of the most significant determinants to leave education, which in the end is responsible for establishing respondent's educational attainment. Thus, rural residence was estimated to increase 32% the likelihood to enter first partnership and 33% the likelihood to experience first birth compared with urban residence. These last results confirmed previous evidence on the existing evidence from other developing countries that placed rural young women earlier into first partnership than urban young women (Bloom and Reddy 1986; Lloyd and Grant 2004) and into first birth, as well (Bloom and Reddy 1986; Singh 1998). Nevertheless, the results contrast with previous evidence of Mexico (Echarri and Perez Amador 2006). The authors found that rural area of residence delayed both processes among young women, but found no significance evidence among young men. Nevertheless, the authors did not seek to explain these effects by the cofounding effect associated to the index of socio-economic status included in their models, built as the combination of education attainment, household wealth and household income.

Tables 5.3, 5.4 and 5.5 also show that respondent's educational attainment was statistically significant on the likelihood of family formation transitions. Educational attainment turned out to be a very important predictor of age at first sexual intercourse. Highly educated young people were significantly less likely to have first sexual intercourse compared with young people with very low educational attainment. In addition, higher level of educational attainment significantly decreased the likelihood of entering first partnership among both young men and young women, confirming the existing evidence on both developed and developing countries (Marini 1984a; Lloyd and Mensch 2006). Moreover, the model confirmed that young people with higher levels of educational attainment were significantly less likely to experience first birth compared with young people with very lower levels of educational attainment.

Therefore, the results confirmed the importance of educational attainment as a key determinant in reducing the likelihood of early family formation.

Regarding intergenerational patterns, the models showed that young people were very likely to repeat their mothers' patterns in the experience of family formation transitions. There was a significant association between mother's age at respondent's birth and children's age at first sexual intercourse. Smaller age differences between mothers and respondents increased the likelihood to have first sexual intercourse. In other words, being born to a younger mother presented a higher risk of experiencing first sexual intercourse compared with young adult children of older mothers. In addition, both young adult sons and daughters of younger mothers were significantly more likely to enter first partnership than young adult children of older mothers. Young adult children of very young mothers and young mother were 41% and 30% more likely to enter first partnership compared with young adult children of older mothers, respectively. Finally, mother's age at respondent's birth also proved to be a very significant predictor of first birth. Young adult children of very younger mothers were on average 35% more likely to repeat their mothers' patterns of early childbearing compared with young adult children of older mothers.

Father's educational attainment and mother's educational attainment had almost no statistically significant effects on family formation transitions. In that sense, patterns of first sex, first partnership and first birth were attributed to the strong (cultural) value towards family formation within Mexican society present in all social classes (Stern 1995). In case of young men, most categories of father's and mother's educational attainment did not show a significant impact on first sexual intercourse (see Appendix Chapter 5). However, among young women, daughters of highly educated mothers showed a positive impact on first sexual intercourse compared with daughters of mothers with very low education (see Appendix Chapter 5). This result suggests a less traditional upbringing of highly educated mothers on their young adult daughters towards family formation transitions, in particular first sexual intercourse. Regarding first partnership, the different categories of father's educational attainment lacked statistical significance in both young men's and women's models. In other words, father's educational attainment had no effect on entering first partnership. However, mother's educational attainment showed to significantly decrease the likelihood to enter

first partnership, particularly among young men (see Appendix Chapter 5). Nevertheless, in case of young women, having a mother with high educational attainment significantly increased the likelihood of first partnership (see Appendix Chapter 5). This last result suggests the close relationship between first sexual intercourse and first partnership among young women, given the positive hazards ratios on both categories. In addition, most categories of father's educational attainment and mother's educational attainment were not significant predictors of first birth. In other words, the experienced of first birth was not affected by most proxies of socioeconomic status. Regardless of socioeconomic background, young people were equally likely to experienced first birth.

In general, the results showed that father's educational attainment and mother's educational attainment had almost no statistically significant effects on family formation transitions. As seen above, the likelihood was mainly explained by respondent's own educational attainment. In order to see whether the main effect of father's and mother's educational attainment acted via respondent's educational attainment, a series of models were tested to see the effect of father's and mother's education removing respondent's educational attainment on the likelihood of each family formation transitions. The models showed that father's education and mother's educational attainment lacked any explanatory power on first sexual intercourse, but mother's educational attainment statistically significant proved to delay first partnership and first birth (see Appendix Chapter 5). Father's educational attainment lacked statistical significance on these last two models (first partnership and first birth). Given the high correlation usually associated between mother's and father's education, two separate sets of models were tested that included father's educational attainment alone and mother's educational attainment alone. The inclusion of these covariates excluding the other was carried out to test whether either one of them was statistically significant if included alone. The results showed that the covariates again lacked statistical significance when tested each at a time on the likelihood to experience first sexual intercourse. However, the models of first partnership and first birth to test each of the mentioned covariates at a time showed a reduced likelihood for low to medium educated fathers compared with very low educated fathers, and for low to medium educated mothers compared with very low educated mothers. Therefore, the effect of father's educational attainment was mainly explained by mother's educational

attainment, which seemed to have a more powerful statistically significant delaying effect on the likelihood to enter first partnership and first birth. Consequently, parents' educational attainment reduced the likelihood of early first partnership and first birth, but it showed no statistically significant effect on the likelihood of early first sexual intercourse.

Finally, the effect of family environment covariates was tested on family formation transitions. Despite the expected effect on young people with low parental restriction, the results showed that parental restriction turned out to be one of the most statistically significant determinants to experience family formation transitions. The results confirm with quantitative evidence previous qualitative research on Mexico that found that young women living in restrictive families perceived early pregnancy and motherhood as a means to escape parental control or family instability (Stern 1995; Stern 2007). Moreover, the results also applied to young men's patterns regarding family formation transitions. This effect was more statistically significant on first partnership, and given the association between first partnership, first sex and first birth, hazard ratios of restrictive family backgrounds for these other transitions presented increasing likelihoods as well. Additionally, the different models showed that parental support had no effect on experiencing family formation transitions. Therefore, the evidence suggests that as young people with high levels of parental restriction tended to enter partnership at very young ages as a means to get away from poor family conditions, restrictive families of origin and parents did not constitute a support to raise young people's children.

So far, it has been established that gender played a key determinant in the family formation process in Mexico. Factors such as being male and residing in urban area increased the likelihood of first sexual intercourse, but it reduced the likelihood of first partnership and first birth. Educational attainment also proved to be a very important determinant to delay the experience of family formation transitions among Mexican youth. Regarding family level factors, young people were likely to repeat their mother's patterns in the family formation process. Factors such as low educated parents and poor family environment backgrounds accelerated the experience of family formation transitions in Mexico.

5.4 The Effect of Other Transitions to Adulthood on Family Formation Transitions

This section presents the effect of family formation transitions on one another by presenting estimates of how long after experiencing a given family formation transition it took young men and women to experience first sexual intercourse, first partnership and first birth. In addition, the effect of social transitions on experiencing family formation ones is also estimated. The effect of transitions to adulthood on family formation transitions was quantified using Cox Regression Models. Before presenting the estimates from the regression models, it is important to look at the sequencing between family formation transitions in relation to other transitions to adulthood to identify the proportions of young men and women that followed the different sequences between (pairs of) transitions.

5.4.1 Sequencing between Family Formation Transitions in relation to other Transitions to Adulthood

The following tables present the distribution of young men and women regarding the sequencing of first sexual intercourse, first partnership and first birth in relation to other transitions to adulthood by age 21, sub-divided by area of residence and birth cohort.

Table 5.6 Distribution of First Sexual Intercourse in relation to other Transitions to Adulthood by age 21, by sex, birth cohort and area of residence.

First Sexual Intercourse (S) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		Leaving home		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Men										
Urban										
S→Tx	18%	19%	16%	15%	19%	15%	19%	15%	21%	17%
STx/simultaneous	7%	7%	10%	8%	9%	8%	13%	11%	2%	2%
S	21%	18%	6%	5%	39%	40%	47%	45%	56%	53%
Tx→S	32%	27%	47%	43%	11%	9%	n.a.	n.a.	n.a.	n.a.
Tx	13%	18%	18%	24%	5%	4%	n.a.	n.a.	n.a.	n.a.
None	9%	10%	4%	5%	17%	24%	22%	28%	22%	28%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural										
S→Tx	11%	8%	10%	10%	18%	12%	22%	15%	27%	19%
STx/simultaneous	6%	6%	6%	6%	11%	7%	19%	15%	2%	2%
S	9%	9%	3%	3%	33%	34%	35%	36%	47%	45%
Tx→S	50%	43%	56%	48%	14%	13%	n.a.	n.a.	n.a.	n.a.
Tx	20%	28%	23%	31%	6%	7%	n.a.	n.a.	n.a.	n.a.
None	4%	6%	2%	3%	18%	27%	24%	34%	24%	34%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005	792	1,005

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Continuation Table 5.6

First Sexual Intercourse (S) & Transition Tx	Leaving Education		Entry into the Labour Force		Transition Tx Leaving Education		First Partnership		Leaving Education	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Women										
Urban										
S→Tx	6%	6%	6%	7%	8%	8%	10%	9%	38%	32%
STx/simultaneous	8%	7%	5%	5%	27%	21%	42%	34%	6%	5%
S	11%	9%	15%	11%	16%	16%	10%	10%	18%	17%
Tx→S	37%	32%	36%	32%	11%	9%	n.a.	n.a.	n.a.	n.a.
Tx	23%	27%	28%	35%	8%	9%	n.a.	n.a.	n.a.	n.a.
None	15%	19%	11%	12%	31%	37%	38%	46%	38%	46%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural										
S→Tx	2%	2%	5%	4%	7%	5%	8%	7%	48%	39%
STx/simultaneous	6%	5%	3%	4%	36%	27%	56%	43%	7%	6%
S	9%	7%	28%	19%	13%	14%	6%	7%	14%	11%
Tx→S	53%	43%	34%	31%	14%	11%	n.a.	n.a.	n.a.	n.a.
Tx	25%	35%	20%	27%	8%	9%	n.a.	n.a.	n.a.	n.a.
None	6%	8%	10%	16%	23%	34%	30%	43%	30%	43%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: S= First Sexual Intercourse, Tx= Given Transition
Source: Author's calculations based on ENAJUV 2000.

Table 5.7 Distribution of First Partnership in relation to other Transitions to Adulthood by age 21, by sex, birth cohort and area of residence.

First Partnership (P) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		Leaving home		First Sexual Intercourse		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Men										
Urban										
P→Tx	2%	1%	1%	1%	2%	2%	n.a	n.a.	15%	12%
PTx/simultaneous	3%	3%	3%	2%	13%	10%	13%	11%	5%	5%
P	4%	3%	1%	1%	7%	8%	n.a.	n.a.	11%	10%
Tx→ P	23%	19%	27%	22%	9%	7%	19%	15%	1%	1%
Tx	43%	48%	60%	64%	20%	18%	47%	45%	2%	2%
None	25%	26%	8%	9%	48%	56%	22%	28%	67%	72%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural										
P→Tx	1%	1%	1%	1%	3%	1%	n.a.	n.a.	22%	14%
PTx/simultaneous	2%	1%	2%	1%	14%	9%	19%	15%	4%	5%
P	4%	3%	1%	1%	11%	11%	n.a.	n.a.	14%	10%
Tx→P	35%	25%	37%	27%	12%	8%	22%	15%	1%	1%
Tx	51%	58%	56%	66%	20%	20%	35%	36%	2%	1%
None	9%	12%	4%	4%	40%	50%	24%	34%	57%	69%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005	792	1,005

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Continuation Table 5.7

First Partnership (P) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		Leaving home		First Sexual Intercourse		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Women										
Urban										
P→Tx	3%	3%	3%	4%	2%	2%	n.a.	n.a.	32%	25%
PTx/simultaneous	7%	6%	3%	3%	29%	23%	42%	34%	9%	8%
P	8%	5%	13%	9%	10%	10%	n.a.	n.a.	10%	10%
Tx→P	35%	30%	32%	28%	11%	9%	10%	9%	1%	1%
Tx	30%	33%	36%	43%	11%	12%	10%	10%	2%	3%
None	19%	23%	3%	4%	37%	44%	38%	46%	46%	53%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural										
P→Tx	1%	1%	3%	2%	2%	2%	n.a.	n.a.	42%	32%
PTx/simultaneous	5%	5%	2%	2%	39%	29%	56%	43%	9%	8%
P	8%	6%	27%	18%	9%	9%	n.a.	n.a.	11%	8%
Tx→P	49%	38%	32%	28%	14%	10%	8%	7%	1%	1%
Tx	30%	42%	25%	33%	9%	11%	6%	7%	3%	4%
None	6%	9%	11%	18%	27%	39%	30%	43%	33%	46%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: P= First Partnership; Tx= Given Transition
Source: Author's calculations based on ENAJUV 2000.

Table 5.8 Distribution of First Birth in relation to Other Transitions to Adulthood by age 21, by sex, birth cohort and area of residence.

First Birth (B) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		Leaving home		First Sexual Intercourse		First Partnership	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Men										
Urban										
B→Tx	1%	1%	0%	0%	1%	1%	n.a.	n.a.	1%	1%
TxB/simultaneous	1%	1%	1%	1%	3%	3%	2%	2%	5%	5%
B	3%	2%	1%	1%	6%	6%	n.a.	n.a.	2%	2%
Tx→B	17%	15%	20%	17%	12%	9%	21%	17%	15%	12%
Tx	51%	55%	69%	72%	28%	23%	56%	53%	11%	10%
None	27%	26%	9%	9%	50%	58%	22%	28%	67%	72%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural										
B→Tx	0%	0%	0%	0%	1%	1%	n.a.	n.a.	1%	1%
BTx/simultaneous	1%	0%	1%	1%	3%	3%	2%	2%	4%	5%
B	3%	2%	1%	1%	7%	7%	n.a.	n.a.	2%	1%
Tx→B	25%	18%	27%	20%	17%	10%	27%	19%	22%	14%
Tx	62%	67%	67%	74%	28%	25%	47%	45%	14%	10%
None	9%	13%	4%	5%	44%	54%	24%	34%	57%	69%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005	792	1,005

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Continuation Table 5.8

First Birth (B) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		Leaving home		First Sexual Intercourse		First Partnership	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Women										
Urban										
B→Tx	1%	2%	2%	2%	1%	1%	n.a.	n.a.	1%	1%
BTx/simultaneous	2%	2%	2%	2%	6%	5%	6%	5%	9%	8%
B	6%	5%	11%	8%	9%	9%	n.a.	n.a.	2%	3%
Tx→B	35%	29%	29%	25%	28%	22%	53%	41%	32%	25%
Tx	36%	39%	42%	49%	18%	18%	25%	22%	10%	10%
None	20%	24%	14%	14%	38%	45%	46%	47%	46%	53%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural										
B→Tx	1%	0%	2%	2%	1%	1%	n.a.	n.a.	1%	1%
BTx/simultaneous	1%	1%	1%	1%	6%	5%	7%	6%	9%	8%
B	7%	5%	23%	16%	8%	10%	n.a.	n.a.	3%	4%
Tx→B	47%	38%	29%	27%	40%	30%	48%	39%	42%	32%
Tx	37%	45%	29%	35%	17%	16%	14%	11%	11%	8%
None	8%	9%	16%	19%	27%	38%	30%	43%	33%	46%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: P= First Birth; Tx= Given Transition
Source: Author's calculations based on ENAJUV 2000.

Table 5.6 shows that the experience of first sexual intercourse in relation to other transitions to adulthood occurred differently between young men and women. Even within genders, there were differences between urban and rural young men. Whereas most urban young men had experienced first sexual intercourse while still in education (S→Tx + S), rural young men had experienced first sexual intercourse after leaving education (Tx→S). For instance, nearly 1 in 5 urban young men had experienced first sexual intercourse by age 21 as students (S→Tx) compared with 1 in 10 rural young men. In contrast, almost 1 in 2 rural young men had experienced first sexual intercourse by age 21 after leaving education (Tx→S) compared with 1 in 3 urban young men. In case of young women, most urban and rural respondents had experienced first sexual intercourse when they were no longer in education. Around 1 in 3 urban young women and 1 in 2 rural young women had first sexual intercourse by age 21 after leaving education (Tx→S) compared with 1 in 17 urban young women and 1 in 10 rural young women that had first sexual intercourse before leaving education by the same age (S→Tx). Both urban and rural young men and women mostly experienced first sexual intercourse after entering the labour force. However, young women presented higher proportions having experienced their first sexual intercourse by age 21 without having entered into the labour force. Whereas 1 in 17 urban young men and 1 in 33 rural young men had only experienced first sexual intercourse (S) by age 21 without having entered into the labour force, 1 in 8 urban young women and 1 in 4 rural young women had experienced first sexual intercourse without entering the labour force by the same age. Both younger cohorts of young men and women showed a delay in experiencing first sexual intercourse after leaving education and after having entered into the labour force compared with young people from previous cohorts.

Table 5.6 shows that first sexual intercourse in relation to leaving home did not show important differences between urban and rural young men. The main differences were seen between genders. For instance, by age 21 there were significantly more sexually active young men still living in the parental home than young women. In other words, first sexual intercourse mostly occurred while young men were still living in the parental home. In contrast, among young women first sex occurred the same year of age as parental home leaving (STx), particularly among young women in rural areas. By age 21, only 1 in 10 urban and rural young men had experienced first sexual intercourse simultaneously with parental home leaving, whereas 1 in 4 urban young women and 1

in 3 rural young women experienced both transitions the same year of age. This pattern was more common among previous cohort. Therefore, the results suggest that among young women first sexual intercourse occurred simultaneously with first partnership, which coincided with parental home leaving as well, indicative of a traditional norm for women in Mexican society, particularly rural young women.

By age 21, the proportion of sexually active single men was significantly higher compared with single women. By age 21, nearly 1 in 2 urban young men and 1 in 3 rural young men were sexually active without having entered first partnership (S). In contrast, only 1 in 10 urban young women and less than 1 in 10 rural young women were single sexually active singles by age 21. Young women form both urban and rural areas experienced first sexual intercourse the same year of age that they entered first partnership, particularly rural young women. Whereas only 1 in 10 urban and rural young men had experienced first sexual intercourse by age 21 the same year of age they entered first partnership, 2 in 5 urban young women and 1 in 2 rural young women had experienced both transitions simultaneously by age 21. The results also showed an important shift (postponement) between previous and recent cohorts of young urban and rural women regarding this pattern. Younger cohort of women presented higher proportion having not experienced any of these two family formation transitions by age 21 compared with older cohorts of women. For instance, 1 in 3 urban women and 2 in 5 rural women from older cohorts had experienced first sexual intercourse together with first partnership by age 21 compared with 1 in 5 urban women and 1 in 3 rural women from younger cohorts.

By age 21, proportions of sexually active young people that did enter parenthood were higher among young women than among young men. Proportions of young women from both urban and rural areas that had entered parenthood were higher than young men's proportions, both after having first sexual intercourse and the same year of age that they had first sexual intercourse. By age 21, nearly 2 in 5 urban young women and nearly 1 in 2 rural young women had experienced motherhood by age 21 after experiencing first sexual intercourse (S→Tx) compared with 1 in 5 urban young men and 1 in 3 rural young men. In contrast, by age 21, proportions of childless sexually active young men were higher compared with young women. In addition, recent cohorts of both young men and women presented lower proportions in parenthood compared

with previous cohorts of young people. The results suggest that family formation was more immediate among young women compared with young men after experiencing first sexual intercourse.

In case of first partnership, Table 5.7 shows that by age 21 most young men and women had not entered first partnership after leaving education (Tx). However, young women presented higher proportions having already experienced first partnership by age 21 after leaving education (Tx→P) compared with young men. Proportions were higher among rural respondents than urban ones. Nearly 1 in 4 urban young men had experienced first partnership by age 21 after leaving education compared with 1 in 3 rural young men. In contrast, 1 in 3 urban young women and almost 1 in 2 rural young women were already in first partnership by age 21 after leaving education.

Regarding the relationship between entry into first partnership and entry into the labour force, Table 5.7 shows that young men presented higher proportions having only entered the labour force by age 21 (Tx) compared with young women. The results showed that around one third of urban and rural young men that had entered the labour force, had also entered first partnership by age 21 (Tx→P) compared with almost half of urban young women and more than half of rural young women. In addition, 1 in 10 urban young women and nearly 1 in 3 rural young women had entered first partnership without having entered the labour force compare with 1 in 100 urban and rural young men. Although younger cohorts of young women presented lower proportions having experienced first partnership by age 21, the results suggest that young women followed a trajectory with an established traditional social role by not entering the labour force after leaving education and experiencing family formation transitions instead.

Table 5.7 shows that the simultaneity of entering first partnership and leaving home was more marked among young women than among young men. Results showed that young people that had experienced both transitions by age 21, about half of urban and rural young men left home and entered first partnership the same year of age compared with half of urban and rural young men that left home before entering first partnership by age 21. In contrast, 3 in 4 urban young women and 4 in 5 rural young women left home simultaneously (the same year of age) of first partnership (PTx) compared with 1 in 4 urban young women and 1 in 5 rural young women that had left home before entering first partnership (Tx→P). Moreover, young men's proportions

were higher among those that had only left home (without entering first partnership) by age 21 compared with young women.

Regarding first partnership and first sexual intercourse, patterns seen in Table 5.6 were once more shown and confirmed in Table 5.7. By age 21, most urban and rural young men had not entered first partnership but had experienced first sexual intercourse, whereas both urban and rural young women tended to follow a more immediate pattern in the family formation process by experiencing both first partnership and first sexual intercourse simultaneously. Around 1 in 10 urban young men and 2 in 10 rural young men had experienced both transitions the same year of age compared with 2 in 5 urban young women and more than 1 in 2 rural young women by age 21. The results suggest that young women experienced first sexual intercourse within first partnership as a consequence of a more traditional norm regarding first sexual intercourse among Mexican young women.

Regarding first birth in relation to first partnership, young women presented higher proportions already having experienced first partnership followed by first birth by age 21. For instance, 1 in 3 urban young women and nearly 2 in 5 rural young women had already experienced first birth after first partnership (P→Tx) by age 21 compared with 1 in 7 urban young men and 1 in 5 rural young men. However, young men presented higher proportion having entered first partnership after experiencing first birth. For instance, the proportions that experienced first partnership in parenthood represented 1% among both urban and rural young men and women. Whereas 2% of urban and rural young men were single fathers by age 21, around 3% of urban and young women were single mothers by age 21. Thus, the results suggest a stricter norm towards single mothers in Mexico that lessen young women's partnership prospects after experiencing an out of wedlock birth.

Table 5.8 shows the distribution of young people regarding the sequencing in the experience of first birth in relation to other transitions to adulthood by age 21. The results showed that nearly 1 in 6 urban young men and 1 in 4 rural young men had already experienced first birth by age 21 after leaving education compared with 1 in 3 urban young women and almost 1 in 2 rural young women (Tx→B). The results suggest a faster process of family formation among young women after leaving education compared with young men. In case of young men, a similar proportion had experienced

first birth by age 21 after entering the labour force. However, among young women, proportions that experienced first birth after entering the labour force were lower compared with those found after leaving education, particularly among rural young women. For instance, 1 in 3 urban and rural young women had experienced first birth after entering the labour force. The decline in young women's proportions was explained by the fact that many young women did not enter the labour force after/before leaving education and therefore proportions that experienced first birth after entering the labour force were lower. Around 1 in 10 urban young women and 1 in 5 rural young women had experienced first birth by age 21 but had not entered the labour force compared with 1 in 100 urban and rural young men that followed the same pattern.

Table 5.8 also shows the important gender differences regarding first birth in relation to parental home leaving. By age 21, 1 in 10 urban young men and almost 1 in 5 rural young men experienced first birth after leaving the parental home (Tx→B) compared with nearly 1 in 3 urban and rural young men that had left home by age 21 and had not experienced first birth (Tx). In contrast, nearly 1 in 3 urban young women and nearly 2 in 5 rural young women that had left home, had also experienced first birth by age 21 compared with 1 in 2 urban and rural young women that had left home by age 21, but had not experienced first birth. The result suggests that parental home leaving was rather associated to family formation among young women but not so much among young men.

The previous experience on first sex was an obvious and necessary condition for first birth, which presented differences between young men and women. Whereas most young men that had first sexual intercourse by age 21 had not entered fatherhood, most young women had experienced childbearing after first sexual intercourse. By age 21, 1 in 2 urban and rural young men had only experienced first sexual intercourse (S), whereas 1 in 5 urban young men and nearly 1 in 3 rural young men had also entered fatherhood by age 21. However, among young women, 1 in 2 urban and rural young women had entered motherhood by age 21 after having first sexual intercourse compared with 1 in 4 urban young women and around 1 in 10 rural young women that remained childless after first sexual intercourse. The higher proportion of childless urban young women suggests that urban young women were delaying longer the process of childbearing after first sexual intercourse compared with rural young women.

Finally, Table 5.8 shows that parenthood was experienced earlier among young women than among young men, and earlier among rural respondents that among urban ones. For instance, 1 in 7 urban young men had experienced first birth by age 21 after entering first partnership compared with 1 in 5 rural young men. In case of young women, the proportions showed that 3 in 4 urban young women that had entered first partnership had also experienced motherhood by age 21 compared with 4 in 5 rural young women. The patterns suggest that young women tended to experience all family formation transitions with a certain simultaneity compared with young men, by speeding the occurrence of all three transitions almost immediately.

In general, proportions that had experienced first birth by age 21 were considerably lower among recent cohorts of both young men and women and in both urban and rural areas of residence. However, an important change was seen between older and younger cohorts of young women and the experience of single motherhood. Younger birth cohorts of both urban and rural young women showed a higher proportion in this state by age 21 compared with older cohorts, particularly rural young women. The same pattern was found for first birth in relation to parental home leaving among younger cohorts of rural young women. The result suggests that despite the increases of single mothers among younger birth cohorts, single motherhood was reprimanded more strictly in rural communities than in urban ones, diminishing partnership opportunities for rural young women.

In summary, young and women presented important differences in the sequencing between family formation transitions and other transitions to adulthood. For instance, young men tended to experience first sexual intercourse before other transitions, whereas young women tended to experience first sexual intercourse after other transitions or simultaneously, such as first partnership and parental home leaving. Therefore, young women experienced first sexual intercourse within first partnership as a consequence of a more traditional norm regarding first sexual intercourse among Mexican young women. In addition, results suggested that young women followed a trajectory with an established traditional social role by not entering the labour force after leaving education and experienced family formation transitions instead, especially rural young women. Moreover, young women tended to experience all family formation transitions with a certain simultaneity compared with young men, by speeding the

occurrence of all three transitions almost immediately. Nevertheless, the higher proportion of childless urban young women suggest that urban young women were delaying longer the process of childbearing after first sexual intercourse and first partnership compared with rural young women.

5.4.2 Quantifying the Time Varying Effect of other Transitions on Family Formation Transitions

To estimate the timing between transitions, a series of Cox Regression Models were used to estimate the effect of other transitions on first sex, first partnership and first birth. The Cox regressions were performed separately for each of the three family formation transitions. Since the effect of other transitions on family formation transitions was expected to show differences between genders, the analysis was run separately for young men and women. The age at entry into the models was set at 13 years, given age at menarche in Mexico (Knaul 2000).

As explained in Section 3.2.5, based on the age at experiencing each of the family formation transitions, time varying episodes for each transition were created prior to the occurrence of each family formation transition. Once the time varying episodes were created, the analysis tested the effect on family formation transitions of respondents' earlier experience of other transitions compared with those respondents that had not experienced a given transition, who are taken as reference category. Those respondents that experienced each family formation transition before other transitions to adulthood were taken out of the analysis in the corresponding models. Thus, sample sizes changed according to the timing of occurrence of other transitions in relation to family formation ones.

As first sexual intercourse is a necessary condition for first birth, for obvious reasons the relationship of first birth before first sex was not tested. In case of the relationship between first partnerships on first sex, it was assumed that if first sex did not occur before first partnership, both events would occur simultaneously. Therefore,

the hazard would only be measuring the effect at time 0 and not earlier in time. Consequently, this relationship was not tested either.

In addition, each model included the effect of individual level and family level covariates. The covariates included gender, birth cohort included as single years of birth ranging over the 10 year period interval between 1970 and 1979, area of residence, respondent's educational attainment, mother's age at birth (as proxy of intergenerational patterns), father's and mother's educational attainment (as proxies of socioeconomic status), and level of parental restriction and level of family support (as proxies of family environment).

Table 5.9 Cox Hazard Ratios for First Sexual Intercourse in relation to other Transitions to Adulthood, by Gender.

	Young Men					Young Women				
	Transition Tx					Transition Tx:				
First Sexual Intercourse after	Leaving Education	Entry into Work Force	Leaving Home	First Partnership	First Birth	Leaving Education	Entry into Work Force	Leaving Home	First Partnership	First Birth
Birth Cohort	0.963***	0.962***	0.974***	-	-	0.974***	0.968***	1.011*	-	-
Area:										
Ref. Urban										
Rural	0.872***	0.825***	0.824***	-	-	0.871***	0.886***	0.901**	-	-
Respondent's Education										
Ref. Very Low										
Low	1.085*	1.250***	1.303***	-	-	0.867***	0.942	0.856***	-	-
Medium	0.723***	0.789***	0.762***	-	-	0.672***	0.726***	0.596***	-	-
High	0.235***	0.253***	0.237***	-	-	0.312***	0.319***	0.256***	-	-
Mother's age at birth										
<= 20	1.148**	1.099*	1.114*	-	-	1.207***	1.173***	1.121**	-	-
20-24	1.067	1.040	1.051	-	-	1.153***	1.132***	1.107***	-	-
Ref. => 25										
Father's Education:										
Ref. Very Low										
Low	1.088	1.117*	1.111*	-	-	1.060	1.080	1.036	-	-
Medium	1.086	1.175*	1.149	-	-	1.179*	1.113	1.094	-	-
High	1.171*	1.166*	1.183*	-	-	1.119	1.120	1.072	-	-
Mother's Education										
Ref. Very Low										
Low	1.009	1.129*	1.152**	-	-	0.912	0.934	0.966	-	-
Medium	1.171*	1.208**	1.254**	-	-	1.105	1.177**	1.125	-	-
High	1.064	1.120	1.120	-	-	1.105	1.110	1.099	-	-
Parental Restriction:										
High	2.444***	2.391***	2.347***	-	-	2.545***	2.328***	2.008***	-	-
Medium	1.575***	1.552***	1.561***	-	-	1.136*	1.114	1.041	-	-
Ref. Low										

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Continuation Table 5.9

First Sexual Intercourse after	Young Men Transition Tx Leaving Education	Entry into Work Force	Leaving Home	First Partnership	First Birth	Young Women Transition Tx Leaving Education	Entry into Work Force	Leaving Home	First Partnership	First Birth
Family Support:										
Low	1.079*	1.037	1.036	-	-	1.096**	1.079*	1.078*	-	-
Medium	1.011	0.979	0.984	-	-	0.957	0.953	0.966	-	-
Ref. High										
Time between transitions: ***Ref. not having experienced transition Tx***										
0 yrs (++)	0.506***	0.627***	0.801***	n.a.	n.a.	0.664***	0.262***	2.598***	n.a.	n.a.
1 yr	1.028	1.274**	1.594***	n.a.	n.a.	1.583***	1.107*	2.720***	n.a.	n.a.
2 yrs	0.982	1.316**	1.525***	n.a.	n.a.	1.622***	1.175***	2.397***	n.a.	n.a.
3-4 yrs	0.938	1.297**	1.458***	n.a.	n.a.	1.481***	1.265***	2.433***	n.a.	n.a.
5-6 yrs	0.858**	1.190*	1.543***	n.a.	n.a.	1.333***	1.246***	2.394***	n.a.	n.a.
7+ yrs	0.810***	1.220*	1.379***	n.a.	n.a.	1.214***	1.169**	2.198***	n.a.	n.a.
-2LL	36404.64	40977.09	36556.26			55389.24	54034.81	52995.82		
Chi square	1478.39***	1738.46***	1443.11***			2946.07***	3662.89***	3337.06***		
N	5957	6480	5943			9779	9662	9527		

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.

Source: Author's calculations based on ENAJUV 2000.

Table 5.10 Cox Hazard Ratios for First Partnership in relation to other Transitions to Adulthood, by Gender.

	Young Men					Young Women				
	Transition Tx					Transition Tx:				
First Partnership after	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Birth	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Birth
Birth Cohort	0.948***	0.950***	0.943***	0.953***	1.156***	0.969***	0.963***	0.960***	0.969***	1.102***
Area:										
Ref. Urban										
Rural	0.941	0.957	0.941	0.976	0.814**	0.886***	0.899**	0.885***	0.915**	0.798***
Respondent's Education										
Ref. Very Low										
Low	0.895*	0.971	0.966	0.919*	1.004	0.838***	0.921**	0.865***	0.864***	0.900
Medium	0.695***	0.708***	0.682***	0.631***	0.799**	0.673***	0.731***	0.601***	0.588***	0.738***
High	0.338***	0.304***	0.279***	0.258***	0.369***	0.354***	0.358***	0.276***	0.269***	0.396***
Mother's age at birth										
<= 20	1.403***	1.418***	1.422***	1.403***	1.273**	1.275***	1.233***	1.284***	1.272***	1.342***
20-24	1.331***	1.328***	1.347***	1.322***	1.277***	1.190***	1.144***	1.181***	1.161***	1.216***
Ref. => 25										
Father's Education:										
Ref. Very Low										
Low	1.058	1.043	1.043	1.026	1.007	1.006	1.029	0.992	0.980	1.087
Medium	1.246*	1.238*	1.210*	1.188*	1.269	1.109	1.045	1.028	1.038	1.199
High	0.992	1.008	1.008	1.001	0.900	1.071	1.080	1.045	1.030	1.102
Mother's Education										
Ref. Very Low										
Low	0.819**	0.836**	0.829**	0.813**	0.803*	0.871*	0.861**	0.882*	0.869**	0.860
Medium	0.901	0.940	0.897	0.931	0.858	1.136	1.142*	1.154*	1.107	1.155
High	1.033	1.012	0.996	0.987	0.903	1.104	1.046	1.109	1.097	1.095
Parental Restriction:										
High	2.815***	2.825***	2.787***	3.003***	2.426***	4.095***	3.829***	4.094***	4.282***	4.027***
Medium	1.623***	1.627***	1.629***	1.674***	1.493***	1.544***	1.543***	1.544***	1.639***	1.846***
Ref. Low										

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Continuation Table 5.10

First Partnership after	Young Men					Young Women				
	Transition Tx					Transition Tx:				
	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Birth	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Birth
Family Support:										
Low	1.013	1.002	1.030	1.030	0.970	1.091**	1.070*	1.092**	1.075*	1.086
Medium	0.939	0.923	0.938	0.940	0.921	0.986	0.975	1.010	0.994	1.074
Ref. High										
Time between transitions: ***Ref. not having experienced transition Tx***										
0 yrs (++)	0.765**	0.944	0.017***	Ref.	4.922*** (+)	0.747***	0.182***	0.029***	Ref.	3.438*** (+)
1 yr	1.747***	1.816***	1.513***	1.757***	9.796***	1.847***	0.914	1.485***	3.108***	6.872***
2 yrs	1.908***	1.963***	1.254**	1.570***	5.654***	1.872***	1.060	1.200**	2.123***	3.643***
3-4 yrs	1.661***	2.313***	1.351***	1.607***	4.524***	1.711***	1.169***	1.226***	1.594***	2.992***
5-6 yrs	1.747***	2.316***	1.222**	1.525***	3.066***	1.587***	1.188***	1.172*	1.349**	2.238***
7+ yrs	1.592***	2.303***	1.265***	1.547***	2.382*	1.404***	1.084	1.243***	1.180	1.592
-2LL	28808.81	29812.78	27777.50	30788.60	7269.75	52003.81	49729.72	52207.86	55542.78	8731.49
Chi square	1627.72***	1579.71***	1900.11***	1612.88***	773.13***	3466.57***	4217.75***	3895.47***	3640.34***	942.86***
N	7747	7858	7647	7963	5216	10272	10069	10311	10656	5271

*** p < 0.001; ** p < 0.01; * p < 0.05.
(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.
(+) Only if year of age of first pregnancy was lower than age at first birth, then the first birth was considered to be before fist partnership, Otherwise, it was considered to be experienced after first partnership and therefore, taken out of the analysis.
Source: Author's calculations based on ENAJUV 2000.

Table 5.11 Cox Hazard Ratios for First Birth in relation to Other Transitions to Adulthood, by Gender.

	Young Men					Young Women				
	Transition Tx					Transition Tx:				
First Birth after	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Partnership	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Partnership
Birth Cohort	0.959***	0.960***	0.988	0.975**	1.036***	0.976***	0.973***	0.988*	0.992	1.018***
Area:										
Ref. Urban										
Rural	0.947	0.974	0.979	1.031	0.998	0.936*	0.956	0.953	1.036	1.018
Respondent's Education										
Ref. Very Low										
Low	0.874**	0.925	0.862**	0.862**	0.925	0.843***	0.896**	0.839***	0.906**	0.947
Medium	0.715***	0.700***	0.665***	0.628***	0.860**	0.729***	0.707***	0.639***	0.779***	0.858***
High	0.371***	0.296***	0.274***	0.267***	0.651***	0.399***	0.328***	0.278***	0.431***	0.566***
Mother's age at birth										
<= 20	1.414***	1.418***	1.302***	1.324***	1.028	1.186***	1.151***	1.074	1.025	0.988
20-24	1.262***	1.270***	1.211***	1.219***	0.996	1.122***	1.079*	1.044	0.983	0.970
Ref. => 25										
Father's Education:										
Ref. Very Low										
Low	1.077	1.042	1.021	1.012	1.007	0.979	0.986	1.011	0.939	0.951
Medium	1.071	1.095	0.965	1.004	0.846	1.018	0.982	0.971	0.902	0.912
High	1.074	1.087	1.044	1.021	1.076	1.078	1.078	1.038	0.960	0.971
Mother's Education										
Ref. Very Low										
Low	0.899	0.904	0.913	0.860*	1.069	0.893*	0.883*	0.920	0.919	1.013
Medium	0.943	0.961	0.894	0.925	1.008	0.996	1.021	0.969	0.903	0.934
High	0.965	0.953	0.931	0.946	0.983	1.035	1.031	0.951	0.939	0.939
Parental Restriction:										
High	2.397***	2.384***	2.036***	2.440***	1.271***	2.752***	2.640***	2.154***	2.098***	1.135
Medium	1.484***	1.493***	1.367***	1.531***	1.069	1.268**	1.253**	1.195**	1.392***	0.941
Ref. Low										

Continues on next page …

Continuation Table 5.11

First Birth after	Young Men					Young Women				
	Transition Tx					Transition Tx:				
	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Partnership	Leaving Education	Entry into Work Force	Leaving Home	First Sexual Intercourse	First Partnership
Family Support:										
Low	1.041	1.038	1.048	1.059	1.038	1.080*	1.068*	1.024	0.996	1.018
Medium	0.936	0.939	0.969	0.961	1.027	0.940	0.948	0.940	0.947	0.944
Ref. High										
Time between transitions: ***Ref. not having experienced transition Tx***										
0 yrs (++)	0.437***	0.544**	1.127	Ref.	9.072***	0.366***	0.152***	0.834***	Ref.	4.182***
1 yr	1.879***	1.743**	7.269***	15.842***	120.836***	1.959***	0.651***	8.049***	28.237***	53.491***
2 yrs	1.550***	1.690**	4.263***	10.280***	94.556***	1.762***	0.913	5.058***	23.124***	43.822***
3-4 yrs	1.787***	1.836***	2.889***	7.875***	72.262***	1.790***	1.111*	3.312***	16.438***	30.175***
5-6 yrs	1.620***	1.949***	2.656***	7.668***	39.265***	1.807***	1.209***	2.881***	11.074***	15.678***
7+ yrs	1.673***	2.014***	2.387***	7.001***	34.524***	1.565***	1.155**	2.607***	9.188***	13.357***
-2LL	24628.11	25376.03	-23586.68	24926.97	21258.36	49677.24	47540.86	48475.93	47182.60	45278.02
Chi square	1330.24***	1185.92***	2401.71***	2961.00***	7717.14***	3283.94***	3415.05***	6623.27***	13102.42***	12679.30***
N	7878	7953	7820	7998	7855	10460	10237	10506	10713	10487

*** p < 0.001; ** p < 0.01; * p < 0.05.
(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.
Source: Author's calculations based on ENAJUV 2000.

Table 5.9 shows the time varying hazard ratios for experiencing first reported sexual intercourse after leaving education, entering the labour force and leaving the parental home. The results showed that leaving education did not seem to affect the likelihood of experiencing first sexual intercourse for young men as most time varying hazard ratios lacked statistical significance compared with respondents that did not leave education. The results suggest that among young men, first sexual intercourse was going to occur in combination with the role of students, i.e. before leaving education (S). Among young women, time varying hazard ratios showed that first sexual intercourse was statistically significant more likely to occur after leaving education. Entry into the labour force affected positively the likelihood for first sexual intercourse compared with respondents that did not enter the labour force, in this case, for both young men and women. Therefore, first sexual intercourse was more likely to occur in combination with the role of worker.

However, the most noteworthy difference between young men and women was seen on the likelihood for first sexual intercourse after leaving home. Among young men, leaving the parental home did not seem to have an immediate effect (year 0) to experience first sexual intercourse compared with young men that had not left the parental home, increasing the likelihood over time. In contrast, the effect of leaving home was statistically significant immediately on first sexual intercourse among young women. The likelihood of having first sexual intercourse the same year of age at leaving the parental home increased 2.6 times and 2.7 times within 1 year after leaving home compared with young women that had not left the parental home. The results suggest that young women increased immediately the likelihood on first sexual intercourse (given the experience of parental home leaving) due to the simultaneity with other family formation transition: first partnership.

Table 5.10 shows the effect of social transitions on first partnership. Time varying hazard ratios showed that first partnership was more likely to occur after the experience of social transitions to adulthood, i.e. leaving education, entry into the labour force and leaving the parental home. The results showed the importance of entry into the labour force to accumulate the necessary resources to enter first partnership. Young men and women increased the likelihood to enter first partnership the longer the period since entering the labour force. Therefore, the evidence showed that once individuals

reached financial independence, they were more likely to start the process of family formation compared with those of the same age who had not done so. The main weight laid on young men as the primary source of income to support the household, consistent with higher values of men's time varying hazard ratios for entering first partnership after entry into the labour force compared with those for young women. Young women's time varying hazard ratios showed a reduction in the likelihood for experiencing first partnership the first years after entry into the work compared with young women that did not enter the labour force. These results confirmed previous evidence of other developing countries where labour force participation have worked to delay partnership formation (Singh and Samara 1996), suggesting the new attitude towards less traditional roles regarding partnership as the sole option for women by providing a source of empowerment to working single young women.

Table 5.10 shows that the most statistically significant transition for entering first partnership was the experience of first birth. For both young men and women, the highest likelihood for entering first partnership occurred within 1 year after first birth, fell to half within the second year after first birth, and kept dropping thereafter, but at a slower pace. Young men's time varying hazard ratios were statistically significantly higher than young women's time varying hazard ratios. For instance, young men were almost 10 times more likely to enter first partnership within one year after experiencing first birth compared with young men that had not experienced first birth, whereas young women increased the likelihood to enter first partnership almost 7 times more within the first year after entering motherhood compared with young women that had not experienced first birth. In this particular case, the hazard ratio at time 0[27] estimated the effect of a premarital conception one year of age before entering first partnership. Therefore, first birth statistically significantly immediately affected the likelihood for entering first partnership. The higher time varying hazard ratios of males could be explained by the fact that if young men did enter a partnership after a birth, these young men were acknowledging that they were the father. Therefore, the results suggest that the longer young women waited after the birth of the first child to enter first partnership, the lesser the likelihood to enter first partnership. The results confirmed existing

[27] If both first birth and entry into first partnership were experienced the same year of age, only when age at first pregnancy occurred one year before first birth, it was considered that first birth was the determinant factor for entering first partnership and not an immediate consequence of first partnership (both events occurring simultaneously).

evidence on Mexico that has demonstrated that young women see in pregnancy a way to enter marriage (Meekers 1994) (these women may not want to marry but are required to do so following pregnancy), and contrast evidence on the context of U.S. that has documented a negative association between non marital childbearing on the subsequent likelihood of first marriage (Bennett, Bloom et al. 1995).

Regarding the effect of first sexual intercourse on the likelihood for entering first partnership, the models showed that both young men and women were more likely to enter first partnership after first sex than comparable groups who had not done so. However, young women showed higher hazard ratios to enter first partnership shortly after having first sexual intercourse compared with young men. For instance, young men were between 1.5 and 1.7 times more likely to enter first partnership after having experienced first sexual intercourse compared with young men that had not experienced first sexual intercourse. In contrast, young women increased the likelihood for entering first partnership more than 3 times within the first year after having first sexual intercourse and almost 2 times within the second year after having first sexual intercourse compared with young women that had not had first sexual intercourse. Therefore, the results suggest that first sexual intercourse seemed to have a more immediate effect on the likelihood to enter first partnership among young women than among young men. However, it is important to keep in mind that young women who did not enter partnership after first sexual intercourse might be less likely to report it.

Table 5.11 shows the time varying hazard ratios of the effect of other transition to adulthood on first birth for young men and women. Results showed that the transition with the most statistically significant effect on first birth was the previous experience of first partnership. The models showed that first birth was significantly more likely to occur within first partnership among both young men and women. Moreover, the highest time varying hazard ratios to enter childbearing were found within the first couple of years after first partnership. Young men's hazards ratios of first birth were on average higher than those of women after entry into first partnership, which most probably coincided with young men's acknowledgment of first birth. Regarding the effect of first sexual intercourse on the likelihood to enter parenthood, time varying hazard ratios were statistically significantly positive for young both young men and women, but particularly high for young women shortly after the experience of first

sexual intercourse. The results suggest a "bunching" of family formation transitions among young women, with the experience of first birth shortly after first sexual intercourse and first partnership compared with young men. Table 5.11 also shows that both young men and women no longer living in the parental home were more likely to experience first birth compared with young people that had not left the parental home. The highest likelihood was reached within the first year after having left home, coinciding with its close relationship with first partnership as well.

Regarding the effect of other social transitions, leaving education positively affected the likelihood of experiencing first birth for both young men and women. Nevertheless, entry into the labour force presented different effects between young men and young women. In case of young men, first birth was more likely to occur after having entered the labour force. In contrast, among young women, entry into the labour force delayed the experience of first birth compared with young women that did not enter into the labour force. Time varying hazard ratios showed that first birth was reduced within the first couple of years after having entered the labour force, but the likelihood to experience first birth increased within 3 or more years after having entered the labour force. The results confirm the strong family formation orientation of young women in Mexico, as they commenced the family formation process shortly after leaving education without entering into the labour force. However, the results also showed that among young women, labour force participation not only delayed first partnership (Singh and Samara 1996), but motherhood as well.

In relation to individual and family level covariates, the effect of birth cohort was also statistically significant on the experience of family formation transitions. Table 5.9 shows the importance of birth cohort in delaying first sexual intercourse among younger cohorts of both young men and women, partly as the result of later marriage and cohabitation in Mexico (Quilodran 2001). However, when introducing parental home leaving as a time varying covariate on the model to estimate the likelihood of young women to experience first sexual intercourse, the results showed that younger cohorts of women slightly increased the likelihood of first sexual intercourse (after controlling the effect of leaving home and other covariates) compared with older cohorts of women. The results suggest the simultaneity also with entry into first partnership. Nevertheless, the results also suggest that young women were more likely

to experience first sexual intercourse when they were no longer living in the parental home given a more liberal attitude of younger women toward experiencing premarital first sexual intercourse. Regarding the effect of birth cohort on first partnership and first birth, the change in patterns of union formation in Latin America have shown that age at marriage continues to increase (Quilodran 2001). This finding was confirmed by the models, which showed that in general younger cohorts of both young men and women were less likely to enter first partnership and first birth. In addition, the results confirmed previous evidence that has shown that prolonged participation in the educational system led to younger cohorts experiencing later age at marriage (Billari 2001a). The results here showed that this seemed to be also the case among younger birth cohorts of Mexican young men and women. However, younger birth cohorts were more likely to enter first partnership given first birth (Table 5.10), and only increased the likelihood to enter first parenthood given first partnership (Table 5.11), but not after the experience of other transitions. Thus, results suggest that younger birth cohorts of both young men and women were more likely to experience family formation transitions shortly after the experienced of first partnership and first birth, respectively.

Area of residence had an important effect on the pace of family formation transitions between urban and rural respondents. Due to a more established "traditional" norms in rural contexts, rural young men and women showed a negative impact on first sexual intercourse compared with their urban counterparts (Table 5.9). In the analysis carried out to estimate the likelihood to enter first partnership, rural area of residence was not statistically significant among young men (Table 5.10), with the exception of the model that tested the effect of first birth on first partnership. The results showed that young men living in rural areas of residence were less likely to enter first partnership if they had previously entered fatherhood. The results showed the importance of social transitions - in this case attending education and entering the labour force - on delaying first partnership among rural young women. Nevertheless, the results also showed that the likelihood to enter first partnership significantly decreased among rural young women by 9% after having first sexual intercourse and by 21% after having a baby compared with urban young women. The results suggest that rural young women that did not follow an established norm in terms of a more order sequence in the experience of family formation transitions delayed these processes.

Existing evidence from other developing countries has placed rural young women earlier into first partnership than urban young women (Bloom and Reddy 1986; Lloyd and Grant 2004) as well as into first birth (Bloom and Reddy 1986; Singh 1998). However, rural areas of residence also lacked statistically significance on the likelihood to enter parenthood among both young men and women (Table 5.11). The results suggest that the experience of other transitions before entering parenthood equally affected urban and rural young men and women. The only significant value was found on the likelihood to enter first birth after leaving education for young rural women, which showed the delay that these young women had on the likelihood to enter motherhood after leaving education (Table 5.8). Time varying hazard ratios suggest the importance of educational attainment in delaying family formation transitions in rural areas of residence. The results to a certain extent both confirmed and contrast other patterns identified for Mexico (Echarri and Perez Amador 2006). The authors found that rural area of residence delayed both first partnership and first birth among young women, but found no significance evidence among young men. However, the results presented in this analysis produced more accurate estimations of the effect of area of residence in relation to family formation transitions to adulthood in Mexico, as the models in this analysis controlled for the effect of the experience of other transitions, as well as other covariates.

Tables 5.9, 5.10 and 5.11 also show that respondent's educational attainment was a very statistically significant determinant on the likelihood of family formation transitions. Educational attainment worked in the opposite direction, i.e. more educated young men and women reduced the likelihood of first sexual intercourse compared with those with low educational attainment after controlling for other transitions to adulthood and other covariates. In addition, higher level of educational attainment significantly decreased the likelihood of entering first partnership among both young men and young women, confirming the existing evidence on both developed and developing countries regarding the delaying effect of educational attainment on age at first marriage (Marini 1984a; Lloyd and Mensch 2006). Moreover, the model also showed that young men and women with higher levels of educational attainment were significantly less likely to experience first birth compared with young men and women with lower levels of educational attainment. Therefore, the results confirmed the importance of educational attainment as a key determinant in reducing the likelihood of early family formation.

Regarding mother's age at respondent's birth, the different models showed that in general young men and women were likely to repeat their mothers' early family formation patterns in the experience of family formation transitions, i.e. the models showed that there was a significant negative association between mother's age at respondent's birth on the likelihood of first sexual intercourse, first partnership and first birth. Smaller age differences between mothers and respondents increased the likelihood of having first sexual intercourse compared with bigger age differences between mothers and respondents. In other words, being born to a younger mother represented a higher risk of experiencing first sexual intercourse than young adult children of older mothers. The results showed a higher statistically significant effect on first sex intercourse among young women than among young men (Table 5.9), suggesting that whereas young men were slightly affected on the likelihood of having first sexual intercourse by having a very young mother, young women were statistically more likely to repeat the early experience of first sexual intercourse by having a very young mother. In addition, both young adult sons and daughters of younger mothers were significantly more likely to enter first partnership compared with young adult children of older mothers (Table 5.10). Young adult sons and daughters of very young mothers were between 27%-42% and between 23%-34% more likely to enter first partnership depending on experiencing other transitions compared with young adult sons and daughters of older mothers, respectively. Mother's age at respondent's birth also proved to be a significant predictor of first birth after other transitions among young men. However, mother's age at respondent's birth was not statistically significance for the likelihood of first birth after controlling the effect of first partnership (Table 5.11), suggesting that first birth was more likely to occur after first partnership regardless of the age of respondents' mothers. In case of young women, the covariate also lacked statistical significance in the models to estimate the time varying effect of parental home leaving, first sexual intercourse and first partnership on the likelihood of first birth, all three transitions associated to the process of family formation. Results showed that there was not statistically significant evidence to suggest that young adult daughters of older women delayed the experience of first birth after leaving home, first sexual intercourse and first partnership. Therefore, regardless of the previous experience of leaving home, first sexual intercourse and first partnership, all young women alike

experienced first birth after these transitions whether young women had a very young mother or not.

The different categories of father's and mother's educational attainment showed certain differences depending on the outcome family formation transitions. When controlling for the previous experience of other transitions and other covariates, results showed that young men with highly educated fathers slightly increased the likelihood of first sex (Table 5.9). The result suggests a less traditional upbringing of highly educated fathers on their young adult sons towards the experience of first sexual intercourse. However, young men that had a mother with low and medium levels of education increased the likelihood to experience first sexual intercourse after controlling the effect of entry into the labour force and leaving the parental home. In case of young women, most categories of father's and mother's educational attainment did not show a significant impact on first sexual intercourse. This means that when we control for the previous experience of other transitions to adulthood before first sexual intercourse, young women were not affected by their parents' education on the likelihood to experience first sexual intercourse. Therefore, young men's results also confirmed existing evidence from New Zealand that has shown the link between an earlier sexual intercourse among men with low educated parents (Paul, Fitzjohn et al. 2000), but young women's evidence was not statistically significant enough to conclude the same. Father's educational attainment did not play a significant role on the likelihood of first partnership for neither young men nor young women. For young men, only having a mother with low educational attainment decreased the likelihood of first partnership (Table 5.10). However, mother's educational attainment did not play a statistically significant role on the likelihood to enter first partnership among young women after controlling for the previous experience of first birth. The likelihood to experience first birth did not appear to be affected by the educational attainment of the father nor the mother. In other words, regardless of socioeconomic status, young people were equally likely to experience first birth after controlling the effect of the earlier experience of other transitions.

Finally, the effect of family environment covariates was tested on the likelihood of first sexual intercourse, first partnership and first birth. After controlling for the previous experience of other transitions to adulthood, the results showed that parental

restriction turned out to be one of the most statistically significant determinants to experience family formation transitions. As see in section 5.3, the evidence confirms previous research on Mexico that found that young women living in restrictive families perceived early pregnancy and motherhood as a means to escape parental control or family instability (Stern 1995; Stern 2007). In addition, the results presented in this analysis also proved that young men statistically significantly increased the likelihood to experience family formation transitions due to a very controlled family environment (Tables 5.9, 5.10 and 5.11). The results showed that the effect of this covariate was more statistically significant on first partnership. Therefore, the evidence also showed that both young men and women with a very controlled family environment found in first partnership (Table 5.10) a way to leave a restrictive background within the family environment, which was also reflected on the likelihood to experience first birth. Given the strong relationship between first sexual intercourse, first partnership and first birth presented above, the results also showed that first sexual intercourse (Table 5.9) was strongly affected by parental restriction among both young men and women. In general, the different models showed that parental support had no effect on experiencing family formation transitions. Therefore, the evidence suggests that as young people with high levels of parental restriction tended to experience all three family formation transitions at very young ages possibly as a means to get away from poor family conditions, restrictive families of origin and parents did not constitute a support to enter first partnership (Table 5.10) nor to raise young people's children (Table 5.11).

To summarize, the determinants of family formation transitions seemed to act differently between young men and women. To begin with, young men were more likely to experience first sexual intercourse in combination with the role of student and worker, whereas young women were more likely to experience first sexual intercourse after leaving education. In case young women had entered the labour force, they were going to be more likely to experienced first sexual intercourse, but delayed both entry into first partnership and motherhood. Nevertheless, young women seemed to "bunch" the experience of family formation transitions after controlling the effect of other family formation transitions. For instance, young women showed higher hazard ratios to enter first partnership shortly after having first sexual intercourse compared with young men. In addition, young women immediately increased the likelihood on first sexual

intercourse given the experience of parental home leaving due to the simultaneity with first partnership compared with young men.

Results confirmed the importance of educational attainment as a key determinant in reducing the likelihood of early family formation, also reflected in the delays in family formation among younger cohorts as a consequence of the expansion of education. Although existing evidence from other developing countries has placed rural respondents earlier in the family formation process, the evidence was not statistically significant to come with a similar conclusion in the context of Mexico. Factors such as father's and mother's educational attainment mainly acted via respondent's own educational attainment. In general, young men and women were more likely to repeat their mother's patterns in the process of family formation. However, young women alike were not affected on the likelihood to enter motherhood after controlling the effect of parental home leaving, first sexual intercourse and first partnership, all three transitions related to process of family formation. Restrictive and controlled family environment backgrounds were associated with a premature experience of family formation transitions for both young men and women.

5.5 Conclusion

This chapter analysed the individual components of family formation transitions and the way these transitions interact between one another including individual and family level characteristics. The main findings showed that the process of family formation in Mexico has been characterized by patterns that constrained young men and women to assume the role of spouse and parent at early ages. However, the evidence not only showed that the commencement of family formation transitions occurred at very early ages, but that Mexican young men and women behaved differently in the process of family formation transitions. In developed countries, early sexual initiation has been associated with a rather slow pace of family formation (Miller and Heaton 1991). This also seemed to be the case for Mexican young men, particularly urban respondents. For most young men, first sexual intercourse occurred before entry into first partnership,

although first birth often occurred shortly after first partnership. In contrast, for most young women, first sexual intercourse was experienced largely simultaneously with entry into first partnership, and first birth often followed shortly after. Therefore, the main conclusion is that while young men prolonged the process of family formation, among young women it often was experienced immediate, i.e. once young women experienced one family formation transition, the rest typically followed without much delay.

The explanatory findings showed that family characteristics are responsible for experiencing family formation transitions. Not only young women living in restrictive families perceived early pregnancy and motherhood as a means to escape parental control or family instability (Stern 1995; Stern 2007). The results showed that young men were also very likely to follow the same patterns. Thus, both young men and women seek early family formation as a means to escape a restrictive family environment. Young men tended to become solo breadwinners among more conservative and traditional groups and young women became young housewives and mothers. Even though family background environment covariates turned out to be very important in the family formation process, the limitations of these two covariates as a comprehensive and reliable indicator of family background means that these results need to be interpreted with caution.

The analysis here shows that the experience of family transitions were more likely to occur after social transitions. Moreover, the effect of educational attainment and entry into the labour force tended to delay early family formation, particularly among young women. Consequently, there is a need for a policy change regarding education and employment opportunities for Mexican young people, especially for young women in rural areas. The empowerment of young women, in particular, is of upmost importance to make other options available other than the early experience of family formation transitions to escape parental control. More options will enable young people to break away from restrictive and controlled family backgrounds in order to break up the intergenerational patterns than constrain young people to early family formation. It is acknowledged that cultural values towards early family formation are deeply embedded in Mexico. Therefore, policies should work on changing attitudes towards a later experience in the process of family formation transitions.

After exploring family formation transitions to adulthood in Mexico, an important transition needs to be explored: parental home leaving. Parental home leaving has a sort of hybrid nature. Strictly speaking, leaving the parental home constitutes a social transition. However, in developing countries, parental home leaving has a very close relationship with family formation transitions, in particular, with entry into first partnership (De Vos 1989). The present chapter quantified the effect of parental home leaving on family formation transitions, in particular on entry into first partnership. Therefore, Chapter 6 quantifies the effect of first partnership on parental home leaving, as well as the rest of the social and family formation transitions to adulthood. In addition, it presents the outcomes of individual and family level factors that determine parental home leaving in Mexico.

Chapter 6. Leaving the Parental Home in Mexico: the Hybrid Nature of Leaving Home as a Social Transition and its relationship with Family Formation Transitions

This chapter deals with the last transition to adulthood included in this thesis: the experience of leaving the parental home for the first time. Leaving the parental home constitutes a very important marker in the transition to adult life. Leaving home helps to examine a series of issues involving marital union patterns (Aassve, Billari et al. 2002; Jampaklay 2006), educational attainment (White and Lacy 1997; Darroch 2001), employment (Aassve, Billari et al. 2000; Darroch 2001), and family structures (Aquilino 1991; Goldscheider and Goldscheider 1998).

Depending on the world region, leaving the parental home is usually linked with the experience of other transitions. Leaving the parental home is a transition regulated by social and institutional norms that vary from place to place (Ting and Chiu 2002). In most developed societies, including the U.S., Canada and Northern Europe, parental home leaving has been considered a launching process towards work and family formation (Goldscheider and Goldscheider 1998; Aassve, Billari et al. 2002; Billari 2004). Early departure from the parental home is considered to be beneficial to young people's growth and maturity when it is associated with entry into the work force or entry to higher education (Goldscheider and Goldscheider 1987; Darroch 2001). In Southern European countries, the impact of employment and income constitutes an important factors in young people's decision to leave home as well (Aassve, Billari et al. 2000; Aassve, Billari et al. 2002). Nevertheless, in these societies, the transition out of the parental home is often associated with family formation, which is characterized by entry into first partnership at older ages (Holdsworth, Voas et al. 2002; Billari 2004).

Recently, Holdsworth and Morgan (2005) have discussed the importance of leaving the parental home in the life course of young people. The authors have argued that in certain European societies, including the British and Norwegian, leaving home "*is not longer intrinsically related*" to other life course transitions, such as going to university or college, obtaining a first job, getting married or starting a partnership

(Holdsworth and Morgan 2005). However, it should be noted that leaving the parental home can also occur early due to a difficult family environment, reducing young people's chances of better education and work opportunities (Goldscheider and Goldscheider 1998).

In the context of developing countries, an interesting characteristic about leaving the parental home has been its "hybrid" nature. Even when this transition falls among the group of social transition, in most developing countries, the process of leaving the parental home has frequently been associated to entry into first partnership (De Vos 1989; Perez Amador 2004). Leaving home is a transition expected to be experienced once individuals obtain a job to accumulate the necessary resources to form a family and, in most cases, become residentially independent from their parents. However, leaving home turns out differently when young people contribute to the household economy. In Mexican society, leaving the parental home has usually been delayed (Perez Amador 2006) when young adult children contribute to the household income (Garcia and Pacheco 2000). This pattern has also been seen in societies like the Chinese, where leaving home is linked to a *filial* obligation (Ting and Chiu 2002). Although in Chinese society leaving home continues to be associated with the transition into marriage, leaving home has not gained popularity or has become a unique life style considering practical matters, such as the availability of housing, childcare needs and the availability of elderly care (Ting and Chiu 2002).

In Mexico, leaving the parental home continues to be highly associated to entry into first partnership (De Vos 1989; Echarri 2004; Perez Amador 2004). However, recent studies on women have shown that this pattern has been moving towards the experience of leaving the parental home to continue in education among urban young women and for job opportunities among rural ones (Perez Amador 2004). Although the role of employment on leaving the parental home has started to receive attention in the Mexican literature (Perez Amador 2006), few studies have paid attention to the effect of other transitions to adulthood on leaving the parental home. In the Mexican context, leaving the parental home requires further investigation to assess the relation between this transition and the rest of the transitions to adulthood, taking into account also young men's patterns. Therefore, the main objective of this chapter is to analyse parental home leaving and its relationship with other social and family formation transitions among

Mexican young men and women, taking into consideration a series of individual and family level factors. The main research questions guiding the analysis are the following:

- Did the process of leaving the parental home differ between young men and women and areas of residence?
- How did family characteristics affect the process of leaving the parental home?
- Was first partnership still the main transition associated to parental home leaving in Mexico?
- How was parental home leaving affected by the experience of other transitions to adulthood?

As previously mentioned (Chapter 1, Section 1.4.2), young people can leave home several times. Given the limitations of the available information, the analysis focused on leaving home for the first time. In addition, the analysis could not consider whether respondents were financially independent when they left home for the first time or not because of data limitations.

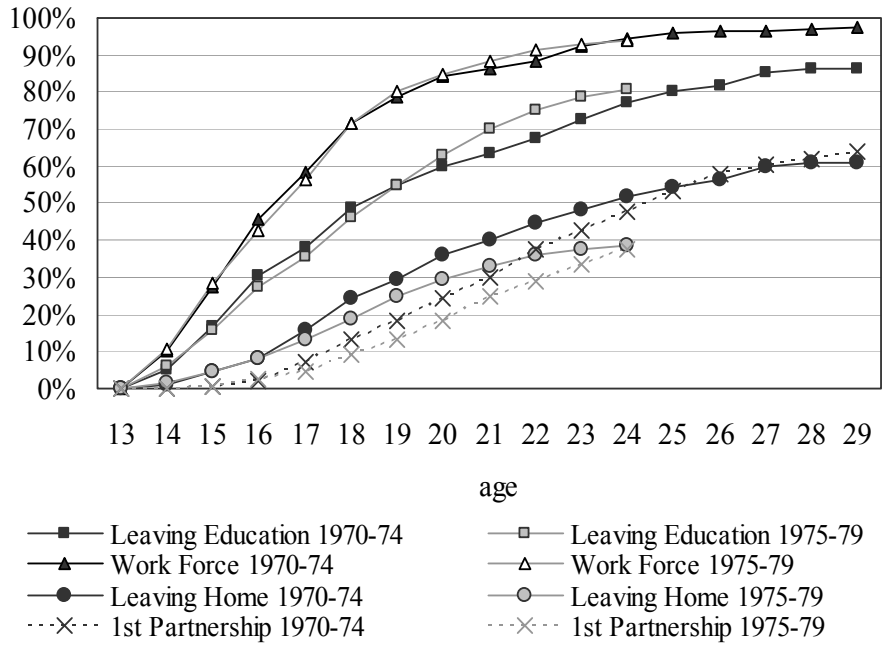
The chapter is divided into three main sections. The first part presents descriptive aspects of leaving the parental home. This first section begins with the timing of leaving the parental home in Mexico in relation to other social and family formation transition to adulthood among both young men and women. Given that the timings of the different transition do not produce estimations of the precise individual order between transitions, this section continues with the discussion of the sequencing between leaving the parental home in relation to leaving education, entry into the labour force, first sexual intercourse, first partnership and first birth. The second part deals with the explanatory factors that lead to parental home leaving in Mexico. This section begins by discussing the results of estimating the effect of both individual and family level factors on the likelihood of leaving the parental home. In addition, the effect of other transitions on parental home leaving is also quantified by estimating the time between the previous occurrences of other transitions on the likelihood of leaving the parental home using a series of Cox Regression Models. Finally, the conclusion wraps up the main findings.

6.1 The Timing of Parental Home Leaving in Mexico

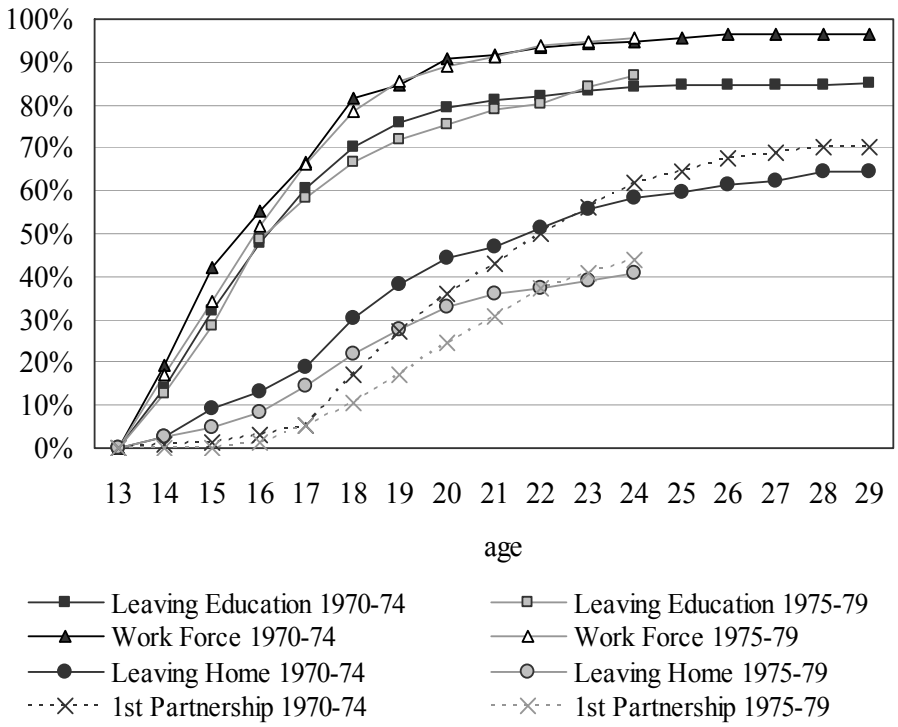
In order to estimate the cumulative proportions of young men and women that had left the parental home by different ages in relation to other social and family formation transitions, the analysis used Kaplan Meier failure estimates. In case of social transitions, Kaplan Meier failure estimates included failure curves for leaving the parental home as well as for leaving education and entry into the labour force. In case of family formation transitions, not all transitions were included. Given the association previously pointed by the exiting studies concerning leaving home and first partnership in the context of Mexico, only this last family formation was firstly examined by estimating the cumulative proportions of young men and women that had left the parental home in relation to the timing at experiencing first partnership by different ages. For all transitions included in this section, the starting age to analyse parental home leaving was set at age 13 and the ending age was 24 and 29 for cohorts born between 1975-79 and 1970-74, respectively, age at which respondents were last observed by the survey.

Figure 6.1 Kaplan Meier failure estimates of Mexican Young Men having left the parental home and having entered into First Partnership by gender, birth cohort and area of residence.

a) Urban Young Men



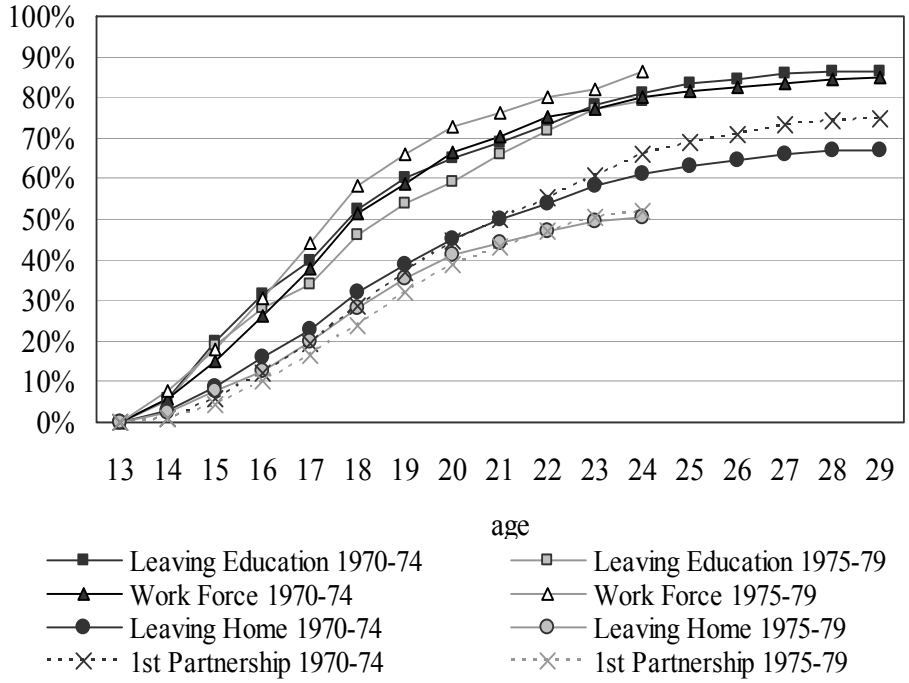
b) Rural Young Men



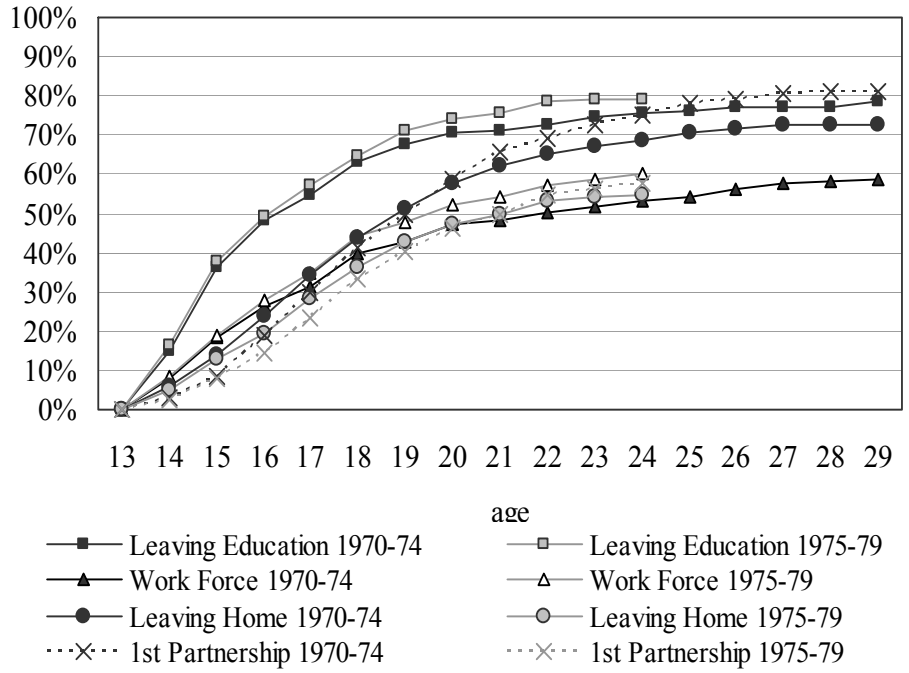
Source: Author's calculations based on ENAJUV 2000.

Figure 6.2 Kaplan Meier failure estimates of Mexican Young Women having left the parental home and having entered first Partnership by gender, birth cohort and area of residence.

a) Urban Young Women



b) Rural Young Women



Source: Author's calculations based on ENAJUV 2000.

Regarding the experience of leaving the parental home, Figures 6.1 and 6.2 show that the process of leaving the parental home for the first time started faster among young women. Young women showed higher proportions having left the parental home compared with young men. In addition, rural respondents presented higher proportions having experienced this transition by different years of age than urban ones. Therefore, rural young women were the earlier starters of parental home leaving, whereas urban young men were the last ones to leave home.

However, leaving the parental home was the social transition least experienced by young people in Mexico. Both urban and rural young men showed lower cumulative proportions for leaving the parental home than for leaving education and entry into the labour force (Figure 6.1). Whereas the experience of leaving education and entry into the work force showed high proportions during early teen years, cumulative proportions showed that young men started to experience parental home leaving during their late teen years. Thereafter, the increase in the proportions out of the parental home slowed down.

For young women, the experience of leaving home in relation to other social transitions was different compared with that of young men, particularly in relation to urban and rural residence. Leaving the parental home was also the social transitions least often experienced by urban young women. However, among rural young women, leaving the parental home followed second in place after leaving education (Figure 6.2). This pattern was found given the lower proportions of rural young women that entered the labour force after leaving education (section 4.2). Instead rural young women seemed to leave home given their entry into first partnership.

Figures 6.1 and 6.2 also show the patterns of parental home leaving in relation to entry into first partnership. Young men and women experienced different patterns of parental home leaving and first partnership. On one hand, the proportions of young men that had left home and had already entered into first partnership showed an important gap between transitions by different ages. In contrast, the proportions of young women were very similar for both transitions, suggesting[28] the simultaneous experience of parental home leaving in conjunction with first partnership. In other words, the results

[28] This conclusion is not based on whether one event occurred before the other, since this can not be established from univariate analyses such as this.

suggest that young women left the parental home simultaneously with first partnership, whereas young men often left the parental home long before experiencing first partnership or, as age progress, delayed the experience of parental home leaving after entry into first partnership.

Figure 6.1 shows that up to age 25, older cohort of urban men showed higher proportions having left home compared with the proportions that had entered first partnership. After age 26, proportions in first partnership were higher than proportions out of the parental home. Older cohorts of rural young men showed the same pattern. However, the shift backward occurred at a younger age. Up to age 22, older cohorts of rural men showed higher proportion having left the parental home than in first partnership. The same pattern was found among younger cohort of rural men. Nevertheless, younger cohort of urban men persistently showed higher proportions having left the parental home than in first partnership by different ages, suggesting a period of independent living. As rural young men experienced the transition into first partnership earlier than urban young men, this shift was seen earlier. These shifts suggest that many young men did not leave the parental home after first partnership and instead brought into the parental home their spouses, confirming that many women were often likely to move into their spouses parent's residence at first partnership (Echarri 2004).

Figure 6.2 shows that urban young women delayed both parental home leaving and entry into first partnership compared with their rural counterparts. At younger ages, the proportions of older cohorts of urban young women that had left the parental home by each age were slightly higher than the proportions already in first partnership. However, at older ages the relationship between these two transitions shifted. In addition, younger cohorts of urban women showed this shift at a slightly later age than older cohorts of urban young women (23 years old vs. 22 years old, respectively). Rural young women showed this shift at a slightly younger age than urban respondents. In addition, younger cohorts of rural women showed a more pronounced delay in the shift between this pair of transitions. Older cohorts of rural women showed this shift by age 20, whereas younger cohorts of rural young women showed the shift by age 22.

To sum up, rural young women left the parental home earlier, whereas urban young men were the last ones to leave home. Leaving the parental home was the social

transition least often experienced by young men in Mexico and also by urban young women. However, among rural young women, leaving the parental home followed second in place after leaving education since many rural young women did not enter the labour force after leaving education. The results suggest[29] that young women left the parental home simultaneously with first partnership, whereas young men often left the parental home long before experiencing first partnership.

Kaplan Meier failure estimates such as those presented in Figures 6.1 and 6.2 produced cumulative proportions of the experience of transitions without producing information on the exact individual order of transitions between leaving the parental home and the rest of the social and family formation transitions. Therefore, the following section deals with the sequencing between parental home leaving and the other social and family formation transitions to adulthood.

6.2 Sequencing between Parental Home Leaving and Other Transitions to Adulthood

In order to place the occurrence of leaving the parental home in relation to other social and family formation transitions in Mexico, Table 6.1 shows the distribution of young men and women in the exact individual order of transitions in the experience of parental home leaving and the rest of the transitions to adulthood by age 21. Apart from the gender differences, the distribution also presents information by area of residence and birth cohort.

Table 6.1 shows that by age 21 leaving the parental home had occurred predominantly after leaving education (Tx→H). Young women showed higher proportions than young men following this pattern, and rural respondents compared with urban ones. In addition, younger cohorts showed lower proportions having left home after leaving education, suggesting a postponement of parental home leaving among younger cohorts. On the other hand, proportions that had left home before

[29] This conclusion is not based on whether one event occurred before the other, since this can not be established from univariate analyses such as this.

(H→Tx), simultaneously (HTx) or without leaving education (H) were very similar between young men and women and higher among urban respondents than rural ones. However, there were no important differences between younger and older cohorts of men and women that had left home before leaving education by age 21 (H→Tx). Moreover, proportions of urban and rural young men and women that had left home by age 21 without leaving education (H) were lower among younger cohorts. Despite the argument that parental home leaving in Mexico is occurring more to continue in education (Perez Amador 2004), these results suggest that the continuation of education after leaving home was not more common for younger cohorts compared with older ones, and in many cases, it even dropped for younger cohorts (H).

Table 6.1 also shows that parental home leaving had mainly occurred after young men and women had entered the labour force (Tx→H). Nevertheless, two sequences showed important differences between young men and women in different areas of residence. The first one reflected the still established and "traditional" roles for young women regarding the exclusion from the labour force given family formation transitions, particularly among rural young women. For instance, both urban and rural young women showed higher proportions having left the parental home without entering the labour force by age 21 compared with young men. The result suggest that young women often left the parental home simultaneously with the experience of first partnership, and therefore, they undertook household activities rather than entering the labour force. However, when rural young women entered the labour force, this transition tended to coincide with parental home leaving (HTx). The results suggest that given a lack of paid work opportunities for young women in rural contexts, these women tended to leave home the same year of age that they started to work.

Table 6.1 Distribution of Young People regarding order of Parental Home Leaving and other Transitions to Adulthood by age 21, by sex, birth cohort and area of residence.

Leaving Home (H) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young men										
Urban										
H→Tx	7%	8%	6%	5%	11%	9%	9%	7%	12%	9%
HTx (simultaneous)	4%	4%	6%	5%	9%	8%	13%	10%	3%	3%
H	10%	8%	3%	2%	5%	4%	20%	18%	28%	23%
Tx→ H	22%	16%	30%	23%	19%	15%	2%	2%	1%	1%
Tx	37%	43%	49%	56%	39%	40%	7%	8%	6%	6%
None	19%	21%	7%	8%	17%	24%	48%	56%	50%	58%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211	3,227	4,211
Rural										
H→Tx	5%	6%	6%	4%	11%	9%	12%	8%	17%	10%
HTx (simultaneous)	5%	3%	6%	7%	27%	21%	14%	9%	3%	3%
H	6%	5%	1%	2%	8%	9%	20%	20%	28%	25%
Tx→ H	33%	24%	35%	25%	8%	8%	3%	1%	1%	1%
Tx	45%	52%	48%	58%	16%	16%	11%	11%	7%	7%
None	6%	10%	3%	3%	31%	37%	40%	50%	44%	54%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	792	1,005	792	1,005	792	1,005	792	1,005	792	1,005

Continues on next page

Continuation Table 6.1

Leaving Home (H) & Transition Tx	Transition Tx									
	Leaving Education		Entry into the Labour Force		First Sexual Intercourse		First Partnership		First Birth	
	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79	1970-74	1975-79
Young Women										
Urban										
H→Tx	7%	8%	8%	8%	14%	13%	11%	9%	28%	22%
HTx (simultaneous)	6%	6%	7%	6%	11%	7%	29%	23%	6%	5%
H	10%	9%	13%	9%	6%	7%	11%	12%	18%	18%
Tx→ H	29%	23%	26%	22%	18%	12%	2%	2%	1%	1%
Tx	31%	35%	34%	41%	33%	34%	10%	10%	9%	9%
None	16%	19%	13%	13%	18%	27%	37%	44%	38%	45%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419	4,542	5,419
Rural										
H→Tx	6%	5%	8%	7%	14%	11%	14%	10%	40%	30%
HTx (simultaneous)	6%	6%	10%	9%	36%	27%	39%	29%	6%	5%
H	9%	6%	24%	16%	8%	9%	9%	11%	17%	16%
Tx→ H	44%	34%	22%	20%	7%	5%	2%	2%	1%	1%
Tx	29%	40%	21%	29%	13%	14%	9%	9%	8%	10%
None	6%	8%	14%	19%	23%	34%	27%	39%	27%	38%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479	1,101	1,479

Key: H= Parental Home Leaving; Tx= Other Transition.
Source: Author's calculations based on ENAJUV 2000.

Regarding the experience of leaving the parental home in relation to first sexual intercourse, the experience of parental home leaving at the same time as first sexual intercourse (HTx) was more common among rural young women than urban ones and among rural young men than urban ones (Table 6.1). Rural young women showed higher proportions in this sequence than rural young men. However, urban young men and urban young women showed very similar proportions having experienced both transitions simultaneously by age 21. In addition, rural young people in general showed higher proportions having left the parental home without having experienced first sexual intercourse (H) by age 21 compared with urban respondents, which showed very similar proportions between genders. In contrast, urban young men and women tended to have first sexual intercourse before leaving the parental home (Tx→H), suggesting a more liberal and less established upbringing in urban contexts for both young men and women.

Table 6.1 also shows that whereas leaving home and first sexual intercourse showed more marked differences regarding areas of residence, the variations between leaving home and first partnership were seen between genders. Moreover, urban young men and rural young women were consistent in the patterns regarding first sexual intercourse and first partnership in relation to parental home leaving. This was not the case for urban young women and rural young men. By age 21, most urban and rural young women had left the parental home jointly with first partnership (HTx). Consequently, whereas many rural young women had entered into first partnership, had experienced first sexual intercourse and had left home all together the same year of age by age 21, many urban young women had experienced first sexual intercourse before experiencing first partnership which occurred simultaneously with parental home leaving. For urban young men leaving the parental home had a weaker relationship with entry into first partnership compared with urban young women. The proportions of urban young men that had experienced both transitions the same year of age remained almost the same as the proportions seen between the simultaneous experience of leaving home and first sexual intercourse (HTx). However, the proportions of rural young men that had left the parental home the same year of age of entering first partnership (HTx) dropped to half compared with the proportions seen regarding the simultaneous experience of first sexual intercourse and parental home leaving. This result suggests that many young rural men that had left home by age 21, had not entered first

partnership (H). In addition, rural young men showed higher proportions having experienced first partnership and staying in the parental home compared with urban young men (Tx), suggesting the establishment of stem families.

In general, leaving home before, together, or without entering first partnership showed reductions for younger cohorts of both urban and rural young men and urban women. However, younger cohorts of rural young women showed a higher proportion having left home without entering first partnership (H) by age 21 compared with the rest of the respondents. This result suggests a delay in the experience of first partnership among younger cohorts of rural women, as these women were leaving home for different reason than first partnership.

Table 6.1 also shows that most young men that had left the parental home by age 21 had not entered parenthood (H). In contrast, young women showed the highest proportions having left home before entering motherhood by age 21 (H→Tx). In addition, young women presented higher proportions among those who had left home the same year of age of entering motherhood by age 21 compared with young men. Given the higher proportion in the initial state by age 21 (having experienced neither first birth nor parental home leaving) among both urban and rural young men and women, this showed a delay in the experience of first birth in relation to parental home leaving for younger cohorts of respondents. However, higher proportions of younger cohorts of rural women tended to experienced motherhood without leaving the parental home compared with older cohorts of rural women (Tx). This result suggests the difficulty for these women to leave home after childbirth perhaps for the support they were receiving from their parents to raise their child given the proportion of single mothers in rural areas seen in section 5.4.1.

Up to now, it is known that leaving the parental home predominantly occurred after leaving education and entering the labour force (to accumulate the necessary resources to form an independent home). The experience of parental home leaving simultaneously with first sexual intercourse was more common among rural respondents than among urban ones. In contrast, urban young men and women tended to have first sexual intercourse before leaving the parental home, suggesting a more liberal and less established upbringing in urban contexts. Whereas leaving home and first sexual intercourse showed more marked differences regarding areas of residence, the

variations between leaving home and first partnership were seen between genders. Many urban young women experienced first sexual intercourse before experiencing first partnership which occurred simultaneously with parental home leaving. Finally, most young people entered parenthood after leaving the parental home.

6.3 Individual and Family Determinants of Leaving Home in Mexico

This section presents the results from a series of Cox Regression Models used to estimate the main individual and family level determinants of parental home leaving in Mexico. Given the close link between parental home leaving and entry into first partnership (De Vos 1989), the entry age for the models was set at 13 years old. Exit time was given by the age at which respondents experienced the transitions or were last observed by the survey.

The covariates included in the models of parental home leaving among young men and women in Mexico were expected to have specific effects on the outcome variable. Based on the review of the literature presented in Chapter 2 and availability of information contained in the survey, the covariates included gender, birth cohort, area of residence, respondent's educational attainment, mother's age at respondent's birth, father's educational attainment, mother's educational attainment, level of parental restriction and level of parental support.

The results of introducing into the models individual level characteristics and family level characteristics are displayed in Table 6.2. The results showed that when all covariates were introduced into the models, some covariates did not show the expected effect based on the empirical findings shown in Section 2.5.2. Therefore, a series of models were tested in steps to estimate the confounding effect between covariates. In the first step, only the effect of gender, birth cohort and area of residence were considered on the likelihood of parental home leaving. The effect of educational attainment was introduced in the next step. The third step added the effect of mother's age at respondent's birth, father's educational attainment and mother's educational attainment, these last two as two separate covariates. Finally, covariates of family

environment background were introduced in the last step. The same procedure was followed in separate sets of models for young men and young women (see appendix Chapter 6).

Table 6.2 Cox Hazard Ratios for Leaving the Parental Home.

	Model H1		Model H2		Model H3		Model H4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	0.733***	0.032	0.747***	0.032	0.744***	0.031	1.240***	0.061
Women (ref.)								
Birth cohort	0.951***	0.007	0.956***	0.007	0.957***	0.006	0.960***	0.006
Area								
Urban (ref.)								
Rural	1.209***	0.043	0.935	0.039	0.945	0.039	0.912*	0.039
Respondent's Education								
Very low (ref.)								
Low			1.038	0.055	1.038	0.054	1.077	0.057
Medium			0.602***	0.036	0.597***	0.036	0.678***	0.040
High			0.211***	0.020	0.205***	0.021	0.267***	0.030
Mother's Age at Child's Birth								
Less 20 yrs					1.337***	0.079	1.204**	0.074
21-24 yrs					1.244***	0.060	1.193***	0.057
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.996	0.076	1.085	0.079
Medium					0.899	0.091	0.947	0.102
High					1.177	0.172	1.139	0.150
Mother's Education								
Very low (ref.)								
Low					0.895	0.068	0.984	0.074
Medium					1.121	0.130	1.101	0.135
High					1.084	0.168	1.070	0.188
Level of Restriction								
High							3.363***	0.225
Medium							1.422***	0.096
Low (ref)								
Level of support								
Low							1.015	0.054
Medium							0.932	0.057
High (ref)								
-2LL	101974.2		101022.5		100790.7		88404.9	
Chi square	115.6***		464.0***		545.1***		928.3***	
N	20761		20761		20722		18668	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table 6.2 shows the results from the Cox Regression Models for leaving the parental home in Mexico. Despite the previous evidence that has placed young women earlier into the process of leaving home (De Vos 1989; Goldscheider and Goldscheider 1991; Aassve, Billari et al. 2000), Model H4 showed that young men were more likely to leave the parental home compared with women after controlling for a range of covariates. However, the first three models (Models HI, H2 and H3) showed that young men were actually less likely to leave the parental home compared with young women as expected even with this range of controls. Consequently, the results suggest that after controlling the effect of parental restriction, young men increased the likelihood to leave the parental home compared with young women.

Younger cohorts of both young men and women were less likely to leave the parental home compared with previous cohorts (model H4). This finding is related to the important change in patterns of union formation in Latin America that have shown that age at marriage continues to increase (Quilodran 2006). However, it also reflects that home independence among young people was probably easier for older cohorts than younger ones. Therefore, after controlling the effect of family level covariates, the result reflects the fact that forming an independent home was probably easier for older cohorts of young people. Given the persistent economic crisis[30] in Mexico, the results also suggest that young people's home independence has been constrained seriously for younger cohorts of young people.

Regarding areas of residence, model H4 showed that rural respondents were slightly less likely to leave home after controlling for all control covariates. As previous research has shown that rural young people tend to live in stem[31] families (De Vos 1989), the results suggest that rural respondents took longer to leave home, particularly if they were contributing in the household economy (Garcia and Pacheco 2000). However, by looking at Table 6.3, area of residence showed a confounding effect with respondent's educational attainment, highly determined by areas of residence (see

[30] The most relevant for this study is the 1995 Mexican economic crisis. In December 1994, the government of Mexico decided to devaluate the Mexican peso. The crisis led to an increase in prices, the interruption of loans and mortgages, and high levels of unemployment. For the causes of the crisis and its effects on Mexican economy and other Latin American countries' economy, see http://www.monografias.com/trabajos5/crieco/crieco.shtml

[31] The stem family is described as a family type organized around the transmission of property from one generation to the next. The stem family is also described as a more flexible modification of the patriarchal type.

section 4.3). The results of model H1 showed that rural respondents, in fact, were 20% more likelihood to leave home compared with urban counterparts. Therefore, these results bring new evidence, contrasting with previous findings in the context of Mexico (Tuiran 1999; Perez Amador 2004; Echarri and Perez Amador 2006).

Confirming previous research from other developing countries (De Vos 1989), the models showed that highly educated young people were less likely to leave the parental home than young people with very low levels of education. Since young people that stayed longer in education delayed their entry into the labour force, the results were attributed to later partnership formation among highly educated young people (section 5.3). Even when entry into the labour force was experienced at an early age, given their higher educational attainment, family formation transitions were delayed and, in consequence, also parental home leaving. Thus, the accumulation of resources to move to an independent home, highly associated to a later age at family formation transitions, was also delayed. However, neither father's educational attainment nor mother's educational attainment were statistically significant predictors for leaving the parental home (Table 6.2)[32]. Therefore, the findings of the model for leaving home suggest that the reason behind early parental home leaving among respondents with low levels of education was highly associated with early family formation.

Mother's age at respondent's birth proved to have an important effect on leaving the parental home. Young adult children of very young mothers were more likely to leave home compared with young adult children of older mothers. As a result, young people whose mothers gave them birth at an early age tended to repeat their mothers' pattern in terms of early family formation and, consequently, also left the parental home at an early age.

Finally, covariates of family environment background showed that the level of parental restriction proved to be a very significant determinant on the likelihood to leave

[32] As in Section 5.3, in order to see whether the effect of father's and mother's educational attainment acted via respondent's educational attainment, a series of models were tested to estimate the effect of father's and mother's education removing respondent's educational attainment on the likelihood of leaving the parental home. The model showed that father's education and mother's educational attainment lacked any explanatory power on leaving the parental home (see Appendix Chapter 6). Given the high correlation usually associated between mother's and father's education, two separate sets of models were tested that included father's educational attainment alone and mother's educational attainment alone. The inclusion of these covariates excluding the other was carried out to test whether either one of them was statistically significant if included alone. Again, the results showed that in general the covariates lacked statistical significance testing each one at a time.

the parental home. As these covariates also turned out to be one of the most important determinants for entering first partnership (section 5.3), the results suggest that given a very restrictive and controlled family environment, young people sought independence from the parental home via entry into first partnership. On the other hand, the different levels of parental support showed no effect on leaving the parental home. Thus, the results did not produce statistically significant evidence to indicate that low parental support would speed parental home leaving nor that more supportive parents encourage their young adult children to form an independent residence.

In summary, early parental home leaving was associated to factors such as being female and residing in rural areas. However, young men living in a restrictive environment tended to accelerate parental home leaving. Birth cohort significantly proved to delay parental home leaving among younger birth cohorts. Educational attainment also proved to have a significant effect on leaving the parental home. For instance, early parental home leaving among respondents with low levels of education was highly associated with early family formation. In addition, respondents were very likely to repeat their mothers' patterns regarding parental home leaving. Factors such as poor family environment backgrounds accelerated the process of leaving the parental home.

6.4 Leaving Home in relation to other Transitions to Adulthood: The Effect of other Transitions to Adulthood on Leaving the Parental Home

In order to determine the time it was taking young men and women to leave the parental home after experiencing other transitions to adulthood, this section examines the main associations between leaving the parental home in relation to other social and family formation transitions by estimating the effect of other transitions to adulthood on leaving the parental home. It also estimates the effect of a range of individual and family level factors on the likelihood of leaving the parental home among young men and women in Mexico.

As in previous social transitions, the same analytical strategy was also applied when testing the relationship between leaving home and other transitions. The effect of other transitions on parental home leaving was quantified using Cox Regression Models. The analysis was run separately for young men and women, and the effect of each transition was tested one at a time. Each transition was introduced into its corresponding model as a categorical time varying covariates. In addition, the different models used as reference category respondents that had not experienced a given transition. Therefore, those respondents that experienced parental home leaving before a given transitions (H→Tx) were taken out of this analysis, as their effect was already measured on the outcome of other transitions given the prior experience of leaving the parental home. Consequently, sample sizes changed according to the timing of occurrence of each transition on parental home leaving.

Due to the hybrid nature of parental home leaving as a social transition but its relationship with family formation transitions in the context of Mexico, entry age into the models was set at 13 years old. Exit time was given by the age at which respondents experienced the transitions or were last observed by the survey.

This section also presents the results from the Cox Regression Models used to estimate the main individual level and family level determinants in the occurrence of parental home leaving in Mexico. Based on the review of the literature presented in section 2.4.2 and the availability of information in the survey, the covariates included gender, birth cohort, area of residence, respondent's educational attainment, mother's age at child's birth, father's educational attainment, mother's educational attainment, level of parental restriction and level of parental support.

Table 6.3 Cox Hazard Ratios for Parental Home Leaving in relation to other Transitions to Adulthood, by Gender.

	Young Men					Young Women				
Leaving Home after	**Transition Tx**					**Transition Tx:**				
Covariates	**Leaving Education**	**Entry into Work Force**	**First Sexual Intercourse**	**First Partnership**	**First Birth**	**Leaving Education**	**Entry into Work Force**	**First Sexual Intercourse**	**First Partnership**	**First Birth**
Birth Cohort	0.936***	0.940***	0.962***	1.014	0.975**	0.969***	0.967***	1.040	1.056***	1.034***
Area:										
Ref. Urban										
Rural	0.936	0.916	0.882*	0.908	0.912	0.989	1.013	1.058	1.061	0.874*
Respondent's Education										
Ref. Very Low										
Low	0.936	1.080	1.034	1.109*	1.252***	0.974	1.073**	1.043	1.075*	1.464***
Medium	0.702***	0.781***	0.784***	0.836**	0.855*	0.775***	0.823***	0.778***	0.779***	1.069
High	0.304***	0.315***	0.308***	0.324***	0.296***	0.398***	0.395***	0.372***	0.375***	0.385***
Mother's age at child's birth										
<= 20	1.217***	1.212***	1.155**	1.071	1.088	1.260***	1.258***	1.218***	1.157***	1.253***
20-24	1.107*	1.097*	1.081	0.974	1.024	1.134***	1.127***	1.088*	1.061	1.124*
Ref. => 25										
Father's Education:										
Ref. Very Low										
Low	1.079	1.073	1.061	1.036	1.040	0.963	0.984	0.925	0.940	0.997
Medium	1.216*	1.321**	1.269**	1.215*	1.316**	1.053	1.085	1.054	1.075	1.231*
High	1.044	1.102	1.132	1.268**	1.227*	1.113	1.150*	1.130	1.112	1.220*
Mother's Education										
Ref. Very Low										
Low	0.961	0.997	0.959	1.116	1.104	0.925	0.936	0.989	1.001	0.995
Medium	1.043	1.217*	1.127	1.365***	1.328**	1.139	1.186*	1.165*	1.180*	1.313**
High	1.207	1.226*	1.191	1.233*	1.289*	1.100	1.120	1.052	1.130	1.155
Parental Restriction:										
High	2.895***	2.888***	2.656***	2.350***	2.786***	2.860***	2.591***	2.257***	1.751***	2.238***
Medium	1.597***	1.605***	1.509***	1.434***	1.548***	1.189*	1.157*	1.169*	1.012	1.093
Ref. Low										

Continues on next page …

Continuation Table 6.3

	Young Men					Young Women				
Leaving Home after	**Transition Tx**					**Transition Tx:**				
Covariates	**Leaving Education**	**Entry into Work Force**	**First Sexual Intercourse**	**First Partnership**	**First Birth**	**Leaving Education**	**Entry into Work Force**	**First Sexual Intercourse**	**First Partnership**	**First Birth**
Family Support:										
Low	1.085	1.059	1.035	1.046	1.068	1.096**	1.112**	1.122**	1.139***	1.045
Medium	0.926	0.921	0.916	0.909	0.904	0.990	0.993	1.006	1.003	0.996
Ref. High										
Time between transitions: ***Ref. not having experienced transition Tx***										
0 yrs(++)	0.580***	0.932	1.975***	2.110***	0.720***	0.614***	0.457***	4.507***	4.784***	1.314***
1 yr	1.493***	1.627***	3.212***	2.255***	1.390*	1.705***	1.203**	6.346***	3.275***	1.296*
2 yrs	1.291**	1.435**	3.298***	1.754***	1.216	1.558***	1.272***	3.288***	1.116	0.556**
3-4 yrs	1.135	1.593***	2.993***	1.034	1.019	1.360***	1.319***	1.859**	0.602***	0.424***
5-6 yrs	1.061	1.669***	3.098***	0.724	0.514*	1.238**	1.314***	1.405**	0.551**	0.456***
7+ yrs	0.965	1.737***	2.600***	0.577*	0.669	0.968	1.082	0.979	0.316***	0.306***
-2LL	25612.61	28140.65	24615.84	22466.50	16214.20	43760.47	42661.37	40641.27	39537.92	18569.37
Chi square	1301.25***	1283.79***	1226.70***	1096.15***	623.57***	2239.63***	2207.45***	3131.28***	3581.38***	772.06***
N	7138	7411	7019	6753	6013	9533	9412	9234	9134	6647

*** p < 0.001; ** p < 0.01; * p < 0.05.
(++) Note: hazard ratio at time 0 are subject to interpretation based on the effect on the assumed order between events, which might not be the real sequence and should be interpreted with caution.
Source: Author's calculations based on ENAJUV 2000.

Table 6.3 shows that family formation transitions had the strongest positive impact on leaving the parental home among both young men and women. Among young men, the transition that had the most statistically significant immediate effect on leaving home was entry into first partnership. The likelihood to leave the parental home increased more than twice the same year and within one year after forming a marital/non-marital union compared with single male respondents. The likelihood remained high within the second year as well. Time varying hazard ratios also showed the positive effect that represented first sexual intercourse on the likelihood to leave the parental home for young men. Therefore, leaving home was more likely to occur after first sexual intercourse, implying that first sex occurred while young men were still living in the parental home and long before entry into first partnership (as seen in section 5.4.2.). According to the results, leaving the parental home was almost twice more likely to occur simultaneously with first sexual intercourse, but increased significantly more than 3 times within 1 or more year after first sexual intercourse.

In case of young women, not only first partnership statistically significantly increased the likelihood to leave the parental home. First sexual intercourse also proved to be one of the most important transitions to leave the parental home. The results showed that the likelihood to leave home after first partnership increased more than 4 times the same year of first partnership and more than 3 times the following year after first partnership compared with young women that had not entered first partnership. Moreover, the hazard ratios showed that the likelihood to leave the parental home increased more than 4 times the same year of first sexual intercourse and more than 6 times the year following first sexual intercourse compared with young women that had not experienced first sexual intercourse. Thus, the result suggests that young women who became sexually active while still living in the parental home, speeded significantly the likelihood to enter first partnership (as seen in section 5.4.2) and, consequently, parental home leaving.

First birth presented different effects on leaving the parental home between young men and women. While among young men first birth did not affect immediately the likelihood to leave the parental home, among young women first birth speeded the likelihood to leave the parental home the same year of entering motherhood. Among young men, leaving home was less likely to be experienced the same year of first birth,

but this family formation transitions affected positively parental home leaving after 1 or more years after first birth. In contrast, among young women, leaving the parental home was 25% more likely to occur simultaneously with first birth. However, after three or more years of entering motherhood, young women reduced the likelihood to leave the parental home, suggesting that if young women did not speed parental home leaving immediately after the birth of the first child, they were going to be less likely to leave the parental home afterwards.

Regarding the effect of other social transitions on leaving the parental home, the results showed that unlike family formation transitions, leaving the parental home was more likely to occur after other social transitions to adulthood. The time varying hazard for leaving the parental home increased after leaving education compared with respondents that had not left education. Among both young men and women the highest relative risk was found shortly after leaving education (year 1). However, young men statistically significantly increased the relative risk only shortly after leaving education compared with young women who kept statistically significant higher relative risks for longer periods of time. Table 6.3 suggests that whereas young men were more likely to leave home shortly after leaving education for other reasons rather than the experience of family formation transitions, young women´s main motive to leave the parental home was to start the process of family formation.

Entry into the work force showed a very strong positive impact on leaving the parental home that was in fact kept high over time in contrast with the pattern seen after leaving education. Time varying hazard ratios showed that young people increased the relative risk to leave the parental home after having entered the labour force, with young men reaching the highest relative risk after 7 or more years of having entered the work force. Among women, the strongest positive relative risk was reached faster (within 3-4 years after having entered the labour force). The results suggest that once young men and women accumulated the necessary resources, they achieved residential independence away from the parental home. Nevertheless, the process worked differently between young men and women. Young men's relative risk was stronger than that of young women, which suggests that young men still were primary breadwinners in the process of leaving the parental home between young men and women. Although the results confirmed the positive association found by Perez Amador

(2006) between entry into the work force and parental home leaving, the results presented in this analysis contradict the discrete increasing trend over longer periods of time found by the author, by treating the covariate as a numerical discrete covariate. However, the results of the present analysis showed that for young men the coefficients did not increase constantly by duration since experiencing the transition into the labour force, while young women's time varying hazard ratios rose and then fell by duration since experiencing the transition into the labour force.

The result of introducing individual level characteristics and family level characteristics into the models are also displayed in Table 6.3. After controlling for the effect and significance of other transitions on leaving the parental home, most covariates kept the qualitative effect previously seen in Table 6.2. However, the qualitative effect and significance of some covariates showed more significant changes. For instance, after controlling for the effect of family formation transitions, the effect of birth cohort behaved differently between young men and women (Table 6.3). The models showed that younger cohorts of men were less likely to leave the parental home after family formation transitions. The model did not produce statistically significant evidence for birth cohort when controlling the effect of first partnership on leaving the parental home. Therefore, the results suggest that the association between this pair of transitions remained unchanged for older and younger birth cohorts of men, as parental home leaving was going to occur after first partnership anyway. In case of young women, birth cohort behaved in the opposite direction. In other words, younger cohorts of women were statistically significant more likely to leave the parental home due to first partnership and first birth after controlling for other covariates. Previous evidence has shown that many women that enter first partnership follow their exit from home either to and independent home or move into their spouses parents' residence (Echarri 2004). Results suggest that this seemed to be the case for young women and, in particular, results showed that younger cohorts of women were more likely to move more towards the experience of leaving the parental home due to first birth compared with older cohorts.

In case of area of residence, the results did not show statistically significant evidence to confirm differences between urban and rural young men and women on the relative risk for leaving the parental home after controlling the effect of the previous

experience of other transitions to adulthood and other covariates. Consequently, both urban and rural young men behaved similarly with respect to the experience of parental home leaving after other transitions.

Regarding the effect of respondent's educational attainment, after controlling the effect of first birth, both male and female respondents with low levels of educational attainment were 25% and 46% more likely to leave the parental home compared with respondents with very low levels of educational attainment, respectively. These last results suggest that leaving home implied that people from less privileged backgrounds that achieved lower levels of education were more likely to leave home still highly associated to early family formation. Nevertheless, parental home leaving was going to be less likely among the least privileged (very low educational attainment), tending to live in stem families (De Vos 1989).

In case of mother's age at respondent's birth, the results showed that the covariate affected differently parental home leaving between young men and women. After controlling the effect of first partnership and first birth on leaving home, young men did not show statistically significant results. However, young adult daughters of very young mothers statistically significant increased the relative risk to leave home after controlling the effect of family formation transitions and all the other covariates. The results implied that whereas young men were not affected on the relative risk to leave the parental home by having young mothers, young women were influenced by the early patterns experienced by their own mothers. On the other hand, both young men and women with younger mothers were significantly more likely to leave the parental home compared with young adult children of older mothers. The result suggest that after leaving education and entry into the labour force young men and women with very young mothers replicated their mothers' early patterns of family formation and, consequently, also left the parental home at an early age.

In general, the effect of fathers' educational attainment on the likelihood for leaving the parental home was stronger compared with the effect of mother's educational attainment. In addition, father's educational attainment proved to be an important factor for leaving the parental home mostly among young men. The results showed that young men with more educated fathers increased the relative risk of leaving the parental home after controlling the effect of other transitions and other covariates,

mainly first partnership and first birth. The results suggest the importance of better socio-economic condition in the family formation process on the likelihood to leave the parental home. In other words, whereas young men with more resources were more likely to leave the parental home for family formation or periods of independent living, young men with fewer resources were less likely to leave the parental home. The patterns among young women differed compared with those seen among young men. For instance, results showed that the effect of higher paternal educational attainment only increased the relative risk of young women to leave the parental home after controlling for first birth. The results suggest that parental home leaving was not affected by father's educational attainment on the process of family formation given that young women from different social backgrounds would leave home given family formation. However, better-off women seemed more likely to seek parental independence after the experience of the birth of the first child.

Finally, the level of parental restriction proved to be a very significant determinant for leaving the parental home after controlling for the experience of other transitions and other covariates. After controlling the effect of entry into the labour force, first sexual intercourse, first partnership and first birth, the effect of highly restrictive parents was stronger among young men than among young women (Table 6.3). The results suggest that as more young women left home given family formation, living in a restrictive family environment turned out to be more significant among young men than among young women. In other words, young men living in more restrictive families were more likely to seek residential independence compared with young women. On the other hand, the different levels of parental support showed different effects between young men and women. In case of young men, the evidence did not produce statistically significant results. However, among young women, having a less supportive family environment increased the relative risk for leaving home after controlling the effect of other transitions, except for first birth. The results suggest that given the relationship between parental home leaving and entry into first partnership, young women were more likely to seek an independent residence away from the parental home in order to escape a poor family environment. However, the evidence was not statistically significant to conclude that young women were more likely to leave home after controlling for first birth given a low supportive family environment.

To sum up, as young people need resource to leave home, this transition was more likely to occur after other social transitions, particularly entry into the labour force. Leaving home was more likely to occur after first sexual intercourse among young men, implying that first sex occurred while young men were still living in the parental home and long before entering first partnership. Young women who became sexually active while still living in the parental home, speeded significantly the likelihood to enter first partnership and, consequently, parental home leaving as well. The effect of entry into first partnership on leaving the parental home was significantly stronger on young women than on young men. Among young men first birth did not affect immediately the likelihood to leave the parental home, whereas among young women first birth speeded the likelihood to leave the parental home the same year of entering motherhood. Among young men, factors such as belonging to an older cohort, having very low educational attainment, being born to a very young mother, having low educated parents and living in a restrictive family environment were associated to earlier parental home leaving. The likelihood to leaving home increased if young women belonged to a younger birth cohort, resided in rural areas, obtained low educational attainment, were born to very young mothers, had low educated parents, and lived in very restrictive and unsupportive family background environments.

6.5 Conclusion

The main aim of this chapter was to examine how the transition out of the parental home was experienced by Mexican young men and women. The analysis showed that Mexican young men and women behaved differently in the process of leaving the parental home. Some young men left the parental home for a period of independent living long before entering first partnership. However, other young men did not leave home after first partnership, suggesting the formation of stem families within the parental household, especially among rural young men. In contrast, for young women, leaving the parental home was strongly associated with the process of family formation, which seemed consistent with previous evidence that has shown that many

young women tended to move out of the parental home and into the spouse's home - either to an independent residence or to the partners' parent's home (Echarri 2004).

Parental home leaving has been linked to other social transitions to adulthood (Perez Amador 2004; Perez Amador 2006). The findings confirmed the importance of entry into the labour force as an important determinant for leaving the parental home among young men. The findings suggest that young men needed time to accumulate resources in order to move away from the parental home, whereas young women's transition out of the parental home was associated with the process of family formation. However, the evidence showed that first sexual intercourse also constituted a very important determinant for leaving the parental home in Mexico. Whereas for urban young men and women, leaving home occurred long after having first sexual intercourse, it seemed that for rural young men and women, first sexual intercourse constituted a very important trigger for leaving the parental home. In case of young women, reported age at first sexual intercourse seemed to trigger first partnership and, in consequence, parental home leaving as well. These results need to be interpreted with caution due to the possible reporting problems of first sexual intercourse.

Partly attributable to a later age at entry into first partnership and partly attributed to other factors such as the persistent economic crisis[33] in Mexico, parental home leaving was the least common social transition experienced by young men and women in Mexico. Preferences play an important role in later partnership formation. However, economic conditions also play in important role. Resources are necessary to leave the parental home, very closely tied to the process of family formation in Mexico. Therefore, in terms of policy implications the results suggest that independent parental home leaving was easier for older cohorts than younger ones. It is acknowledge that given the globalization of the world economy, independent factors are affecting the financial policies at a national level. Nevertheless, it is important to address policies at a micro level to operate an effective system of housing credits to the new generations to provide them with affordable housing.

Having established the main associations between social and family formation transitions to adulthood, the following chapter establishes the main trajectories to

[33] See footnote 31, p. 225.

adulthood among young men and women in Mexico by integrating the outcomes of the individual components of the trajectories to adulthood.

Chapter 7. Trajectories to Adulthood of Mexican Young Men and Women

This chapter presents the main trajectories to adulthood that young men and young women in Mexico experienced during their transition to adulthood. Previous chapters examined the main patterns amongst groups of transition to adulthood and quantified the time varying effect of transitions upon one another. Therefore, the chapter brings together the main patterns between social transitions and family formation transitions integrating them into an analysis of the overall set of trajectories to adulthood.

As previously mentioned (Chapter 2, section 2.1), the origins of the life course research considered a socially expected trajectory to adulthood (Panel on Youth 1974). Research proved that this was not the case, as not everyone experiences all transitions to adulthood. Moreover, transitions occurred in off sequence trajectories (Neugarten and Datan 1973; Hogan 1978; Marini 1984; Hogan and Astone 1986). Recently, research on developed countries has showed the diversity of patterns in the trajectories that young people experienced in the transition to adulthood (Aassve, Billari et al. 2007; Robette 2008).

Different world regions have shown characteristic patterns in their trajectories to adulthood. For instance, in developed societies young men's trajectories have been moving towards the postponement of entry into adult roles (Robette 2008). In the same line of research, it has been found a great diversity of trajectories followed by French women mainly linked to the orientation between work and family trajectories (Robette 2008), with a rise of a "modern" pathway, characterized by non-marital unions and significant postponement of childbearing. Research on the sequencing of British women's trajectories into the labour force and family formation transitions has found that trajectories have been characterized by a strong preference towards ''work-oriented" trajectories (Aassve, Billari et al. 2007). The research also found little evidence of women with a purely "family" orientation in contemporary Britain. In contrast, the Latina American region is still characterized by traditional gender roles.

For instance, Colombian young women have presented multiple trajectories with a strong family orientation and a small preference towards work roles (Florez and Hogan 1990).

Consequently, the aim of this chapter is to determine the main trajectories of social and family formation transitions to adulthood that young men and women in Mexico experienced. Therefore, a series of questions are addressed:

- How were social and family formation transitions shaping trajectories to adulthood among young men and young women in Mexico during the 1980s and 1990s?
- What were the most common trajectories to adulthood that young men and women in Mexico experienced in their transition to adulthood? Were there marked differences between genders?
- At the same time, one important issue needs to be addressed: What could be defined as the "socially expected hypothesized" trajectory to adulthood in Mexico, and if such concept exits?

Given the patterns seen in previous chapters, trajectories are expected to reflect the social and family formation orientations of young men and young women in Mexico. Based on the sequences of transitions explored so far, it is expected to find different sequences in the occurrence of social and family formation transitions. In addition, a gender component in the study of trajectories to adulthood is considered to be of key importance. Given the gender differences in the experience of the various social and family formation transitions between young men and women in Mexico, specific trajectories are expected to be highly associated to each gender.

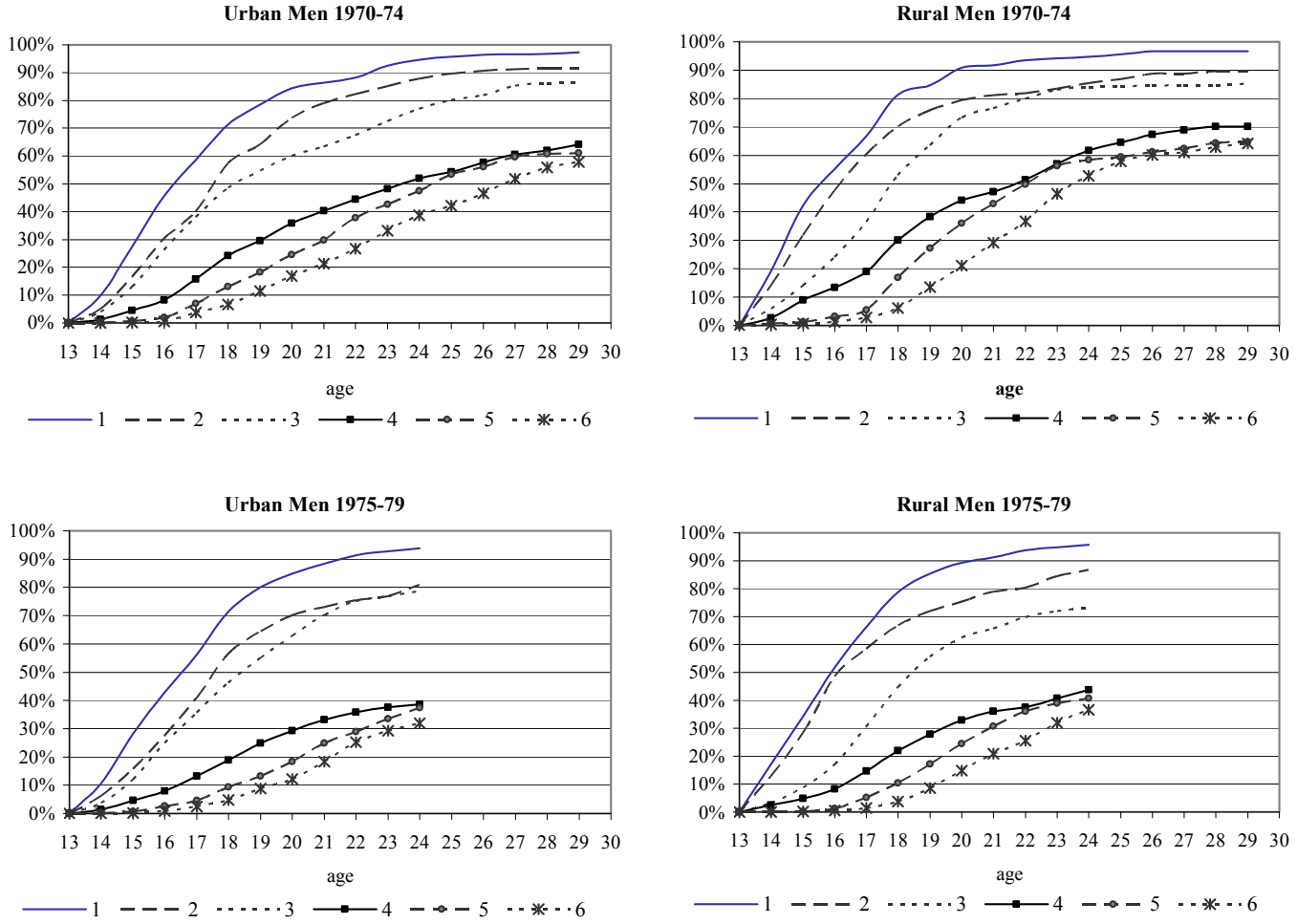
The chapter is divided into four main sections. In order to determine complete trajectories, the first section presents a simple description of number of transitions experienced by age. As a result, the cumulative number of transitions is examined to identify complete and incomplete trajectories towards adulthood according to age. This section continues with the analysis of the first transition that leads to the rest of the transitions to adulthood. The next section describes the main clusters of trajectories experienced by young people in Mexico. As gender differences were seen in the

experience of individual transitions to adulthood, the analysis was undertaken separately for young men and young women. Therefore, the results are presented also separately in two sub-sections, each corresponding to young men and young women, respectively. The following section discusses the importance in the timing of different transitions in determining future outcomes in adulthood, particularly the role of educational attainment. Finally, the main conclusions are derived from the results of the analysis.

7.1 Number of Transitions to Adulthood by Age

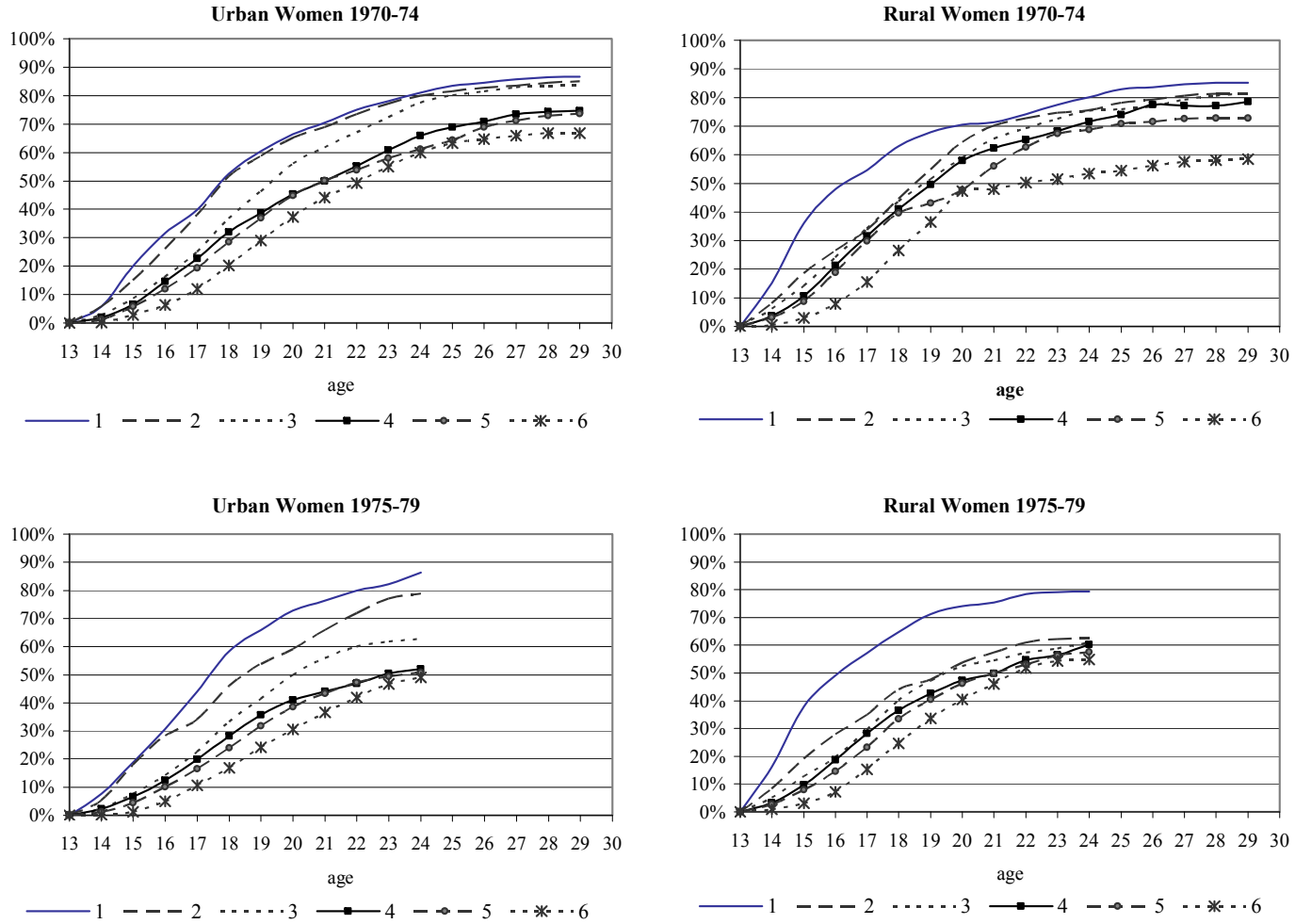
A simple measure of the progress of transitions to adulthood was obtained by estimating the cumulative distribution functions for the six social and family formation transitions and generating the intersection among functions for each number of transitions experienced by age. As family formation transitions were analysed starting at age 13, the intersection of groups began also at the same age by left truncating the information before age 13. Given the right-censored effect of the date of the survey on younger cohorts, the age at the survey had an important impact on the number of social and family formation transitions experienced by different birth cohorts. Therefore, the results from different cohorts are presented separately, but results up to age 24 are comparable for urban and rural areas of residence and for young men and women. Figure 7.1 and Figure 7.2 show the proportions who had experienced at least the given number of transitions (i.e. 2 transitions mean at least 2 transitions and not necessarily exactly 2 transitions).

Figure 7.1 Young Men's Cumulative Proportions of Number of Transitions experienced by Area of Residence and Birth Cohort.



Source: Author's calculations based on ENAJUV 2000.

Figure 7.2 Young Women's Cumulative Proportions of Number of Transitions experienced by Area of Residence and Birth Cohort.



Source: Author's calculations based on ENAJUV 2000.

The curves show the cumulative proportions of the number of transitions that were experienced at different ages. For instance, 95% of urban young men from older cohorts had experienced at least one transition, and 39% had completed all six transitions to adulthood by age 24. Also by age 24, 94% of urban young men from younger cohorts had experienced at least one transition, whereas 32% had completed all six transitions.

The cumulative proportion of the number of transitions experienced by age showed important differences between young men and young women. Young men presented higher cumulative proportions having experienced up to three transitions to adulthood, but showed lower proportions for the experience of four or more transitions to adulthood. The gap between curves showing the occurrence of the first three and the remaining transitions suggests a delay between the experience of transitions, and consequently more prolonged trajectories to adulthood.

In the case of young men, the figures show a steep rise in the proportions of occurrence of those experiencing the first transition between 13 years old and 18 years old. In other words, young men speeded the experienced of the first transition during adolescence. For instance, around 10% had experienced the first transition by age 13, and by age 20 the proportion was more than 80%. The same pattern was seen for the occurrence of 2 and 3 transitions, with pronounced slopes in the span of a few years. After age 20, the cumulative proportions showed smaller but constant increases. While the experience of the first 3 transitions was rapid before age 20 but then decelerated, no clear change turning point seemed to be observed for the experience of 4 or more transitions, which showed a constant progression over age. Urban young men from both older and younger cohorts showed lower cumulative proportions than rural young men, particularly in the experience of 4 or more transitions.

In contrast, young women showed more similar values among proportions for each number of transition. As a result, young women also showed high proportions experiencing almost complete trajectories (i.e. missing to experience one transition to complete the six events included in this analysis) and complete trajectories to adulthood. This pattern was the result of young women experiencing earlier family formation transitions to adulthood compared with young men (see Chapter 5). The results suggest that once young women started to experience their transitions to adulthood, they were

more likely to experience the rest of the transitions and complete their trajectories in a shorter period of time compared with young men. However, the results from this analysis also showed that rural young women fell short on experiencing all six transitions to adulthood. The result was attributable to the fact that rural young women were less likely to enter the work force. Therefore, rural young women's "complete" trajectories to adulthood consisted of five transitions.

In the case of young women, no clear turning points were seen in the different cumulative functions, although main increases were observed also during the late teen years. The increases were more stable as age increased. This pattern was seen among young women of both younger and older birth cohorts. Rural young women showed higher proportions achieving transitions by a given age compared with urban young women.

Regarding inter-cohort patterns, both older and younger cohorts of urban and rural young men presented the same pattern of quick progression of the first 3 transitions to adulthood. The similar proportions for experiencing at least one, two and three transitions was attributed to the similar inter-cohort experience of leaving education, entering the labour force and experiencing either first sex or parental home leaving, reflecting similar experiences of these two consecutive birth cohorts. However, both urban and rural young men from younger cohorts were less likely to have completed 4 or more transitions to adulthood compared with older cohort of urban men by a given age by age 24. The delays were more pronounced among later (younger) cohorts of rural young men. The results suggest that these later cohorts of men mainly delayed family formation transitions, such as first partnership and first birth, but not first sexual intercourse (see Chapter 5, section 5.3).

The effect of cohort was stronger among young women than among young men. Among older cohorts of urban women, there seemed to be an overlap in the occurrence of the first and second transitions, not observed among younger birth cohorts. Moreover, the completion of 5 or all 6 transitions by age 24 was slightly delayed by younger cohorts of urban women. Patterns between older and younger cohorts of urban women diverged from age 20 onwards. Higher proportions of older birth cohorts of urban women experienced only one transitions during adolescence and lower proportions experienced 2 or more transitions to adulthood, reaching similar levels

during their early 20s years of age. In contrast, younger birth cohorts of urban women delayed the occurrence of 2 or more transitions to adulthood, creating parallel curves among number of transitions. However, one group that showed more pronounced cohort differences were rural young women. Although both older and younger cohorts of rural women showed similar proportions experiencing the first transition by different ages, the timings of the rest of the transitions differed. The results suggest the delays in the occurrence of family formation transitions, but also for entry into the labour force among younger cohorts of rural women.

To summarize, young men presented higher cumulative proportions having experienced up to three transitions to adulthood, but showed lower proportions for the experience of four or more transitions to adulthood. The gap between curves showing the occurrence of the first three and the remaining transitions suggests a delay between the experience of transitions, and consequently more prolonged trajectories to adulthood. In contrast, young women showed high proportions experiencing almost complete trajectories (i.e. missing to experience one transition to complete the six events included in this analysis) and complete trajectories to adulthood. The results suggest that once young women started to experience their transitions to adulthood, they were more likely to experience the rest of the transitions to adulthood and complete their trajectories in a shorter period of time compared with young men.

7.2 The First Transition to Adulthood

In order to get an indication of the first transition that started the process towards adulthood, Table 7.1 shows the distribution of the first transition to adulthood experienced by young men and women in the analysis of the order of events. The results showed important differences between young men and women from both urban and rural areas of residence. While for most urban young men entry into the labour force represented the first transition to adulthood, for most urban young women leaving education was the first transitions to adulthood. In contrast, most rural young men and

most rural young women experienced exit from education as the first transition to adulthood.

Table 7.1 First Transition Experienced by Gender, Area of Residence and Birth Cohort.

	Urban		Rural	
First Transition	**1970-74**	**1975-79**	**1970-74**	**1975-79**
Men				
Leaving education	36%	35%	55%	56%
First work	43%	45%	34%	35%
Leaving home	5%	4%	4%	3%
First sex	16%	15%	7%	5%
First partnership	1%	0%	0%	0%
Total	100%	100%	100%	100%
N	3220	4206	794	1001
Women				
Leaving education	52%	52%	71%	72%
First work	34%	35%	19%	19%
Leaving home	7%	7%	5%	5%
First sex	4%	4%	1%	1%
First partnership	3%	3%	4%	3%
Total	100%	100%	100%	100%
N	4524	5405	1097	1475

Source: Author's calculations based on 2000 ENJ.

Leaving education and entry into the labour force constituted the second most common first transition for urban and rural young men, respectively. For an important proportion of urban and rural young men, first sexual intercourse represented the third most common first transition in the trajectory towards adulthood. Therefore, the results showed the occurrence of first sexual intercourse before first partnership, confirming the patterns seen in Chapter 5, Section 5.2. Given the more "established" and "traditional" norm in rural areas, the proportions were higher among urban young men. Regarding first sexual intercourse as the first transition to adulthood, there were important differences between urban and rural young men from different birth cohorts. While

older cohorts of urban men had double the proportions of older cohorts of rural men (16% vs. 7%), younger cohorts of urban men had three times the proportions of younger cohorts of rural men (15% vs. 5%). The results were attributable to delays in first sexual intercourse among young cohorts, particularly among rural men.

Regarding the occurrence of the first transition to adulthood among young women, proportions for leaving education (as the first transition) were considerably higher among rural young women compared with their urban counterparts. Around ¾ of rural young women left education as the first transition compared with ½ of urban young women. Entry into the labour force constituted the second most common transition to adulthood among young women. However, proportions were almost twice as high among urban young women than among rural young women. As many rural young women failed to enter the labour force, this result suggests the availability of more options for urban young women that led them to more patterns of trajectories to adulthood compared with rural young women. Whereas first sexual intercourse was the third most common first transition to adulthood among young men, first sexual intercourse represented the fourth most common first transition among urban young women and the fifth most common transition among rural young women. These last respondents experienced first partnership as the fourth most common first transition to adulthood. The results confirmed the traditional norm regarding the order of family formation transitions in rural areas of residence.

The proportions of leaving home as the first transition to adulthood were higher than proportions for first partnership for both urban and rural young men and women. However, young women's proportions for leaving home as the first transition were higher than young men's proportions. Leaving home represented the third most common first transitions among young women. Experiencing this transition as the first transition to adulthood in the trajectory to adulthood was attributable to other reasons (education or job) rather than entry into first partnership (Perez Amador 2006).

In summary, social transitions tended to lead the trajectories to adulthood of both young men and women. For urban young men, entry into the work force represented the first most common first transition in the trajectory to adulthood. In contrast, leaving education was the first most common first transition to lead the way to adulthood for the rest of the respondents, i.e. rural young men and urban and rural

young women. In consequence, leaving education and entry into the labour force constituted the second most common first transitions to adulthood, respectively. Whereas first sexual intercourse represented the third most common first transitions among men, leaving home represented the third most common first transitions among young women. In general, the proportions did not show inter-cohort changes.

7.3 The Main Trajectories to Adulthood of Young Men and Women in Mexico

This section presents the results from clustering the main trajectories to adulthood of Mexican young men and women. This time, trajectories were built taking into account the number of transitions experienced by the time of the survey. Only trajectories that represented at least 1% of the total were considered in the analysis. The rest of the trajectories accounting for with less than 1% were grouped into the category of "other".

Given their exposure times, older cohorts experienced more transitions to adulthood at the time of the survey than younger cohorts. However, one of the main advantages of using two consecutive birth cohorts was the degree of homogeneity involved in period-cohort measures (Billari 2001). The main inconvenient was the lack of more birth cohorts to trace potential changes over time, and in consequence, the possibility to trace the experience of new and different patterns of different generations across time. Given the different exposure times of the different cohorts between their date of birth and the date of the survey, inter-cohort comparisons would be biased without the use of appropriate methods. Consequently, more than a cross cohort comparison, the analysis is based on a social group comparison given by different areas of residence. Therefore, only comparisons between areas of residence were taken into account.

The interpretation of the clusters are based on some of the main categories built by Hakim (2002)[34], Aassve, Billari et al. (2006; 2007)[35] and Robette (2008)[36]. In this

[34] Hakim argued that women's preferences determined three different sets of life choices, including mostly working life, mostly family life, and combining work and family.

research, the categories of the clusters estimated were adjusted to be appropriate to the most common trajectories in Mexico. For instance, within each cluster and depending on the rest of the transitions experienced, sequences were grouped according to their predominant features.

7.3.1 Men's Trajectories to Adulthood

The progression of the main trajectories to adulthood of young men is displayed in Table 7.2. The succession of main of trajectories presented below is based on the number and type of transitions to adulthood experienced, as well as the main sequences of events based on median ages obtain using Survival Analysis (see appendix Chapter 7 for full table of median ages), i.e. the age at which half of the individuals had experienced a given transitions within each cluster of trajectory.

After combining the main sequences of social and family formation transitions of young men into trajectories, it was possible to group 94% of the trajectories of older cohorts of urban and rural young men, 91% of the trajectories of younger cohorts of urban men and 93% of the trajectories of younger cohorts of rural men. Given different exposure time of the different birth cohorts included in the analysis, completed trajectories were mostly seen among older cohorts of young men. At the time of the survey, respondents from younger birth cohorts were in their early 20. Therefore, younger cohort of young men had experienced fewer complete trajectories in their passageway to adulthood. As these respondents were right censored by the date of the interview of the survey, the occurrence of the rest of the transitions, mostly family formation transitions, was unknown. Therefore, trajectories of younger cohorts of urban and rural men consisted mainly of 2 or 3 transitions.

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[35] Aassve, Billari el al. clustered trajectories into 9 main categories depending on the work and family formation features of trajectories.

[36] Robette divided women's categories into five main clusters: classical, modern, homemakers, option outs and working singles. The categorization of men seemed less clear as men mainly played an important role as main breadwinners. Nevertheless, the author categorized men in terms of classic, modern, slow starters and working singles.

Table 7.2 Young Men's main clusters of trajectories of social and family formation transitions. Mexico 2000.

		1970-74		1975-79	
No.	**Trajectory**	**Urban**	**Rural**	**Urban**	**Rural**
1	S	1%	0%	2%	0%
2	EW	3%	5%	8%	13%
3	EWH	1%	1%	1%	3%
4	EWS	7%	7%	10%	13%
5	EWSH	3%	4%	4%	5%
6	EWSP	1%	2%	2%	2%
7	EWSHP	3%	3%	2%	3%
8	EWSPB	5%	8%	3%	6%
9	EWSHPB	20%	28%	8%	10%
10	W	1%	1%	5%	3%
11	WE	2%	2%	6%	6%
12	WEH	1%	1%	1%	2%
13	WS	2%	1%	7%	3%
14	WSH	2%	1%	2%	1%
15	WSHE	4%	2%	5%	4%
16	WSE	7%	4%	9%	5%
17	WSEP	1%	1%	2%	2%
18	WSEPB	4%	4%	2%	2%
19	WSEHP	4%	1%	3%	1%
20	WSHPB	3%	4%	2%	2%
21	WESHPB	18%	15%	7%	5%
	Other	6%	6%	9%	7%
	Total	100%	100%	100%	100%
	N	3,227	792	4,211	1,005

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth.
Source: Author's calculations based on ENAJUV 2000.

Table 7.2 shows that young men's main outcomes were characterized by 3 distinctive patterns of trajectories, all of which were derived from social transitions to adulthood. The first most common pattern began with leaving education as the first transitions, followed by the experience of entry into the labour force (EW…). As seen in section 7.2, trajectories also showed that the experience of leaving education as the first transition to adulthood was more characteristic of young men in rural areas of residence. For instance, the "**classic working singles**" trajectory (EW) was more common among young men living in rural areas. In other words, the experience of leaving education as the first transition into adulthood, before or simultaneous with entry into the labour

force, was higher among rural respondents than urban ones from both older and younger cohorts.

The second most common group of trajectories commenced with entry into the labour force followed by the experience of first sexual intercourse, both transitions before leaving education (WSE…). Finally, the third most common pattern started with entry into the labour force followed by exit from education (WE…). The experience of entry into the labour force as the first transition, as shown above, was more characteristic of young men in urban areas of residence. For example, the results showed that the experience of entry into the labour force as the first transition was higher among urban respondents compared with their rural counterparts. This was the case for premarital sex, where the experience of premarital sex after entering the labour force as "s**exually active working students**" (WS) and before leaving education as "**sexually active young workers**" (WSE) showed higher proportions among urban young men than urban ones, and more among younger than older cohorts of men.

Despite the different patterns of trajectories, the main trajectories of older cohorts of men were concentrated into 2 main sequences of transitions, each one more characteristic of a specific area of residence. The first represented the "**classical**" trajectory (EWSHPB), predominant among rural young men. In this first trajectory, leaving education occurred before entering the labour force. The second consisted of the "**working classical**" pattern (WESHPB), predominant among urban young men. In this trajectory, respondents experienced early entry into the work force while still studying. Even though these two trajectories began with a different sequence of events, both trajectories were also characterized by the experience of premarital first sexual intercourse. The rest of the trajectory was completed by leaving the parental home before entering first partnership. First childbearing was usually experienced shortly after first partnership.

After the experience of social transitions, with leaving education leading the pathway into adulthood, a common subsequent trajectory included the experience of first sexual intercourse (EWS). This trajectory represented "c**lassic sexually active workers**". Although leaving education before entering the labour force was more common in rural areas, this trajectory was experienced by the same proportion of urban and rural young men belonging to older birth cohorts. In case of younger cohorts, rural

respondents showed higher proportions than urban ones. The results showed that many urban men from older cohorts experienced first sexual intercourse after the experience of social transitions. However, the experience of first sexual intercourse among younger cohorts of urban men was more likely to occur before leaving education but after entering the labour force (WSE), suggesting a shift in the trajectory in the experience of first sexual intercourse between cohorts of urban young men.

Among the group of young men that experienced leaving education first, there were those with a "**strong working orientation" (**EWSH**)**. The proportions were higher among rural young men, showing their tendency to leave home for reasons other than entry into first partnership. However, regarding the experience of almost complete trajectories (i.e. having experienced almost all six social and family formation transitions by the time of the survey) that commence with the experience of leaving education, the results showed that rural young men showed higher proportions in the "**classic**" trajectory, but that by the time of the survey had not left the parental home (EWSPB). The results suggest that rural young men failed to leave the parental home, and formed stem families in the parental home instead after experiencing family formation transitions, resulting in the "**classic staying-in**" trajectory.

Even though specific beginnings of the trajectories were more characteristic of particular areas of residence, certain trajectories were similar between areas of residence. One example was "**working students**" (WE), with equal proportions among both areas of residence and between both older and younger birth cohorts. The same was seen for young men that left the parental home after other social transitions (WEH), which showed similar proportions between urban and rural young men from both older and younger birth cohorts. Given that these men had not experienced family formation transitions, this trajectory represented "**residential independence seekers**". The same proportions of urban and rural young men were also seen for respondents with an "**orientation towards work and family formation"** (WSEP). By the time of the survey, these young men had already experienced first partnership but not first birth. Although proportions were similar between areas of residence, the proportions were low, particularly among older birth cohorts, suggesting that these trajectories were exceptions among the most common patterns.

By the time of the survey, equal proportions of urban and rural young men had experienced semi-completed trajectories (almost completed trajectories) led by entry into the labour force. However, two trajectories were more characteristic of urban areas of residence than rural ones. The first one included young men that after experiencing entry into the labour force, experienced first sexual intercourse, parental home leaving and finally left education (WSHE). Young men in this cluster delayed their exit from education. Therefore, these young men constituted the "**work oriented**" group by delaying family formation transitions. The second trajectory included respondents that had experienced "**early entry into the labour force without childbearing"** (WSEHP).

Table 7.3 and Table 7.4 show the median ages at experiencing each transition in the different trajectories that young men achieved, using estimates based on survival curves (for the full table including all trajectories see appendix Chapter 7), i.e. the age at which half of the young men in each trajectory had already experienced a given transition. In general, the median ages showed the delays that urban young men experienced in starting their trajectories to adulthood compared with their rural counterparts from the same birth cohort. Integrating the results from previous chapters, it can be seen that urban young men showed higher median ages for leaving education and entry into the labour force, and for entry into first partnership and first birth. Median ages reflected the results from previous chapters that placed urban young men earlier into first sexual intercourse and parental home leaving. The median ages showed the delay in experiencing social transitions between birth cohorts. However, given the selectivity process implied in the younger cohort, the estimates of median ages for family formation transitions were brought downwards.

The "range" column shows the number in years between the occurrence of the first transition and the last transition in each trajectory using the median ages obtained through Kaplan Meier failure estimates. More "established" trajectories showed shorter ranges than "scrambled" trajectories, i.e. those non-standard sequences different from those the majority of respondents followed. For instance, complete trajectories that commence with leaving education showed a range of 7 years between leaving education and the birth of the first child (last transition in the trajectory). In contrast, complete trajectories that started with entering the labour force showed a range of 10 years between entering the labour force and the birth of the first child. Although urban young

Table 7.3 Young Men's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
Urban Men									
EW	14	16	.	.	.	.	2	1.8	1.9
EWS	16	18	.	18	.	.	2	2.4	2.2
EWSH	15	16	18	17	.	.	3	3.7	3.2
EWSPB	16	17	.	18	22	22	6	2.8	2.1
EWSHPB	15	17	19	18	20	22	7	2.6	2.1
WE	23	13	.	.	.	.	10	5.6	2.8
WEH	20	13	19	.	.	.	7	4.3	3.6
WS	.	18	.	18	.	.	0	3.4	2.5
WSHE	22	15	20	18	.	.	7	3.0	2.4
WSE	21	15	.	17	.	.	6	2.7	2.1
WSEP	19	14	.	18	25	.	11	3.9	2.1
WSEHP	18	15	20	18	23	.	8	4.1	3.2
WESHPB	18	13	20	18	21	23	10	3.1	2.4
Rural Men									
EW	14	16	.	.	.	.	2	1.9	1.4
EWS	14	15	.	18	.	.	4	2.4	1.7
EWSH	15	16	18	18	.	.	3	3.3	2.9
EWSPB	13	15	.	18	20	22	9	2.6	2.3
EWSHPB	13	15	19	18	20	22	9	2.8	2.1
WE	14	12	.	.	.	.	2	2.9	2.2
WEH	16	12	24	.	.	.	4	3.6	2.7
WS	.	12	.	18	.	.	6	2.3	2.1
WSHE	16	13	17	16	.	.	3	5.0	4.2
WSE	16	12	.	19	.	.	4	3.1	2.5
WSEP	17	15	.	17	25	.	10	4.0	3.6
WSEHP	16	12	19	18	22	.	10	3.6	2.2
WESHPB	15	12	18	18	21	22	10	3.1	2.2

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table 7.4 Young Men's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
Urban Men									
EW	16	17	.	.	.	.	1	1.2	1.6
EWS	16	17	.	17	.	.	1	2.0	1.9
EWSH	16	17	18	18	.	.	2	2.8	2.8
EWSPB	15	17	.	17	19	20	5	2.2	1.9
EWSHPB	15	16	18	17	19	20	5	2.4	2.1
WE	19	15	.	.	.	.	4	2.3	1.7
WEH	19	13	18	.	.	.	6	2.7	1.8
WS	.	17	.	17	.	.	0	2.9	2.4
WSHE	17	13	17	16	.	.	4	3.5	2.8
WSE	19	16	.	17	.	.	3	2.8	2.5
WSEP	18	13	.	18	21	.	8	2.4	1.8
WSEHP	18	15	19	17	21	.	6	2.6	2.2
WESHPB	17	13	18	17	19	21	8	2.5	1.9
Rural Men									
EW	13	15	.	.	.	.	2	1.6	1.1
EWS	14	16	.	18	.	.	4	2.1	1.4
EWSH	15	16	17	18	.	.	2	3.1	2.9
EWSPB	13	16	.	18	19	20	7	2.3	1.8
EWSHPB	13	16	18	18	19	20	7	2.3	1.7
WE	16	12	.	.	.	.	4	2.1	1.4
WEH	16	12	17	.	.	.	4	2.9	2.9
WS	.	15	.	17	.	.	2	2.8	2.4
WSHE	18	13	18	17	.	.	5	2.7	2.3
WSE	16	14	.	18	.	.	2	3.0	2.4
WSEP	17	12	.	18	21	.	9	3.2	2.5
WSEHP	16	13	20	20	20	.	7	2.4	0.7
WESHPB	15	12	18	18	20	20	8	2.9	1.9

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

men began their trajectories later than urban young men, not all ranges among trajectories were longer compared with rural young men.

As explain in Chapter 3, Section 3.4.2, the "mean difference" does not correspond to the actual statistical mean of the ranges in each cluster, but to the statistical mean of the difference between each "trajectory's range" and the actual range of each respondent in each trajectory. In case the difference generated a negative number, the difference between ranges was converted into positive numbers.

In general, measures of dispersion ("mean difference" and mean difference's standard deviation) showed heterogeneous experiences in each cluster trajectories for both urban and rural young men from older and younger cohorts. Nevertheless, certain measures of dispersion within trajectories showed more heterogeneity within specific trajectories among urban young men than rural young men. The result suggests that urban young men were falling out of the "median trajectory"[37] more than rural young men, implying longer time between the first and the last transition. Given the availability of more options, urban young men seemed to prolong the process to adulthood longer compared with rural young men. For young cohorts, distances were narrowed down. Nevertheless, this was attributable to a shorter exposure time.

Up to know it is known that young men's main outcomes were characterized by three distinctive patterns of trajectories. The first most common pattern began with leaving education as the first transition, followed by the experience of entry into the labour force (EW…), more commonly among rural respondents. The second most common group of trajectories commenced with entry into the labour force followed by the experience of first sexual intercourse, both transitions before leaving education (WSE…), more frequent among urban young men. Finally, the third most common pattern started with entry into the labour force followed by exit from education (WE…), also more characteristic of urban respondents. Given the availability of more options, urban young men seemed to prolong the process to adulthood longer compared with rural young men.

[37] The "median trajectory" makes reference to the trajectory that resulted from the median ages estimated using Kaplan Meier Failure curves of each transition in each trajectory shown in Table 7.3 and Table 7.4.

7.3.2 Women's trajectories to adulthood

In the case of young women, it was possible to group nearly 80% of older and younger cohorts of urban women's trajectories and 85% of rural young women's trajectories from both older and younger cohorts. Compared with young men, young women's trajectories seemed more varied in terms of types of transitions experienced and sequences between transitions. This fact was attributable to the fact that young women experienced transitions to adulthood earlier than young men, particularly family formation transitions. Although some clusters consist of all six social and family formation transitions, the sequences between transitions differed creating different trajectories.

Table 7.5 shows the distribution of older and younger cohorts of urban and rural young women in the main trajectories. The results showed that most young women's trajectories were also derived from social transitions to adulthood. Young women's clusters were characterized by 3 main groups of trajectories towards adulthood. The first began with the experience of exit from education as the first transition before entering the work force (EW…). The second most common pattern commenced with the occurrence of entry into the labour force as a student, i.e. before leaving education (WE…). Finally, the third most common pattern started with exit from education as the first transition (E…) followed in order by the experience of family formation transitions without having entered the labour force by the time of the survey.

The "**working singles**" trajectory (EW) showed very similar proportions between urban and rural young women from older and younger cohorts. Given the different exposure time, these last ones showed higher proportions compared with older cohorts. However, those young women that left home after leaving education and entered the labour force (EWH) showed higher proportions among rural young women than urban ones. Given the different exposure times of the different cohorts, this trajectory was more common among younger cohorts of rural young women. In contrast, the complete trajectory, including the experience of family formation transitions (EWHPSB), was higher among older cohorts of rural women. The results suggest that after leaving education, rural young women found employment opportunities that lead them also to parental home leaving. Parental home leaving was

associated with employment opportunities in a geographical place different from the parental residence, such as live-in domestic work. Therefore, an element of migration was associated to this pattern.

Table 7.5 Women's main clusters of trajectories by birth cohort and area of residence.

		1970-74		1975-79	
No.	**Trajectory**	**Urban**	**Rural**	**Urban**	**Rural**
1	**E**	1%	4%	3%	10%
2	**EW**	6%	5%	12%	13%
3	**EWH**	2%	2%	2%	5%
4	**EWHSP**	2%	1%	3%	2%
5	**EWHSB**	1%	1%	1%	1%
6	**EWHPSB**	3%	6%	2%	3%
7	**EWS**	2%	1%	1%	1%
8	**EWSP**	1%	1%	2%	1%
9	**EWSB**	1%	2%	1%	2%
10	**EWSPB**	5%	4%	4%	4%
11	**EWSPHB**	1%	2%	1%	1%
12	**EWPSHB**	12%	13%	7%	9%
13	**EPSB**	2%	3%	1%	2%
14	**EPSHBW**	2%	3%	1%	1%
15	**EHSPB**	8%	19%	5%	11%
16	**W**	2%	1%	8%	3%
17	**WE**	4%	2%	7%	4%
18	**WES**	1%	0%	1%	0%
19	**WEHSP**	2%	1%	2%	1%
20	**WEPSB**	3%	1%	2%	1%
21	**WEPSHB**	6%	4%	3%	3%
22	**WH**	1%	0%	2%	1%
23	**WHE**	1%	1%	2%	1%
24	**WHES**	1%	0%	2%	1%
25	**WHSPB**	5%	4%	3%	3%
26	**WSPB**	1%	1%	1%	1%
27	**HPSB**	1%	3%	1%	2%
	Other	22%	15%	21%	15%
	Total	100%	100%	100%	100%
	N	4,542	1,101	5,419	1,479

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth.
Source: Author's calculations based on ENAJUV 2000.

Following the first set of trajectories, one of the most common trajectories among older cohorts of urban and rural women corresponded to the "**classic**" trajectory (EWPSHB). Leaving education was the first transition of the trajectory, followed by entry into the labour force (EW...). Fist partnership, first sex and leaving the parental home all occurred simultaneously, with first partnership leading the pathway of family formation transitions to adulthood (…PSH...). The birth of the first child was then experienced within a couple of years later. However, among older rural young women, the most common trajectory was a "**strong orientation towards family formation**" (EHSPB). These women had left education and experienced family formation transitions, but had not entered the labour force at any point before the time of the survey. For instance, 1 in 5 rural young women from older cohorts had experienced this trajectory by the time of the survey compared with nearly 1 in 10 urban young women from older cohorts.

Trajectories that included the experience of entry into the labour force as the first transition followed by leaving education were more common among urban young women than among rural ones. For instance, the proportions of young women that entered the "**work force as students**" (WE) were higher among urban young women from both older and younger cohorts. This was also the case for the complete trajectory (WEPSHB), as older cohorts of urban young women showed higher proportions compared with their rural counterparts. The next cluster more common among urban young women included women that entered the work force before leaving education, and experienced family formation transitions (WEPSB). A feature of the cluster was that parental home leaving had not being experienced by the time of the survey. Therefore, the results suggest that these young women showed a strong "**orientation towards work and family formation**", but formed stem families. As these women were in partnership, the results also suggest that their male partners moved to live in their spouse's parental home.

Table 7.5 also shows that trajectories that implied "**modern**" patterns of sexually active working single young women (EWS, WES, WHES and WEHSP) were more common in urban areas. This result was attributable to a more "traditional" and "established" norm in rural areas that constrained the experience of sexual intercourse within first partnership.

A similar proportion of urban and rural young women experienced premarital fertility. Very similar proportions of urban and rural young women left the parental home after leaving education and entering the labour force, and experienced first sexual intercourse and first birth without entering first partnership (EWHSB). However, the experience of premarital birth without leaving the parental home (EWSB) showed higher proportions in rural areas. Despite the occurrence of premarital sex and premarital birth, young women from both older and younger cohorts presented similarly low proportions. The result suggests that rural young women stayed in the parental home after a premarital birth given the stricter norm towards single mothers in rural areas of residence, whereas urban young women's outcomes suggest a more modern pattern towards single motherhood by choice.

Table 7.6 and Table 7.7 show the median ages estimated using survival curves at experiencing each transition in the different trajectory followed by young women. Young women from urban and rural area of residence showed similar ranges in the different trajectories, suggesting a similar number of years in the experience between the first and the last transitions in each trajectory between urban and rural young women. However, rural young women showed lower ages at experiencing the different transitions in each trajectory. Therefore, median ages in each trajectory reflected the results from previous chapters that showed that urban young women experienced at later ages the transitions to adulthood. The results suggest that given the availability of more options in urban areas, these women delayed the achievement of adulthood compared with rural young women, but experienced trajectories to adulthood in a similar number of years as rural young women.

Ranges for complete trajectories of young women varied between 6 and 7 years between the experience of first transition (either leaving education or entry into the labour force) and the last transition (usually the birth of the first child) for both urban and rural young women. Given median ages and measures of dispersion, most clusters represented heterogeneous group of transitions. Younger cohorts of women showed more homogenous cluster. However this was explained by the censoring effect that the date of the survey had, which caused a "selectivity" effect among younger respondents. As previously mentioned, comparison were based on area of residence rather than birth cohorts.

Table 7.6 Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
Urban Women									
EW	18	20	.	.	.	.	2	2.0	2.0
EWH	18	18	18	.	.	.	0	5.5	3.8
EWHSB	16	17	19	18	.	21	5	3.8	2.9
EWHPSB	14	15	16	20	20	21	7	3.0	2.1
EWS	17	18	.	20	.	.	4	2.8	2.4
EWSB	16	17	.	19	.	20	6	3.8	3.0
EWPSHB	15	16	19	19	19	21	6	2.6	2.0
EHSPB	14	.	18	18	18	19	5	2.8	2.5
WE	21	17	.	.	.	.	3	2.4	2.1
WEHSP	23	18	22	24	24	.	6	3.1	2.6
WEPSB	20	17	.	19	21	23	6	2.3	2.0
WEPSHB	17	14	19	19	19	20	6	2.8	2.4
WH	.	17	19	.	.	.	2	3.3	2.9
WHES	19	18	18	21	.	.	4	4.5	3.7
Rural Women									
EW	14	18	.	.	.	.	4	2.9	1.8
EWH	15	18	18	.	.	.	3	3.3	3.0
EWHSB	14	16	16	20	.	23	9	2.8	2.6
EWHPSB	13	14	15	20	20	20	7	2.5	1.7
EWS	14	16	.	19	.	.	4	3.0	2.8
EWSB	14	18	.	20	.	20	6	2.7	2.8
EWPSHB	13	15	19	19	19	20	6	2.4	1.9
EHSPB	12	.	18	18	18	20	5	2.9	2.2
WE	18	14	.	.	.	.	3	1.8	1.6
WEHSP	15	10	19	19	19	.	6	3.1	2.1
WEPSB	15	13	.	18	18	19	6	3.8	4.1
WEPSHB	15	12	18	18	18	20	6	3.1	1.8
WH	.	19	20	.	.	.	1	2.8	4.2
WHES	15	23	15	18	.	.	4	3.3	0.6

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table 7.7 Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
Urban Women									
EW	17	18	.	.	.	.	1	1.5	1.9
EWH	16	18	17	.	.	.	1	3.0	2.7
EWHSB	16	16	17	18	.	20	4	3.0	2.8
EWHPSB	12	14	15	18	18	19	7	1.9	1.5
EWS	17	18	.	20	.	.	4	2.1	2.0
EWSB	16	16	.	19	.	21	6	2.2	1.5
EWPSHB	14	15	18	18	18	19	6	2.0	1.6
EHSPB	15	.	17	17	17	19	5	2.3	1.8
WE	20	17	.	.	.	.	3	1.7	1.5
WEHSP	18	15	20	19	20	.	6	2.4	2.2
WEPSB	17	14	.	18	19	19	6	2.5	2.0
WEPSHB	16	13	19	19	19	19	6	2.6	1.6
WH	.	18	18	.	.	.	0	2.8	2.6
WHES	19	17	18	19	.	.	4	3.3	2.9
Rural Women									
EW	14	17	.	.	.	.	3	2.3	1.7
EWH	15	18	18	.	.	.	3	2.7	2.4
EWHSB	14	15	18	17	.	18	4	3.7	2.7
EWHPSB	13	15	15	18	18	19	6	2.1	1.4
EWS	15	19	.	19	.	.	4	2.4	2.1
EWSB	13	15	.	17	.	19	6	2.1	1.7
EWPSHB	13	15	17	17	17	19	6	1.9	1.5
EHSPB	13	.	17	17	17	18	5	2.4	1.9
WE	17	14	.	.	.	.	3	1.8	1.7
WEHSP	17	14	19	20	20	.	6	2.3	1.3
WEPSB	15	12	.	17	17	18	6	2.6	1.6
WEPSHB	15	12	17	17	17	18	6	2.2	1.7
WH	.	17	16	.	.	.	1	1.4	1.9
WHES	13	16	18	20	.	.	4	3.1	1.1

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

The degree of heterogeneity among respondents in the different trajectories differed between areas of residence. In general, urban young women showed more heterogeneity in both "unscrambled" (EW…) and "scrambled" (WE…) trajectories compared with rural young women. However, young women that followed the trajectory EHPSB showed very similar ranges and degree of heterogeneity between urban and rural young women, but rural young women began the trajectory earlier than their urban counterparts. The results suggest that when young women followed a trajectory oriented towards exclusively family formation roles, transitions would be experienced in a similar amount of time regardless of area of residence.

To sum up, the results showed that young women's clusters were characterized by 3 main groups of trajectories to adulthood, also derived from social transitions to adulthood. The first group consisted of leaving education as the first transition before entry into the work force (EW…). The second commenced with the occurrence of entry into the labour force as a student (WE…), more common among urban young women than among rural ones. Finally, the third pattern started with exit from education as the first transition (E…) followed in order by the experience of family formation transitions without entering the labour force (by the time of the survey), more common among rural young women than among urban ones. Although young women completed their trajectory to adulthood faster than young men, both urban and rural young women experienced their trajectories to adulthood in a similar number of years. Given the availability of more (educational and work) option in urban areas of residence, these young women delayed the achievement of adulthood compared with rural young women.

7.4 Outcomes of Trajectories to Adulthood

What is the cause and what is the effect between educational attainment and trajectories to adulthood? Educational attainment and sequencing of trajectories are both cause and effect of transition to adulthood (Kiernan 1991). Educational attainment determines future outcomes in life. However, the timing of experiencing specific

transitions to adulthood – particularly leaving education - determined the level of educational attainment achieved by respondents.

The study considered the cohorts born during the 1970s in Mexico. Still today, it would be difficult to know the outcomes of respondents in such an "early" stage in the life course. However, most of the information was obtained at the time of the survey. In consequence, many transitions had already been experienced, and therefore, the construction of covariates might be considered as outcomes of the transitions to adulthood themselves. In that sense, the educational attainment registered by the time of the survey actually constituted an outcome of the transitions and trajectories to adulthood. Consequently, Table 7.8 and Table 7.9 show the distribution of educational attainment achieved based on the main trajectories followed by young men and young women. When respondents were still in education by the time of the survey, the educational attainment achieved by that time was used.

Table 7.8 Men's educational attainment by main clusters of trajectories, Mexico 2000.

	Educational attainment							
	very low		low		Medium		High	
Trajectory	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
S	1%	0%	0%	0%	2%	1%	5%	0%
EW	8%	12%	8%	10%	5%	7%	1%	2%
EWH	2%	2%	2%	2%	1%	2%	1%	0%
EWS	10%	12%	11%	11%	10%	11%	4%	0%
EWSH	5%	4%	4%	7%	3%	3%	2%	3%
EWSP	2%	2%	2%	2%	1%	2%	0%	0%
EWSHP	4%	3%	4%	4%	2%	2%	1%	0%
EWSPB	7%	9%	6%	8%	3%	5%	1%	0%
EWSHPB	25%	25%	18%	16%	9%	8%	2%	7%
W	2%	2%	1%	1%	4%	3%	8%	15%
WE	3%	3%	3%	5%	6%	6%	5%	5%
WEH	1%	2%	1%	2%	2%	3%	2%	2%
WS	3%	2%	2%	1%	5%	4%	15%	15%
WSH	1%	1%	1%	0%	2%	3%	7%	15%
WSHE	2%	2%	4%	4%	6%	10%	10%	10%
WSE	3%	2%	7%	7%	12%	11%	15%	7%
WSEP	1%	1%	2%	2%	2%	2%	2%	5%
WSEPB	3%	2%	4%	4%	4%	3%	2%	3%
WSEHP	3%	1%	3%	1%	4%	1%	4%	2%
WSHPB	5%	4%	2%	1%	2%	2%	3%	2%
WESHPB	10%	8%	15%	12%	16%	12%	10%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	1451	891	2253	546	1895	186	1259	59

Source: Author's calculations based on ENAJUV 2000.

Table 7.9 Women's educational attainment by main clusters of trajectories, Mexico 2000.

	Educational attainment							
	Very Low		Low		Medium		High	
Trajectory	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
E	3%	9%	3%	9%	3%	9%	2%	2%
EW	11%	10%	12%	15%	14%	12%	8%	4%
EWH	2%	3%	3%	6%	3%	6%	3%	8%
EWHSP	3%	2%	4%	4%	3%	2%	2%	0%
EWHSB	1%	1%	1%	2%	1%	2%	1%	2%
EWHPSB	6%	6%	3%	4%	1%	2%	0%	0%
EWS	1%	1%	2%	1%	3%	3%	2%	2%
EWSP	1%	1%	2%	1%	2%	3%	2%	0%
EWSB	1%	2%	2%	2%	2%	3%	1%	2%
EWSPB	9%	5%	7%	5%	4%	5%	1%	4%
EWSPHB	2%	1%	2%	2%	1%	2%	0%	0%
EWPSHB	18%	14%	14%	10%	8%	8%	1%	4%
EPSB	3%	4%	2%	2%	1%	2%	0%	2%
EPSHBW	2%	2%	3%	2%	1%	2%	0%	0%
EHSPB	13%	20%	9%	15%	6%	6%	2%	4%
W	2%	2%	2%	1%	8%	7%	23%	9%
WE	2%	2%	4%	5%	11%	11%	16%	8%
WES	0%	0%	1%	0%	2%	1%	4%	2%
WEHSP	1%	0%	2%	2%	3%	2%	4%	4%
WEPSB	2%	1%	3%	2%	5%	1%	3%	2%
WEPSHB	4%	3%	7%	6%	6%	9%	4%	4%
WH	1%	0%	1%	1%	2%	2%	6%	9%
WHE	0%	0%	2%	1%	3%	4%	6%	19%
WHES	1%	1%	2%	0%	2%	1%	4%	0%
WHSPB	7%	5%	4%	2%	4%	2%	4%	4%
WSMB	2%	1%	1%	1%	1%	0%	1%	2%
HMSB	2%	4%	1%	1%	0%	1%	0%	6%
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	2209	1352	2490	593	2038	199	1121	53

Source: Author's calculations based on ENAJUV 2000.

By adding up the corresponding proportions of the trajectories that commenced with leaving education and entry into the labour force, results showed that nearly 7 in 10 young men that left education as the first transition to adulthood achieved very low levels of educational attainment. In contrast, 9 in 10 young men that started the transition to adulthood with entry into the labour force achieved high levels of educational attainment. In the case of young women, 3 in 4 young women achieved very low levels of educational attainment by leaving education as the first transition to adulthood. The opposite pattern was seen for young women that entered the labour force as the first transition delaying exit from education. For instance, 3 in 4 young women that entered the labour force as the first transition to adulthood achieved high levels of educational attainment. Therefore, the timing at experience transitions becomes of crucial importance for adult life.

Individuals that attained very low to low levels of education constrained further development in terms of career opportunities and, consequently, future earnings in adult life. Individuals from lower social backgrounds were presented with more restricted choices and options due to precarious conditions. These individuals were significantly more likely to experience both social and family formation transitions at young ages. Due to their limited choices, these individuals were more likely to follow more established patterns in their trajectories to adulthood.

Based on median ages in the different trajectories, it was possible to see that those individuals that experienced other transitions and delayed exit form education reached higher educational attainment and despite the "scramble" in their trajectories, both young men and young women were more likely to achieve higher educational attainment. These clusters had on average higher median ages at leaving education compared with young people whose first transition was exit from education. Young men and young women that did not experience exit from education as the first transition achieved higher levels of educational attainment. The opposite effect was found among young people that experienced exit from education as the first transitions. Most of these young people attained lower levels of education.

Given the well documented effects of educational attainment, the effect of postponing exit from education would result in more advantageous transitions. More positive outcomes in adult life were not only linked to "ordered" trajectories, but also to

timing at experiencing the various transitions to adulthood. The importance of education attainment was reflected in areas such as delays in family formation roles (see Chapter 5), and in the labour market sphere, more precisely in the occupation individuals performed, such as those of skilled or un-skilled manual workers. Contrary to Hogan's (1978) argument that those individuals that did not follow normative patterns had worst outcome in adult life, the results from this analysis showed that trajectories that did not followed "established" sequences do not necessary represent disadvantaged outcomes in adult life, as long as exit from education was postponed. Nevertheless, the circumstances that made young people seek other mechanisms in order to achieve better opportunities in adult life did not seem ideal, particularly by experiencing an early entry into the labour force.

In terms of more "established" trajectories to adulthood, young men seemed to be less affected in their sequences, as nearly 9 in 10 young men were clustered into one of the more common trajectories. Moreover, young men presented less number of cluster than young women, and those that did not follow normative patterns, mainly included the experience of entry into the work force earlier than leaving education, and first sexual intercourse and parental home leaving prior to first partnership. The main trajectories towards adulthood in Table 7.2 showed that an important proportion of urban and rural young men from older and younger cohorts experienced their entry into the work force prior to leaving education. Other reason for these young men's patterns is the number of transitions experienced. As young men were less likely to experience family formation transitions, the occurrence of less normative sequences appeared to be a consequence of the right censored effect of the date of the interview and misreported occurrence of family formation transitions, in particular entry into childbearing. Collecting young men's fertility presents challenges, such as multiple partners, children born outside formal unions, children living elsewhere, and responsibility for stepchildren (Fikree, R.Gray et al. 1993; Ratcliffe, Hill et al. 2002).

In the case of young women, it was possible to group around 4 in 5 young women into those defined trajectories. Therefore, a substantial proportion followed sequences of transitions that did not fall into the set of trajectories shown above. This included young women who experienced premarital sex, but most importantly premarital birth. However, the occurrence of premarital sex was considered as a

transition towards a more "modern" patterns compared with the rest of the female Mexican population, who were more likely to experience sex within first partnership. However, among young women that experienced first birth without entering first partnership, (given the median ages) half of them experienced early exit from education prior to the occurrence of childbearing. Therefore, their adult outcomes were likely to include both lower earnings and lower occupation status.

In a few words, the timing at experience transitions becomes of crucial importance for adult life. Given the well documented effects of educational attainment and the patterns seen in previous chapters (Chapter 5 and Chapter 6), the effect of postponing exit from education would result in more advantageous transitions to adulthood.

7.5 Conclusion

The aim of this chapter was to establish the main trajectories that young men and women experienced during their transition to adulthood in Mexico during the 1980s and 1990s. Although the data of the 2000 ENAJUV did not include a gender inequality module, the findings derived from the analysis showed that trajectories to adulthood in Mexico have been highly determined by a strong gender component, a phenomenon consistent with the existing gender differences in Latina America and also characteristic of other developing countries, such as Pakistan (Lloyd and Grant 2004). Given men's primary breadwinner role in Mexican society, trajectories put mainly young men into the social role of workers. Therefore, young men's experience of social and family formation transitions was mainly characterized by work-oriented trajectories. In contrast, many young women were likely to enter family formation soon after leaving education, missing entry into the labour force. Consequently, young women trajectories were predominantly oriented towards family formation. Based on the evidence presented here, Mexican young women did not look different from their Colombian peers in relation to their tendency towards more family-oriented and work-family-oriented trajectories However, in the international context, Mexican young people looked rather different to Northern European women whose trajectories to adulthood

have been exclusively characterized by work-oriented trajectories (Aassve, Billari et al. 2006), and to French men and women whose trajectories have been characterized by a "modern" pathway to adulthood, with frequent non-marital cohabitation and late childbearing (Robette 2008).

Findings showed that within genders, the trajectories showed diverse sequences. The main trajectories to adulthood in Mexico were essentially derived from social transitions to adulthood, presenting different order in the sequence of both social and family formation transitions. In the case of young men, social and family formation transitions showed a lag in the timing between the occurrences of one group of transitions given the previous experience of the other. In the case of young women, the patterns between experiencing family formation transitions given the occurrence of social ones seemed more immediate compared with young men's patterns. Therefore, young women on average finished their trajectories faster than young men.

Could the "socially hypothesized" trajectory to adulthood in Mexico be derived from the most common sequences of trajectories? Some clusters of trajectories seemed specific to gender. Particularly, in the context of Mexico, the traditional expected trajectory for men differed from that of young women, predominantly in the sequence of family formation transitions. In case of young men, the main clusters of trajectories presented a series of different sequences based on the type of transitions experienced. Common patterns included entry into the work force prior to leave education, the experience of premarital sex, parental home leaving before entry into first partnership and first birth within first partnership. In case of women, the most common patterns suggested exit from education before entry into the labour force (in most cases); the experience of family formation was characterized by a traditional pattern of entry into first partnership and the simultaneous experience of first sex. Parental home leaving was associated to first partnership and entry into childbearing was more likely to occur shortly after first partnership.

Chapter 8. Conclusion and Policy Recommendations

> "*Most developing countries have a short window of opportunity to get this right before their record numbers of youth become middle-aged, and they lose their demographic dividend. This is not just enlightened social policy. This may be one of the profound decisions a developing country will ever make to banish poverty and galvanize its economy.*"(Jimenez 2006)

This research was undertaken to improve our knowledge of the way that associations between social and family formation transitions led to the different trajectories experienced by young men and women in Mexico during the 1980s and 1990s. It is hoped that this research has accomplished its initial purpose by providing insight into the individual components of the trajectories to adulthood from a life course perspective. Our understanding of the interactions among social and family formation transitions helped to establish the main relationships of transitions on one another responsible for shaping the trajectories that determined the future role of individuals in society. Based on this analysis, the study concludes that both social and family formation transitions were marked by a strong gender component. Despite the gender similarities in educational attainment (Echarri and Perez Amador 2006; Urquiola and Calderón 2006), our findings showed that Mexican young men and young women were very gender-determined (by both society and culture) in the experience of transitions to adulthood that generated different patterns of trajectories in their transit to adulthood. While young men showed a lag between the experience of social transitions and family formation transitions, characterized by work-oriented trajectories, young women often experienced almost simultaneous occurrence of social and family formation transitions that predominantly led to family-oriented trajectories to adulthood.

The first section of this chapter summarizes and discusses the main findings. The subsequent section provides a series of policy recommendations on the various issues covered throughout this research. Finally, as in every research, a series of topics were not covered, mostly due to lack of data sources and information available on the topic in the context of Mexico. Thus, some lines for further research are presented.

8.1 Summary and Discussion of Main Findings

After examining social and family formation transitions in Mexico, this study demonstrates that even though the 2000 ENAJUV did not include a gender inequalities module, both social and family formation transitions were marked by a strong gender component, consistent with the existing gender differences in Latina America (De Vos 1989; Urquiola and Calderón 2006). In addition to the gender differences, both individual and family level factors were important determinants in the timing and occurrence of both social and family formation transitions, amongst them, area of residence. Differences in social and family formation transitions between urban and rural respondents were found to be significantly. For instance, young people from urban areas were more likely to stay longer in education compared with their rural counterparts (Echarri and Perez Amador 2006). Nevertheless, regardless of the gender equality in terms of educational attainment between young men and young women, our findings showed that gender patterns of entry into the labour force differed significantly between areas of residence. Mexican young men appeared to be main breadwinners and, therefore, they experienced almost universal entry into the labour force, particularly rural young men. Many rural young men seemed to become solo breadwinners given that many rural young women seemed to follow conventional gender roles to become young housewives and mothers directly after leaving education without (ever) entering the labour force.

In spite of the assumed association between leaving education and entry into the work force in the literature (Panel on Youth 1974; Hogan 1980), the experience of leaving education and entry into the work force had a significant impact on each other. Many young people were combining the role of student with that of worker. The evidence from this study showed that the combination of these roles seemed to be in conflict for less privileged groups of young men and young women. For the significant proportion of individuals that experienced entry into the work force as students, the findings showed that entry into the labour force tended to accelerate exit from education. In contrast, when leaving education was the first transition experienced, the findings showed that the likelihood to enter into the labour force was reduced immediately after leaving education. Consequently, many young people were adding up

to the numbers of unemployed youth given the difficulty in finding their first job after leaving education. Despite the lack of employment opportunities for Mexican young people when joining the labour force for the first time, the experience of family formation was not substantially postponed unlike developed nations that have seen the delays in the experience of transitions to adulthood (Aassve, Billari et al. 2002; Iacovou 2002; Billari 2004; Robette 2008). As previously mentioned (Section 2.4.2.1), unemployment tends to affect young people more. For instance, in 2010 the general[38] unemployment rate in the Euro zone was 8.9%, whereas youth[39] unemployment rates reached 20.7% (Eurostat 2011). The lack of resources constrains the availability to start a family. Consequently, young people need to find financial stability in order to do so, postponing the experience of family formation transitions. Nevertheless, the patterns reflected in this study suggested that a large number of Mexican youth engaged in poor quality and low paid jobs, often in the informal economy (Portes and Schauffler 1993). Therefore, the sequence of these two transitions and timing of leaving education and entry into the labour force played a significant factor to determine future outcomes in adult life determining the rest of the trajectory to adulthood reflected in the experience of family formation transitions as well.

In the sexual and reproductive sphere, Mexican young men and women presented traditional gender pattern. Given the strong preferences for family formation roles at early ages in much of the developing world (National Research Council 2005; National Research Council and Institute of Medicine 2005), patterns in Mexico showed the rather traditional link among family formation transitions, particularly for young women. Despite the increases in educational attainment in Mexico (Secretaria de Educacion Publica 2000; Instituto Nacional para la Evaluacion de la Educacion 2005), the findings showed the strong gender differences that remained in the occurrence of first sexual intercourse, first partnership and first birth. In developed countries, early sexual initiation has been associated with a rather slow pace in the process of family formation (Miller and Heaton 1991). After quantifying the effect of family formation transitions upon one another, our findings showed that this seemed to be also the case for Mexican young men, particularly highly educated urban residents. Moreover, in the vast majority of developing countries, first sexual intercourse during teenage years

[38] 25-75 years old.
[39] < 25 years old.

occurs predominantly outside marriage among men, but mainly within marriage among women (Singh, Wulf et al. 2000). For instance, our findings confirmed that young men delayed the experience of first partnership and first birth after first sexual intercourse, which was likely to be young men's first family formation transition in the trajectory to adulthood. In contrast, family formation transitions among young women kept a direct relationship between one another, i.e. the three processes often followed an immediate sequence once they started to occur. In the most common trajectories obtained in this study, first partnership and first sex tended to coincide for young women, and the experience of first birth often followed shortly after entry into first partnership. This last finding were consistent with existing evidence from other developing countries that has shown that between 50% and 75% of first births to married women occurred within the first two years after having entered first union (Singh and Samara 1996).

The study demonstrates how young women's family formation trajectories reflected the patterns of increasing the likelihood in the occurrence of family formation. However, the relative risk was significantly affected by educational attainment. Young women with higher educational attainment were more likely to delay their entry into family formation transitions after having experienced social transitions. Eventually, these young women assumed "stereotypical" gender roles, a characteristic feature of traditional societies with considerable gender differences and strong preferences towards family formation roles (Lloyd and Grant 2004). As these young women delayed their exit from education and, if experienced, their entry into first employment, these highly educated women seemed to delay the occurrence of family formation transitions after having completed education. Nevertheless, it seemed that these women were trying to catch up from postponing family roles by their immediate occurrence after experiencing the first family formation transition. Therefore, young men prolonged the process of family formation, whereas the process among young women occurred almost simultaneously. Both young men and young women with higher levels of education delayed the occurrence of family formation transitions more than the rest of individuals. Although patterns did not look very different between birth cohorts, younger cohorts of highly educated people represented the "slow starters" in their passageway to adulthood, and perhaps, the pioneers of strong demographic changes yet to come in Mexico.

Regarding the occurrence of parental home leaving, the findings showed the differences in the experience of this social transition between Mexican young men and young women. Leaving the parental home was largely determined by entry into family formation roles, particularly for young women. However, leaving the parental home for young men was not as directly associated with family formation transitions as it occurred with young women. For young men, parental home leaving often occurred before entering first partnership, suggesting a period of independent living before entering first partnership attributable to employment opportunities. However, many young men did not leave home due to entry into first partnership, suggesting the formation of stem families within the parental household, particularly in rural areas of residence.

What this work has added that is new, is the quantification of the effect of social and family formation transitions upon one another. Except for the work of Perez Amador (2006) that analyses the effect of employment on leaving home in Mexico, no study has documented the inclusion of transitions to adulthood (as time varying covariates) affecting the occurrence of other transitions to adulthood in the context of Mexico. Therefore, this research, for the first time, quantified the effect of having previously experienced social and family formation transitions (as time varying covariates) on the likelihood to experience social and family formation transitions as outcomes. Such quantifications are important because it helps to establish the main relationships between social transitions and family formation transitions to adulthood on one another of Mexican young men and women.

Transitions to adulthood cannot be examined as isolated events. However, trajectories to adulthood cannot be considered a fixed sequence of events either. Therefore, the study of transitions integrated to trajectories to adulthood requires complex descriptions to include the various levels involved in shaping trajectories to adulthood. So far, most studies on transitions to adulthood in the context of Latin America have drawn their conclusions based on univariate analysis without considering actual sequence or trajectories at an individual level (Florez and Hogan 1990; Tuiran 1998; Fussell 2004a; Echarri and Perez Amador 2006) and mainly only describing young women's patterns (Florez and Hogan 1990; Tuiran 1998). Therefore, another contribution of this work is the description of trajectories to adulthood considering a life

course approach, in particular, including both young men and young women, by providing evidence of the various trajectories to adulthood of both Mexican young men and young women.

In order to understand the relationships between social transitions and family formation transitions to adulthood, context (space) is a crucial factor to shape trajectories to adulthood. This research adds to the existing knowledge by putting perspective to time and context to the study of transitions and trajectories to adulthood of young men and women in Mexico during the 1980s and 1990s. The results showed that general patterns placed Mexico among still traditional countries, with well-defined gender roles between young men and young women. The traditional trajectory for Mexican young men differed from that of Mexican young women. Moreover, given men's primary role as breadwinners in Mexican society, young men's experience of social and family formation transitions was mainly characterized by work-oriented trajectories and work-family trajectories. Young men's main clusters of trajectories presented a series of different sequences based on the type of transitions experienced. Among the common patterns were entry into the work force prior to leave education; the experience of premarital sex; parental home leaving before entry into first partnership; and first birth within first partnership. In contrast, young women often experienced almost simultaneous occurrence of social and family formation transitions leading to predominantly family-oriented trajectories to adulthood. Moreover, many young women were likely to enter family formation soon after leaving education, missing entry into the labour force. In other cases, exit from education was followed in order by entry into the labour force. The experienced of family formation was characterized by a traditional pattern of entry into first partnership and the simultaneous experience of first sexual intercourse. Parental home leaving was associated to first partnership and entry into childbearing was more likely to occur shortly after first partnership.

In the context of the Latin America region, Mexico is not looking very different from other countries at similar stages of the demographic transition. The region is still characterized by traditional gender roles. In terms of orientations towards family and work, Latin American women behave in the same fashion. In Colombia, young women have experienced multiple trajectories but with strong family orientation preferences

and weak preferences towards work roles (Florez and Hogan 1990). Based on the results presented in this research, Mexican women also experience multiple sequences in both social and family formation transitions. Moreover, Mexican young women do not look different from their Colombian peers in relation to their orientation towards more family-oriented and work-family-oriented trajectories rather than exclusively work-oriented transitions such as the ones observed for women from Northern Europe, characterized by a strong preference towards work-oriented trajectories (Aassve, Billari et al. 2006).

One questions remained. Which trajectories should be encouraged? The answer is trajectories that lead individuals to achieve better educational attainment to fulfil their full potential and become productive members of society. Education opens more options that might not be available otherwise. Increasing the average age at starting social transitions is required in order for young people to attain higher levels of education to improve their life conditions. Therefore, the findings highlight the importance of education in the experience of transitions to adulthood, by providing young people with more options and choices. Thus, findings confirmed the potential of higher education attainment as an important determinant of change previously found by Lloyd and Grant (2004) in the context of southern Asian countries. Following this line of thinking, young people from privileged backgrounds are more likely to complete full-time education (National Research Council 2005). Consequently, these young people are more likely to develop their full potential and take informed decisions without unnecessary negative outcomes in adult life by achieving more successful transitions to adulthood and, in consequence, more successful trajectories to adulthood. The role of educational attainment is likely to provide more options and better and informed choices to young both young men and women in order to develop and achieve better outcomes in adulthood (Marini 1984a; Cuadra, Anderson et al. 1990; National Research Council and Institute of Medicine 2005; Lloyd 2007).

Mexico has been successful in achieving a better demographic profile in terms of lower fertility and mortality. However, unless some specific actions are implemented, current and future generations of Mexican young people will grow old and in unfavourable conditions to face the challenges ahead imposed by the current global context of the world's economies. Thus, there is the need to focus on young people's

life trajectories to tackle in the best possible way the future demographic, social and economic challenges faced by Mexican population. Young people would experience their transitions in better conditions as long as their needs are met. Patterns of transitions to adulthood would continue to change as long as young people are provided with more access in terms of education and employment. However, given the inequalities in income distribution in Mexico, the lack of options has made young men and women experience their transitions to adulthood at early ages. Without education, children and adolescents have to assume the burden of adult roles at very early ages, and they are denied the chance of having a range of other opportunities in their passageway to adulthood. More positive outcomes in adult life would be achieved by providing access to better educational opportunities to young men and women. After having the availability of choices, it would be up to young men and women to take decisions based on relevant knowledge and information. Therefore, more and better investment in education is needed.

By understanding the socio-demographic dimension of the transitions to adulthood, concrete actions can be developed to overcome gender differences, and socio-economic inequalities among young men and young women in both urban and rural areas in Mexico. Demographic success stories could be achieved. However, if the conditions around the time of experiencing transitions to adulthood for Mexican young people are not improved, current conditions would not be able to sustain the experience of transitions to adulthood. Consequently, development will be delay and the perpetuation of poverty will remain a challenge for the country's population. As long as poverty prevails, population is condemned to social deprivation (Sen 1999). Development brings more options and informed choices to population. However, in order to reach informed choices, knowledge of these available options is of crucial importance.

8.2 Policy recommendations

In 1997, the Federal Government of Mexico launched its first social programme under the name *Progresa* (*Progress* in English). In 2002, the name of the programme was changed to *Oportunidades* (*Opportunities* in English). The program started to operate exclusively in rural areas. However, by 2001 it was extended to semi-urban areas, reaching urban areas in 2002. The programme currently benefits 5 million families by providing cash transfers to households conditional upon regular school attendance of the children and regular visits to health clinics. Through this programme, communities are expected to invest in "*human capital"* by improving the education, health and nutrition of their children, leading to long term improvements in their conditions, thus leading to long term poverty eradication in Mexico.

In the educational sphere, *Oportunidades* provides monetary educational grants to participating families for each household member under 22 years of age who is enrolled in education between third grade of Primary and third grade of Secondary school. In order to postpone early entry into the work force, grants for girls are higher in Secondary level, as their education dropout rates are assumed to be higher than those for men. The positive impacts of *Oportunidades* show that conditional cash transfer programmes of this nature have been an effective instrument in both reducing current poverty, as well as improving the future of children through increased investment in their health and education (Gómez 2004). This programme has been innovative in a number of ways, including its use of rigorous independent evaluation of the programme's impact.

Previous work has shown strong links between education and better employment prospects (Salas-Velasco 2007). For instance, De Brauw and Rozelle (2006) have demonstrated that better educated workers are more likely to take jobs in non-manual activities. Moreover, empirical research in China has shown that educational attainment of rural residents has positive statistically significant effects on off-farm employment (Zhang, Zhang et al. 2008). In addition, many studies have shown that improving education can help young people access the labour force with better job opportunities. In many European countries, it has been found that young people with higher education (university graduates) have a shorter length of unemployment between leaving

education and entering the labour force (Lassibille, Navarro et al. 2001; Salas-Velasco 2007). In Taiwan, the average length of search duration between finishing school and joining the labour force for both males and females has been greater for those with bachelor's degrees than for university graduates (Chuang 1997). Consequently, though recent trends in educational attainment have increased in the last decades in Mexico, it is necessary to keep young people longer in education.

Even in countries like Mexico that has a relatively comprehensive educational system, the benefits of programmes like *Oportunidades* need to be extended to medium and higher education, as well. The findings from this study showed that by the time young men and women reach Secondary school, the proportions enrolled in education significantly dropped. In sum, policies should aim to strengthen the transition between medium and higher education to avoid drop out from education of both young men and women in large numbers, particularly in rural areas. Thus, it is necessary to expand the reaches of such programmes to the most isolated communities in Mexico to target the most vulnerable groups of adolescent men and women not covered yet by *Oportunidades* to make sure they have access to education and health services. Consequently, it is of upmost importance to increase educational facilities in rural areas, and to provide more scholarships to young people from rural areas to avoid their drop out from education. Therefore, findings lead to the conclusion that existing social policies and programmes need to be revised, strengthened and reinforced.

The field of transitions to adulthood in both developed and developing countries is an important area for policy making, as it leads to the betterment of the trajectories to adulthood of young people. Moreover, developing countries are faced with different groups of young population experiencing their transitions to adulthood with very different conditions, circumstances and with the availability, or the lack, of very diverse options. Therefore, policies need to take into account the heterogeneity of population, by targeting the specificities of different groups of population. For instance, given the significant gender difference in experiencing the different social and family formation transitions between young Mexican men and women, a gender component should be included in the design and implementation of policies and programmes, both in urban and rural areas. For example, regarding gender based policies, our findings showed that young people living in a female headed household were more likely to enter the labour

force compared with respondents living in other types of household. Consequently, the policies should take into account such factors to increase scholarships to young people living in such circumstances to avoid early entry into the labour force.

Findings from this study showed the lack of gender differences in education. Nevertheless, gender differences in trajectories remained. This was associated with both institutional and attitudinal barriers in Mexico. Mexico is characterized by a strong gender based culture deeply rooted in all aspects of society that has reinforced attitudes towards early partnership and childbearing, and traditional roles for both young men and women. For instance, parents' educational attainment lacked statistical significance in explaining family formation transitions, suggesting the strong cultural value towards the commencement of family formation roles in Mexican society despite socio-economic status. Education helps to prepare young men and young women for the adult roles they will later play in society (National Research Council and Institute of Medicine 2005). Besides, schooling provides important tools to improve health and knowledge. Moreover, more education will open up new attitudes, particularly for young women. Despite the fact that young women are less likely to enter first partnership during their teen years than in the past, these findings show that a large proportion of young people were marrying at very young ages, particularly young women. Early partnership is associated with early childbearing. Young women's early childbearing is associated with negative health and social outcomes (National Research Council and Institute of Medicine 2005). Regardless of the increases in age at first partnership and first childbearing in Mexico, it is necessary to increase access to education for all groups of young people. With access to quality education, it is expected that age at first partnership and first birth will continue to rise. Higher education would provide more options to young people, especially young women, and their preference towards combining work and family formation roles will increase.

In the labour force sphere, the results showed that many young people did not enter the labour force immediately after leaving education, suggesting that employers will not hire young people due to their lack of work experience. Therefore, policies need to be formulated to enable young people to enter the labour force immediately after leaving education. Among those policies incentives for employers should be made available for hiring young people after completing education, in addition to

implementing internship programmes (in higher education) and apprenticeships or practical training (at all levels) to make the transition from education into the labour force smoother. In addition, the findings highlight the need to restructure the Mexican educational system to enable young people to work and study simultaneously, without having to leave education immediately after entering the labour force as it was shown on the results from this analysis. Employers should provide more part-time work opportunities and more flexible working hours for young people. This kind of measures would allow young people to have the opportunity to combine both work and education, preventing them from an early education drop out given the heavy burden of a full-time employment.

Suitable measures need to be applied equally to both young men and young women. The experience in the developing world has shown that women's income tends to be lower in both "low-productivity" employments and skilled employment (United Nations Economic Commission for Europe 2006). Therefore, it is urgent that a substantial reform is implemented that provides equal employment opportunities to both young men and young women in Mexico, and includes equal access to same positions and salaries based on qualifications and capabilities and not gender. A large proportion of young people started their transition to adulthood with early entry into the labour force. However, the issue becomes highly problematic when this entry happens during childhood. These children are forced to assume adult roles at very early ages. Moreover, if early entry into employment forces them to drop out from education, their chances of better employment opportunities in later life will be reduced. Hence, it is necessary to create severe policies to prevent child employment.

Immediate action is required to improve the wellbeing of young men and women in Mexico, having as a priority to reach the most vulnerable groups of young people. However, in order for programmes to have a successful impact on the targeted groups of young people, policy making should involve the government, in conjunction with communities and local non-governmental organizations (NGOs), and most importantly, with the active role and participation of young men and young women themselves. In order to understand young people's needs it is important to work closely with them (Dixon-Mueller 2007).

As youth involvement provides valuable views and perspective to understand the true nature of their situation and their own needs and requirements, many NGOs seek to involve young people in the design, implementation, and evaluation of "youth-serving" programmes (National Research Council and Institute of Medicine 2005). Moreover, the design of the programmes should have a long term commitment. However, it would be necessary to have periodical evaluations to assess the impacts and achievements of the programmes, and also to take the necessary action to identify and improve the areas that need further development and progress.

An important component of the policies and programmes to enhance the well being of young men and women is to include mechanisms to assess and ensure that they the targeted groups are being reached, particularly the most vulnerable groups of young men and young women.

8.3 Lines for Further Research on Transitions to Adulthood in Mexico

This research has explored for the first time the transitions to adulthood of young men and young women in Mexico from a life course perspective by examining the way the experience of these transitions shaped trajectories towards adult life. This kind of analysis of more than one transition to adulthood at a time is a complex task. Given this complexity in trying to analyze the series of social and family formation transitions covered in this study, a series of relevant issues were not deeply covered, mainly due to the lack of information. Therefore, further research aspects on the transitions to adulthood in Mexico remain unexplored.

For instance, work histories were not available to study periods of employment and unemployment for both young men and women. For example, in the case of young women, the inclusion of such histories would allow the study of the relationships between work force and the experience of family formation transitions. With this kind of information, it would be possible to trace the changes experienced by young women when they exit the labour force in order to experience family formation transitions, and their re-entry later in life, if that is the case. In addition, with such kind of histories it

would also be possible to estimate the role of entry into the work force as an intermediate transition after completing education and the transition to economically inactive status to pursue family formation roles, and the association between period of employment and voluntary unemployment due to the birth of the first child, second child, etc. with the help of subsequent fertility histories. Therefore, further research on the work force trajectories is needed. In particular, research on periods of employment and unemployment, as well as voluntary periods in and out of the labour market, for both young men and women.

Given the increases in female headed household in recent years, another important issue that requires further analysis is the shift of household headship from male headed households to female headed households and vice versa, as well as when households are started with female headship.

Sexual and reproductive health topics were not covered. For instance, contraception preferences among young men and women were not included in the analysis. Among other topics not covered were the implications of abortion on shaping the trajectories to adulthood mainly due to the lack of information in the survey used in the analysis.

Given the restricted number of birth cohorts included in the analysis, it was not possible to examine long-term changes of trends in the different patterns of trajectories experienced by young men and women in Mexico over time, i.e. the way that trajectories have changed or have remained constant between past and current birth cohorts of Mexican youth. Moreover, the birth cohorts included in the analysis were right censored by the date of the interview still at young ages without providing information of complete trajectories to adulthood and long-term outcomes. Therefore, future studies should also include the experience of older birth cohorts. With the availability of more information on different cohorts of young people, it would be possible to compare a wider set of cohorts of young people in the way young people have experienced and are experiencing transitions to adulthood, and trace changes over time in the most common trajectories experienced by Mexican youth. That way, it

would be possible to examine the groups of the population who are moving towards more "westernized[40]" patterns in their trajectories towards adulthood.

An expensive but very useful instrument of analysis would be a longitudinal study to follow individuals as they experience their transitions to adulthood. With such study, it would be possible to include information at the time of experiencing the transitions without having to use estimates based on information at the time of the survey. In addition, studies on transitions to adulthood should be more specific in terms of dates at experiencing transitions. In other words, information should be collected requesting dates in month and year at experiencing transitions to obtain more accurate estimates of the order of events and, as a result, obtain more accurate estimates of the associations between transitions to adulthood.

As stated earlier, the study of the trajectories to adulthood has not presented a standard method in the analysis of more than one event at a time given the complexity of such approach. Therefore, it is important to continue exploring alternative methods to study trajectories to adulthood both in the developed and developing countries. Another line of research of transitions to adulthood that needs further exploration is the incorporation of determinants of the different clusters of trajectories followed by young men and young women in Mexico. [In the best of this author's understanding] the field has not yet developed a feasible and adequate instrument for such kind of complex analysis.

The survey data available for Mexico was useful in providing micro level information on descriptions, patterns and determinants of the social and family formation transitions and the main typologies of the trajectories followed by young men and young women. Although large scale surveys offer an incomparable source for examining different demographic processes, more research is needed on micro processes (Castro Martin and Juarez 1995). This kind of research would significantly benefit from a qualitative dimension to give a different perspective to the various patterns of trajectories of social and family formation transitions to adulthood. To enhance the understanding of the life course transitions it could be useful to collect qualitative data to understand patterns in the sequencing of the different clusters of trajectories. The relationship between quantitative information and qualitative data

[40] Characterized by later a age at experiencing the different transitions to adulthood.

would enhance the findings in depth of young men's and women's pathways to adulthood. Moreover, other disciplines could also contribute to a better understanding of the trends seen, such as a social-anthropological perspective.

Other important topics for the future agenda on transitions to adulthood in Mexico include issues on health and migration. The health of young people in developing countries continues to improve. Young men and women are making the transition to adulthood with better chances of surviving into old age (National Research Council and Institute of Medicine 2005). However, not all groups of population are experiencing healthy transitions towards adulthood. Thus, it is important to target the vulnerable groups of the Mexican population who are still experiencing high rates of maternal and infant mortality. Therefore, more research is needed on health issues and transitions to adulthood in poor communities in Mexico.

This millennium has seen the expansion of migration as never before. In Mexico, the main flow of migration is international migration to the U.S. Therefore, more research on the way migration affects the transitions to adulthood is needed. Important issues arise in terms of measuring the flows of young migrants and the way such migration is shaping their transitions to adulthood.

Finally, this research constitutes a small contribution in our knowledge of transitions to adulthood in the context of Mexico. Moreover, this dissertation is far from being the last word said about social and family formation transitions to adulthood in Mexico. Many issues remain unanswered. However, it is hoped that the results from this research would be relevant to the scientific community dedicated to the study of population and in particular the transitions to adulthood, but it is also hoped and desired that these findings are useful for policy planning and making. Increasing our knowledge about the recent pathways followed by young people will enable the government and other policy makers to design more adequate programmes, policies and actions to improve the future well-being of the Mexican population.

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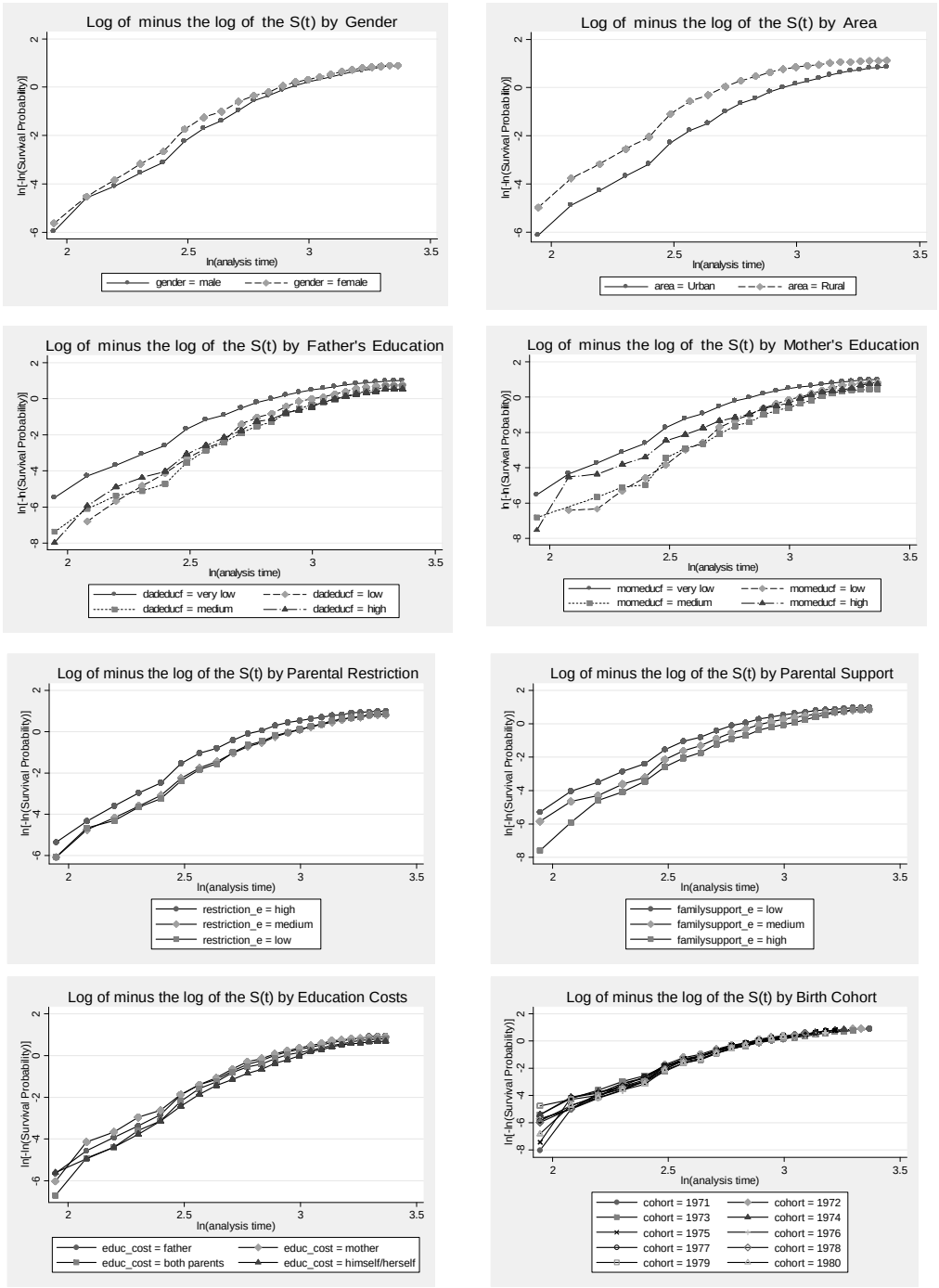
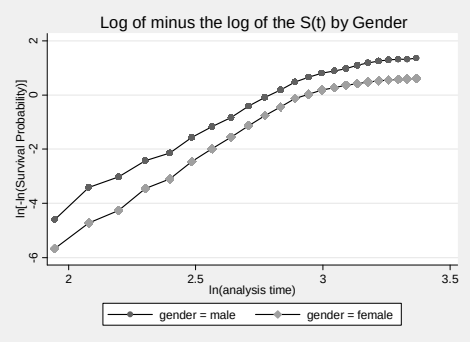
Appendix Chapter 3

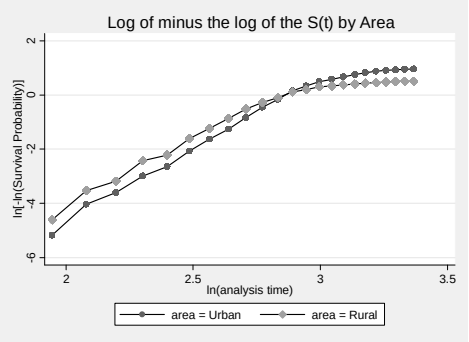
Figure A.1 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for Leaving Education.

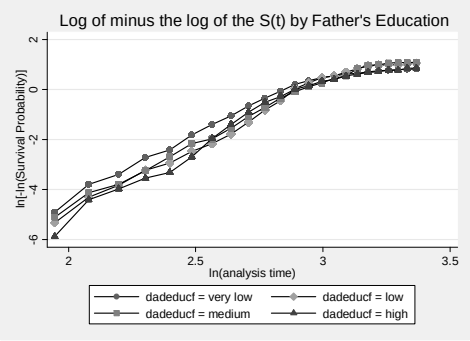


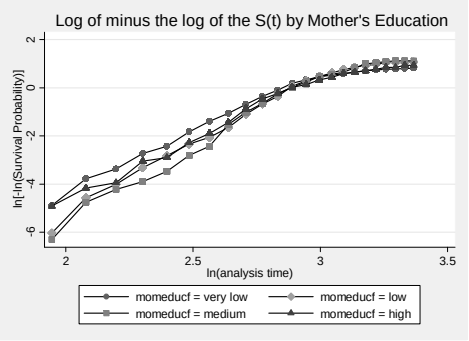
Source: Author's calculations based on ENAJUV 2000.

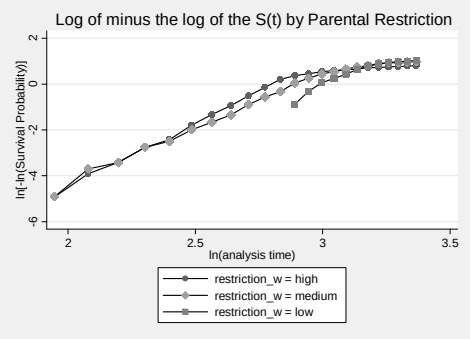
Figure A.2 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for Entering the Labour Force.

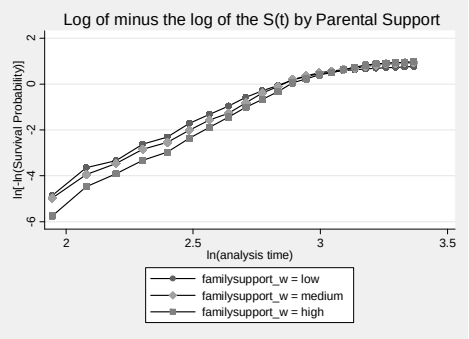


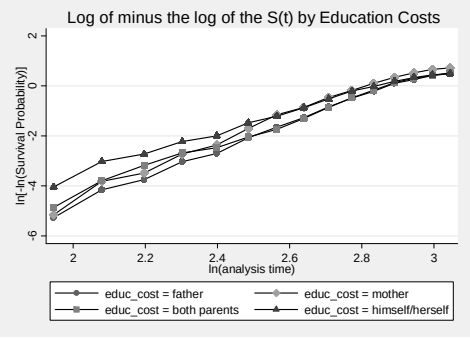


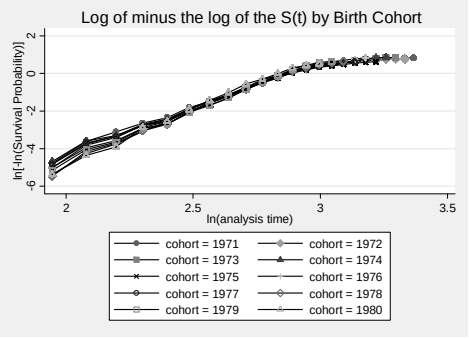






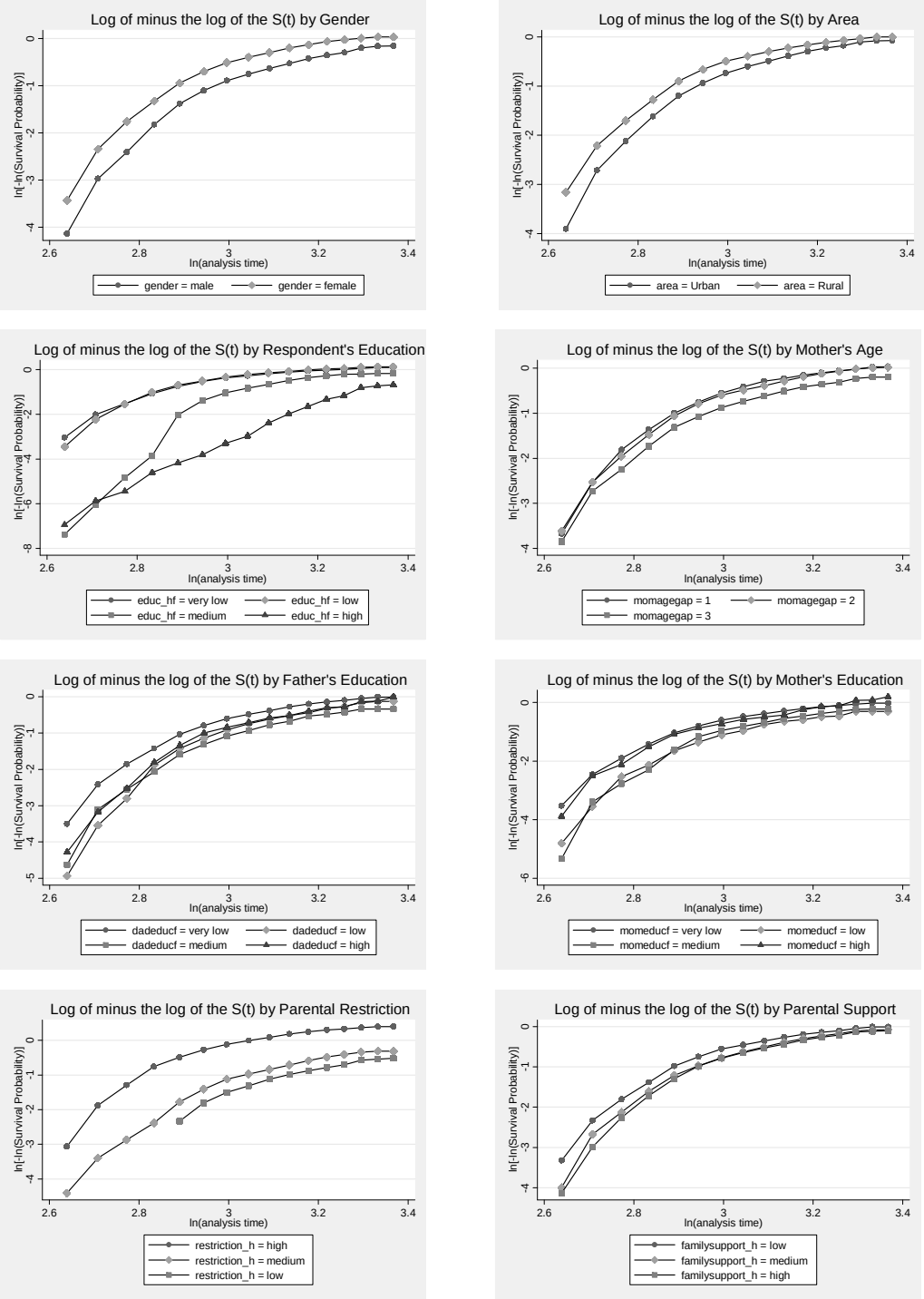






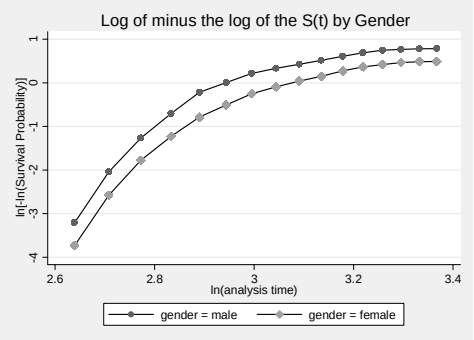
Source: Author's calculations based on ENAJUV 2000.

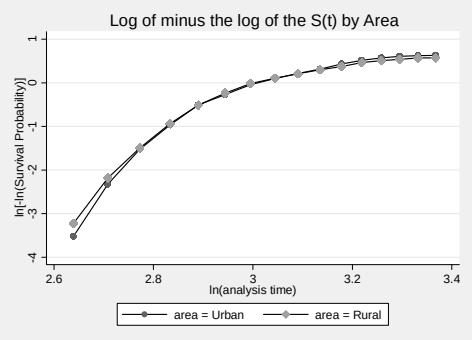
Figure A.3 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for Leaving the Parental Home.

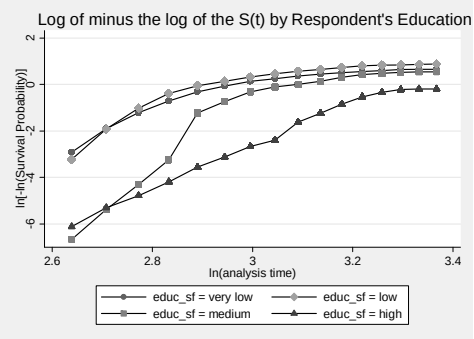


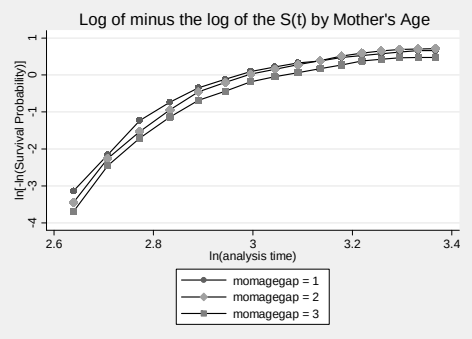
Source: Author's calculations based on ENAJUV 2000.

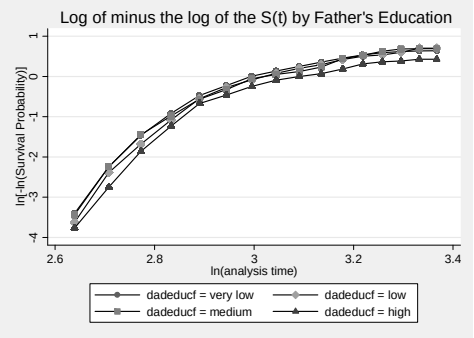
Figure A.4 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for First Sexual Intercourse.

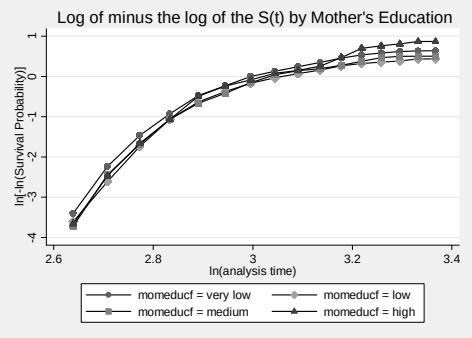


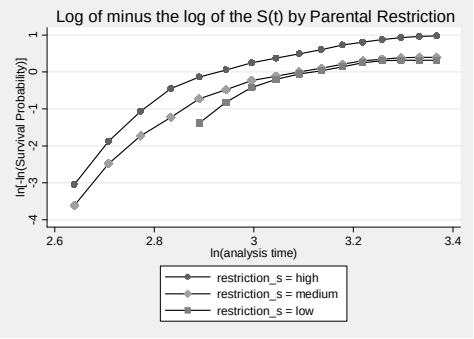


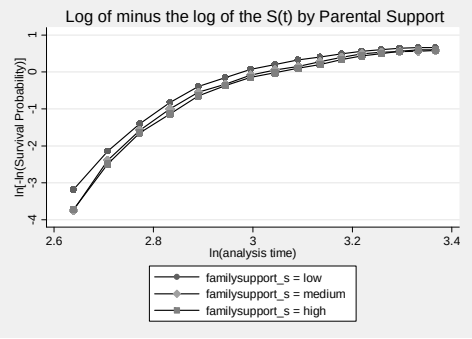






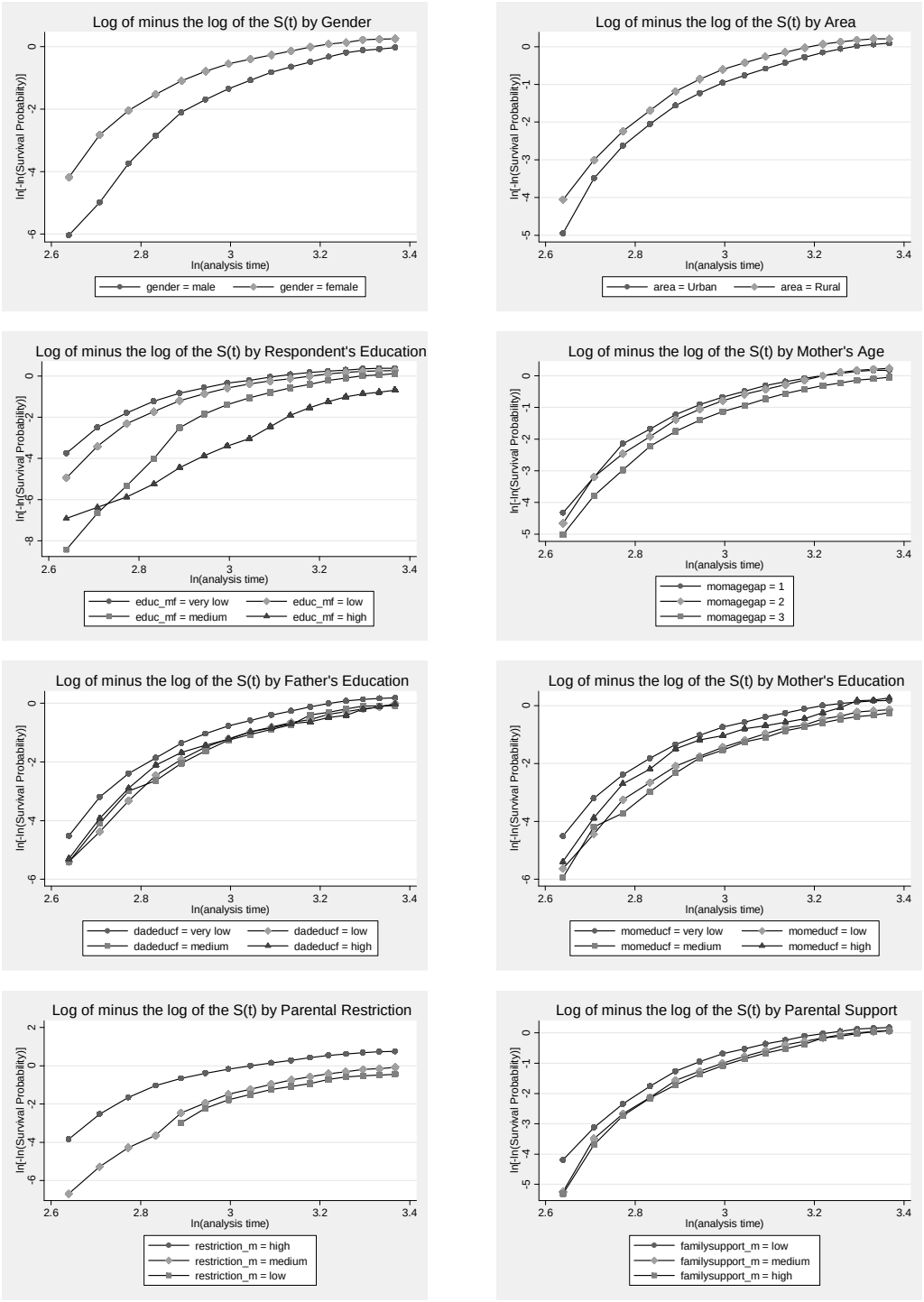






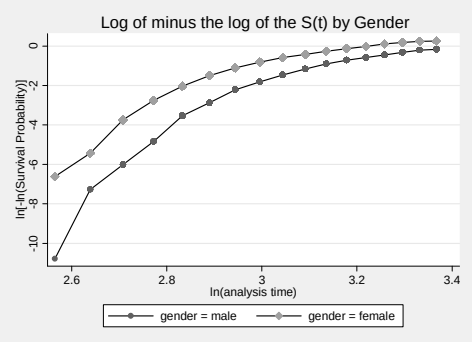
Source: Author's calculations based on ENAJUV 2000.

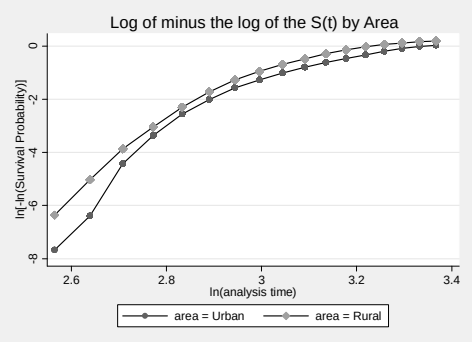
Figure A.5 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for Entry into First Partnership.

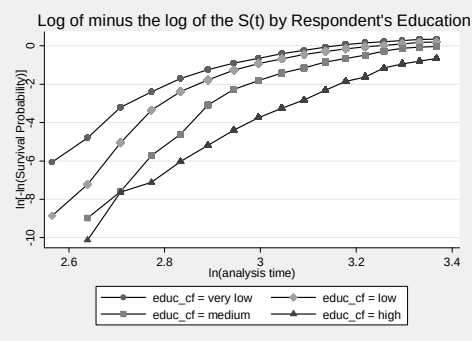


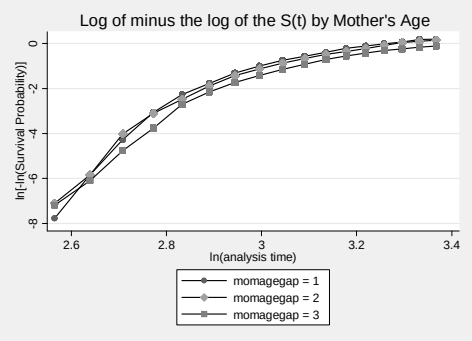
Source: Author's calculations based on ENAJUV 2000.

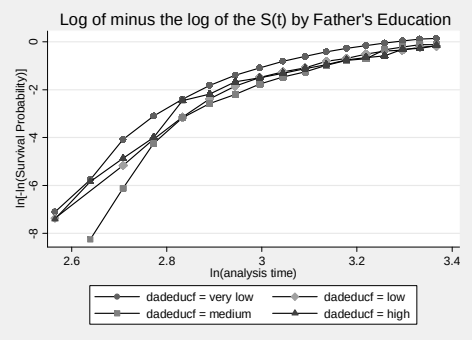
Figure A.6 Log minus the log of the Survival Function curves as a function of time (log scale) for Selected Variables for Entering First Birth.

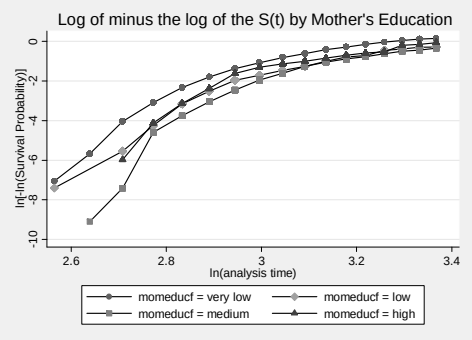


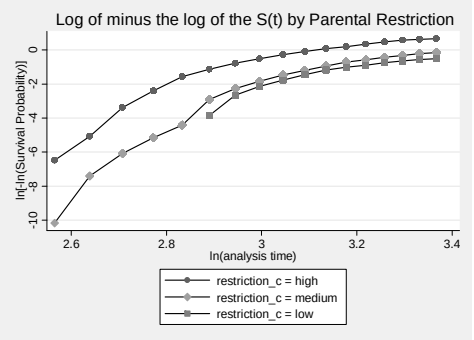


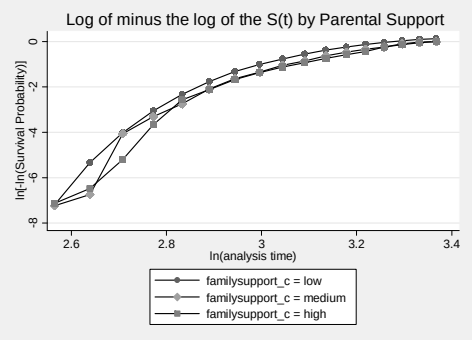












Source: Author's calculations based on ENAJUV 2000.

Table A.1 P-Values of Test for non-proportionality based on the scales Schoenfeld Residuals from the conventional Cox models for Social and Family Formation Transitions, respondents up to age 24.

Covariates	Leaving Education	Entry into the Labour Force	Leaving the Parental Home	First Sexual Intercourse	First Partnership	First Birth
Gender: male	0.000	0.000	0.820	0.000	0.000	0.001
Cohort	0.000	0.000	0.000	0.004	0.000	0.000
Area: rural	0.000	0.000	0.000	0.000	0.000	0.000
Respondent's Education: low			0.017	0.000	0.000	0.000
Respondent's Education: medium			0.000	0.000	0.000	0.000
Respondent's Education: high			0.000	0.000	0.000	0.000
Mother's Age: <20 yrs. old			0.000	0.002	0.015	0.000
Mother's Age: 20-24 yrs. old			0.002	0.081	0.007	0.000
Father's education: low	0.000	0.635	0.000	0.009	0.000	0.004
Father's education: medium	0.000	0.007	0.000	0.000	0.070	0.000
Father's education: high	0.000	0.118	0.000	0.017	0.000	0.000
Mother's education: low	0.000	0.000	0.000	0.285	0.020	0.928
Mother's education: medium	0.000	0.000	0.000	0.000	0.000	0.000
Mother's education: high	0.037	0.000	0.000	0.000	0.000	0.000
Level of Restriction: high	0.000	0.000	0.000	0.000	0.000	0.000
Level of Restriction: medium	0.244	0.000	0.000	0.000	0.576	0.000
Level of Support: low	0.000	0.000	0.000	0.151	0.000	0.005
Level of Support: medium	0.000	0.000	0.012	0.000	0.004	0.000
Education Costs: mother	0.004	0.000				
Education Costs: both parents	0.000	0.000				
Education Costs: other	0.000	0.000				
Global Test	0.000	0.000	0.000	0.000	0.000	0.000

Source: Author's calculations based on ENAJUV 2000.

Appendix Chapter 4

Table A.2 Cox Proportional hazard ratios of Leaving Education and Entry into the Work Force with and without Gender Interaction Parameters.

Covariates	Leaving Education		Leaving Education with interaction parameters		Entry into the Work Force		Entry into the Work Force with interaction parameters	
	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Gender								
Men	0.996	0.034	1.096	0.096	2.447***	0.080	1.409***	0.122
Women (ref.)								
Birth cohort	1.006	0.005	1.002	0.006	1.003	0.005	1.020**	0.006
Birth cohort*Gender			1.007	0.010			0.981*	0.009
Area								
Urban (ref.)								
Rural	1.676***	0.051	1.696***	0.072	0.849***	0.028	0.680***	0.033
Rural*Gender			0.973	0.057			1.773***	0.111
Father's Education								
Very low (ref.)								
Low	0.790***	0.041	0.772***	0.049	0.910*	0.041	0.943	0.044
Medium	0.679***	0.050	0.688***	0.065	0.858**	0.048	0.883	0.063
High	0.664***	0.063	0.621***	0.064	0.863	0.068	0.787*	0.077
Low*Gender			1.050	0.105			0.821*	0.064
Medium*Gender			0.984	0.145			0.868	0.099
High*Gender			1.122	0.199			1.110	0.183
Mother's Education								
Very low (ref.)								
Low	0.739***	0.044	0.744***	0.048	1.001	0.052	1.040	0.058
Medium	0.571***	0.049	0.560***	0.062	1.024	0.061	1.100	0.077
High	0.756**	0.079	0.894	0.078	0.945	0.079	0.926	0.107
Low*Gender			1.001	0.109			0.844	0.074
Medium*Gender			1.033	0.177			0.804	0.102
High*Gender			0.728	0.142			1.001	0.169
Level of Parental Restriction								
High	1.343***	0.059	1.350***	0.091	2.923***	0.114	0.804**	0.053

Medium	0.981	0.038	0.971	0.068	1.904***	0.072	0.828**	0.054
Low (ref.)								
High*Gender			0.957	0.090			1.315**	0.132
Medium*Gender			1.015	0.086			1.211*	0.092
Level of Family Support								
Low	1.423***	0.050	1.520***	0.067	1.086*	0.039	1.040	0.045
Medium	1.135**	0.047	1.185**	0.063	1.014	0.044	0.971	0.061
High (ref.)								
Low*Gender			0.868*	0.060			1.080	0.073
Medium*Gender			0.915	0.073			1.155	0.094
Costs of Education								
Father (ref.)								
Mother	1.063	0.053	1.019	0.058	1.298***	0.065	1.303***	0.081
Both parents	0.893*	0.044	0.978	0.054	0.973	0.047	1.018	0.063
Other	0.732***	0.036	0.724***	0.049	1.205*	0.052	1.195**	0.070
Mother*Gender			1.092	0.107			0.963	0.099
Both parents*Gender			0.834	0.080			0.958	0.082
Other*Gender			1.024	0.101			1.028	0.089
-2LL	145974		145946		153947		154589	
Chi square	1158***		1225***		1271***		1035***	
N	18989		18989		19420		19420	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + value was insignificant.
Source: Author's calculations based on ENAJUV 2000.

Table A.3 Men's Cox Proportional Hazard Ratios of Leaving Education in Relation to Other Transitions to Adulthood.

	Leaving Home		First Sexual Intercourse		First Partnership		First Birth	
Leaving Education after:	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**
Birth Cohort	1.022***	0.006	1.024***	0.007	1.043***	0.007	1.036***	0.007
Area:								
Ref. Urban								
Rural	1.579***	0.063	1.415***	0.067	1.549***	0.067	1.602***	0.066
Father's Education:								
Ref. Very Low								
Low	0.854**	0.043	0.943	0.050	0.878*	0.047	0.841**	0.044
Medium	0.742***	0.051	0.814**	0.057	0.724***	0.054	0.707***	0.052
High	0.657***	0.044	0.678***	0.048	0.657***	0.047	0.643***	0.046
Mother's Education								
Ref. Very Low								
Low	0.803***	0.039	0.864**	0.045	0.777***	0.040	0.784***	0.040
Medium	0.718***	0.047	0.738***	0.051	0.681***	0.048	0.666***	0.047
High	0.687***	0.058	0.680***	0.061	0.600***	0.056	0.627***	0.056
Parental Restriction:								
High	1.111*	0.053	1.168**	0.060	1.091	0.061	1.152**	0.059
Medium	0.964	0.031	0.957	0.034	0.937	0.033	0.946	0.032
Ref. Low								
Family Support:								
Low	1.305***	0.050	1.253***	0.052	1.343***	0.055	1.368***	0.055
Medium	1.099*	0.044	1.068	0.046	1.109*	0.048	1.136**	0.047
Ref. High								
Cost of education:								
Ref. Father								
Mother	0.991	0.045	0.978	0.049	1.003	0.049	0.986	0.047
Both Parents	0.902*	0.039	0.916	0.043	0.902*	0.042	0.879**	0.040
Other	0.689***	0.046	0.701***	0.049	0.731***	0.050	0.718***	0.049
Time between transitions:								
Ref. not having experienced transition Tx								

0 yrs	0.405***	0.022	0.360***	0.019	0.425***	0.026	0.243***	0.002
1 yr	1.032	0.083	1.213**	0.070	1.381**	0.143	0.861	0.148
2 yrs	0.990	0.088	1.090	0.070	0.905	0.134	0.788	0.129
3-4 yrs	0.987	0.071	1.123*	0.064	0.640**	0.097	0.467***	0.098
5-6 yrs	1.050	0.089	1.074	0.076	0.318***	0.086	0.271***	0.101
7+ yrs	1.010	0.079	0.995	0.074	0.474**	0.120	0.582	0.140
-2LL	35064.20		28377.32		29600.46		32006.25	
Chi square	1037.01***		1041.24***		923.99***		1059.20***	
N	5543		4805		4897		5185	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.4 Women's Cox Proportional Hazard Ratios of Leaving Education in Relation to Other Transitions to Adulthood.

	Leaving Home		First Sexual Intercourse		First Partnership		First Birth	
Leaving Education after:	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**	**Hazard Ratio**	**Std. Error**
Birth Cohort	1.014*	0.005	1.038***	0.007	1.035***	0.007	1.039***	0.006
Area:								
Ref. Urban								
Rural	1.670***	0.061	1.709***	0.071	1.837***	0.074	1.782***	0.072
Father's Education:								
Ref. Very Low								
Low	0.793***	0.039	0.827***	0.044	0.830***	0.044	0.817***	0.044
Medium	0.733***	0.049	0.798**	0.056	0.756***	0.054	0.758***	0.055
High	0.666***	0.042	0.701***	0.047	0.664***	0.045	0.638***	0.047
Mother's Education								
Ref. Very Low								
Low	0.801***	0.039	0.794***	0.042	0.798***	0.041	0.783***	0.042
Medium	0.705***	0.045	0.733***	0.050	0.706***	0.049	0.680***	0.049
High	0.748***	0.060	0.682***	0.061	0.667***	0.060	0.697***	0.065
Parental Restriction:								
High	1.321***	0.064	1.237***	0.067	1.180**	0.061	1.259***	0.071
Medium	1.021	0.051	1.032	0.057	0.987	0.051	1.011	0.056
Ref. Low								
Family Support:								
Low	1.305***	0.044	1.267***	0.048	1.310***	0.049	1.353***	0.051
Medium	1.151***	0.041	1.122**	0.045	1.136**	0.045	1.159***	0.046
Ref. High								
Cost of education:								
Ref. Father								
Mother	1.056	0.042	1.050	0.048	1.073	0.048	1.073	0.049
Both Parents	0.970	0.040	0.975	0.045	0.970	0.044	0.983	0.045
Other	0.798***	0.046	0.756***	0.051	0.755***	0.049	0.706***	0.051
Time between transitions:								
Ref. not having experienced transition Tx								

0 yrs	0.480***	0.020	0.575***	0.025	0.620***	0.027	0.310***	0.002
1 yr	1.000	0.070	1.556***	0.097	1.180	0.100	0.857	0.096
2 yrs	0.923	0.073	1.214*	0.095	0.896	0.097	0.685**	0.080
3-4 yrs	1.018	0.063	1.033	0.076	0.556***	0.062	0.453***	0.063
5-6 yrs	0.926	0.075	0.574***	0.070	0.315***	0.056	0.272***	0.053
7+ yrs	0.803**	0.064	0.474***	0.065	0.344***	0.059	0.306***	0.057
-2LL	42279.22		32414.64		33542.85		31266.27	
Chi square	1144.87***		946.56***		906.36***		1183.78***	
N	6645		5531		5638		5395	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table A.5 Men's Cox Proportional Hazard Ratios of Entry into the Labour Force in Relation to Other Transitions to Adulthood.

Entry into the Labour Force after:	Leaving Home		First Sexual Intercourse		First Partnership		First Birth	
	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Birth Cohort	0.998	0.005	1.004	0.007	0.997	0.006	0.996	0.006
Area:								
Ref. Urban								
Rural	1.171***	0.044	1.112*	0.052	1.153***	0.047	1.161***	0.045
Father's Education:								
Ref. Very Low								
Low	0.835***	0.042	0.910	0.052	0.851**	0.044	0.831***	0.041
Medium	0.779***	0.052	0.774**	0.058	0.768***	0.053	0.744***	0.049
High	0.733***	0.046	0.755***	0.054	0.700***	0.045	0.723***	0.046
Mother's Education								
Ref. Very Low								
Low	0.973	0.047	1.006	0.056	0.980	0.048	0.959	0.045
Medium	0.892	0.058	0.931	0.067	0.879*	0.057	0.867*	0.056
High	0.918	0.072	0.916	0.082	0.905	0.072	0.909	0.070
Parental Restriction:								
High	3.143***	0.139	2.508***	0.120	3.369***	0.160	3.562***	0.163
Medium	2.077***	0.088	1.646***	0.075	2.220***	0.098	2.275***	0.098
Ref. Low								
Family Support:								
Low	1.255***	0.046	1.172***	0.050	1.278***	0.050	1.281***	0.047
Medium	1.152***	0.044	1.149**	0.051	1.156***	0.047	1.159***	0.045
Ref. High								
Cost of education:								
Ref. Father								
Mother	1.182***	0.052	1.140*	0.061	1.206***	0.056	1.212***	0.054
Both Parents	1.043	0.043	1.027	0.051	1.079	0.047	1.066	0.044
Other	1.205**	0.069	1.028	0.073	1.261***	0.074	1.256***	0.070
Time between transitions:								
Ref. not having experienced transition Tx								

0 yrs	0.462***	0.023	0.418***	0.020	0.335***	0.025	0.236***	0.026
1 yr	1.158	0.093	1.197**	0.069	0.961	0.126	0.348***	0.093
2 yrs	0.829	0.090	1.209**	0.077	0.454***	0.103	0.321***	0.098
3-4 yrs	0.755**	0.071	1.150*	0.073	0.249***	0.063	0.158***	0.056
5-6 yrs	0.869	0.099	1.073	0.100	0.184***	0.070	0.245***	0.088
7+ yrs	0.682	0.073	0.947	0.104	0.229***	0.072	0.211***	0.089
-2LL	37192.89		25296.23		32577.57		36381.41	
Chi square	1299.72***		1116.15***		1234.26		1336.28	
N	5113		3753		4564		5012	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table A.6 Women's Cox Proportional Hazard Ratios of Entry into the Labour Force in Relation to Other Transitions to Adulthood.

Entry into the Labour Force after:	Leaving Home		First Sexual Intercourse		First Partnership		First Birth	
	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error	Hazard Ratio	Std. Error
Birth Cohort	1.030***	0.005	1.044***	0.007	1.026***	0.006	1.033***	0.006
Area:								
Ref. Urban								
Rural	0.672***	0.025	0.596***	0.026	0.645***	0.028	0.621***	0.027
Father's Education:								
Ref. Very Low								
Low	0.992	0.049	1.022	0.057	1.006	0.053	1.046	0.054
Medium	0.865*	0.056	0.895	0.064	0.879	0.061	0.888	0.059
High	0.840***	0.050	0.885	0.059	0.814**	0.053	0.834**	0.054
Mother's Education								
Ref. Very Low								
Low	1.044	0.050	1.077	0.056	1.072	0.054	1.025	0.051
Medium	1.026	0.064	1.032	0.071	1.017	0.068	1.018	0.066
High	0.990	0.074	0.865	0.077	0.914	0.078	0.908	0.077
Parental Restriction:								
High	1.527***	0.086	1.400***	0.086	1.789***	0.106	1.712***	0.102
Medium	1.044	0.062	0.955	0.061	1.122	0.068	1.099	0.068
Ref. Low								
Family Support:								
Low	1.004	0.033	0.980	0.038	0.998	0.037	1.010	0.037
Medium	1.059	0.037	1.075	0.043	1.082*	0.042	1.081*	0.041
Ref. High								
Cost of education:								
Ref. Father								
Mother	1.217***	0.048	1.311**	0.060	1.339***	0.060	1.290***	0.058
Both Parents	1.163***	0.046	1.161**	0.052	1.176***	0.051	1.184***	0.051
Other	1.150**	0.056	1.047	0.062	1.047	0.060	1.029	0.059
Time between transitions:								
Ref. not having experienced transition Tx								

0 yrs	0.450***	0.018	0.296***	0.015	0.190***	0.011	0.108***	0.008
1 yr	0.842**	0.053	0.743***	0.047	0.387***	0.033	0.409***	0.037
2 yrs	0.689***	0.050	0.597***	0.043	0.359***	0.033	0.303***	0.034
3-4 yrs	0.627***	0.040	0.382***	0.028	0.226***	0.020	0.204***	0.022
5-6 yrs	0.591***	0.048	0.252***	0.027	0.169***	0.021	0.250***	0.031
7+ yrs	0.663***	0.050	0.335***	0.033	0.247***	0.027	0.298***	0.038
-2LL	46092.27		33476.68		35255.03		35881.76	
Chi square	887.08***		1463.81***		2058.70***		2455.29***	
N	7527		6173		6381		6477	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Appendix Chapter 5

Table A.7 Men's Cox Proportional hazard ratios of First Sexual Intercourse.

	Model S1		Model S2		Model S3		Model S4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.969**	0.009	0.973**	0.008	0.971***	0.008	0.961***	0.007
Area								
Urban (ref.)								
Rural	0.870**	0.036	0.757***	0.035	0.792***	0.037	0.830***	0.041
Respondent's Education								
Very low (ref.)								
Low			1.508***	0.082	1.470***	0.079	1.510***	0.087
Medium			0.722***	0.048	0.670***	0.045	0.775***	0.056
High			0.199***	0.028	0.184***	0.028	0.215***	0.037
Mother's Age at Birth								
Less 20 yrs					1.243**	0.078	1.126*	0.062
21-24 yrs					1.123*	0.057	1.093	0.053
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					1.121	0.080	1.159*	0.082
Medium					1.108	0.105	1.151	0.112
High					0.995	0.103	1.030	0.105
Mother's Education								
Very low (ref.)								
Low					1.148*	0.074	1.130	0.074
Medium					1.330**	0.138	1.256*	0.126
High					1.121	0.166	1.167	0.190
Level of Restriction								
High							2.777***	0.141
Medium							1.658***	0.086
Low (ref)								
Level of support								
Low							1.016	0.054
Medium							0.939	0.055
High (ref)								
-2LL	60298.8		59567.5		59326.9		53361.6	
Chi square	29.6***		430.5***		486.3***		876.3***	
N	8795		8795		8768		8029	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table A.8 Women's Cox Proportional hazard ratios of First Sexual Intercourse.

	Model S1		Model S2		Model S3		Model S4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.954***	0.007	0.964***	0.007	0.964**	0.007	0.976**	0.007
Area								
Urban (ref.)								
Rural	1.139**	0.043	0.838***	0.033	0.837***	0.033	0.794***	0.034
Respondent's Education								
Very low (ref.)								
Low			0.902*	0.043	0.907*	0.042	0.921	0.044
Medium			0.504***	0.027	0.506***	0.026	0.581***	0.031
High			0.188***	0.020	0.186***	0.019	0.223***	0.025
Mother's Age at Birth								
Less 20 yrs					1.375***	0.086	1.245**	0.081
21-24 yrs					1.257***	0.051	1.210***	0.050
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.950	0.078	1.072	0.082
Medium					1.042	0.126	1.155	0.140
High					0.954	0.101	1.066	0.120
Mother's Education								
Very low (ref.)								
Low					0.910	0.073	0.936	0.076
Medium					1.068	0.133	1.012	0.147
High					1.293**	0.126	1.298*	0.143
Level of Restriction								
High							2.156***	0.204
Medium							0.944	0.097
Low (ref)								
Level of support								
Low							1.089	0.054
Medium							0.928	0.052
High (ref)								
-2LL	75731.4		74892.2		74739.72		64948.7	
Chi square	50.3***		420.7***		527.9***		824.7***	
N	12271		12271		12258		10907	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.9 Men's Cox Proportional Hazard Ratios for Entry into First Partnership.

	Model P1		Model P2		Model P3		Model P4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.939***	0.010	0.943***	0.010	0.942***	0.010	0.942***	0.010
Area								
Urban (ref.)								
Rural	1.314***	0.079	0.952	0.073	0.959	0.068	0.961	0.067
Respondent's Education								
Very low (ref.)								
Low			0.896	0.089	0.922	0.085	0.970	0.085
Medium			0.593***	0.065	0.605***	0.070	0.609***	0.070
High			0.191***	0.025	0.196***	0.032	0.215***	0.034
Mother's Age at Birth								
Less 20 yrs					1.492***	0.154	1.456***	0.149
21-24 yrs					1.343**	0.121	1.322**	0.118
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					1.024	0.142	1.087	0.155
Medium					1.121	0.218	1.210	0.227
High					1.501	0.475	1.421	0.425
Mother's Education								
Very low (ref.)								
Low					0.825	0.101	0.812	0.104
Medium					0.675	0.144	0.644*	0.130
High					0.722	0.208	0.714	0.216
Level of Restriction								
High							3.061***	0.265
Medium							1.482***	0.113
Low (ref)								
Level of support								
Low							0.946	0.085
Medium							0.894	0.093
High (ref)								
-2LL	34233.5		33810.3		33659.3		29974.8	
Chi square	59.83***		282.38***		314.78***		537.71***	
N	9111		9111		9084		8292	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.10 Women's Cox Proportional Hazard Ratios for Entry into First Partnership.

	Model P1		Model P2		Model P3		Model P4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.943***	0.008	0.953***	0.007	0.954***	0.007	0.966***	0.007
Area								
Urban (ref.)								
Rural	1.311***	0.056	0.907*	0.043	0.895*	0.043	0.837**	0.044
Respondent's Education								
Very low (ref.)								
Low			0.764***	0.046	0.781***	0.045	0.809**	0.051
Medium			0.441***	0.027	0.457***	0.027	0.533***	0.036
High			0.166***	0.019	0.172***	0.019	0.237***	0.027
Mother's Age at Birth								
Less 20 yrs					1.562***	0.103	1.377***	0.093
21-24 yrs					1.373***	0.069	1.283***	0.068
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.856	0.082	0.968	0.085
Medium					1.013	0.131	1.152	0.136
High					0.902	0.099	0.976	0.115
Mother's Education								
Very low (ref.)								
Low					0.845	0.083	0.887	0.083
Medium					0.951	0.131	0.866	0.133
High					1.322**	0.139	1.351*	0.159
Level of Restriction								
High							3.710***	0.551
Medium							1.290	0.198
Low (ref)								
Level of support								
Low							1.072	0.062
Medium							1.011	0.068
High (ref)								
-2LL	65935.9		65079.1		64889.1		55668.6	
Chi square	87.29***		453.37***		574.78***		940.26***	
N	12354		12354		12341		10968	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.11 Men's Cox Proportional Hazard Ratios for First Birth.

	Model B1		Model B2		Model B3		Model B4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.954***	0.012	0.958***	0.011	0.953***	0.012	0.955***	0.012
Area								
Urban (ref.)								
Rural	1.286***	0.085	0.918	0.080	0.924	0.072	0.906	0.072
Respondent's Education								
Very low (ref.)								
Low			0.828	0.093	0.850	0.088	0.874	0.087
Medium			0.555***	0.068	0.565***	0.075	0.559***	0.076
High			0.199***	0.030	0.201***	0.038	0.224***	0.042
Mother's Age at Birth								
Less 20 yrs					1.488***	0.168	1.452**	0.166
21-24 yrs					1.251**	0.132	1.246*	0.133
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					1.111	0.173	1.186	0.190
Medium					0.981	0.195	1.025	0.199
High					1.776	0.648	1.755	0.597
Mother's Education								
Very low (ref.)								
Low					0.863	0.123	0.850	0.128
Medium					0.623*	0.137	0.573*	0.125
High					0.576	0.194	0.552	0.195
Level of Restriction								
High							2.741***	0.283
Medium							1.359***	0.112
Low (ref)								
Level of support								
Low							1.007	0.107
Medium							0.907	0.112
High (ref)								
-2LL	28679.5		28343.1		28203.8		25160.3	
Chi square	31.4***		181.9***		219.8***		362.2***	
N	9146		9146		9119		8,324	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.12 Women's Cox Proportional Hazard Ratios for First Birth.

	Model B1		Model B2		Model B3		Model B4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.954***	0.008	0.965***	0.008	0.967***	0.008	0.978**	0.008
Area								
Urban (ref.)								
Rural	1.334***	0.058	0.912	0.045	0.890*	0.044	0.843**	0.046
Respondent's Education								
Very low (ref.)								
Low			0.772***	0.047	0.789***	0.046	0.805**	0.051
Medium			0.423***	0.029	0.446***	0.029	0.508***	0.037
High			0.157***	0.020	0.169***	0.020	0.220***	0.026
Mother's Age at Birth								
Less 20 yrs					1.452***	0.098	1.309***	0.092
21-24 yrs					1.313***	0.068	1.261***	0.069
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.847	0.084	0.928	0.089
Medium					0.947	0.129	1.043	0.134
High					0.821	0.097	0.861	0.110
Mother's Education								
Very low (ref.)								
Low					0.810	0.087	0.842	0.093
Medium					0.969	0.126	0.886	0.141
High					1.158	0.140	1.168	0.149
Level of Restriction								
High							2.637***	0.364
Medium							1.159	0.169
Low (ref)								
Level of support								
Low							1.069	0.063
Medium							0.999	0.074
High (ref)								
-2LL	62287.1		61424.2		61266.4		52609.9	
Chi square	72.1***		403.5***		491.5***		682.5***	
N	12403		12403		12390		11,012	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table A.13 Cox Proportional Hazard Ratios of First Sexual Intercourse to test the effects of Father's and Mother's Educational Attainment.

	Model S1		Model S2		Model S3		Model S4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	2.042***	0.069	2.240***	0.077	2.243***	0.077	2.233***	0.077
Women (ref.)								
Birth cohort	0.969***	0.005	0.964***	0.005	0.964***	0.005	0.963***	0.005
Area								
Urban (ref.)								
Rural	0.790***	0.026	0.891***	0.026	0.893***	0.027	0.891***	0.026
Respondent's Education								
Very low (ref.)								
Low	1.203***	0.047						
Medium	0.698***	0.032						
High	0.239***	0.023						
Mother's Age at Birth								
Less 20 yrs	1.196***	0.052	1.191***	0.057	1.185**	0.058	1.191***	0.057
21-24 yrs	1.164***	0.038	1.166***	0.039	1.166***	0.039	1.168***	0.040
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low			1.073	0.058	1.057	0.054		
Medium			1.013	0.087	0.996	0.072		
High			0.847	0.082	0.881	0.079		
Mother's Education								
Very low (ref.)								
Low			0.949	0.052			0.959	0.049
Medium			0.961	0.106			0.919	0.098
High			1.155	0.125			1.042	0.103
Level of Restriction								
High	2.762***	0.128	3.186***	0.155	3.181***	0.154	3.188***	0.158
Medium	1.468***	0.073	1.513***	0.079	1.510***	0.079	1.516***	0.081
Low (ref)								
Level of support								
Low	0.898**	0.034	0.842***	0.033	0.840***	0.033	0.839***	0.034
Medium	0.959	0.035	0.841***	0.032	0.840***	0.032	0.837***	0.033
High (ref)								
-2LL	129135.9		129871		129933.4		130036.1	
Chi square	1553.3***		1200.8***		1189.5***		1177.5***	
N	18972		18936		18942		18962	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.14 Cox Proportional Hazard Ratios of First Partnership to test the effects of Father's and Mother's Educational Attainment.

	Model P1		Model P2		Model P3		Model P4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	0.992	0.051	1.027	0.056	1.033	0.057	1.027	0.056
Women (ref.)								
Birth cohort	0.956***	0.006	0.954***	0.006	0.952***	0.006	0.954***	0.006
Area								
Urban (ref.)								
Rural	0.887**	0.038	1.062	0.041	1.093*	0.042	1.074	0.042
Respondent's Education								
Very low (ref.)								
Low	0.853**	0.046						
Medium	0.549***	0.033						
High	0.218***	0.020						
Mother's Age at Birth								
Less 20 yrs	1.397***	0.082	1.425***	0.090	1.394***	0.095	1.411***	0.087
21-24 yrs	1.311***	0.063	1.328***	0.066	1.333***	0.067	1.319***	0.065
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low			0.902	0.073	0.831*	0.062		
Medium			0.916	0.094	0.773**	0.072		
High			0.893	0.149	0.810	0.115		
Mother's Education								
Very low (ref.)								
Low			0.753***	0.061			0.724***	0.053
Medium			0.605***	0.080			0.577***	0.070
High			1.015	0.145			0.954	0.101
Level of Restriction								
High	3.430**	0.227	3.851***	0.269	3.925***	0.283	3.872***	0.269
Medium	1.355***	0.087	1.371***	0.088	1.385***	0.091	1.368***	0.088
Low (ref)								
Level of support								
Low	1.030	0.055	1.195***	0.061	1.207***	0.061	1.208***	0.065
Medium	0.971	0.059	1.030	0.065	1.033	0.067	1.037	0.066
High (ref)								
-2LL	90994.6		91554.4		91658.1		91636.8	
Chi square	1538.1***		1262.4***		1220.4***		1238.4***	
N	19296		19260		19266		19286	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.15 Cox Proportional Hazard Ratios of First Birth to test the effects of Father's and Mother's Educational Attainment.

	Model B1		Model B2		Model B3		Model B4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	0.822**	0.052	0.863*	0.056	0.866*	0.057	0.863*	0.056
Women (ref.)								
Birth cohort	0.970***	0.007	0.968***	0.007	0.965***	0.007	0.967***	0.007
Area								
Urban (ref.)								
Rural	0.876**	0.040	1.055	0.041	1.087*	0.043	1.069	0.043
Respondent's Education								
Very low (ref.)								
Low	0.813***	0.046						
Medium	0.510***	0.034						
High	0.212***	0.021						
Mother's Age at Birth								
Less 20 yrs	1.334***	0.085	1.387***	0.091	1.359***	0.095	1.368***	0.088
21-24 yrs	1.252***	0.068	1.274***	0.070	1.278***	0.071	1.260***	0.069
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low			0.900	0.078	0.824*	0.066		
Medium			0.818	0.087	0.680***	0.065		
High			0.911	0.180	0.774	0.125		
Mother's Education								
Very low (ref.)								
Low			0.741**	0.068			0.708***	0.059
Medium			0.592***	0.086			0.552***	0.071
High			0.845	0.143			0.804	0.098
Level of Restriction								
High	0.454***	0.025	0.404***	0.024	0.400***	0.024	0.401***	0.023
Medium	0.356***	0.027	0.313***	0.025	0.306***	0.025	0.311***	0.025
Low (ref)								
Level of support								
Low	0.921	0.051	0.843**	0.047	0.837**	0.048	0.840**	0.046
Medium	0.954	0.058	0.812***	0.046	0.803***	0.045	0.801***	0.048
High (ref)								
-2LL	82085.9		82593.2		82689.2		82675.8	
Chi square	1235.8***		958.0***		936.0***		935.3***	
N	19372		19336		19342		19362	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Appendix Chapter 6

Table A.16 Men's Cox Proportional Hazard Ratios of Parental Home Leaving.

	Model H1		Model H2		Model H3		Model H4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.945***	0.011	0.946***	0.011	0.944***	0.010	0.938***	0.010
Area								
Urban (ref.)								
Rural	1.134*	0.067	0.899	0.065	0.945	0.064	0.910	0.060
Respondent's Education								
Very low (ref.)								
Low			1.138	0.108	1.141	0.098	1.166*	0.091
Medium			0.689**	0.079	0.643***	0.074	0.674***	0.068
High			0.254***	0.037	0.228***	0.037	0.275***	0.041
Mother's Age at Child's Birth								
Less 20 yrs					1.285**	0.113	1.188*	0.101
21-24 yrs					1.136	0.094	1.115	0.087
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					1.208	0.151	1.232	0.145
Medium					0.985	0.171	0.972	0.164
High					1.524	0.386	1.317	0.249
Mother's Education								
Very low (ref.)								
Low					0.863	0.103	0.973	0.107
Medium					1.219	0.228	1.277	0.232
High					1.008	0.268	1.146	0.286
Level of Restriction								
High							3.630***	0.276
Medium							1.566***	0.122
Low (ref)								
Level of support								
Low							0.926	0.075
Medium							0.875	0.082
High (ref)								
-2LL	35387.6		35045.3		34908.7		31117.3	
Chi square	26.46***		160.35***		223.9***		556.3***	
N	8856		8856		8830		8077	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.
Source: Author's calculations based on ENAJUV 2000.

Table A.17 Women's Cox Proportional Hazard Ratios of Parental Home Leaving.

	Model H1		Model H2		Model H3		Model H4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men								
Women (ref.)								
Birth cohort	0.956***	0.008	0.963***	0.008	0.965***	0.008	0.975**	0.008
Area								
Urban (ref.)								
Rural	1.259***	0.056	0.958	0.048	0.946	0.048	0.912	0.050
Respondent's Education								
Very low (ref.)								
Low			0.983	0.061	0.992	0.060	1.045	0.071
Medium			0.554***	0.037	0.571***	0.037	0.690***	0.049
High			0.181***	0.022	0.189***	0.023	0.262***	0.039
Mother's Age at Child's Birth								
Less 20 yrs					1.395***	0.099	1.239**	0.096
21-24 yrs					1.321***	0.071	1.251***	0.070
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low					0.854	0.077	0.975	0.083
Medium					0.847	0.104	0.938	0.125
High					0.945	0.120	0.991	0.147
Mother's Education								
Very low (ref.)								
Low					0.925	0.089	0.995	0.098
Medium					1.025	0.143	0.953	0.146
High					1.122	0.190	1.024	0.225
Level of Restriction								
High							2.668***	0.361
Medium							1.074	0.153
Low (ref)								
Level of support								
Low							1.101	0.071
Medium							0.985	0.072
High (ref)								
-2LL	60320.4		59686.2		59562.2		51597.8	
Chi square	51.9***		334.1***		334.1***		505.0***	
N	11905		11905		11892		10591	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Table A.18 Cox Proportional Hazard Ratios of Parental Home Leaving to test the effects of Father's and Mother's Educational Attainment.

	Model H1		Model H2		Model H3		Model H4	
Covariates	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**	**Hazard Ratio**	**Std. Err.**
Gender								
Men	1.242***	0.064	1.289***	0.068	1.291***	0.069	1.287***	0.069
Women (ref.)								
Birth cohort	0.960***	0.007	0.959***	0.007	0.957***	0.007	0.959***	0.007
Area								
Urban (ref.)								
Rural	0.900*	0.038	1.022	0.040	1.031	0.040	1.028	0.040
Respondent's Education								
Very low (ref.)								
Low	1.084	0.059						
Medium	0.692***	0.043						
High	0.279***	0.030						
Mother's Age at Child's Birth								
Less 20 yrs	1.208**	0.073	1.233**	0.077	1.223**	0.079	1.223**	0.076
21-24 yrs	1.199***	0.058	1.219***	0.060	1.220***	0.060	1.213***	0.061
25+ (ref.)								
Father's Education								
Very low (ref.)								
Low			1.000	0.075	0.964	0.068		
Medium			0.800	0.114	0.760*	0.093		
High			0.960	0.139	0.947	0.117		
Mother's Education								
Very low (ref.)								
Low			0.875	0.069			0.863*	0.062
Medium			0.880	0.124			0.825	0.109
High			1.047	0.175			1.025	0.141
Level of Restriction								
High	3.361***	0.228	3.825***	0.271	3.860***	0.276	3.830***	0.271
Medium	1.425***	0.097	1.454***	0.100	1.460***	0.100	1.452***	0.101
Low (ref)								
Level of support								
Low	1.012	0.056	1.137*	0.061	1.142*	0.061	1.147*	0.066
Medium	0.933	0.058	0.986	0.064	0.987	0.064	0.997	0.066
High (ref)								
-2LL	88533.3		88950.6		88976.5		89039.6	
Chi square	877.4***		801.4***		785.6***		732.6***	
N	18704		18668		18674		18694	

*** p < 0.001; ** p < 0.01; * p < 0.05.
Source: Author's calculations based on ENAJUV 2000.

Appendix Chapter 7

Table A.19 Urban Young Men Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
S	.	.	.	20	.	.	0	.	.
EW	14	16	.	.	.	.	2	1.8	1.9
EWH	16	19	21	.	.	.	5	2.7	2.5
EWS	16	18	.	18	.	.	2	2.4	2.2
EWSH	15	16	18	17	.	.	3	3.7	3.2
EWSP	16	19	.	20	25	.	9	2.6	1.9
EWSHP	16	17	23	18	24	.	8	3.0	2.2
EWSPB	16	17	.	18	22	22	6	2.8	2.1
EWSHPB	15	17	19	18	20	22	7	2.6	2.1
W	.	15	.	.	.	.	0	.	.
WE	23	13	.	.	.	.	10	5.6	2.8
WEH	20	13	19	.	.	.	7	4.3	3.6
WS	.	18	.	18	.	.	0	3.4	2.5
WSH	.	16	18	18	.	.	2	3.9	3.1
WSHE	22	15	20	18	.	.	7	3.0	2.4
WSE	21	15	.	17	.	.	6	2.7	2.1
WSEP	19	14	.	18	25	.	11	3.9	2.1
WSEPB	19	15	.	17	22	23	8	3.2	2.6
WSEHP	18	15	20	18	23	.	8	4.1	3.2
WSHPB	.	15	19	18	19	21	6	3.4	3.0
WESHPB	18	13	20	18	21	23	10	3.1	2.4
Total	18	16	24	18	25	27		3.0	2.5

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.20 Urban Young Men Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
S	.	.	.	18	.	.	0	.	.
EW	16	17	.	.	.	.	1	1.2	1.6
EWH	15	16	17	.	.	.	2	2.2	2.0
EWS	16	17	.	17	.	.	1	2.0	1.9
EWSH	16	17	18	18	.	.	2	2.8	2.8
EWSP	15	16	.	19	21	.	6	2.2	1.6
EWSHP	15	16	20	18	20	.	5	2.6	2.2
EWSPB	15	17	.	17	19	20	5	2.2	1.9
EWSHPB	15	16	18	17	19	20	5	2.4	2.1
W	.	17	.	.	.	.	0	.	.
WE	19	15	.	.	.	.	4	2.3	1.7
WEH	19	13	18	.	.	.	6	2.7	1.8
WS	.	17	.	17	.	.	0	2.9	2.4
WSH	.	16	17	17	.	.	1	3.5	3.2
WSHE	17	13	17	16	.	.	4	3.5	2.8
WSE	19	16	.	17	.	.	3	2.8	2.5
WSEP	18	13	.	18	21	.	8	2.4	1.8
WSEPB	16	12	.	17	19	20	8	2.7	1.9
WSEHP	18	15	19	17	21	.	6	2.6	2.2
WSHPB	.	15	19	18	20	20	5	3.6	3.0
WESHPB	17	13	18	17	19	21	8	2.5	1.9
Total	18	16	.	18	.	.		2.5	2.3

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.21 Rural Young Men Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
S	.	.	.	.	.	.	0	.	.
EW	14	16	.	.	.	.	2	1.9	1.4
EWH	13	13	17	.	.	.	4	5.7	5.5
EWS	14	15	.	18	.	.	4	2.4	1.7
EWSH	15	16	18	18	.	.	3	3.3	2.9
EWSP	14	15	.	18	23	.	9	4.1	1.8
EWSHP	13	16	20	20	23	.	10	3.0	2.4
EWSPB	13	15	.	18	20	22	9	2.6	2.3
EWSHPB	13	15	19	18	20	22	9	2.8	2.1
W	.	12	.	.	.	.	0	.	.
WE	14	12	.	.	.	.	2	2.9	2.2
WEH	16	12	24	.	.	.	4	3.6	2.7
WS	.	12	.	18	.	.	6	2.3	2.1
WSH	.	13	23	17	.	.	4	5.3	3.3
WSHE	16	13	17	16	.	.	3	5.0	4.2
WSE	16	12	.	19	.	.	4	3.1	2.5
WSEP	17	15	.	17	25	.	10	4.0	3.6
WSEPB	16	13	.	18	20	22	9	3.1	1.6
WSEHP	16	12	19	18	22	.	10	3.6	2.2
WSHPB	.	14	18	18	20	20	6	3.7	2.6
WESHPB	15	12	18	18	21	22	10	3.1	2.2
Total	14	14	22	18	22	24	10	3.0	2.4

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.22 Rural Young Men Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
S	.	.	.	.	.	.	0	.	.
EW	13	15	.	.	.	.	2	1.6	1.1
EWH	14	17	19	.	.	.	5	2.4	1.5
EWS	14	16	.	18	.	.	4	2.1	1.4
EWSH	15	16	17	18	.	.	2	3.1	2.9
EWSP	14	16	.	18	21	.	7	1.8	1.3
EWSHP	15	16	18	18	20	.	5	2.5	1.8
EWSPB	13	16	.	18	19	20	7	2.3	1.8
EWSHPB	13	16	18	18	19	20	7	2.3	1.7
W	.	14	.	.	.	.	0	.	.
WE	16	12	.	.	.	.	4	2.1	1.4
WEH	16	12	17	.	.	.	4	2.9	2.9
WS	.	15	.	17	.	.	2	2.8	2.4
WSH	.	15	16	16	.	.	1	5.2	3.8
WSHE	18	13	18	17	.	.	5	2.7	2.3
WSE	16	14	.	18	.	.	2	3.0	2.4
WSEP	17	12	.	18	21	.	9	3.2	2.5
WSEPB	16	13	.	18	19	20	7	2.9	2.5
WSEHP	16	13	20	20	20	.	7	2.4	0.7
WSHPB	.	13	19	18	20	21	8	1.9	1.6
WESHPB	15	12	18	18	20	20	8	2.9	1.9
Total	15	15	N.A.	19	.	.	4	2.4	2.0

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.23 Urban Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
E	15	.	.	.	.	.	0	2.0	2.0
EW	18	20	.	.	.	.	2	5.5	3.8
EWH	18	18	18	.	.	.	0	3.0	2.1
EWHSP	16	19	22	22	23	.	7	3.8	2.9
EWHSB	16	17	19	18	.	21	5	3.0	2.1
EWHPSB	14	15	16	20	20	21	7	2.8	2.4
EWS	17	18	.	20	.	.	3	2.9	1.8
EWSP	16	17	.	20	24	.	8	3.8	3.0
EWSB	16	17	.	19	.	20	4	2.8	2.3
EWSPB	15	17	.	19	20	21	6	2.2	1.7
EWSPHB	15	18	21	19	21	22	7	2.6	2.0
EWPSHB	15	16	19	19	19	21	6	3.0	2.4
EPSB	15	.	.	18	18	19	4	3.4	2.3
EPSHBW	16	24	17	17	17	18	8	2.8	2.5
EHSPB	14	.	18	18	18	19	5	.	.
W	.	18	.	.	.	.	0	2.4	2.1
WE	21	17	.	.	.	.	4	2.6	2.6
WES	22	17	.	20	.	.	5	3.1	2.6
WEHSP	23	18	22	24	24	.	6	2.3	2.0
WEPSB	20	17	.	19	21	23	6	2.8	2.4
WEPSHB	17	14	19	19	19	20	6	3.3	2.9
WH	.	17	19	.	.	.	2	3.8	3.9
WHE	21	17	21	.	.	.	4	4.5	3.7
WHES	19	18	18	21	.	.	3	2.7	2.3
WHSPB	.	16	19	19	20	21	5	2.4	1.9
WSMB	.	18	.	22	22	23	5	1.5	2.0
HMSB	.	.	19	19	19	20	1	2.0	2.0
Total	17	18	23	20	22	23	6	2.8	2.4

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.24 Urban Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
E	16	.	.	.	.	.	0	.	.
EW	17	18	.	.	.	.	1	1.5	1.9
EWH	16	18	17	.	.	.	1	3.0	2.7
EWHSP	15	17	19	19	20	.	5	2.4	1.8
EWHSB	16	16	17	18	.	20	4	3.0	2.8
EWHPSB	12	14	15	18	18	19	7	1.9	1.5
EWS	17	18	.	20	.	.	3	2.1	2.0
EWSP	15	18	.	20	20	.	5	1.9	1.4
EWSB	16	16	.	19	.	21	5	2.2	1.5
EWSPB	15	16	.	18	18	19	4	2.3	1.8
EWSPHB	15	16	20	18	20	20	5	1.8	1.5
EWPSHB	14	15	18	18	18	19	5	2.0	1.6
EPSB	15	.	.	17	17	18	3	2.2	1.9
EPSHBW	15	22	17	17	17	18	7	2.9	1.7
EHSPB	15	.	17	17	17	19	4	2.3	1.8
W	.	18	.	.	.	.	0	.	.
WE	20	17	.	.	.	.	3	1.7	1.5
WES	21	16	.	20	.	.	5	2.5	1.5
WEHSP	18	15	20	19	20	.	5	2.4	2.2
WEPSB	17	14	.	18	19	19	5	2.5	2.0
WEPSHB	16	13	19	19	19	19	6	2.6	1.6
WH	.	18	18	.	.	.	0	2.8	2.6
WHE	19	16	18	.	.	.	3	2.8	2.3
WHES	19	17	18	19	.	.	2	3.3	2.9
WHSPB	.	16	18	17	19	20	4	2.1	1.8
WSMB	.	15	.	18	19	20	5	2.4	1.9
HMSB	.	.	18	18	18	19	1	1.3	2.1
Total	18	17	.n.a.	21	.n.a.	n.a..	n.a.	2.1	1.9

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.25 Rural Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1970-74.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
E	13	.	.	.	.	.	0	.	.
EW	14	18	.	.	.	.	4	1.5	1.9
EWH	15	18	18	.	.	.	3	3.0	2.7
EWHSP	15	20	22	22	25	.	10	2.4	1.8
EWHSB	14	16	16	20	.	23	9	3.0	2.8
EWHPSB	13	14	15	20	20	20	7	1.9	1.5
EWS	14	16	.	19	.	.	5	2.1	2.0
EWSP	18	16	.	23	23	.	5	1.9	1.4
EWSB	14	18	.	20	.	20	6	2.2	1.5
EWSPB	12	16	.	18	19	20	8	2.3	1.8
EWSPHB	13	15	20	18	20	20	7	1.8	1.5
EWPSHB	13	15	19	19	19	20	7	2.0	1.6
EPSB	13	.	.	18	18	19	6	2.2	1.9
EPSHBW	13	24	17	17	17	18	11	2.9	1.7
EHSPB	12	.	18	18	18	20	8	2.3	1.8
W	.	18	.	.	.	.	0	.	.
WE	18	14	.	.	.	.	4	1.7	1.5
WES	15	14	.	25			11	2.5	1.5
WEHSP	15	10	19	19	19	.	9	2.4	2.2
WEPSB	15	13	.	18	18	19	6	2.5	2.0
WEPSHB	15	12	18	18	18	20	8	2.6	1.6
WH	.	19	20	.	.	.	1	2.8	2.6
WHE	22	18	16	.	.	.	4	2.8	2.3
WHES	15	23	15	18	.	.	5	3.3	2.9
WHSPB	.	14	17	17	17	20	6	2.1	1.8
WSMB	.	14	.	18	18	18	4	2.4	1.9
HMSB	.	.	17	17	17	19	2	1.3	2.1
Total	13	19	19	19	20	21	8	2.1	1.9

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.

Table A.26 Rural Young Women's Median* Ages of Social and Family Formation Transitions in Different Trajectories, Birth Cohort 1975-79.

Trajectory	Leaving Education	Entry into the Labour Force	Leaving Home	First Sexual Intercourse	First Partnership	First Birth	Range	Mean difference	Standard Deviation
E	13	.	.	.	.	.	0	.	.
EW	14	17	.	.	.	.	3	2.9	1.8
EWH	15	18	18	.	.	.	3	3.3	3.0
EWHSP	12	16	19	20	20	.	8	2.0	2.1
EWHSB	14	15	18	17	.	18	4	2.8	2.6
EWHPSB	13	15	15	18	18	19	6	2.5	1.7
EWS	15	19	.	19	.	.	4	3.0	2.8
EWSP	14	15	.	19	19	.	5	3.7	1.9
EWSB	13	15	.	17	.	19	6	2.7	2.8
EWSPB	13	16	.	17	18	19	6	3.3	2.4
EWSPHB	15	15	19	18	19	19	4	2.9	1.1
EWPSHB	13	15	17	17	17	19	6	2.4	1.9
EPSB	13	.	.	18	18	19	6	3.4	2.4
EPSHBW	14	22	17	17	17	18	8	3.2	2.1
EHSPB	13	.	17	17	17	18	5	2.9	2.2
W	.	17	.	.	.	.	0	.	.
WE	17	14	.	.	.	.	3	1.8	1.6
WES	20	12	.	16	.	.	8	11.0	.
WEHSP	17	14	19	20	20	.	6	3.1	2.1
WEPSB	15	12	.	17	17	18	6	3.8	4.1
WEPSHB	15	12	17	17	17	18	6	3.1	1.8
WH	.	17	16	.	.	.	-1	2.8	4.2
WHE	19	15	16	.	.	.	4	3.5	2.6
WHES	13	16	18	20	.	.	4	3.3	0.6
WHSPB	.	15	16	18	18	18	3	1.9	1.2
WSMB	.	15	.	18	18	19	4	2.8	2.2
HMSB	.	.	17	17	17	17	0	1.2	1.5
Total	14	18	22	20	22	22	8	2.7	2.1

Key: E=leaving education, W=first work, H=leaving home, S=first sex, P=first partnership, B=first birth. * Median age was estimated based on survival curves.
Source: Author's calculations based on ENAJUV 2000.