

# **DEMOGRAPHIC TRANSITION, LIFE COURSE AND POVERTY IN MEXICO**

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## **1 - Introduction**

At the beginning of the new millennium Mexico is undergoing a process of change that includes multiple transitions in the fields of economy, society, politics, urban life, demography and epidemiology. The economy is undergoing an intense process of restructuring and modernization and is rapidly changing the relative importance of the different sectors generating the Gross Domestic Product. In politics the federal pact and electoral and party system are in the process of renovation, coupled with profound institutional reforms aimed at perfecting our democracy. In the social sphere, civil society participation is increasing, as reflected in the strengthening of the forms and various options of organization which clearly shows the growing complexity of a society with a greater capacity for formulating and sustaining its demands. A profound and rapid transformation is taking place and society is becoming increasingly urbanized. Finally, the trends in democratic and epidemiological transitions suggest that the population growth rate will continue to change in the future, leading to further ageing and mortality and morbidity rates dominated by chronic and degenerative diseases. There is no doubt that Mexico's future will largely depend on the directions these crucial transitions will take.

The country is in the middle of all these changes and transitions, although it will still take some time before they are concluded. The starting point of the demographic transition is marked by an uninterrupted reduction in mortality since the 30s. As a consequence of this profound change, not only has Mexico's population increased, but it has also become older.<sup>1</sup> At the same time, reduced fertility, which indicates the entry of the Mexican population in the subsequent stage of this process, dates back to the 60s, although it did not start to fall drastically until the middle of the following decade that coincided with the design and implementation of the new population policy.<sup>2</sup>

Subsequent changes in mortality and fertility rates have brought about important changes in demographic volume and dynamics,<sup>3</sup> as well as in the age structure. Initially this created a younger age structure with the population gradually "ageing" later.

In this study it is maintained that the demographic transition, in interaction with many other processes, such as the multiplication of events, dependencies and individual and social relations related to the family life cycle, has led to the formation of new life patterns for individuals. For example, as a result of decreased mortality, people live longer and, consequently, are able to dedicate more time to their roles as sons/daughters, spouses, parents, grandparents, as well as to their many other social and family functions, both simultaneously and successively. The growing life expectancy and longevity have directly or indirectly caused profound changes in family size, structure and or-

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1. Due to longer life expectancy, "death" is considered today to be "something pertaining to the elderly." In the family sphere the lower death rate has led to: i) marriages which last considerably longer due to the fact that the partners live longer, ii) a significantly lower probability that one or more children die at an early age, iii) a decrease in the proportion of minors who experience the death of close relatives (parents, brothers, sisters, cousins, etc.), and iv) an increase in "family time", or the potential interaction of different generations, e.g. longer survival of grandparents during their grandchildren's childhood, adolescence and youth.

2. In the second half of the 20<sup>th</sup> century, most Mexican women understood that they would not be free as long as reproduction was considered an accident by nature, and if they were unable to make decisions regarding such intimate and relevant aspects of their lives. During the last three decades more and more people have adopted contraceptive methods. The number of married women in fertile age who use contraceptives has increased from 10% in 1970, to 70% at present.

3. It should be remembered that the country's population doubled in size in the first half of the 20<sup>th</sup> century and almost quadrupled in the second half.

ganization, as well as in the activities and interrelations of families composed of two or three persons and social and family type networks of varying complexity. Therefore, the extension of family roles due to prolonged common survival time tends to demand a restructuring of these roles as parents and children live longer and can dedicate more time to these roles in their adult years, thus influencing the redefinition of role contents.

This paper explores the life course of Mexican women. It attempts to identify some of the features of continuity and change in the process of family formation and expansion, as well as specific family roles. It also attempts to show how demographic changes influence the content, structure and organization of the life course and different life histories of women in the transition from early to late fertility.

## **2 – The simulation model**

This paper is based on the use of the simulation model developed by Zeng Yi (1991), which is an extension of Bongaarts' (1987) model to explore how demographic change affects the family life course of Mexican women. The model is a powerful tool used by demographers and has a wide range of applications.<sup>4</sup> The findings presented in this report are a small, selected example of the enormous quantity of data produced by the simulations carried out by the FAMY programme developed by Zeng Yi (1990) for life course analysis.

The results presented in this paper are based on simulations focusing on fictitious population groups. A comparison has been made of the periods ranging from 1970 to 1974 and from 1990 to 1994 and a projection up to 2005 has been included on the conditions of fertility in young, adult and advanced age. It is not expected that the data referring to these periods be estimates of the experience of a birth cohort, but should be indicative of the demographic conditions prevailing during the above mentioned periods.

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4. The Zeng Yi model i) allows to identify the consequences of a series of demographic parameters in the life course of women; ii) gives the possibility of evaluating the effects of various close determinants relevant to family structure and its characteristics; iii) may be used to make future projections on family size, structure and composition.

The selected demographic parameters correspond to the period 1970-1974, while the data for the period 1990-1994 are presented in detail in another document (Tuirán, 1997). Furthermore, for the purpose of this exercise, four scenarios have been elaborated for 2005.<sup>5</sup> each meeting the goals set by the National Population Programme 1995-2005.<sup>6</sup> For each of the possible scenarios the following suppositions were made:

\* Post-transition I: From 1992 to 2005, marriage and fertility rates remain similar in structure although not in level (early marriage and fertility).

\* Post-transition II: The marriage rate remains constant, while the fertility structure ages. The mean age and standard deviation for each birth grow constantly without modifying the specific rates of first births (early marriage and later fertility pattern).

\* Post-transition III: The marriage pattern grows old. In this case, it is assumed that the parameter  $k$  of Coale and McNeil (1972) registers a linear increase from 0.8114 in 1992 to 1.0 in 2005, with both the proportion of women who eventually marry (0.932) and parameter  $ao$  (12,492) remaining constant, while fertility rates tend to decline, although in a similar manner as in 1992 (late marriage and early fertility pattern).

\* Post-transition IV: The nuptiality and fertility patterns grow older (late nuptiality and fertility).

In addition to a comparison between the life course patterns resulting from the prevalent demographic conditions in the periods 1970-74 and 1990-94, and those projected for 2005, two are included in this paper as a contrast:

\* Women between 15 and 49 residing in the six states with the highest marginalization and who, from 1990 to 1994, were living in households below the poverty line.

\* Women between 15 and 49 residing in the above mentioned states, but living in households above the poverty line.

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5. For each scenario it is assumed that life expectancy will reach 75.8 years, which is also the official projection of the National Population Programme 1995-2000.

6. This programme has set 2.4 and 2.1 children per woman as goals for 2000 and 2005 respectively.

The demographic parameters of these two groups were estimated based on data from the National Survey of Family Planning (1995). It should be pointed out that, due to the transversal nature of this research, a note of precaution is required. The women defined as “poor” and “not poor” do not necessarily maintain that condition all their lives. Therefore, the results presented in this paper should be considered as merely exploratory of the complex situation of demographic transition, life course and poverty.

### ***2.1 - The demographic situation in Mexico***

The country's demographic situation confers an unmistakable identity to the nation. In 1998, Mexico's population slightly exceeded 96.6 million inhabitants. This figure places the country as the eleventh most populated country in the world. It is estimated that in the same year there were 2,218,000 births and 421,000 deaths. This implies an annual increase of about 1,800,000 Mexicans and an annual Natural Increase Rate (NIR = the difference between crude birth rate and crude death rate) of 1.86%. Mexico's external migration figure is negative (-0.31%) and by subtracting this figure from the natural population increase, the total population growth rate is reduced to 1.55%. Nevertheless, the reduction in the population growth rate has not impeded the population from increasing rapidly in absolute terms.<sup>7</sup>

The decrease in the death rate has been occurring for the past six decades although the most marked decline took place between 1943 and 1956. Life expectancy increased to 74.7 years in 1998. This is more than twice the 36 years of life expectancy in 1930. One of the most important elements of the increase in the survival rate is the declining child mortality. Whilst around 180 of every 1,000 children born alive in 1930 died before reaching their first birthday, in 1998 this figure was less than 27 per thousand. A similar pattern is experienced in relation to survival up to adult age: among those born in 1930 less than half (48%) survived up to the age of 60. On the other hand, it is expected

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7. This tendency shall undoubtedly prevail in the near future as a result of the so-called demographic inertia, a growth impulse hidden in the age structure of the population. When a train moves rapidly and brakes are applied, the train does not stop immediately but rather continues to advance, driven by the law of inertia. The high demographic growth in the past has caused a similar effect.

that 75% of the persons born in the 60s reach this age and that 90% of those born in 1997 do so.

The decrease in fertility is the main determining factor of demographic change in Mexico over the last decades. Compared to the gradual decrease in mortality, the reduction in fertility is much more recent and accentuated. In 1960, the total fertility rate (TFR) exceeded 7 children per woman. Starting in the second half of the 60s, but especially at the beginning of the 70s, a significant decline in the fertility level was registered, to reach an average of 2.55 children per woman in 1988.

Mortality and fertility trends have determined not only the rhythm of population growth, but also marked changes in the population's age structure. On the one hand, the decrease in mortality leads to a progressive increase in the survival rate, reflected in the population pyramid by an ever-growing number of people reaching adult and advanced age. On the other hand, the decrease in fertility causes the base of the pyramid to shrink because, as the transition proceeds, the number of births becomes smaller. Both processes lead to a gradual ageing of the population, characterized by a smaller proportion of children and youth and a gradual increase in the relative numbers of adults and the elderly.

## ***2.2 - Changes in the intensity and timing of fertility***

A more detailed analysis of the recent evolution of fertility shows that this demographic variable may be conceived as the accumulated result of a series of interdependent events of a sequential and temporal nature. The analysis of birth intervals and the way in which women go from one parity to another, are central aspects in the study of fertility levels and trends. By considering the retrospective histories of pregnancies found in the socio-demographic surveys based on measurements of intensity (the proportion of women that eventually move on to the following parity) and timing (the time span in which women complete the transition from one parity to the next), it was found that the decrease in fertility in Mexico was stimulated by women's behaviour at the beginning of the second and subsequent intervals at the end of the 60s, although the most pronounced change occurred for women with greater parity as a result of their increased use of contraceptives.

The transition from marriage to first birth (first interval) was especially rapid for each group and has remained stable for the whole period under consideration: around 95% of women have their first child

during the first five years of marriage. In the transition from the first to the second child, it is observed that the proportion of women closing this interval fluctuates between 92% for those who initiated their interval in 1957, and 74% for those who initiated it in 1989. The variations are greater in the proportion of women completing the transition from the second to the third child (from 91% in 1960 to 59% in 1989). This decrease began in the middle of the 60s. The greatest change in intensity was recorded in the fourth interval with a decrease from 89% in 1969 to 52% in 1989. As a whole, these tendencies show that the rapid decline in fertility in Mexico is the result of a complex combination of different parity tendencies. In general, it may be said that the fertility transition has implied significant decreases in the intensity from the second interval onward, especially among women who initiated their fertility in the middle of the 60s. Even when these reductions involved women of high parity, a few years later they were followed by women with lower parity.

With respect to the duration of the intervals between successive births, it has been found that, in spite of the rapid proportional decrease for women with high parity, there are no significant variations in timing. Only among those women who entered into fertility at the beginning of the 70s could important changes in the temporal patterns of all intervals, except the first, be observed. With regard to the average time in which women complete a transition, it is observed that the duration of the first interval has remained practically constant since the 50s (around 13 months). Starting in the 70s, an increase in the duration of the subsequent intervals could be observed, not restricted to women of high parity. In fact, increases in timing were greater in the lower parities. It has been observed that the average length of the second interval increased from 21.0 to 27.0 months between the beginning of the 60s and the end of the 80s, while the increase was smaller for subsequent intervals.

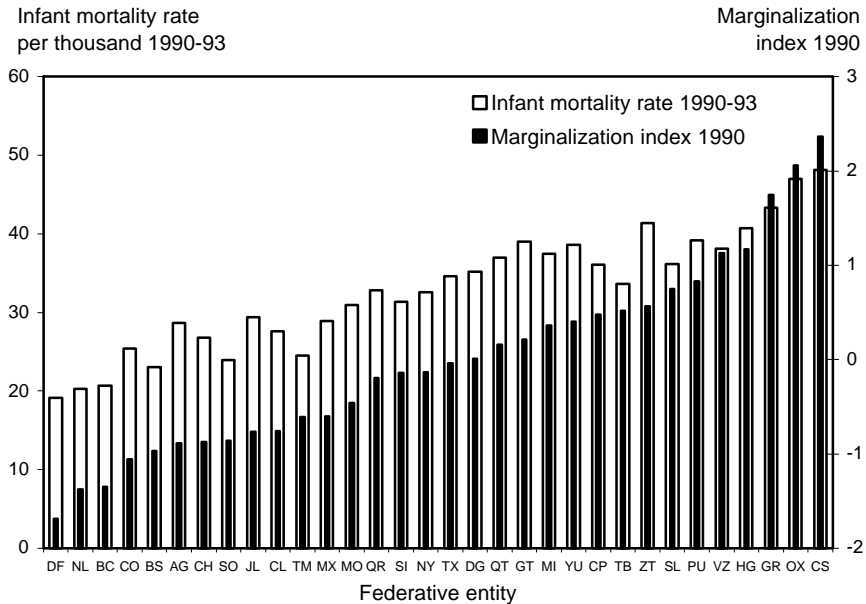
### ***2.3 - Social inequality and demographic transition***

The figures presented in this paper summarize some of the most important demographic transformations that have occurred recently. They express the free and responsible participation of Mexicans who, thanks to their practical decisions and individual and family behaviour have, since the 60s, brought about an actual, though silent, demo-

graphic revolution. These figures also reveal the enormous demographic challenges of present times. The inequalities and insufficiencies of development are evident by the fact that the more developed and prosperous segments of the population have reached a more advanced stage in this process, while socially marginalized and ethnic groups are lagging behind. The rapidity of the demographic transition in future years will greatly depend on the dynamics of these marginalized social and ethnic groups.

For example, life expectancy of the population residing in Chiapas and Oaxaca is around 71 years, while in Baja California, the Federal District and Nuevo León it is 75 years. This difference of approximately four years is equivalent to an over-mortality of 30% in the less developed regions from a socio-economic point of view. In a similar manner, infant mortality among marginalized population segments is more than double that observed among relatively more developed groups (Graph 1). This indicator clearly reflects the differences in sanitary conditions of the poor and non-poor. In the rural areas infant mortality among the poor is more than double that of the non-poor population (61 and 29 deaths for every thousand inhabitants respec-

Graph 1. Infant mortality rate and marginalization index in the federative entities of Mexico, 1990-93





tively) (Progres, 1997). The difference between the poor and non-poor is not so evident in urban areas (Table 1).

Table 1  
 Infant mortality rate (‰) by poverty status  
 and place of residence, 1991-1995

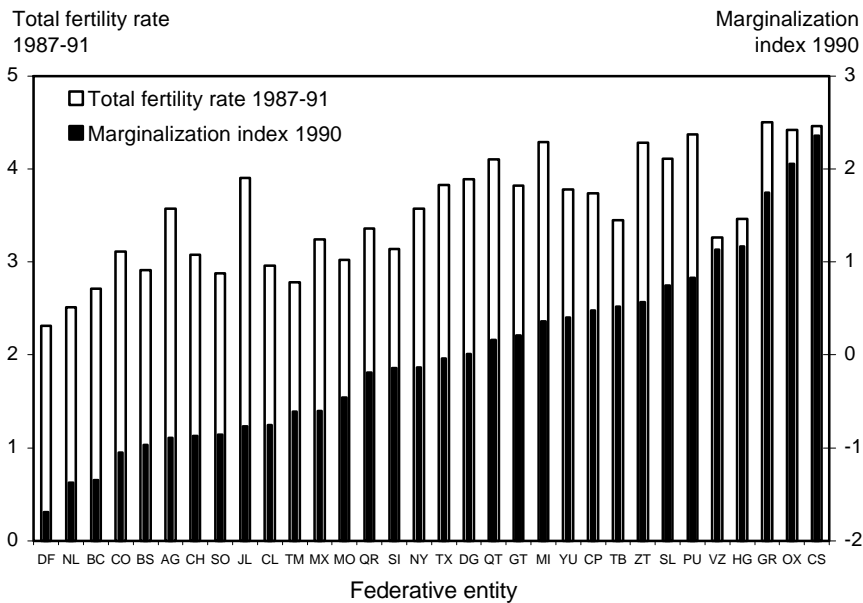
Residence	Poor	Non-poor
Rural	62	28
Urban	35	22
Total	49	24

There are also marked differences in fertility by groups and regions. The fertility rate of non-educated women was 4.1 children in 1994, while that of women with at least one year of secondary school education was 2.4 children. There are also important differences by town size and federative entity. In localities with less than 2,500 inhabitants the average fertility rate in the same year was 1.2 children higher than that observed in urban areas (3.8 and 2.6 children respectively). Likewise, the fertility rate in the period 1987-91 in relatively more developed localities, such as Baja California, the Federal District or Nuevo León, was slightly less (2.5 children), while in more marginalized localities, such as Guerrero, Chiapas, Oaxaca and Puebla, it was more than 4.0 children (Graph 2). It is also estimated that women who lived in extreme poverty in 1994 had a fertility rate of 5.1 children, i.e. 2.5 children more than other women. This level of fertility is similar to the national average of 20 years ago. It should be noted that the data referring to fertility intensity and timing also show that among the residents of rural areas and uneducated women, the proportion of women in transition to higher levels of parity is greater and they have a higher reproduction rate than urban residents and women with a high level of education.

This data has led certain authors to suggest that in Mexico it is possible to identify at least three different demographic regimes: prosperity, middle strata and poverty. Individuals of the privileged social sectors were the pioneers in demographic change, are presently in an advanced

stage of transition and exhibit relatively low levels of mortality. They marry and have their first child later than other population groups. They have introduced contraceptive practices for child spacing and birth limitation. Likewise, family expansion, which begins with the birth of the first child and ends with that of the last one, is usually of short duration for couples belonging to these groups. The same demographic pattern has gradually extended to the middle strata of the society.

Graph 2. Total fertility rate and marginalization index in the federative entities of Mexico, 1987-91



In contrast, poverty and marginalization are usually accompanied by a relatively early mortality and high morbidity and fertility rates, early marriage, and early first births (Table 2). They are also characterized by limited child spacing practices (Table 3), while at the same time family expansion lasts longer. This situation gives rise to a vicious circle that tends to perpetuate contrasts, backwardness and profoundly unequal development. The condition of being poor limits access to development opportunities, social safety nets and participation, and profoundly influences the demographic behaviour of marginalized

groups by delaying the transition from higher to lower levels of mortality and fertility. At the same time, the rapid demographic growth of marginal groups makes it more difficult to combat and eradicate poverty, that is transmitted from one generation to the next.

Table 2  
Median age at the birth of the first child in 1995,  
by poverty status and place of residence, 1995

Residence	Poor	Non-poor
Rural	19.9	21.7
Urban	19.6	22.6
Total	19.7	22.5

Table 3  
Prevalence of contraceptive usage (%),  
by poverty status and place of residence, 1994

Residence	Poor	Non-poor
Rural	46.1	62.9
Urban	67.8	72.1
Total	56.3	70.8

### 3 - Life course perspective

The life course perspective provides important elements for exploring the relations between social and demographic change. This perspective considers time and the temporal dimension to be crucial expressions of social and institutional life and the core of the process of socialization and construction of biographies, adding valuable elements to understanding the interaction of the different “clocks” that govern the movement of individuals and families through life in a changing society. Some of the basic premises of this approach are that: i) it shows that the life course is a process with a complex, yet dynamic, interwoven pattern; ii) it recognizes the reciprocal relationship between

individuals and their social and institutional environment; iii) it identifies personal histories, motives and choices and places them in the centre of the analysis; and iv) it questions static models while emphasizing the enormous “human flexibility” and the capacity of individuals to modify their behaviour.

Perhaps the best synthesis of the research agenda on life course perspectives is that provided by Glen Elder (1985), who emphasizes four types of temporal interdependence:

- \* the intersection of paths and transitions during the life course of an individual;
- \* the interdependence of the different paths of family members, e.g. spouses, children, parents, grandparents, etc.;
- \* the relationships between the path of the individual and the development of the family as a collective; and
- \* the complex interaction between the three above mentioned aspects and socio-historical change.

As Tamara Hareven (1977) points out, the life course perspective explores the synchronicity between individual time, family time and historical time, in an attempt to integrate the poles of traditional dichotomies (e.g., structure and action, biography and history and micro- and macro-level processes). This focus offers the potential for connecting individual and family developments to the great macro-social structures and processes, each one operating within its own temporal framework.

The concepts of social roles,<sup>8</sup> institutional domains, paths and transitions, cohorts,<sup>9</sup> gender and gender identity<sup>10</sup> are used in this paper

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8. The concept of social role is defined here as a pattern of behaviour associated with the position that the individual has in a determined institutional domain of society. This implies personal obligations and rights and dynamic relationships between the person and members of the social or institutional circle to which they belong.

9. The concept of *cohort* (Ryder, 1965) is useful for examining changes in the life course trajectories or patterns of individuals born in different historical periods. This concept suggests that individuals born in the same period go through life in a given historical context and, as they grow older, have a variety of experiences in common that lead them to make similar behavioural decisions. The succession of cohorts provides a mechanism that ties socio-demographic behaviour to social change. As is known, the most recent cohorts differ from previous ones in many ways. The size, composition and characteristics of the cohorts invariably tend to promote social change which, on the other hand, opens new paths and opportunities and leaves a mark in the trajectory followed by the individual from birth to death. It should be

as the main analytical tools. The notion of life course domains refers to an individual's observed institutional sphere, field of activity, group, membership or participation at a given moment. Examples of institutional domains in the life course include school, work, family and home, among other things. This notion is crucial for giving meaning to the idea of transitions in the course of life, which imply movements within, towards or outside specific institutional domains, separation from or integration into particular spheres of activity and rejection, adaptation or acceptance of a new configuration of roles and status.

When a person enters or leaves a specific institutional domain and undergoes a change in status (such as becoming a student or quitting their studies, marriage, divorce, obtaining a full-time job, leaving the job market), they undergo a transition in the course of life. This may be closely related to transitions that the individual brings about in other institutional domains, or sequentially linked to other previous transitions. Likewise, the life course perspective assumes that transitions in a given domain may have immediate consequences for the paths followed in other domains, as well as accumulative effects in people's lives. These transitions may guide people to modify, redirect or reinforce their life paths, either because they generate tensions in the daily routines or affect important aspects of life. Their long-term consequences cannot be evaluated without taking into consideration the nature, timing and order of the transition, as well as the resulting adaptations.

From an individual and family perspective, the transitions are important because, among other things, they involve crucial events in people's lives. But they are more than pure personal or family affairs

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remembered that neither the social transformations nor events of a specific period influence the social sectors in the same way. For this reason, keeping in mind the experiences of particular sub-cohorts (by sex, socio-economic strata or social class, level of education, rural or urban residence, etc.) enriches the analysis.

10. The concepts of gender and gender identity are useful for understanding the different male and female roles, as long as the gender relations are based on a sexual division of labour that upholds male dominion over women, i.e. of masculine over feminine. Its strict observance models identities, self-esteem and the way in which women experience and interpret their own lives. Social movements have emphasized the growing importance of women's involvement in, and compromise with, roles that are different from the traditional role of wife-mother-housewife. Today many young women combine various and multiple roles that are different from those played by previous generations. Other women have a more limited range of opportunities.

since they also reflect socially created, recognized and sanctioned movements (Modell and Hareven, 1978; Hagestad and Neugarten, 1985).<sup>11</sup> In this sense, biographic time is limited by the historical, cultural, economic and social structures and processes that influence the timing in which various roles, positions and identities defined as the conventional structures of life are “available” to individuals. As Glaser and Straus (1967, p. 85) suggest, the concept of transition between statuses denotes “time in terms of social structure”.<sup>12</sup>

The life course dynamics emerge partially from an interplay between paths and transitions. These two concepts, according to Elder (1985, p. 31), “...represent the long- and short-term analytical reach. The life course dynamics take place over an extended period of time (in the course of work, marriage, etc.) and develop in a brief moment characterized by specific events (marriage, divorce, entering and leaving a home, etc.). The transitions are always connected to paths which give them meaning and a distinctive form.”<sup>13</sup> It should be noted that the notion of course or path does not necessarily prejudge the sequence or rate at which these transitions take place. As a consequence, the life course perspective recognizes that individuals may avoid some states (such as paternity), leave or return to others (first or second marriage), and remain, for a certain time, a variable time in any of them (such as the duration of the reproductive period).

In any stage in life, a person may be involved in “clusters” or groups with social roles that change in the course of history. These “clusters” can be analyzed in two different ways: as social spaces or as a hierarchical system developed by the individual. The former refers to the number of institutional roles contained in a “cluster” and/or to the number of roles in each institutional domain. The hierarchical system refers to the importance that each person assigns to each role con-

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11. In fact, they alter or modify the insertion of individuals and families in social and institutional life.

12. The paths are marked by the occurrence, timing and sequence of the transitions in the life course. Various authors have considered different transitions due to their importance in the orderly and routine functioning of society. In this sense, it can be said that life course transitions represent successive biographic markers on the road taken by individuals from birth to death.

13. The concept of path forces the analysis to move between synchronicity and diachrony, structure and process, scripts and strategic actions, recovering the old idea of dynamic interplay between individuals and institutional projects.

tained in a “cluster”; this can be modified through life as one assumes or abandons a determined role (Lopata, 1992).

This research emphasizes the experiences of individual life courses in a specific dimension: the family. It is assumed that the lives of people and their paths are influenced not only by the number and content of the family roles that are played out, but also by the timing and sequence in which these roles are carried out and for how long. The variety of transitions that individuals experience throughout life offer an ideal scenario for examining the interaction of the different processes that govern the movements of individuals and their families in a constantly changing society. This document intends to examine the life courses of Mexican women, both in relation to themselves as well as to other family members.

The family has a strong influence on the structure of women’s life courses. This seems to be one of the most critical institutional domains that greatly influence the life course patterns of women. Events such as marriage and the birth of the first and successive children have considerable impact on women’s lives. As Goldani and Pullum (1989, p. 129) point out, many events in the life course of a woman and her family relations are the result of intersections with the lives of other family members. Therefore, a strategy for better understanding family dynamics consists in using women as a point of reference.

### ***3.1 - Being and becoming a woman***

In all societies women play multiple roles within the family. At birth they begin to play several of them (e.g. as daughters and sisters) and later in life they take on the roles of wives, mothers and grandmothers. These family roles and relations are ruled by gender-based norms, cultural ideals and relationships in a complex social system that defines women’s “duties”. For example, in many urban and rural areas women’s social models teach them at an early age to care for others and to be altruistic, loving and submissive. Nevertheless, each culture allows for and even stimulates individual diversity within the limits of the predominant model. Not all girls are seen as equals nor is it expected that they evolve into the same types of women. Furthermore, there are racial, ethnic or class differences in the prevailing norms.

In the process of becoming a woman, the girl adopts and adapts to a sequence of family and social roles that change over time, or as a

response to specific historic events. Each role contains in itself various functions and duties that require many different skills. Socio-demographic research has documented the many roles played by women and the many demands on their time, energy, skills and good will. By being excluded from several social spheres, women have frequently paid a high price for these roles.

### **3.2 - Life paths of adult women**

Peter Uhlenberg (1974) offers a methodological strategy for calculating the distribution of women belonging to a cohort or group of cohorts according to the various possible family life course paths between 15 and 50 years of age. He wonders whether a socially prescribed family path exists or not during this phase of their lives and, if so, whether its prevalence has changed during the past century. To answer this question he identifies the patterns observed in a group of cohorts in the USA. Following Uhlenberg, writers such as Young (1982) and Goldani (1989) have used a similar strategy to study the patterns of several generations of women in Australia and Brazil respectively. The typologies proposed by Uhlenberg<sup>14</sup> allow us to explore changes in the family life course and identify some of their main determinants. Each woman is located only in one of the identified paths. The typologies proposed by the above mentioned author are the following:

- \* Type I: Early Death. Women of this cohort die between 15 and 50 years of age.
- \* Type II: Single Women. Women of this cohort reach the age of 50 but remain single.
- \* Type III: Childless. Women of this cohort marry, reach 50, but remain childless.
- \* Type IV: Unstable Marriage with Children. a) The first marriage ends with the death of the spouse before the woman reaches 50; or b) the first marriage ends in divorce or separation before the woman reaches 50.
- \* Type V: "Preferred" or "Typical". Women of this cohort marry, have children and reach 50 still living in union.

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14. For a detailed description of the methodology, information sources and problems of comparability of these sources, cf. Tuirán, 1997.

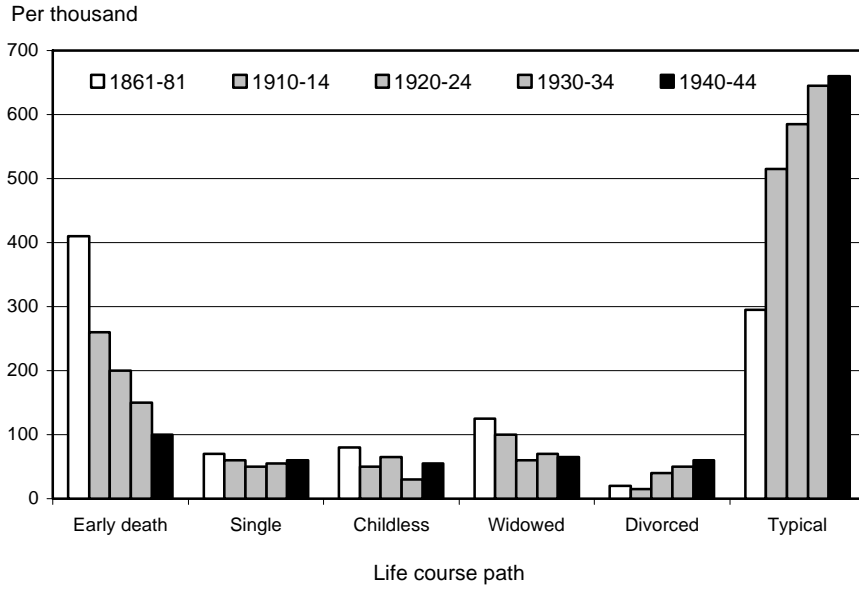


Graphs 3 to 6 show the results of the analysis using the method proposed by Uhlenberg. The estimates are based on information gathered during the population census, as well as on nationwide socio-demographic surveys. The available data allows us to identify significant changes in the distribution of the members of successive groups of generations according to their life courses. These graphs show that a growing number of women over 15 fell in the “preferred” or “normal” category. Thus, for example, among the women belonging to the 1861-1881 generations, only 293 out of 1,000 belonged to this category. This number increased gradually in the following generations until it reached 688 out of every 1,000 in the most recent cohort.

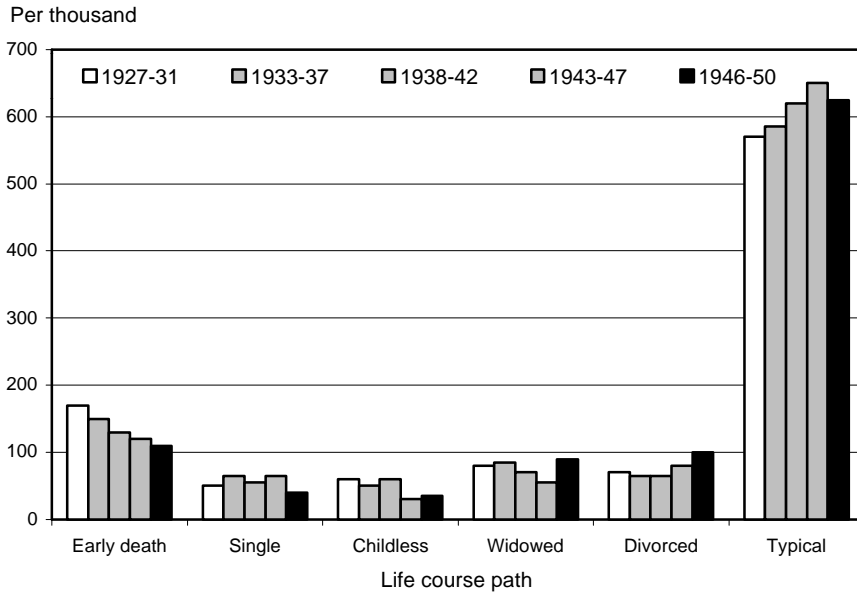
This methodology allows us to calculate the influence of change in demographic behaviour on the prevalence of the different typologies identified. Firstly, it should be pointed out that the decrease in mortality tended to have two different effects: i) a drastic reduction in the proportion of members of each generational group who died before reaching 50 (i.e. a reduction from 415 out of 1,000 in the 1861-1881 generational group, to 95 out of 1,000 in the most recent generational group); therefore a growing number of surviving women had the possibility of following another path, especially the “normal” life course; and ii) a reduction in the proportion of women whose marriages were dissolved by the deaths of their spouses before they reached the end of their reproductive lives (the figure ranges between 140 and 63 out of every 1,000 women).

Among the additional components that influence the distribution of women in each generational group according to their life course patterns are variations in nuptiality pattern (expressed in terms of proportion of women who remain single), voluntary and non-voluntary sterility (i.e., the proportion of childless women) and the breaking-up of marriage due to separation or divorce, all of which give rise to a changing prevalence in non-normal patterns. The influence of these factors is no less than the effects of a decreased mortality rate. Census data indicate that these first two components tend to gradually decrease over time. The first one declined for successive generational groups from 109 to 72 per 1,000 women surviving the age of 50, while the second component passed (with some sharp fluctuations possibly due to comparison quality and problems with census information) from 130 to 50 per 1,000 women surviving age 50. It is probable that

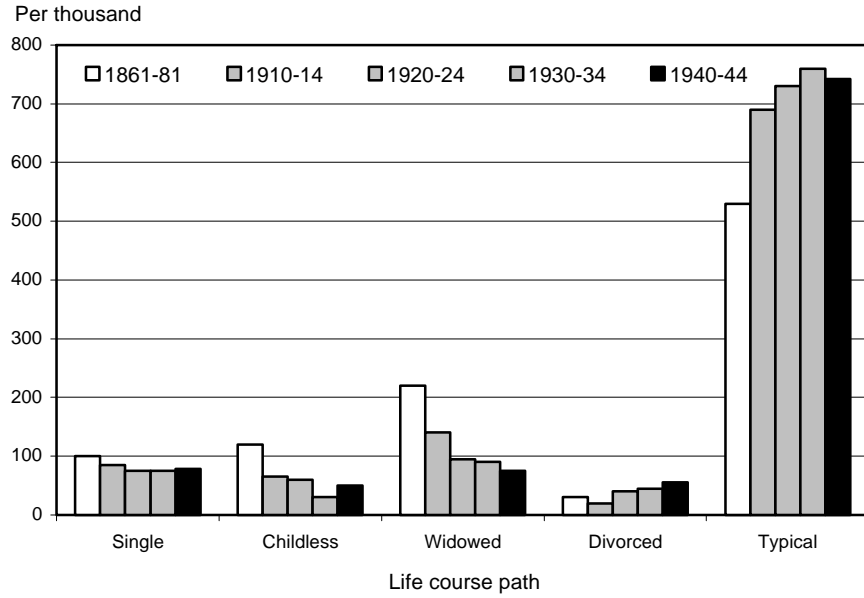
Graph 3. Distribution of women between 15 and 50 years of age by life course path  
Cohorts from 1861-1881 to 1940-1944 (census data)



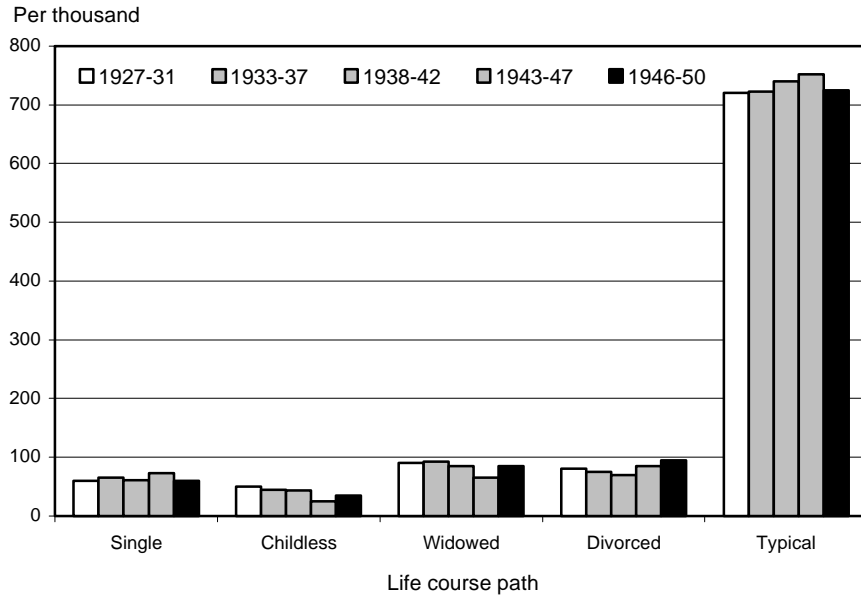
Graph 4. Distribution of women between 15 and 50 years of age by life course path  
Cohorts from 1927-31 to 1946-50 (survey data)



Graph 5. Distribution of surviving women at 50 years of age by life course path  
Cohorts from 1861-1881 to 1940-1944 (census data)



Graph 6. Distribution of surviving women at 50 years of age by life course path  
Cohorts from 1927-31 to 1946-50 (survey data)



improvements in nutrition and sanitary conditions have contributed to a reduction of the involuntary (physiological) sterility rate.

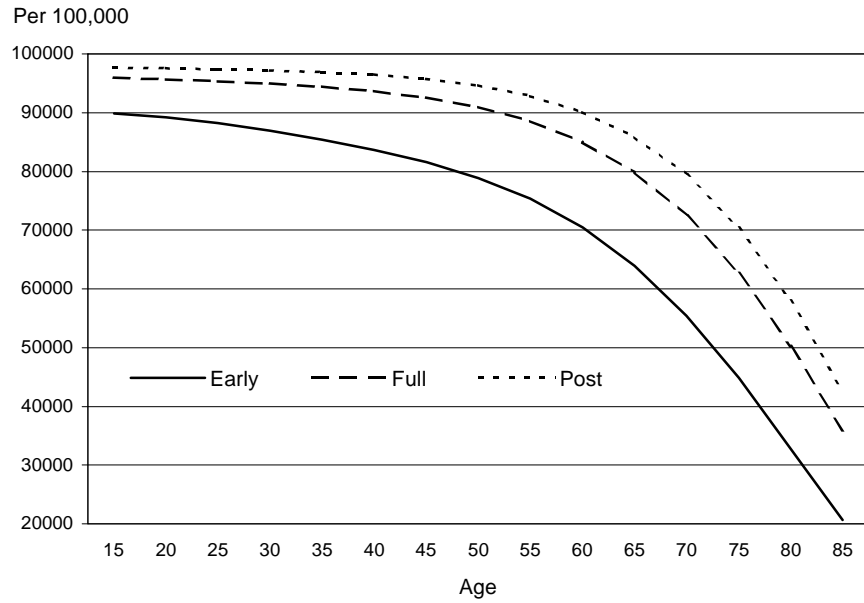
The last component deals with levels and trends of separation and divorce. In this century, there is a slight but continuous increase in the proportion of women of successive cohorts who experience a marital rupture from voluntary causes (according to the census, these women represent 21 to 48 per 1,000 women reaching age 50, although survey data indicate a higher, though relatively stable, level). To summarize, the observed demographic trends in the generations from 1881 to 1964 favour - except for separation and divorce - a greater prevalence of the so-called "normal" category of adult women.

### **3.3 - Mortality conditions**

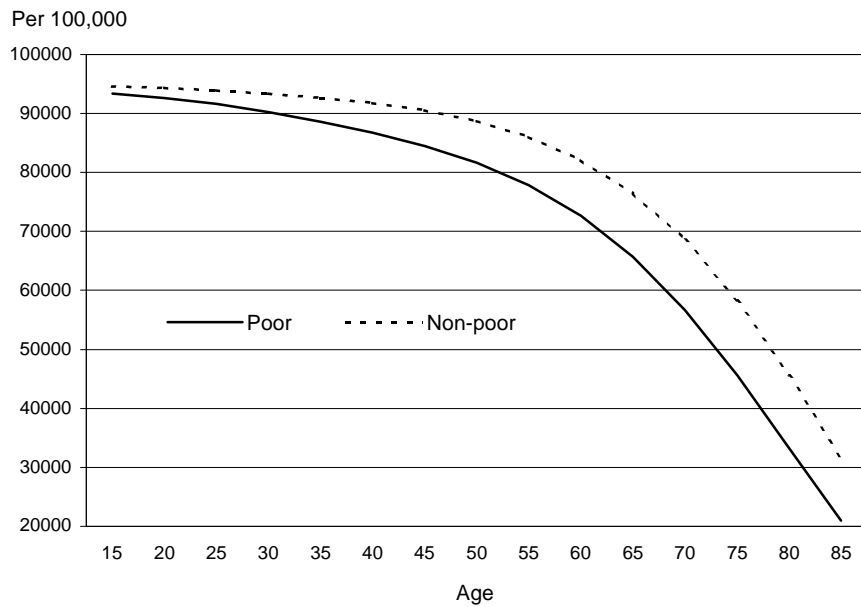
The data presented in the previous section clearly indicates the increasing importance of decreased mortality in the 20<sup>th</sup> century in shaping the changes in the life course typologies of Mexican women. This decrease has dramatically increased the probability that a newborn child live to reach old age. A lower mortality rate means that more women survive to adult age and have a greater possibility to spend more years of their lives as members of a family. While more people survive to an advanced age, the family system tends to benefit from longer periods of coexistence of three, four and even five generations. Watkins *et al.* (1987, p. 346) maintain that "a longer life alters the demographic basis of family roles" in all life stages, because people can spend more time in their roles as children, parents and spouses or in a combination of these roles. To further explore these topics, the proportion of women in each synthetic cohort who survive to a given age will be analyzed. A table showing mortality by periods is used to investigate the implications of the mortality conditions prevailing at a given moment for each hypothetical cohort of women.

\* The number of women surviving to a given age in early, full and advanced transition is given in Graph 7. The prevailing mortality rate for the first category indicates that nearly 90%, 79% and 64% of a hypothetical cohort reach the age of 15, 50 and 65 respectively. In contrast, under existing mortality conditions the corresponding figures increase to 96, 91 and 80 percent for the category of advanced transition.

Graph 7. Number of surviving women in early, full and post transition by age, per 100,000



Graph 8. Number of surviving women according to poverty status by age, per 100,000, 1990-94



\* A comparison of women of a fictitious cohort belonging to households situated below and above the poverty line, shows that in the first case 93%, 81% and 65% reach the indicated age, while the proportions rise to 95%, 89% and 76% in the second case (Graph 8).

The notably higher probability of surviving up to old age has important implications, although with significant differences, for the structure of family relations and roles. In fact, the decline in mortality has given rise to an unprecedented increase in the potential number of years that individuals survive as family members under different conditions or with a different status. But how much of this potential is effectively put to use? As Watkins *et al.* (1987, p. 346) point out: "if the only change were mortality, the answer would be simple: a longer duration of all states. However, the reductions in mortality have been accompanied by changes in fertility and nuptiality." The following question is relevant: "What consequences have these changes had for the structure and organization of the family life course of Mexican women?" To answer this and other questions, the model mentioned by Zeng Yi will be used.

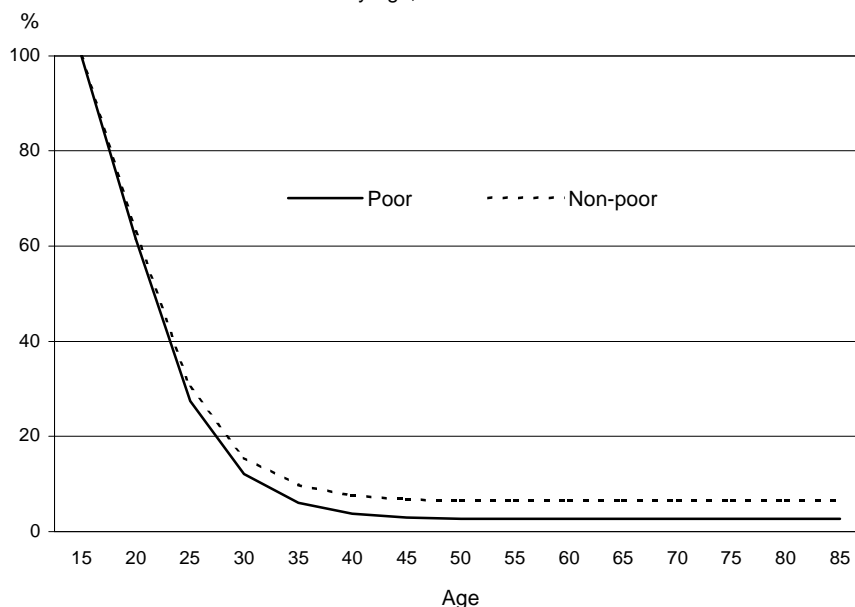
### **3.4 - Marital status**

The distribution of the members of a cohort of a given age by marital status is determined by past marital experience (marriage, divorce, widowhood or remarriage), as well as by the survival differences of its members according to marital status. Due to the fact that the age patterns of each of these events have greatly changed in these last decades, the marital histories of women belonging to more recent cohorts are quite different from those of older cohorts. Moreover, the generations that will reach old age in the next decades will be different from those who are currently old.

The percentage distribution by marital status for selected age groups of women belonging to identified synthetic cohorts, shows that:

\* The regime of almost universal marriage seems to resist change. In the prevailing demographic conditions, only 3% of women in early transition are single at the age of 50 while later, in full and advanced transition the figure rises to 6% and 7% respectively. It should be noted that the poor show a marked universal nuptiality (2.6% of women remain single at 50 versus 6.4% of those situated above the poverty line) (Graph 9).

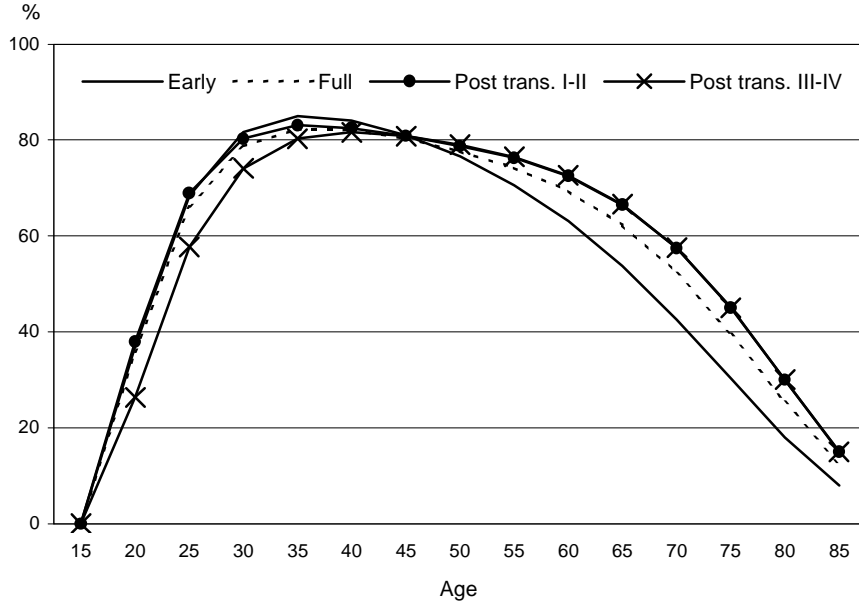
Graph 9. Percentage of unmarried women according to poverty status by age, 1990-1994



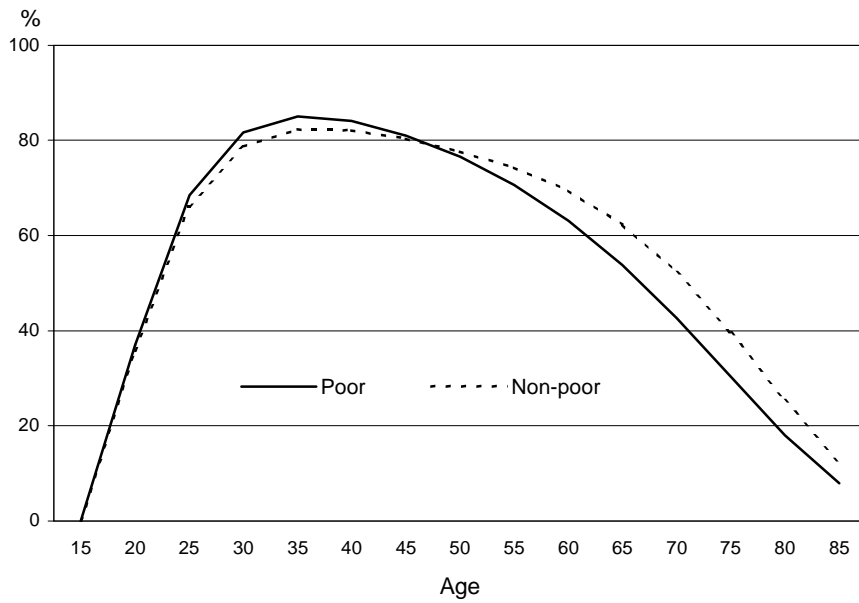
\* Early marriage is still the norm, although it is possible that in the next few years the effects of the gradual postponement of the marriage age by marital status (Graphs 10 and 11) will begin to be seen. Under the prevailing rates in cases of early and full transition, approximately 61-63% of Mexican women are single at the age of 20. It should be pointed out that the differences observed between poor and non-poor are not very significant. In contrast, the corresponding proportion of women in advanced transition (hypotheses III and IV) rises to 73%.

\* The proportion of widows tends to decrease with lower mortality. Members of cohorts who have reached adulthood and old age in recent years tend to have lower mortality rates than those belonging to older cohorts. In the context of low mortality, as well as reduced divorce and remarriage rates, a smaller proportion of each cohort reaches advanced age without experiencing the spouse's death, while a growing proportion remains married. The available data shows that the corresponding proportions are higher for women of all ages in early transition than for those in the other two phases. For example, at age 50, almost 13% of the women in the first category will be widows, while among women in the

Graph 10. Percentage of married women in early, full and post transition by age



Graph 11. Percentage of currently married women according to poverty status by age, 1990-1994

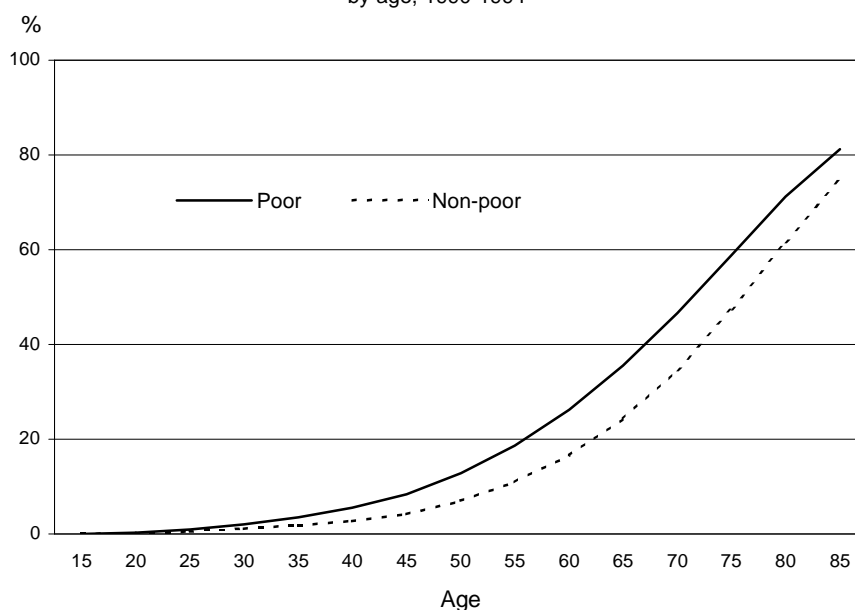




second and third category only 7% and 5% respectively are in the same condition. The differences between poor and non-poor are not very significant from this age onward (Graph 12).

\* The proportion of separated and divorced women increases only slightly between the first two phases of transition. This suggests that marital stability is an important feature of the marriage system in Mexico. The percentage of separated and divorced women tends to increase for women between 20 and 50 years of age in the studied cohorts. According to the prevalent rates in the early transition regime, 8% of 50-year old women would be divorced or separated, while the figure increases to 9% in the course of early transition. There are no significant differences between poor and non-poor.

Graph 12. Percentage of widows according to poverty status by age, 1990-1994



Next, an attempt shall be made to respond to such questions as “How long, on average, do women belonging to a synthetic cohort live in a single, married, divorced/separated or widowed state?” “What proportions of each cohort play the roles of daughters, wives or mothers at a given age?” “How long are they expected to remain in these conditions?” “Will the most recent cohorts dedicate more or less time

of their adult lives to being daughters, wives or mothers than the older cohorts?" These questions are answered in two ways:

\* The number or proportion of survivors of a cohort whose family state or condition is  $s$  at age  $x$ , where  $s$  may be a combination of family states.

\* The number of years expected to be spent in a particular family condition after age  $x$ .

These tools offer a preliminary empirical basis for the construction of what Watkins *et al.* (1987) call "the essential skeleton" of the family history, its long-term evolution and demographic bases.

### **3.5 - Being a wife**

The roles associated with being a wife are crucial in the lives of Mexican women. Even when the proportion of women from the upper and middle class who marry later increases, with some women completely rejecting the traditional roles associated with this condition, it should be pointed out that almost all adult women eventually marry. Entering into marriage is a complex process. Mexican women commonly select their partners from a group of potential candidates, usually of the same social class (Ojeda, 1987). The preliminary stage is a process which includes several steps, to which cohabitation has recently been added (Salles and Tuirán, 1996). As an important transition in women's lives, marriage modifies their existing relationships and redefines a new social circle. The marriage age and previous roles are important factors for determining the degree to which the formation of a union changes the relationship circles of a woman and her self-definition (Lopata, 1992).

The family role played by women as spouses tends to change historically and vary with their age, social class, place of residence and education. If a woman only plays the role of housewife, her life and identity will be more and more differentiated from those of her husband, who generally remains linked to the public sphere. Nevertheless, in the last decades women have confronted this situation by questioning the stereotype of the submissive, patient and suffering woman. In many senses the recent changes in gender identity experienced by men may be attributed to women's initiatives. Nevertheless, this has not brought about profound changes in the division of domestic labour. Women continue to carry out the great majority of household chores

(cooking, cleaning, washing, ironing, shopping, etc.). In fact, more and more women claim that they have a double workload since the participation of men in household chores is scarce, inconsistent and, at times, non-existent.

But little by little the gender relationships within a family are changing. Some field studies realized in urban areas report that at present the men of various social groups are taking more responsibility for household chores than in the past. Younger men frequently speak of inter-generational change and usually declare that they take responsibility for more household chores, compared with their fathers. The explanation that the men living in the suburbs of Mexico City frequently give to this behaviour is relatively simple: out of necessity, i.e., they simply must do it. What they usually mean is that the added income earned by the woman is absolutely necessary for a large family although this means that at times the husband must carry out some household chores. But the expression used by almost all of the men to describe their activity at home is "helping their wives". This indicates that the active cultural values still maintain masculine supremacy in the domestic division of labour. The term help is also used frequently by women to describe their contribution to maintaining the family through paid labour. Indeed, when couples are asked who makes the main decisions at home, the women tend to answer that it is the man. We should recognize, however, that women have ways, open and surreptitious, of questioning men and demanding that they assume new responsibilities.

The greater involvement of women in income-earning activities is producing tensions between the traditional roles of men and women in marriage and at home. The chain of events in emerging cultural practices, such as the greater involvement of men in domestic chores, is very consistent. Usually, it is the women who initiate these changes. At the beginning, men resist, a matter that has not been solved yet. The matter often becomes a source of tension in the marriage and at home. There is evidence that many women who enter the labour market often face conflicts and intra-family violence when they attempt to modify domestic labour division and the traditional behavioural patterns of their partners. A study of Mexican households in the 80s concluded that "masculine dignity has been struck in such a way by the lack of employment and the need to depend on the additional income of the woman for subsistence that men take it out on the women and provoke an increase in domestic violence" (Selby *et al.*, 1990).

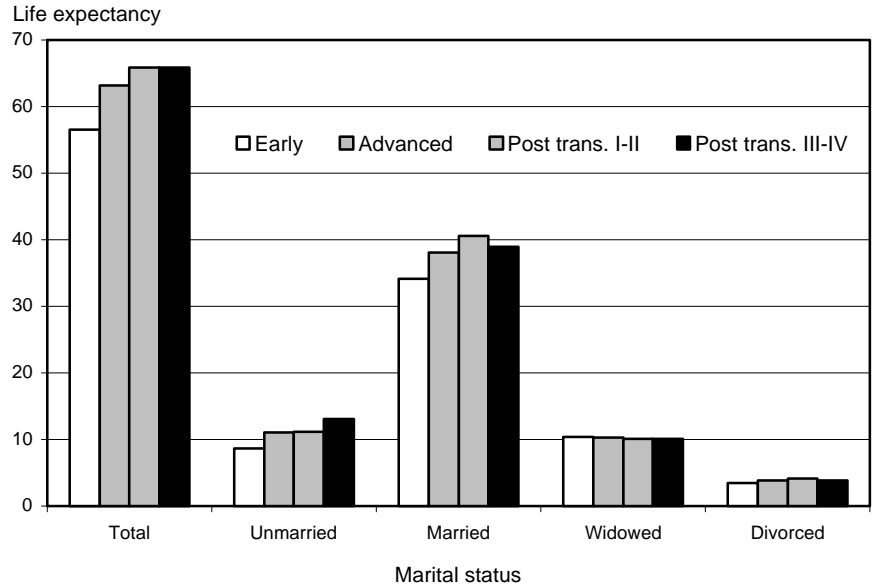
With separation and divorce, women experience a change in their different roles, which in turn affects various aspects of their daily lives. Divorced women tend to suffer a sort of stigmata; they lose valuable social support, their circle of interaction is reduced and, frequently, they are obliged to reconstruct the system of support networks in the absence of a husband (Lopata, 1992). Marriage is also dissolved by death. Widowhood strikes the vast majority of families in the advanced stages of the cycle. This forces the survivors to adapt their lives, often leading them to dramatic situations. Divorce and widowhood have in common the fact that they are events that may affect family life situations, as well as social support systems and individual well-being. But they may represent for many women the opportunity to begin a new life, depending on how popular a second or third marriage and the reconstitution of a family are.

### **3.6 - Adult years as a wife**

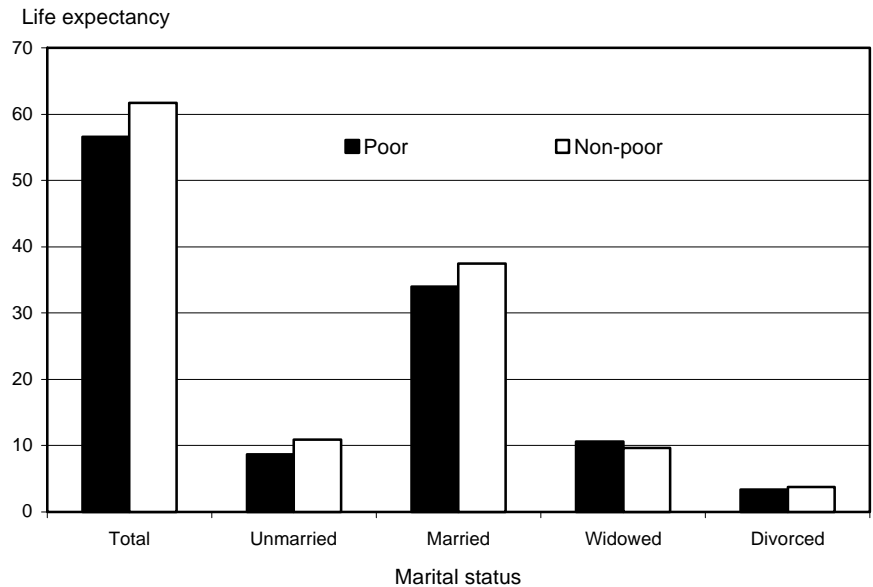
The increases in life expectancy have forced women to decide between a long union or marriage, multiple marriages or longer time as a single woman. How many years, on the average, may we expect a Mexican woman to live unmarried, married, widowed, separated or divorced? Should the adult years spent in each of these conditions be interpreted as an indication of a priority assigned by women in their lives? Graphs 13 through 16 show how much time it is expected that women in certain age groups spend in the various marital states, and the percentage distribution of time spent in the condition of prevalent mortality and nuptiality in early, full and advanced transitions. For this analysis a measurement has been used that is very familiar to demographers, i.e. life expectancy at age 15. The following question can be formulated "How many years, on the average, will she remain in the state of marriage during the rest of her lifetime?" The graphs indicate that:

\* A Mexican woman who reaches the age of 15 in early transition, may expect to live a total of 57 years, of which she will remain single for 9 (15%), married for 34 (60%) and divorced or widowed for 14 (25%) (Graphs 13 and 15). Under the prevalent conditions in the full transition phase, life expectancy increases to 63 years, of which 11, 38 and 14 years respectively will be spent in the indicated states (i.e. 61%, 17% and 22% respectively). Finally, in advanced transition, women's life expectancy at age 15 will increase to 66 years. This figure may be

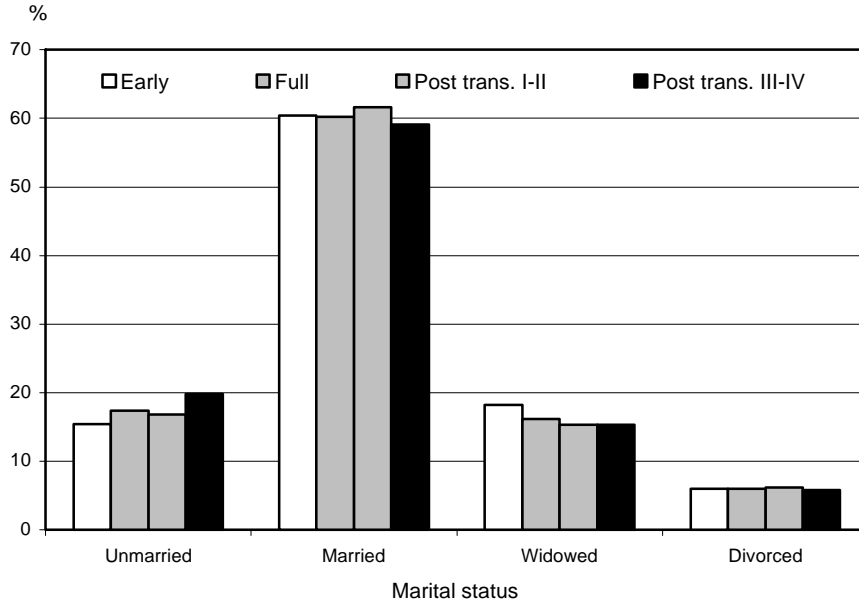
Graph 13. Decomposition of life expectancy at 15 years of age according to marital status at each stage of the transition



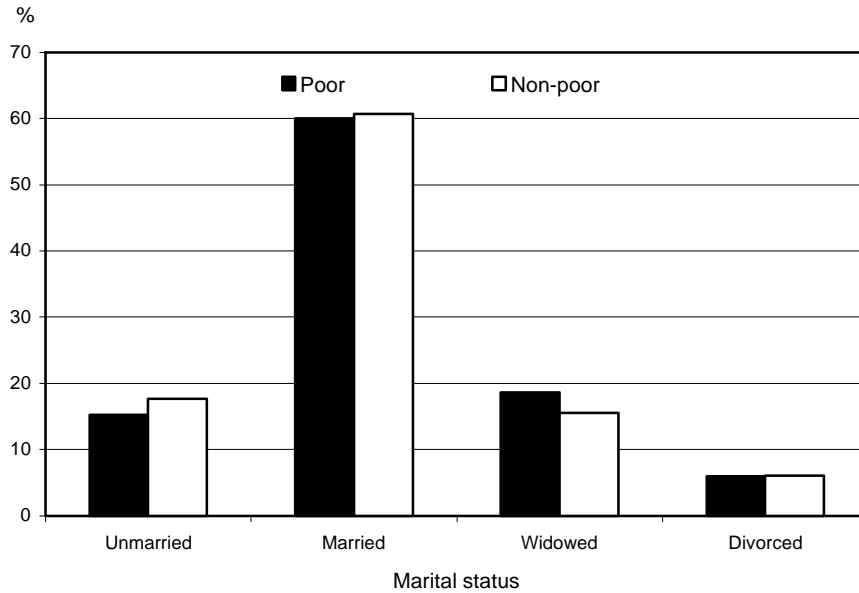
Graph 14. Decomposition of life expectancy at 15 years of age according to marital status and poverty status, 1990-1994



Graph 15. Percentage distribution of women's life expectancy at 15 years of age by marital status at each stage of the transition



Graph 16. Percentage distribution of women's life expectancy at 15 years of age according to marital status and poverty status, 1990-94



broken down as follows: 13 years as a single (20%), 39 years married (59%) and 14 years widowed or divorced (21%). It should be noted that the difference between the poor and non-poor is similar to that observed between the early and full transition phase (Graphs 14 and 16).

A comparison between the three demographic categories confirms that the cohorts of women who survive the age of 15 increase their life expectancy by 9 years and remain married at least 5 more years. The reasons for this are the relatively low divorce and separation rates in all scenarios in spite of the fact that those living under the demographic condition of advanced transition, on the average, marry somewhat later. It should be noted that due to the important decrease in mortality, a growing number of couples survive to adult and advanced ages with their marriages intact, a fact that suggests that the institution of marriage in Mexico continues to be solid and strong. This situation is similar to that observed in China and is in contrast with the trends observed in the United States, Belgium, The Netherlands and Brazil, where the time a woman dedicates to the role of a married woman is much less than the potential offered by longer life expectancy.

### **3.7 - Being a mother**

The rights and responsibilities associated with motherhood vary from one society to another. They depend on women's position with respect to men, age, social class, ethnic group, marital status and sources of support. They also depend on the characteristics of each child (sex, age, order of birth, health, etc.) (Lopata, 1992). Indeed, the responsibilities and rights of a mother change as she grows older and her children grow up, she develops new skills, acquires new knowledge and social roles and modifies her social circles. In different cultures, women's gender identity is mainly constructed by exercising their roles as wives and mothers. In fact, in these contexts maternity has often been described as the destiny of every woman, her principal goal in life and the only way she can achieve realization as a human being. The mother's role in the Mexican family is still linked to the ideal image of the "perfect" family with a clear-cut sexual division of labour consisting of a husband/father/provider and a wife/mother/housewife in charge of the children.

Mexican culture consecrates and idealizes maternity to the point of ridiculousness ("sacred maternity", "the angel of the household"). The

cult of domesticity and the doctrine of separate spheres (private vs. public) are accompanied by an exaltation of feminine nature which turns the woman into the recipient of all that is decent, gentle, devout and virtuous. Maternity has also been represented as a great responsibility derived from the privilege of being a woman. At home mothers are responsible for most daily decisions concerning children's health and education, while men, in general, do not assume responsibility for their upbringing. The children, especially the younger ones, are usually the responsibility of the mother, with both spouses considering this activity as a strictly domestic task. Men usually see themselves as the economic providers for the family and women as responsible for taking care of the house and bringing up the children.

It is taken for granted that couples have children once they are married. In fact, very few people decide not to have children. There are many reasons why Mexicans desire to have children. To men and women of different social backgrounds, children provide the opportunity to show "what one is worth". In fact, children are considered as a gift and a way of strengthening the parents' union. Nevertheless, today Mexican couples have fewer children than previous generations. The availability of contraceptive methods has favoured family planning. In fact, legal restrictions against contraception are rapidly being relaxed. Different social and cultural transformations (for example, better access to education, increased participation by women, less identification of sexual relations with reproduction, the fact that women's identity is not so closely related to maternity, etc.) have led to a profound re-evaluation of gender identities and relationships in present-day Mexico. The availability of safe and efficient contraceptive methods has allowed women to avoid undesired pregnancies. This has led to a considerable decrease in the number of years a woman dedicates, on the average, to reproduction and the up-bringing of children. However, for the majority of women living in poverty this change has been slow and they have constantly had to face discriminatory social structures and practices.

In this section an attempt is being made to respond to questions such as: "How does the change in fertility affect the number and distribution of women in different age or parity groups?" "What is the proportion of women of different age groups who remain childless if the demographic conditions of 1970-74, 1990-94 and 2005 were to continue throughout their lives?" "How does the proportion of women of high parity at age 50 change during the demographic transi-



tion?” “What are the implications of the present policy of parity distribution?”

Evidence indicates that the reproductive behaviour of Mexican couples has recorded an impressive change:

\* At age 25, almost 17% of ever-married or cohabiting women, in the stage of early transition, will not have children; while 31% will have three children or more. The corresponding figures during full and advanced transition are 16% and 15%, and 22% and 3% respectively.

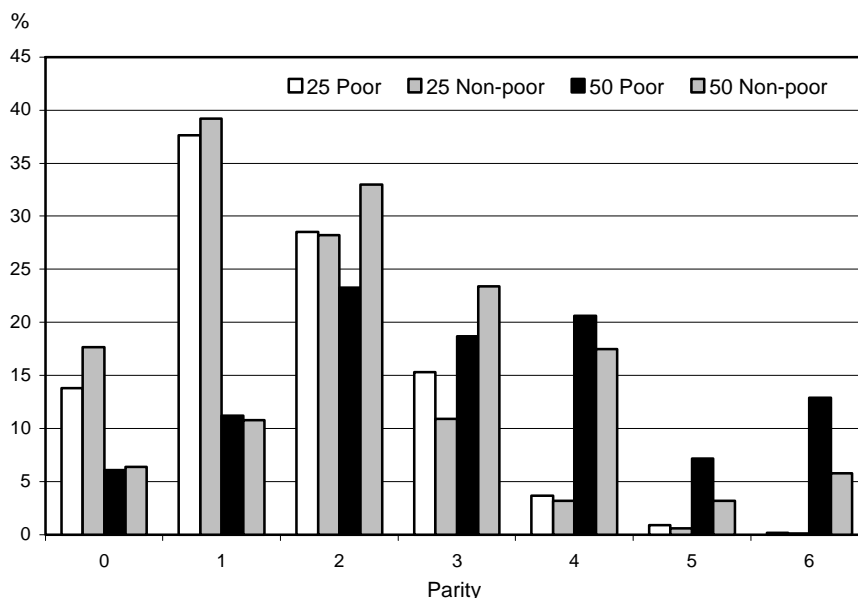
\* At age 50, in an early transition regime, 7% of ever-married or cohabiting women will not have children and 59% will have four children or more. In the demographic conditions of full and advanced transition, the figures will be 5% and 27%, and 6% and 4% respectively.

Demographic transition in Mexico has brought about important reductions in fertility, starting with the higher parity groups (five children or more) and gradually filtering to the lower parity groups. This is also evident among the poor and non-poor, although among the former the process is clearly declining (Table 4 and Graph 17).

Table 4  
Percentage distribution of ever-married women at selected ages according to parity and poverty status, 1990-94

Parity	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor
	<i>Age 25</i>		<i>Age 30</i>		<i>Age 35</i>	
0	13.8	17.7	8.4	6.3	5.1	8.8
1	37.6	39.2	11.3	15.6	15.3	12.7
2	28.5	28.2	13.2	31.2	24.7	36.3
3	15.3	10.9	16.9	27.0	25.5	25.5
4	3.7	3.2	15.1	12.5	15.9	9.9
5	0.9	0.6	12.3	4.3	6.6	3.6
6	0.2	0.1	22.8	3.1	6.8	3.2
	<i>Age 40</i>		<i>Age 45</i>		<i>Age 50</i>	
0	5.5	6.3	6.0	6.3	6.1	6.4
1	13.2	10.7	11.7	10.8	11.2	10.8
2	23.2	33.6	23.5	33.1	23.3	33.0
3	21.3	28.5	18.5	26.3	18.7	23.4
4	19.7	12.1	20.6	14.7	20.6	17.5
5	6.8	3.8	7.3	3.1	7.2	3.2
6	10.3	4.9	12.5	5.7	12.9	5.8

Graph 17. Distribution of ever-married women at 25 and 50 years of age according to parity and poverty status, 1990-94

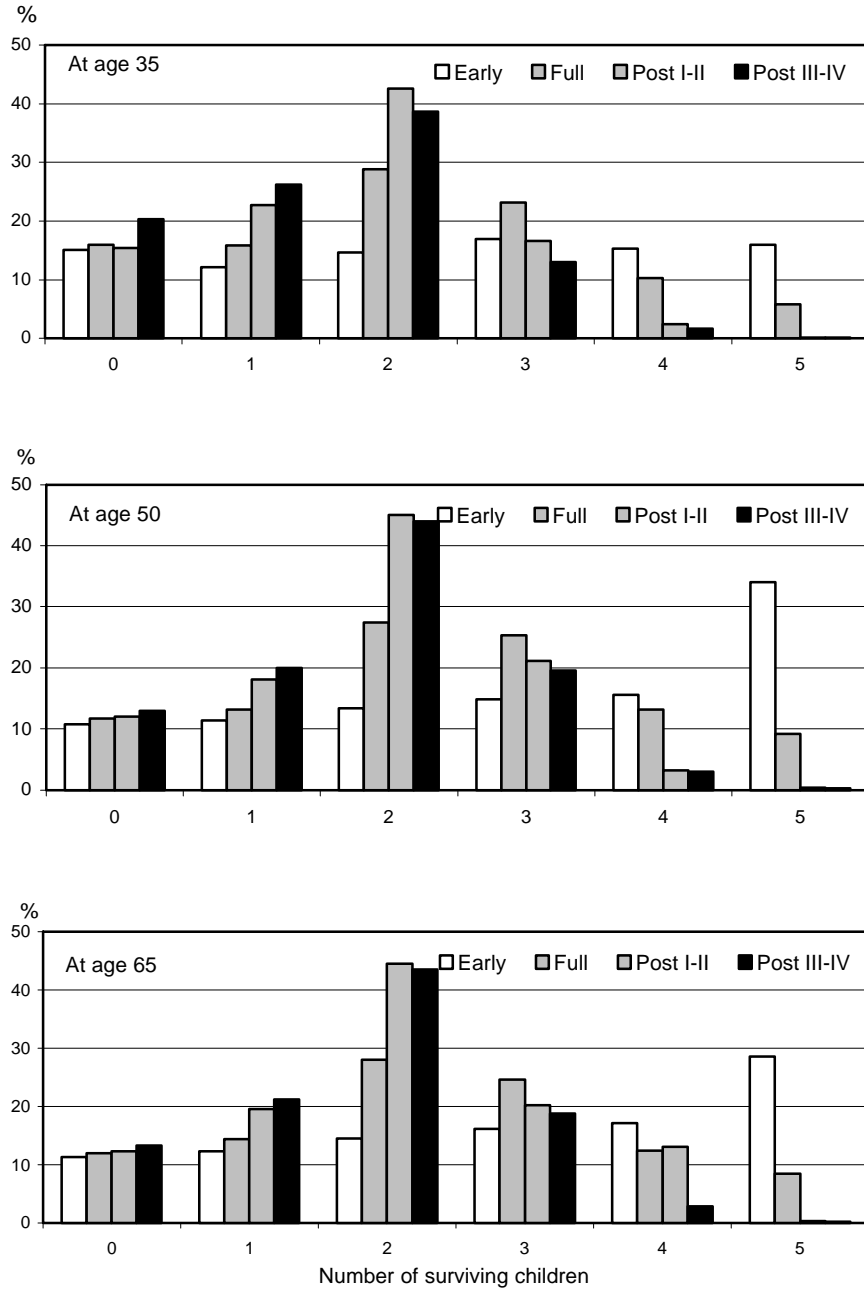


Since the number of children born alive is not equivalent to the number of surviving children, the percentage distribution of ever-married or cohabiting women by parity group and the corresponding survival status of their children are given in Graphs 18 and 19. This information reminds us that parents continue to be parents as long as their children are alive. In this section the relevant questions are the following: “How does the decline in fertility and mortality interact?” “How does the decrease in mortality affect the number and proportion of surviving children with respect to women’s parity?” “What is the proportion of ever-married or cohabiting women with children surviving the age and parity groups of each phase of transition?”

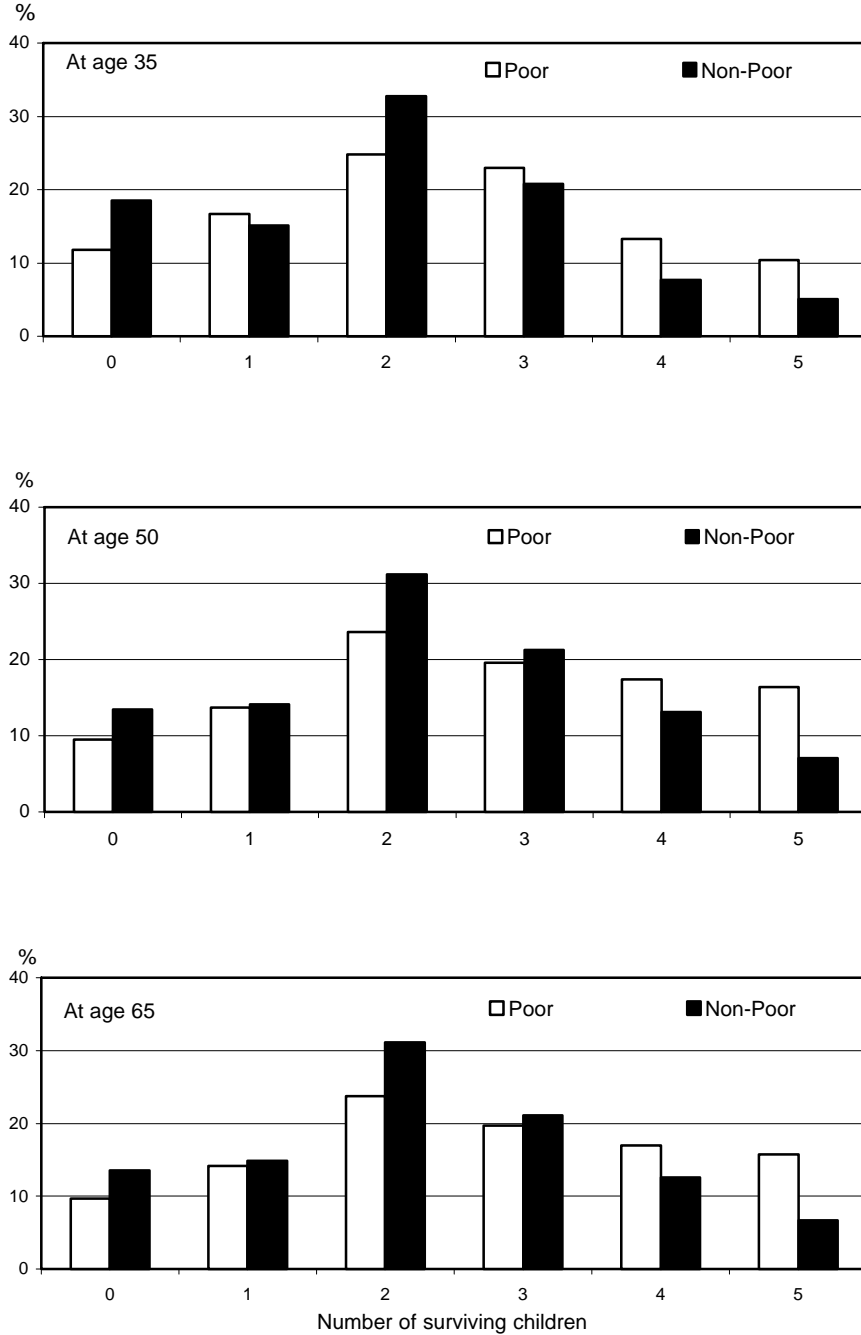
The available information shows that the mortality conditions are clearly unfavourable during the early stages of demographic transition. In contrast, it is uncommon that a minor child dies before the mother in the advanced stage of transition.

\* Under the conditions of mortality and fertility prevalent in early transition, 9% of ever-married or cohabiting women who give birth to only one child, will not survive to the age of 35. This figure is reduced to 4% and 2% respectively under full and advanced transition.

Graph 18. Percentage distribution of ever-married women at ages 35, 50 and 65 by number of surviving children at each stage of the transition



Graph 19. Percentage distribution of ever-married women at ages 35, 50 and 65 by number of surviving children and poverty status



Evidence shows a notable decline in fertility and child mortality. These elements may be summarized in the following manner:

- \* During the course of demographic transition, a greater number and a growing proportion of women become mothers, although at present they have fewer children.

- \* Mothers and children have a greater probability of surviving at each age and of living longer.

These considerations are valid for both the poor and non-poor, although there are marked differences between the two groups.

In the next section the responses to questions such as the following, will be explored: "What are the social and economic implications of the change in mortality and fertility?" "What are the effects of the decline in mortality on the structure of dependencies and duration of family ties between mother and child?" "How do changes in mortality affect the perspectives of family interaction during the various stages of the life course?" "What does this mean for older mothers and adult children?" "How do mothers and children 'adjust' or 'adapt' to the new demographic conditions?"

The different scenarios reveal that the decline in mortality tends to significantly increase the proportion of ever-married or cohabiting women with surviving children:

- \* Under the prevailing demographic conditions in the early fertility regime, 84% of ever-married or cohabiting women with parity one will still have one child alive before they reach the age of 65. In contrast, during the next two transition phases, the corresponding proportion increases to 93% and 96% respectively.

- \* The proportion of women of parity two who would still have both children alive at age 65 rises to 62% in the early transition regime, while, if the demographic characteristics of full and advanced transition prevail, the corresponding proportion reaches 85% and 91% respectively.

- \* The proportion of women of parity three who do not experience the death of any children will reach 57%, 78% and 86% respectively if the conditions of early, full and advanced transition are maintained.

All the estimates presented illustrate the changing conditions of ever-married or cohabiting women of varying parities, if they reach age 65 and have surviving children under different conditions of mortality. In the past, the death of one child was not exceptional for those surviving to old age. Nevertheless, in a regime of low mortality it is not necessary to give birth to more than two children to be relatively sure

that the couple will have at least one surviving child when it reaches old age.

### **3.8 - Adult years as a mother**

In different societies women have the responsibility of supporting their descendents in their growth, until they become economically independent. As a result, women dedicate an important part of their adult lives to providing emotional support and care. The duration of family ties is influenced by the combined effects of fertility and mortality. With the objective of exploring this topic, the expected number of years that ever-married or cohabiting women dedicate to their roles as mothers will be analyzed. In this paper, a specific segment in the life course of women, during which they might exceed in their responsibilities, will be emphasized. This corresponds to the ages when the children are most demanding (less than 5 and less than 18 years).

The effects of mortality and fertility on the number of years that a woman expects to dedicate to bringing up her children are complex. The change in the mortality rate tends to increase the number of years spent with surviving children, while the change in fertility and spacing practices tends to counter part of this potential. The combined effects of the decrease in fertility and mortality are ultimately reflected on family interaction and the duration of family ties. Building on this idea, the paper explores the following questions: “How many years does a Mexican woman of a given age range expect to dedicate, on the average, to the role of mother?” “How many years does she expect to spend as mother of children under 5 and youth under 18 in the demographic conditions of each period?” “How is the mother’s life expectancy affected by changes in the mortality and fertility patterns?”

Simulations indicate that, under the new demographic conditions, Mexican women will dedicate more and more time to their roles as mothers (5-7 years more than in the past). Therefore, in spite of the decline in fertility during the transition, the gain in life expectancy will tend to be reflected in an increased number of years spent as mothers (Table 5 and Graph 20).

\* At the age of 15, ever-married or cohabiting women can expect to spend around 42.5 years with surviving children of any age, under the demographic conditions of early transition. In the next two phases this figure would increase to between 48 and 50 years.

Table 5  
 Adult years of ever-married women spent with surviving children  
 of various ages at each stage of the transition

Transition stage	Surviving children		
	any age	under 18	under 5
Early	42.5	22.5	9.9
Full	47.8	22.0	8.2
Post I-II	50.2	20.3	6.7
Post III-IV	47.9	20.2	6.5

\* Nearly 55% of the life expectancy at age 15 of ever-married or cohabiting women in the early transition phase would be dedicated to living as the mother of more than three surviving children, while in the next two phases the corresponding proportion is reduced to 20% and 3% respectively.

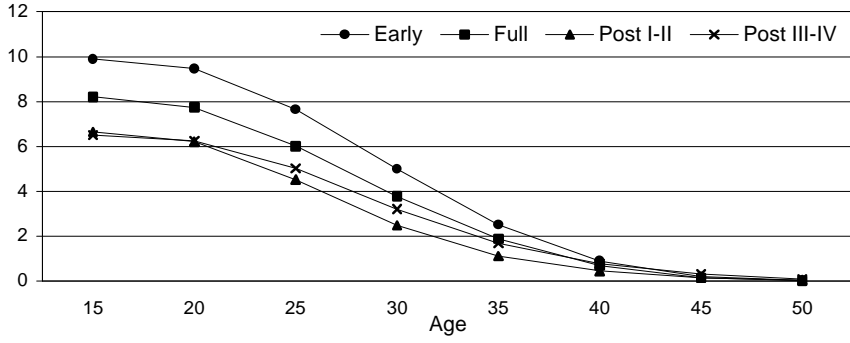
With regard to life expectancy (starting at the age of 15) as the mother of at least one surviving child under 5 years of age, it is possible to observe that not only the time women would remain in this status is less than for the more advanced demographic regimes, but that the number of years they would dedicate to the upbringing and care of two or more surviving children in this age is also reduced. This is the result of lower fertility levels and changing spacing practices in the full and advanced transition phases. Women tend to delay their first pregnancy and space the intervals between children, while the process of family formation ends earlier. In this way, by limiting the number of children that mothers raise, the shift in fertility tends to reduce the burden of caring for children in dependent age.

\* A woman living under the demographic condition of early transition dedicates 10 years of her life to the upbringing and care for children under 5. Nearly 31% of this time must be invested simultaneously in two children of this age. In the following stages, life expectancy in this situation decreases to 8.2 and 6.5 years and the proportion of time dedicated to caring simultaneously for two or more children in this age amounts to 20% and 12% respectively.

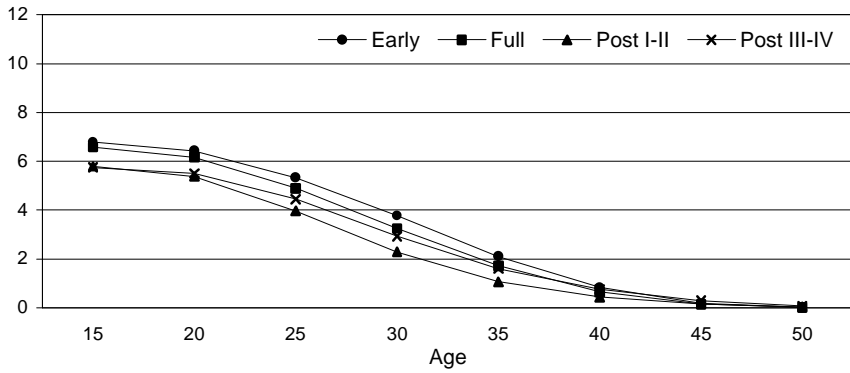
Likewise, the life expectancy (at age 15) of an ever-married or cohabiting woman dedicated to caring for children under 18 does not

Graph 20. Adult years of ever-married women spent with children under 5 years of age at each stage of the transition

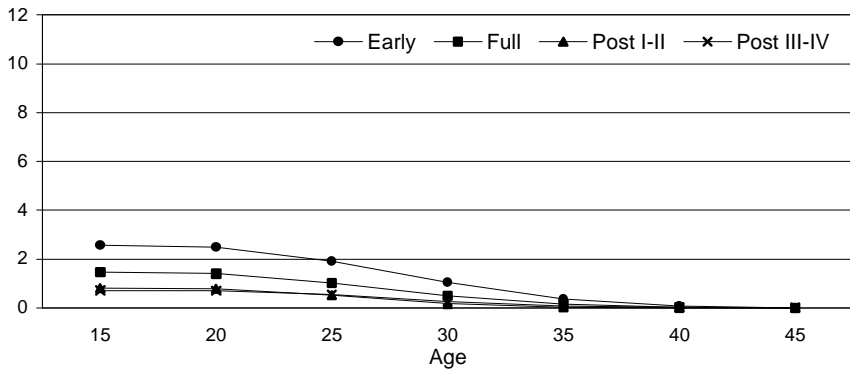
Total adult years



Adult years with one child



Adult years with two children





change much during the course of demographic transition (from 22 to 20 years), although it is evident that the proportion of time invested in caring for two children or more in this age decreases markedly (from 67% to 43%).

### **3.9 - Being a daughter**

Today the condition of being a daughter is the female role that lasts the longest. The longer life expectancy is reflected in an increase in adult lifetime as a daughter. The rights and responsibilities of daughters, the flow of relationships and the content of the social circle of participation change with time. Daughters have obligations towards their parents, although each society and social class have their own norms regarding the responsibilities of daughters. Frequently, these responsibilities are not the same as the rights and responsibilities of sons. The responsibilities of daughters towards their parents are emotional and geared to providing material assistance and tend to change and even increase as they grow older.

The quantity and type of assistance provided by daughters depend on many factors, including the social context: the timing of events in the life course of both generations, the fact that the daughter takes on roles conflicting with the demands of her parents, the facility with which she may offer help and support, and inter-generational necessities and resources (Lopata, 1992). The aspects that have been most frequently studied, emphasize a stage in which parents no longer completely take care of themselves. Without the protection of social security and social aid programmes the burden of caring for old and/or sick parents rests with the children or other relatives. In many societies of Latin America, responsibility for caring for the family generally falls upon the women/daughters because they are the most important providers of assistance to their parents when the latter reach old age, especially widows. Even daughters living away from their parents maintain strong economical and emotional ties with them. Usually sons provide less help and tend to be segregated in the division of labour by gender that extends throughout life. In other contexts, daughters provide less help to parents in comparison with sons because they marry, leave home and live with their husbands' families.

The majority of adult daughters are prepared to attend to their parents when they reach an advanced age and view this task as a type of

reciprocity for the care they received as children. But taking care of their parents is also a heavy burden, often occupying part of their adult lives. In fact, caring for the elderly usually lasts several decades, which places in danger the future and economic security of the daughter. Therefore, it is proposed to answer questions such as the following: “What is the proportion of women with surviving parents in each phase of the transition?” “How long will they live as daughters of still living parents and how long will they remain daughters of elderly parents?”

The proportion of children with at least one surviving parent has grown enormously, especially in old age, although the most common phenomenon is to have a surviving mother, rather than father. The changes are notable:

\* Under the demographic conditions of early transition, nearly 94%, 76% and 12% of all women aged 15, 35 and 65 respectively can expect their mothers still to be alive. These proportions rise to 98%, 86% and 20% for women in the second phase and 99%, 90% and 24-27% in the last phase.

Available information confirms Menken’s (1985) statement that “It is actually a new experience for a large majority of women (in the age of 15, 35 and 65) that their mothers are still alive. The diminished mortality rate means that parents live longer with their children and grandchildren. Even when daughters delay having descendents, many of them still have hopes that their children may grow up with active grandparents.” This statement is valid for the poor and non-poor, in spite of the differences in prevailing mortality, fertility and nuptiality rates.

### **3.10 - Years of adult life as a daughter**

An important part of the life expectancy of an adult woman (at age 15) is dedicated to playing the role of daughter to a surviving mother. This expectancy tends to grow as transition advances, going from an average of 29.4 years in the early phase, to 36 years in the full transition, and 39 years in the advanced transition phase. Among the poor and non-poor the respective indicators are 25 and 32 years (Table 6).

By combining the survival rates of fathers and mothers, it is possible to calculate the life expectancy of women surviving the age of 15 with one parent (father or mother), or both parents surviving any age, or with at least one surviving parent of 65 or more. The available data indicates that in every stage there is a significant difference between the

number of years that a daughter expects to live with both parents or at least with one of them.

Table 6  
 Adult life expectancy (at age 15) as daughter  
 of surviving parent(s) of any age, by poverty status

Surviving parent(s)	Poor	Non-poor
Mother	25.40	31.48
Father or mother	31.89	37.91
Both	14.98	18.85

\* The number of years a woman of 15 can expect to live with at least one of her parents (of any age) is 35.8, 41.3 and 44 in each phase of transition. This means an increase between 8 and 9 years. Among the poor and non-poor the indicators are 33 and 38 years respectively.

\* The life expectancy of women age 15 with both parents alive would be 19.3, 25.1 and 28-29 years in the early, full and advanced phases respectively. Again the difference is between 9 and 10 years. Among the poor and non-poor the respective indicators are 15 and 19 years.

As life expectancy increases there are changes in the health care requirements of the elderly, with a consequent increase in the time during which they are ill or incapacitated and, therefore, need more attention, care and support. This gives rise to profound changes. Men and women of all ages must adapt to the new rhythms of life imposed by the emerging social norms and expectations related to age, changes in the health status, new opportunities and problems of adaptation that accompany a longer life. The increased longevity of parents influences the life paths of their daughters and, therefore, demands that more time be dedicated to inter-generational responsibilities.

\* The average number of years that daughters can expect to live with at least one surviving parent aged 65 or more ranges from 15.9 to 21 and 23.1 years in the three phases of transition. Among the poor and non-poor the indicators are 12 and 18 years respectively.

\* The average number of years that daughters can expect to live with both surviving parents, aged 65 or more, is 2.8, 4.9 and 6.6 years in the early, full and advanced phases. Among the poor and non-poor the indicators are 2 and 4 years respectively.

\* This data suggests that the decline in fertility and mortality could endanger, in the long run, the capacity of families to continue to provide assistance to the elderly. The economically active adults in the household could be faced with a double challenge: for some it would mean guaranteeing the subsistence of minor children and the elderly, while for others it would imply taking care of their elderly during their own retirement. The following question is therefore justified: "How many years can a 15-year old woman expect to live with her elderly parents and dependent children?"

\* Life expectancy with the responsibility to care for parents or children will increase from 29.5 to 33 and 35 years in the three phases of transition. Among the poor and non-poor the indicators are 27 and 31 years respectively.

\* Life expectancy with the responsibility to care for parents and children is expected to increase from 8 to 10 years between the old (1970-74) and new demographic regimes (2005), while among the poor and non-poor the indicators are 6.5 and 9 years respectively.

To summarize, the results of the analysis in this paper show that life expectancy with responsibility for parents tends to increase during the demographic transition, while responsibility for children decreases. In this way, the demographic transition contributes to profound changes in women's life paths. This conclusion is valid both for the poor and non-poor segments, although it is evident that the stated process is more rapid and intense in the second group.

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