

ECONOMIC
RESEARCH
FORUM



منتدى
البحوث
الاقتصادية

2007

working paper series

THE EGYPTIAN YOUTH LABOR MARKET
SCHOOL-TO-WORK TRANSITION
1998-2006

Mona Amer

Working Paper No. 0702

**THE EGYPTIAN YOUTH LABOR MARKET SCHOOL-TO-
WORK TRANSITION 1998-2006**

Mona Amer

Working Paper 0702

September 2007

Financial contribution from the Ford Foundation and the USAID is greatly acknowledged.

Send correspondence to: Dr. Mona Amer, Faculty of Economics and Political Science,
Cairo University
Email: mona_amer@yahoo.fr

Abstract

The main purpose of the study is to analyze the insertion of the youth (15-29 year-olds) into the Egyptian labor market and whether the patterns of school-to-work transition changed over time (1988-2006). The analysis is based on three nationally representative and comparable Egyptian labor market data sets: the 1988 Labor Force Sample Survey, the 1998 Egyptian Labor Market Survey and the 2006 Egypt Labor Market Panel Survey. The paper presents a brief overview of the main characteristics of Egyptian youth. It shows that the share of the youth aged 15-29 grew significantly from 1988 to 2006 and that the Egyptian labor market is currently facing a big challenge: creating sufficient jobs for the largest cohort of new entrants ever. It identifies what young people are doing right after leaving school and gives an indication of youth labor market mobility by comparing their current and first employment statuses after leaving school. The paper then goes on to analyze the main characteristics of the first job obtained (age at first job, duration to obtain the first job after finishing school, type of first job) by gender and educational attainment from 1998 to 2006.

In conclusion, the findings show that the youth labor market is clearly segmented with regards to gender. While young males tend to participate more and obtain their first job at younger ages, young females participate less and it seems that their employment situation worsened over time.

ملخص

الهدف الرئيسي من الدراسة هو تحليل دمج الشباب (من سن 15 إلى 29 سنة) في سوق العمل المصري وما إذا كانت نماذج التحول من الدراسة إلى العمل قد تغيرت خلال الفترة من 1988 إلى 2006. يعتمد التحليل على ثلاث مجموعات للبيانات مقارنة وممثلة على المستوى المحلي عن سوق العمل المصري وهي مسح قوة العمل لعام 1988 ومسح سوق العمل المصري لعام 1998 ومسح فريق سوق العمل المصري لعام 2006.

تقدم الدراسة عرضاً مختصراً لأهم خصائص الشباب المصري، فهي ترى أن نصيب الشريحة العمرية من 15 إلى 29 عام قد تزايد بصورة كبيرة خلال الفترة من 1988 إلى 2006 وأن سوق العمل المصري يواجه تحدياً كبيراً في الوقت الراهن. يتمثل هذا التحدي في إيجاد فرص عمل كافية لأكبر مجموعة من الداخلين الجدد لسوق العمل.

تشير الدراسة إلى ما يفعله الشباب بعد التخرج مباشرة وتعطي مؤشراً لحالة الحراك في سوق عمل الشباب من خلال المقارنة بين وظائفهم الحالية و أول وظيفة حصلوا عليها بعد التخرج مباشرة. وتستمر الدراسة في تحليل أهم الخصائص الخاصة بأول وظيفة حصل عليها الشباب (السن عند أول وظيفة والمدة التي قضاها الشاب بحثاً عن هذه الوظيفة بعد التخرج ونوع هذه الوظيفة) بناء على النوع والمؤهل خلال الفترة من 1998 إلى 2006.

وفي النهاية تبين النتائج أن سوق عمل الشباب ينقسم بصورة واضحة فيما يتعلق بالنوع فبينما يميل الذكور إلى مزيد من المشاركة والحصول على أول وظيفة في سن صغيرة فإن الإناث يشاركن بدرجة أقل ويبدو أن موقفهن الوظيفي يزداد سوءاً بمرور الوقت.

Introduction

The purpose of the paper is to analyze the insertion of the youth into the Egyptian labor market and to examine to what extent the school-to-work transition has changed over time (1988-2006). Young people are defined in this study as those aged between 15 and 29. The analysis of the youth labor market situation is of particular importance. Indeed, the youth represent a very large share of the Egyptian population and larger cohorts of young individuals enter into the labor market leading to high pressure. Moreover, the youth and in particular educated women, face the biggest difficulty to insert into the labor market as they experience high unemployment rates.

The paper is divided into three parts. The first one presents a brief overview of the main characteristics of the Egyptian youth (growth of population share, unemployment and labor force participation rates by gender and educational attainment for the period 1988-2006). The second section compares the current and first employment statuses of those who finished school. The third part analyzes the main characteristics of the first job obtained (age at first job, duration to obtain the first job after finishing school and type of first job) by gender and educational attainment from 1998 to 2006.

This paper uses three comparable labor market surveys, namely the Labor Force Sample Survey of 1988 (LFSS 1988), the Egyptian Labor Market Survey of 1998 (ELMS 1998) and the very recent Egyptian Labor Market Panel Survey of 2006 (ELMPS 2006)¹. The sample size of young people aged 15-29 comprises 7533 individuals in 1988 (3835 males and 3698 females), 6797 individuals in 1998 (3571 males and 3226 females) and 11815 individuals in 2006 (5855 males and 5960 females).

1. Overview of the Egyptian youth labor market

This section analyzes the trend of youth labor market over the period 1988-2006. It is divided into three parts. The first one presents the changes that occurred in the youth Egyptian demographic structure and in young enrollment rates. The evolution of the labor force participation according to gender and educational attainments is then considered. The third part examines the trend in unemployment rates among male and female young people according to education.

1.1 Youth population growth and enrollment ratios

This section analyzes the trend of youth population (15-29) and its enrollment rates as this has major implications on their labor force participation.

The youth employment problem in Egypt is partly driven by its demographic structure. Indeed, due to substantial demographic pressure, the Egyptian labor market is facing nowadays the biggest ever cohort of new entrants. The evolution of the age distribution of the youth in the total Egyptian population, illustrated in figure 1.1.1, shows that the proportion of those aged 15-29 increased continuously from 27 percent in 1988 to 29 percent in 1998 and finally reach 32 percent approximately in 2006. This overall increase concerns only those aged 20-29. In fact, the proportion of those aged 15 to 19 remained stable over the 1988-2006 period though decreased from 1998 to 2006. The recent decline in the share of the youngest age group reflects the decrease in fertility rates and the passage to the final stage of the demographic transition. However, the size of the youth population (15-29) has continuously

¹LFSS 1988, ELMS 1998 and ELMPS 2006 are nationally representative surveys. The sample size is 27,631 individuals in LFSS 1988, 23,997 individuals in ELMS 1998 and 37,649 individuals in ELMPS 2006.

increased from 13.3 million in 1988 to 17.4 million in 1998 to finally reach 22.2 million in 2006. This final stage of the demographic transition leads to the arrival of very large cohorts of new entrants (15-24) to the labor market. This pressure is at its peak today and should stay high for the next decade as it is expected that 790 000 individuals will enter the labor force annually during the period 2005-2010 (Amer, Assaad and El Khawaga, 2004).

The analysis of the school enrollment rate (15-24) over time is shown in figure 1.1.2. First, this figure indicates that enrollment rates have continuously increased among the 15-19 year-olds reaching 61 percent in 2006 (65 percent among males and 56 percent among females). In contrast, enrollment rates among those ages 20-24 have remained stable over the period 1998-2006. However, this overall stability masks trend differences over the 1988-1998 and the 1998-2006 periods. Indeed, while the enrollment rate (20-24) has increased from 1988 to 1998, it has decreased over the second period. This fall could be explained by the fact that the proportion of technical secondary students in total secondary education has increased since the beginning of the new millennium reaching 59 percent in 2005/2006. As most technical secondary graduates do not pursue higher studies and leave the educational system, this could have led to the decline of the proportion of enrolled students among those aged 20-24 (Amer, 2007). Second, even though the female enrollment rate is still lower than the male one, the gap tends to reduce among the 15 to 19 year-olds as enrollment rate increases more rapidly among females (1.8 percent annually) than among males (0.8 percent annually) from 1988 to 2006.

1.2 Youth labor force participation trend

The sharp increase in the youth population is expected to affect greatly both male and female labor force participation rates. This section investigates to what extent labor force participation among the youth has changed over time and examines the role of education on female labor force participation. The estimation of the labor force participation uses the extended definition of economic activity including market and subsistence activities. Unemployment refers to the standard definition (person not employed, available for work and searching for a job). The period of reference is the week before interview.

The labor force size of the youth (15-29) has increased from 6.7 million in 1988 to 11.3 million in 2006. However, the female labor force size is much smaller from the male one. For instance, in 2006, 4.3 million women ages 15-29 are economically active compared to 7.0 million of men. Female and male labor force participation rates are analyzed separately as they show great disparities.

Male labor force participation

Figure 1.2.1 presents the evolution of the male labor force participation by age groups. First, male labor force participation increases with age reaching almost universal participation among the 25-29 year-olds (96 percent in 2006). Second, from 1988 to 2006, the overall labor force participation of young males (15-29) has increased from 58.6 percent to 64.4 percent. However, this overall increase masks different trends among the 15-19 and the 20-29 year-olds. On the one hand, male labor force participation among the 15-19 years old has significantly decreased. This result can be related to the rise in school enrollment ratio (see Figure 1.1.2). However, the increase occurred between 1988 and 1998 whereas the participation rate has remained stable from 1998 to 2006. On the other hand, male participation for the older groups (ages 20-24 and 25-29) has increased from 1988 to 2006. This growth is mainly driven by the sharp increase in participation from 49 percent in 1988 to 67 percent in 2006 of those aged 20-24. This rise in participation mainly occurred in the

second period of analysis (1998-2006) while the enrollment ratio has decreased (see Figure 1.1.2).

Female labor force participation

First, as illustrated in figure 1.2.2, youth female labor force participation is relatively low in Egypt: 38.3 percent among the 15-29 year-olds². Even though participation increases with age it only reaches approximately 48.5 percent among those aged 25-29 in 2006.

The low participation rate among females can be explained by several factors:

- the retrenchment of the public sector which used to be the major female employer in the formal sector;
- the severe barriers to entry women face in the private sector and
- the very limited jobs opportunities in the private sector. Indeed, female wage workers are distributed in a very few economic activities such as textile in the manufacturing sector and the education and health sectors (Assaad and Arntz, 2005).

Second, the analysis over the 1988-2006 period reveals that female labor force participation (ages 15-29) has slightly decreased from 41.4 percent to 38.3 percent. This overall decline occurred among all age groups. The decline among the youngest age group 15-19 is reflecting (as among males) the growth in enrollment rates (see Figure 1.1.2). The interesting result revealed by figure 1.2.2 is the change in the participation trend that occurred during the overall 1998-2006 period among the older age groups (20-24 and 25-29). On the one hand, during the first period of analysis (1988-1998) female labor force participation has increased among the 20-24 year-olds. This rise has been explained by growing enrollment rates and by the fact that the more women are educated the more they tend to enter the labor force. So, over the ten-year period, it seemed that women delayed their entry into the labor market but stayed longer in the labor force (Assaad, 2002). On the other hand, female labor force participation (ages 20-29) has decreased during the second period of analysis (1998-2006). This decline is more important among the 20-24 year-olds. This result is particularly intriguing as female enrollment rate has declined among those aged 20-24 (see Figure 1.1.2).

Female labor force participation by educational attainment

Figure 1.2.3 presents the trend in female labor force participation by educational attainment from 1988 to 2006. It reveals the key role played by education on female participation. Labor force participation decreases with education at low levels of schooling (below secondary) and then increases sharply reaching 43 percent among those holding technical secondary school certificates and 57 percent among university graduates in 2006. The very low participation among women middle or general secondary education is due to the fact that young females holding these degrees have not completed their education and are pursuing their studies in secondary schools or at the university.

The most striking result is the sharp decline in female participation among those with upper educational levels (secondary education and above). Indeed, from 1998 to 2006, participation has decreased by approximately 28 percent, 39 percent and 23 percent among technical secondary school, post-secondary institute and university graduates respectively. This declining trend is remarkable as, on the one hand, the more educated women are more and more educated (increased enrollment ratios) and on the other hand, the more educated women are the more likely they participate in economic activities. One of the reasons of this

² Moreover, using the restricted definition of economic activity (i.e. excluding subsistence activities), female labor force participation (15-29) reaches only 22 percent in 2006.

result could be the suspension of the public employment guarantee scheme by the end of the nineties. In fact, female technical high school and university graduates benefited the most from this policy and since then seem to have difficulty to access the labor market.

1.3 Youth Unemployment

Unemployment is clearly a youth issue in Egypt. Indeed, out of 1.71 million unemployed ages 15-64, 83 percent are aged 15-29 and 43 percent are aged 20-24 in 2006. The Egyptian youth suffer the most from high unemployment rate that has been rising over the past decades. For instance, youth unemployment rate (15-29) has sharply increased from 10.5 percent in 1988 to 17.6 percent in 1998 (+68 percent). However, this trend has been reversed from 1998 to 2006 as unemployment rate has decreased by 28 percent, reaching 12.5 percent in 2006. During that same period, the number of unemployed (15-29) has remained stable (1.45 million individuals in 1998 and 1.43 million individuals in 2006).

Male unemployment (15-29)

Figure 1.3.1 displays the trend in unemployment rate by age groups among young males in 1988, 1998 and 2006. First, the figure shows that male unemployment rate increases with age reaching its peak (14 percent in 2006) among the 20-24 year-olds and then decreases among the 25-29 year-olds (6 percent). Second, unemployment rate (15-29) has slightly increased from 1988 to 2006. However, after having doubled between 1988 and 1998, it has substantially decreased from 15.9 percent in 1998 to 9.5 percent in 2006 almost compensating the initial rise. This recent overall decline occurred among all age groups.

Female unemployment (15-29)

Figure 1.3.2 presents the trend of female unemployment rate (ages 15-29) from 1988 to 2006.

First, women suffer the most from high unemployment rates. Indeed, the female unemployment rate (15-29) is much higher than the male one: 17.3 percent compared to 9.5 percent in 2006.

Second, the female unemployment structure by age is very similar to the males' one. The bulk of the unemployed is among the 20-24 year-olds whose unemployment rate reaches 21.4 percent in 2006. Third, the overall trends in females and males unemployment rates are very similar. Indeed, female unemployment (15-29) increased from 14.7 percent in 1988 to 20.1 percent in 1998 then the trend has reversed from 1998 to 2006 compensating the initial rise. However, the decrease in female unemployment rate over the last period is smaller in relative terms than for males.

Unemployment rate by educational attainment

Figures 1.3.3 and 1.3.4 show that both men and women holding technical secondary and above degrees suffer from severe unemployment rates. Male unemployment rate is very low below secondary education and then increases sharply among those holding technical secondary school certificates. Then it declines with education but unemployment rates for high educated males (post secondary institutes and university) suffer from higher unemployment rates than illiterate males, reaching 23 percent among university and above graduates in 2006.

The unemployment rate structure by educational attainment has changed over time. The unemployment rate has declined at all educational stages except for the post-secondary and university levels. Moreover, the peak of unemployment rate among those aged 15-29 has shifted from technical secondary education to university and above, reaching 23 percent at these levels in 2006. The more educated young males are the highest is the unemployment

rate. In terms of access to employment, education seems to have a negative impact. Nevertheless, this result should be attenuated as the more individuals are educated the more they are demanding in terms of employment conditions.

The female unemployment rate according to educational attainment (see Figure 1.3.4) shows several similarities with the male unemployment structure. Unemployment rates are very low among those with little education and rise sharply with those holding technical secondary school and above degrees reaching a peak among post-secondary and university graduates. As for their males' counterparts, unemployment rates have decreased at low levels of education from 1998 to 2006. On the one hand, female unemployment rates have decreased at educational levels below post-secondary being almost non-existent. The decline is particularly sharp among technical secondary graduates whose unemployment rate has dropped from 41 percent in 1998 to 25 percent in 2006. On the other hand, unemployment rates among post-secondary institutes and university graduates have increased substantially among females reaching a peak of approximately 38 percent in 2006. Thus, while female technical secondary school graduates used to experience the highest unemployment rates in 1988 and 1998, post-secondary and university graduates have become the most vulnerable towards unemployment in 2006.

In conclusion

The analysis of the youth labor market from 1988 to 2006 reveals similar and divergent trends among males and females:

- While male labor force participation has increased, female participation has decreased. The decline is particularly sharp among females aged 20 to 24 and among technical secondary and university graduates.
- Unemployment rates have sharply decreased among both young men and women, especially among the 20-24 year-olds and those less educated.
- Unemployment rates have substantially increased among the post-secondary and university graduates who have become the most vulnerable group towards unemployment.

2. Current and first employment statuses after school

Based on the ELMS 1998 and the ELMPS 2006 data this section the following issues. How are distributed the youth according to their employment status? What is the first employment status obtained after leaving school? To what extent the first employment status after school differs from the current one?

This section is divided into three parts. Part one presents the current youth employment status over time (1998-2006). Part two analyzes the evolution of the first employment status after leaving school. Finally, a comparison between the first and the current employment statuses of youth is presented giving some indication on their mobility.

The employment status distinguishes the following categories:

- employment: public employment, formal and informal private employment and unpaid family work³
- unemployment
- student and
- out of the labor force

³ Public employment includes government and public enterprises' employment. Formal private employment refers to employment with a written contract or social security. On the opposite, private informal employment refers to employment with no written contract and no social security.

2.1 Youth current employment status

The distribution of youth by current employment status is presented in tables 2.1.1 and 2.1.2. These tables show that a large proportion of the 15-29 year-olds are studying. For instance, 32 percent of the males and 23 percent of the females are students in 2006. However, these large proportions vary a lot among the various age groups (from 65 percent among the 15-19 to only 1 percent among the 25-29 in 2006).

Males

First, table 2.1.1 indicates that, in 2006, 36 percent of young males are inactive (28 percent are studying and 9 percent inactive for other reasons)⁴, 6 percent are unemployed and 56 percent are working. However, they are mainly informally employed, either in the private sector (31 percent) or as unpaid family workers (11 percent).

Second, the distribution of young men according to their current employment status has changed over the 8-year period. From 1998 to 2006, the proportion of males in school has remained stable among the 15-19 year-olds at 60 percent and has significantly decreased among the older age groups. This result confirms the evolution in enrollment ratios that increased among those aged 15-19 and decreased among those aged 20-24 (see figure 1.1.2). At the same time, the proportion of young males at work has increased in all types of employment (except in public employment where it has slightly decreased from 7 to 6 percent). The proportion of youth in informal private employment and unpaid family work has sharply increased among the 20-24 and 25-29 age groups while it has slightly decreased among those aged 15-19. Moreover, the proportion of those unemployed has also decreased, especially among the youngest males. For instance, it has been divided by almost 2 among the 15-19 year-olds.

The proportion of young males in unpaid family work has substantially increased from 8 to 11 percent from 1998 to 2006. This increase occurred mainly among the youngest age groups (15-24 and 20-24). It seems that the evolution is divergent among the various age groups. On the one hand, unpaid family work has replaced informal private work and unemployment among the youngest males (15-24) and in particular among those aged 15-19. On the other hand, the current employment status of the oldest males (25-29) has improved as private formal work has increased substantially (from 14 to 20 percent) whereas unemployment and inactivity have decreased.

Females

As indicated in table 2.1.2, the picture of female current employment status is different than males' one. The vast majority of females aged 15-29 are inactive. In fact, 23 percent are studying and 39 percent are out of the labor force (mainly housewives). In the very few cases where women are working they are mainly unpaid family workers (23 percent).

From 1998 to 2006, four major changes have occurred. First, the proportion of young females at school has decreased from 27 to 23 percent mainly because the proportion of enrolled women in the age bracket 20-24 has decreased compensating the increase among the 15-19 year-olds. Second, the proportion of unemployed women has slightly decreased from 8.3 to 6.6 percent from 1998 to 2006. This is mainly due to the sharp increase in unemployed women aged 20-24 year-olds whose share declined from 15 to 9 percent. Third, the proportion of women out of the labor force has increased among all age groups, in particular among the

⁴ The high proportion of young males (20-24) out of the labor force but not at school is due to the fact that some of them are undergoing their military service.

20-24 year-olds. Finally, the share of public employment substantially decreased among the oldest age group from 10 percent in 1998 to 7.5 percent in 2006 reflecting the retrenchment of the public sector. Thus, it seems that young women are more inactive in 2006 than they were in 1998. Indeed, the shares of unemployment and of total employment have decreased whereas the proportion of females out of the labor force has increased. This trend is a particularly disturbing result as it occurred among all age groups.

2.2 First employment status after school

Methodology

The estimation of the first employment status after leaving school⁵ uses data from the employment history modules of ELMS 1998 and ELMP5 2006. These modules give information on the last three employment situations (the current one in 1998 or in 2006, and the two employment situations before that) for individuals who ever entered labor market. As only those who ever entered into the labor market answered the employment questions some assumptions have been made to determine the first employment status after leaving school:

- for those who were ever employed, their last three employment statuses are given in the surveys. The age at the end of schooling and the start dates of the current and two previous employment statuses allow determining the youth situation after leaving school⁶;
- those who never worked in the market and thus do not have a recorded employment history are divided into three categories: 1) the currently unemployed; 2) the currently out of the labor force, and 3) the currently unpaid family workers. It is assumed that they did not changed their employment status i.e. they have always been unemployed, always been unpaid family workers and always been out of the labor force since the age of 15;

Nevertheless, even with these assumptions some transitions cannot be observed. Specifically, mobility between unemployment, inactivity and participation in subsistence activities for individuals who never worked in the labor market cannot be observed. This implies that these individuals are assumed to remain in one of the three states identified above. As females are more likely to belong to one of these three categories, this leads to underestimate female mobility.

Table 2.2.1 shows the distribution of the first employment status after leaving school by gender in 1998 and 2006. First, it reveals that the majority (60 percent) of young males are working after leaving school, compared to only 32 percent of young females in 2006. The disparity across gender lines is even more important when unpaid family workers are excluded. Indeed, these proportions go to 41 percent of males and only 11 percent of females. The proportion of the unemployed is relatively high and the same among young males and females (18 percent). Second, the trend analysis of males' and females' first employment reveals two main findings. On the one hand, the proportion of the unemployed has decreased among both men (from 21.6 to 18.1 percent) and women (from 19.7 to 17.6 percent) between 1998 and 2006. On the other hand, the proportion of working males after leaving school has increased whereas it has decreased among females. However, the distribution by type of employment indicates that it is unpaid family work that has substantially increased for men (from 16 to 20 percent). As opposed to men, 50 percent of women are inactive in 2006 compared to 43 percent in 1998. Furthermore, the proportions of all types of employment have decreased among women, and especially the public employment one.

⁵ Those who left school have either completed their education or dropped out from school.

⁶ In the case the individual has changed his employment status more than twice and that he did not find a job immediately after school, the first employment status cannot be observed. However this corresponds to a few observations.

2.3 Youth mobility

This section gives an indication of the youth mobility through the comparison of the first and the current employment statuses for young individuals who left school and are aged between 15 and 29 in 2006⁷. Results are shown in tables 2.3.1 and 2.3.2. The figures in the diagonal cells indicate the persistency rate in one employment status. The total row represents the current employment status distribution of the youth who left school.

Males

Table 3.2.1 shows that persistency rates are high in public (91 percent) and formal private employment (85 percent). When young males obtain their first job in such sectors they are not likely to move to another employment status. On the opposite, unemployment, unpaid family work and private informal work are not permanent statuses. Indeed, almost half of those who were unemployed after school have found a job, mainly an informal private one (22 percent of those initially unemployed). One quarter of those who were initially unpaid family workers have found a job, also mainly an informal one (23 percent). Thus, the private informal sector drains young males who were unemployed or started as unpaid family workers.

Females

Table 2.3.2 shows that inactivity and unpaid family work are very persistent statuses. Unlike men, women who were initially unpaid family workers or out of the labor force remain in the same employment status: at least 93 percent of them do not insert into the labor market.

Women who find a job in the public sector after exiting school are likely to remain employed (77 percent). However, 18 percent have left their job to become inactive.

Thus women are less mobile than their males' counterparts and when they move it is only to get out of the labor force.

3. Youth First Job

What are the main employment characteristics of youth after they finish school? How do young individuals find their first job? What is the role of education in school-to-work transition? This section investigates these issues giving particular attention to gender disparities based on ELMS 1998 and ELMPS 2006.

This section is divided into two parts. The first one examines how early young people enter into the labor market and whether changes occurred in the age at first job from 1998 to 2006. Part 2 analyzes how long it takes for a young individual to obtain his/her first job after finishing school according to gender, educational attainment and type of first job.

3.1 Age at entry into the labor market

This section investigates when youth (ages 15-29) enter into the labor market by examining whether age at first job according to gender, marital status and educational attainment has varied over time (1998-2006).

Methodology

In both 1998 and 2006 surveys, the first job refers to the first job ever obtained by an individual that lasted at least six months. The six months threshold has been chosen to avoid considering summer jobs as first jobs. Age at entry into the labor market refers to age at first

⁷ The transition rates are only indicative as the time between the first and the current employment status is not taken into account.

job that lasted at least six months. As some individuals work while they are at school, age at first job can be lesser than age at the end of schooling.

To investigate to what extent age at entry has varied over time, the Kaplan-Meier failure and hazard functions are used. They estimate the probability of obtaining a job at various ages. Failure estimates calculate the probability that an individual obtain his/her first job given to age. Hazard estimates estimate the conditional probability that an individual obtain his/her first job given that he/she survived to a specific age. In other terms, it calculates the probability of obtaining a first job given that the individual did not work until a specific age. An upward sloping hazard curve reflects an increasing probability of obtaining a job given age. On the opposite, a downward sloping hazard curve reflects a decreasing probability of obtaining a job given age. It is expected that the hazard function has a reversed U shape increasing with age reaching a peak at a specific age and then decreasing.

Results

Gender

Figure 3.1.1 presents failure and hazard estimates of the cumulative probability of transition from school-to-work by age among youth aged 15-29 years old, according to gender in 1998 and 2006. Three main findings appear.

First, disparities across gender lines are clearly shown. The large gap between men and women failure curves reflects the fact that a large proportion of young women do not insert into the labor market. Indeed, the highest probability of obtaining a first job among young women is around 25 percent. And, while employment is almost universal among males by the age of 29, less than one third of females have ever worked by the same age.

Second, men enter into the labor market much earlier and at a faster rate than women do. In fact, the proportion of females who obtain a first job is much lower than the proportion of males at all ages. For example, the failure curves show that 50 percent of males have ever entered into the labor market by the age of 17 and 75 percent by the age of 22. On the opposite, less than 25 percent of females have ever worked by the age of 22. For both men and women, the hazard curve reaches a peak by the age of 22-23. Thus, the cumulative probability of getting a first job increases till the age of 22-23 and then decreases. However, the slope of the hazard curve is much greater among men than among women indicating that men enter into the labor market at a faster rate than women do.

Third, the trend in failure and hazard estimates shows that both young men and women are more likely to enter into the labor market earlier in 2006 compared to 1998. Among males, the probability of getting a job has increased only for those above age 17 while it has decreased before that age from 1998 to 2006, probably reflecting the increase in school enrollment rates. Figure 3.1.2 in annex better displays the trend in female cumulative probability of transition from school-to-work taking into account a more suitable scale. It shows that the cumulative probability of getting a first job has increased at all ages among females. Furthermore, the trend in hazard estimates indicates that women below age 19 enter into the labor market at a faster rate in 2006 compared to 1998.

Marital status

As marriage plays a fundamental role on women's decision to enter into the labor market, figure 3.1.3 presents failure and hazard estimates of the cumulative probability of transition

from school-to-work according to the marital status⁸ among young females in 1998 and 2006. Two main features emerge from this figure.

First, married and unmarried women's failure estimates significantly differ above age 20. This threshold reflects the relationship between age and the proportion of married women. Indeed, below age 21, almost all women are unmarried (91 percent and 86 percent of females aged 15-19 in 1998 and 2006 respectively). Above age 20, the proportion of married women increases significantly in Egypt, reaching approximately 85 percent among those aged 29 in both surveys. Above age of 20-21, the cumulative probability of entering into the labor market is substantially higher and increases faster at all ages among unmarried women compared to married women. For example, in 2006, 50 percent of unmarried women have ever worked by age 29 compared to less than a third among married women by the same age. Moreover, hazard estimates show different pattern according to marital status. Among unmarried women, the cumulative probability of obtaining a first job reaches a peak at age 24, while among married women the peak is at age 21-22.

Second, the trend in failure and hazard estimates shows interesting features. From 1998 to 2006, the proportion of never married women entering into the labor market according to age slightly decreases. On the opposite, this same proportion slightly increases among married women. This trend is confirmed by the fact that hazard estimates increase at a lower rate among unmarried females and at a higher rate among ever married females. Thus, the differential attitude between married and unmarried women with respect to entry into the labor market tends to narrow.

Education

This section analyzes the cumulative probability of entering into the labor market given age according to educational attainment⁹. Males and females figures are presented separately.

Education - Males

As no significant changes occurred over time among males (see Figure 3.1.5 in annex), the analysis is restricted to the year 2006. Failure and hazard estimates according to education among males aged 15-29 in 2006 are presented in figure 3.1.4.

First, as expected, the more males are educated the older they enter into the labor market. Indeed, 50 percent of those with basic education work by age 16. The same proportion is reached by age 18 among technical secondary graduates and by age 22 among post-secondary graduates. The mode in failure estimates corresponds approximately to the age reached at the end of schooling in the various educational tracks.

Failure and hazard curves for males with general secondary education follow a particular pattern. While less than half general secondary graduates have ever worked by age 29, employment is almost universal among males with other educational background by this same age. This feature merely reflects the fact that general secondary education is not a terminal stage for most people who thus pursue their education to university. Hazard curves indicate

⁸ The marital status refers to the current marital status (in 1998 or 2006) of the individual and not at the age a woman enters into the labor market. The analysis distinguishes between never and ever married women. Women who ever married are contractually married, married, divorced or widowed.

⁹ The illiterate and those who only read and write are not included in the following analysis. Basic education refers to compulsory education (primary and preparatory levels). General and vocation tracks of secondary education are distinguished. Post-secondary and above education comprises high technical institutes (post-secondary) and university and above education.

that the more males are educated the more they enter into the labor market at a higher rate (except among general secondary school graduates).

Education - Females

Figure 3.1.6 presents the probability of getting a first job given age according to educational attainment among females in 1998 and 2006. This figure is very instructive and reveals three main findings.

First, the more educated women are the more they enter into the labor market. A clear dichotomy appears at the threshold of secondary education. Indeed, a greater proportion of females with secondary and above education enter into the labor market. As illustrated by failure estimates, more than a third of females holding secondary and above degrees have ever worked by age 29, as opposed to less than a third among less educated women by the same age in both 1998 and 2006. When disaggregating education in more detailed categories (see Figure 3.1.7 in annex) it is clear that the more women pursue longer studies the greater the proportion of working women is. For example, by age 29, almost half university graduates have ever entered into the labor market, as compared to only a third among post-secondary graduates and 25 percent of women with basic or technical education in 2006. The low failure estimates among women holding general secondary degrees can be explained, as for men, by the fact that most women do not end their schooling at this stage and pursue their studies to university.

Second, hazard curves show that by the age of end of schooling, the probability of obtaining a first job increases at much faster rates among more educated women in 2006 than in 1998. Moreover, hazard curves reach a peak at an older age among more educated women (from 16 to 22) reflecting the age of end of schooling.

Third, the trend over the period 1998-2006 shows important changes. While failure and hazard estimates decrease among more educated women, they increase among less educated women from 1998 to 2006. In other terms, females holding secondary and above degrees enter into the labor market at lower rates, while less educated women tend to participate increasingly. Indeed, by age 29, almost half of them have obtained a first job in 1998, compared to almost one third in 2006. Figure 3.1.7 in annex shows that this change occurred among all secondary and above graduates. However, the decrease in participation is particularly sharp among post-secondary and university graduates.

For example, by age 29, almost 75 percent of post-secondary and university graduates have ever worked in 1998, compared to respectively less than a third and less than a half in 2006. Among technical secondary graduates, the decrease is less sharp as approximately a quarter obtained a first job in 2006 compared to one third in 1998. Hazard estimates confirm this global trend. However, the hazard curve shape among women holding post-secondary degrees has considerably changed from 1998 to 2006. While, in 1998, the probability of entering into the labor market reaches a peak among women from 22 to 26 years old, in 2006, hazard estimates reach a peak at age 22 and then decreases sharply. Thus, in 2006, it seems that after age 22, women are discouraged from entering into the labor market. This could be explained by the fact that post-secondary graduates used to wait and queue for government employment which is no longer the case in 2006 with the end of the public employment scheme. On the opposite, women with basic education (primary and preparatory certificates) enter into the labor market at higher rates over the 8 year-period. Indeed, in 1998, approximately 12 percent of women with low education have ever worked by age 29; this share increases to approximately 25 percent in 2006. Thus, the obvious dichotomy that appears in 1998 between women with less than secondary education and with those with secondary and above

education is less important in 2006. Indeed, more and less educated women tend to have similar behavior in terms of entry into the labor market. However, even though the probability women holding university degrees work has decreased over time, these women still enter into the labor market at the highest rates. Thus, the threshold has shifted from secondary education to university education.

In conclusion

The main findings regarding age at entry into the labor market can be summarized as follows:

- Young individuals and in particular young men tend to enter into the labor market at younger ages in 2006 compared to 1998;
- The proportion of young females entering into the labor market increases slightly from 1998 to 2006 but is still very low. Indeed, less than one third of females aged 15-29 have ever worked in 2006;
- Married women are less likely to obtain their first job compared to their unmarried counterparts. The probability of working among unmarried women is approximately twice that of married women. However, the gap due to the marital status tends to decrease over time. Indeed, married women enter into the labor market at higher rates and the opposite is observed among unmarried women over the period of analysis;
- Education also plays a key role in women entry into the labor market. The proportion of women aged 29 with secondary and above education who ever entered into the labor market reaches approximately 30 percent in 2006 which is almost twice the proportion of women with basic education (primary and preparatory). However, the analysis of age at entry into the labor market according to education shows an alarming trend. The proportion of post-secondary and university graduates entering into the labor market job has dramatically decreased from 1998 to 2006. This result could be related to the diminishing role of the public sector as major employer of educated females and to barriers to entry women face in the formal private sector.

3.2 Duration to obtain first job after leaving school

How long does it take for a young individual to find a job after leaving school? Has this duration changed over time? To investigate these issues, failure and hazard estimates of the cumulative probability of transition from school-to-work by years according to gender, marital status and type of first job over time are examined.

Methodology

Educated young people are those who suffer the most from difficult access to employment and high unemployment rates. The analysis is restricted to young people who finished school. Particular attention is given to secondary and post-secondary graduates. Time between the end of schooling and the time individuals obtain their first job is estimated in number of years. In the case a young individual has found a job before finishing school, time to get a job after school has been set to 0 (i.e. immediate entry).

Hazard estimates are not statistically significant for those who enter into the labor market lately (i.e. after 8 years of schooling among males and after 12 years of schooling among females) because of too few observations (less than 30). Thus, the analysis of hazard estimates is restricted to those who obtained their first job in a range of 0 to 12 years after leaving school.

Gender

Figure 3.2.1 presents failure and hazard estimates of the cumulative probability of transition from school-to-work by years according to gender in 1998 and 2006.

First, males find a job much more rapidly than women do. In 2006, 50 percent of young males have found a job within 2 years after leaving school, whereas the proportion is less than 10 percent among their females' counterparts. Moreover, within 10 years after schooling only one out of four females has found a job. The hazard curves show a peak approximately 5 years after the end of education for both males and females. However, the slope of the hazard curve is much greater among males than among females. Thus the cumulative probability of getting the first job increases at higher rates with the number of years after leaving school among males.

Second, young people tend to enter into the labor market more rapidly in 2006 than in 1998. The duration in obtaining the first job is substantially reduced among men. It has lessened by approximately one year among males. For instance, half of young men have found a job within 2 years in 2006 compared to 3 years in 1998. The female cumulative probability of transition from school-to-work by years is almost the same in 1998 and 2006 (see Figure 3.2.2 in annex).

Marital status

Unmarried women find a job more rapidly after finishing their education than the married ones (see Figure 3.2.3)¹⁰. For instance, in 2006, within 4 years after leaving school around 20 percent of unmarried women have found a job compared to approximately 10 percent of married women in 2006. The trend in failure and hazard estimates shows that the duration in obtaining a job after leaving school has decreased among both married and unmarried women. However, unmarried women benefited the most from this decline. Indeed, 25 percent of the latter find a job within 6 years in 2006, compared to more than 10 years in 1998. Among married women the probability of transition from school-to-work by years is slightly higher in 2006 than in 1998 but increases at the same rate (similar hazard estimates over time).

Education

The analysis focuses on young individuals with technical secondary and university degrees as they represent a large proportion of secondary and above educated young people¹¹.

Education – Males

Figure 3.2.4 displays the evolution from 1998 to 2006 of the male cumulative probability of transition from school-to-work by years according to educational attainment. In 1998, young men holding university diplomas had much better access to employment than their technical secondary graduates' counterparts. Failure estimates among university graduates were twice those of technical secondary graduates that year. For instance, within two years after finishing school, half university graduates obtained their first job, which was twice the proportion of technical secondary graduates. However, in 2006, this gap has almost disappeared: whereas the situation of university graduates is nearly the same, technical secondary graduates obtain a job much more rapidly over the eight-year period. For example, the proportion of the latter

¹⁰ Estimates are only significant for durations smaller than 9 years after leaving school.

¹¹ Post-secondary graduates represent only about 3 to 4 percent of the total youth. There are also two few observations among general secondary graduates who left school to be taken into account.

who obtain a job within 3 years after leaving school has more than doubled reaching approximately 60 percent. Nevertheless, as indicated by the hazard curves, the probability of getting a job by years increases at a faster rate among men holding university degrees than among technical secondary school graduates.

Education – Females

Figures 3.2.5 and 3.2.6 (in annex) show the female probability of transition from school-to-work by years according to education in 1998 and 2006. Different levels of education are distinguished: less than secondary, technical secondary and university education.

First, the more educated women are the less they take time in finding a job after the end of schooling. In 2006, 15 percent of women with secondary and above education find their first job within approximately 4 years, which is half the time spent by less than secondary school graduates. Women holding university degrees obtain a job the most rapidly (see Figure 3.2.5 in annex). For instance, 25 percent of them enter into the labor market within 3 years after their graduation. Hazard estimates reveal that the more educated women are the more the probability of obtaining a job given time after school increases. However, after reaching a peak (around 3 years) this probability increases at lower rates. This result can be reflecting the fact that educated women are rapidly discouraged from entering into the labor market within 2 or 3 years after end of schooling.

Second, the gap between less and above secondary school graduates has substantially reduced from 1998 to 2006. This is a combination of two facts. On the one hand, the more educated women obtain their first job less rapidly: 20 percent got their first job within 7 years in 2006 instead of 4 years in 1998. This deterioration is particularly sharp among university graduates (see Figure 3.3.5 in annex). On the other hand, females with less than secondary education are more likely to enter into the labor market more rapidly. Indeed, the time to obtain their first job has been almost divided by two from 1998 to 2006. For instance, 10 percent entered into the labor market within 5 years after school in 2006 instead of 11 years in 1998.

In conclusion:

- Young individuals and especially young men tend to find a job more rapidly after leaving school in 2006 compared to 1998;
- The number of years of transition from school-to-work for women and in particular for unmarried women has decreased from 1998 to 2006;
- Education does not longer play a key role among young males in the duration to get their first job;
- On the opposite, educational attainment plays a greater role among females. However, it tends to be less significant as the durations of transition from school-to-work between less than secondary and more than secondary graduates tends to converge from 1998 to 2006.

3.3 The trend in the First Job Status

What is the type of the first job obtained by new entrants? To what extent the distribution of new entrants by type of first job has changed over time?

To investigate these issues, this section analyzes the evolution of the structure of the type of first job obtained by the individuals across gender lines and according to educational attainment from 1975 to 2006. The type of first job has been defined using the new module introduced in ELMPS 2006 on the characteristics of the first job (economic sector, economic activity, employment stability, presence of a written contract and social security coverage).

The first job status defined here is divided into the following categories: public employment, formal and informal private employment and unpaid family work¹².

Figure 3.3.1 presents the distribution of new entrants by type of first job obtained among those aged between 15 and 75 years old from 1975 to 2006. It shows that a major shift occurred since 1975 in the distribution of the type of first job among new entrants. Two main findings can be underlined.

First, the share of the public sector has sharply declined from the mid seventies to the first half of the new millennium. The public sector used to play a major role in absorbing new entrants. Indeed, it represented approximately one third and almost one half of first jobs obtained by males and females respectively in the second half of the seventies. This was due to the government policy that guaranteed employment in the public sector for those holding at least upper secondary certificates. This policy has given incentives to the youth to pursue longer studies and led to high expectations in terms of employment security and compensations while the public sector suffered from being overstaffed. With the lengthening queue to government jobs (that reached more than ten years), this policy has progressively been suspended.

Moreover, the share of public enterprises in first employment has also been significantly reduced due to a major privatization program within the context of the economic reform launched in the beginning of the 1990s. As a result, the share of total public employment has shrunk over time to represent around one tenth of male first employment and less than a third of female first employment in 2006. However, contrarily to men, the trend in public employment among women is not smooth. Public employment has first increased in the second half of the seventies reaching a peak of approximately 50 percent in the first half of the eighties. Since then, the share in public employment has gradually decreased reaching approximately one third of female first jobs by the beginning of the new millennium.

As shown in figures 3.3.2 and 3.3.3 in annex, the decline in public employment is more dramatic among technical secondary school and university graduates who used to be the main beneficiaries of the public employment guarantee scheme. Indeed, among university graduates, the share of public employment has been divided by 3 among males and by 2 among females from 1975 to 2006. The figures are even worse among technical secondary graduates. For instance, the share of the public sector has decreased from 54 percent in the mid seventies to less than 5 percent in the beginning of the new millennium among male new entrants and from almost 100 percent to less than 20 percent among their females' counterparts.

Second, the share of the private sector in first employment has substantially increased over the period 1975-2006. Indeed, the proportion of total private employment has increased from one half to two-thirds among males and from approximately 40 percent to more than 50 percent among females. Both formal and informal employment shares have greatly increased among male and female new entrants. However, in the beginning of the new millennium, formal private employment still represents a small share of new entrants' first jobs (less than 15 percent) whereas informal private employment represents almost half first jobs obtained by new entrants (56 percent among males and 42 percent among females). The rise in informal employment share is striking among technical secondary school and university graduates new entrants (see Figures 3.3.2 and 3.3.3 in annex). Indeed, from 1975 to 2006 it has doubled among male technical secondary school graduates and tripled among male university

¹² Public employment includes government and public enterprises' employment. Formal private employment refers to employment with a written contract or social security. On the opposite, private informal employment refers to employment with no written contract and no social security.

graduates. Among female technical secondary school graduates the figures are even more dramatic: in 2006, informal first employment represents half of the jobs obtained whereas it was almost non-existent in 1975. Moreover, unpaid family work has greatly risen among both male and female secondary and above new entrants.

In conclusion, a major shift occurred in the distribution of new entrants according to the type of job obtained from 1975 to 2006. Informal employment has replaced public employment as major employer of new entrants. The informalization of the entry into the labor market is particularly significant among secondary and above graduates and especially among women who used to be absorbed by the public sector through the public employment guarantee scheme.

Conclusion

The analysis of the evolution of the insertion of youth (15 to 29 years old) into the Egyptian labor has revealed interesting findings. It has emphasized that youth have experienced some improvements and some deteriorations in their insertion path into the Egyptian labor market.

Three major improvements can be underlined:

- youth unemployment rates have decreased over time among both young men and women, and in particular from 1998 to 2006;
- unemployment rates have particularly decreased among those aged 20-24 and the less educated;
- young people, and in particular young males tend to obtain their first job more rapidly.

The main deteriorations that came out of the study are the following:

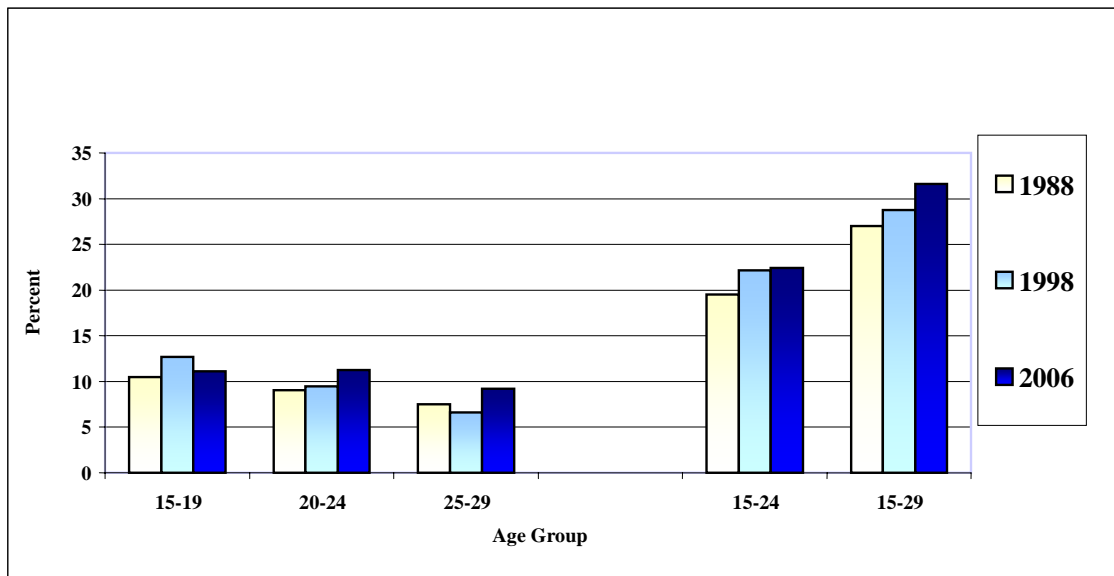
- decrease in female labor force participation;
- unlike males' participation, the females' one has decreased. The decline is particularly sharp among females aged 20 to 24 and among technical secondary and university graduates;
- substantial increase in unemployment rates among the post-secondary and university graduates who have become the most vulnerable group towards unemployment;
- increased informalization of the first job obtained by the youth.

Gender disparities are still important and the analysis shows an alarming trend for technical secondary and post-secondary school graduates. Indeed, their labor force participation has decreased. Moreover, the unemployment rate of the post-secondary graduates has increased. Thus, it seems that the retrenchment of the public sector has affected them more deeply.

References

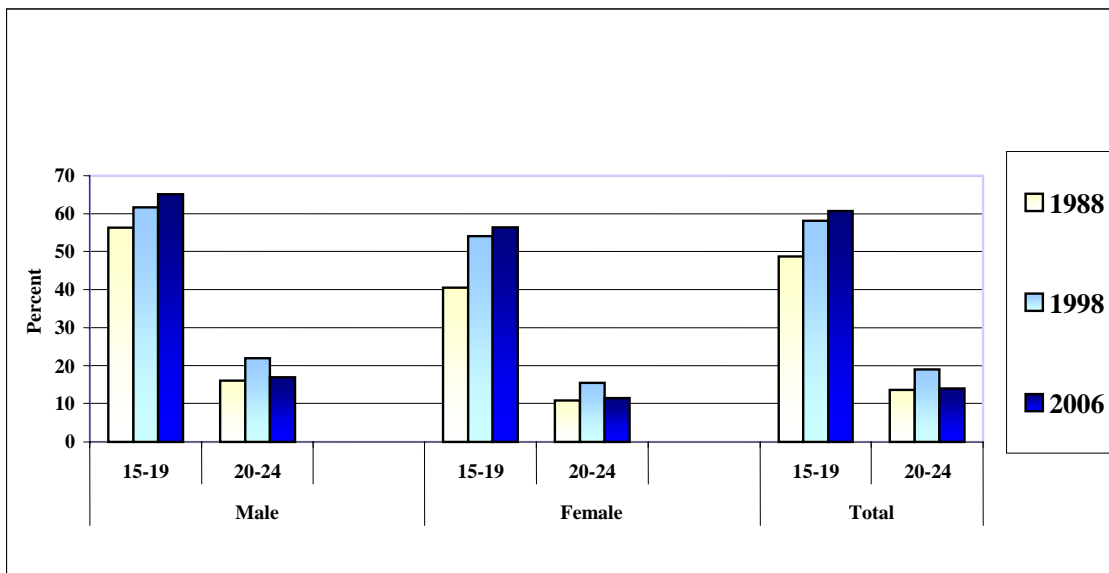
- Amer, Mona. 2007. *Transition from Education to Work - Egypt Country Report*. Turin: European Training Foundation.
- Amer, M., Ragui Assaad and Laila El Khawaga. 2004. *Egypt Country Profile. The Road Ahead for Egypt*. Cairo: ERF and FEMISE.
- Assaad, Ragui and Melanie Arntz. 2005. Constrained Geographical Mobility and Gendered Labour Market Outcomes Under Structural Adjustment: Evidence from Egypt. *World Development* Vol. 33, No. 3.
- Assaad, Ragui. 2002. The Transformation of the Egyptian Labour Market: 1988-1998. In Ragui Assaad (ed.), *The Egyptian Labour Market in an Era of Reform*. The American University in Cairo Press.

Figure 1.1.1: Age Distribution of the Youth Population, 1988, 1998 & 2006



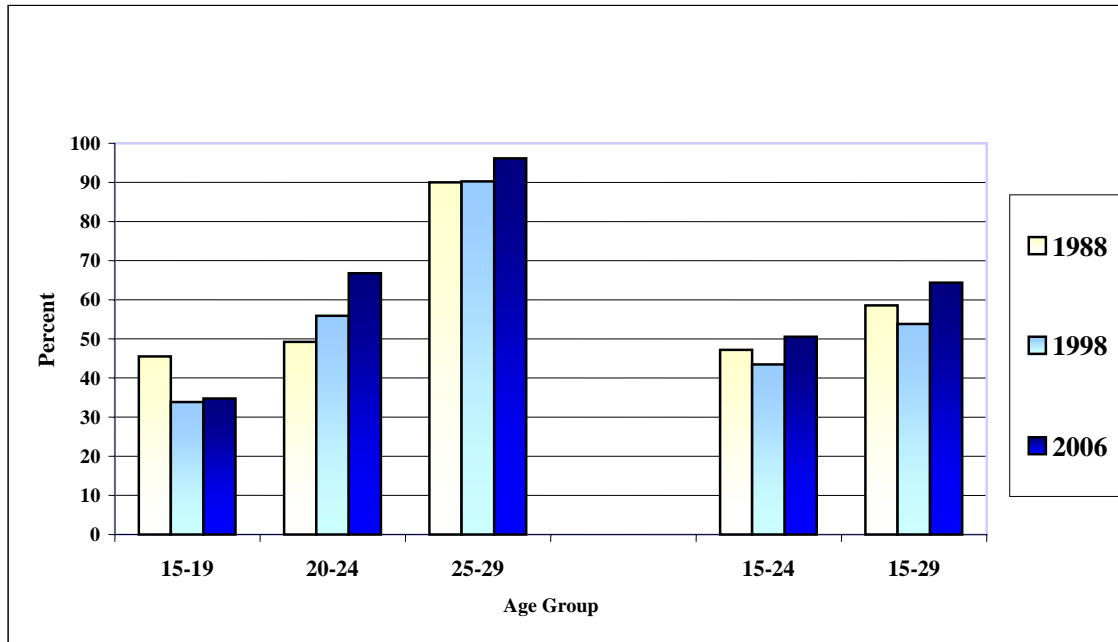
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.1.2: School Enrollment Ratios (15-24) by Gender and Age Group, 1988, 1998 & 2006



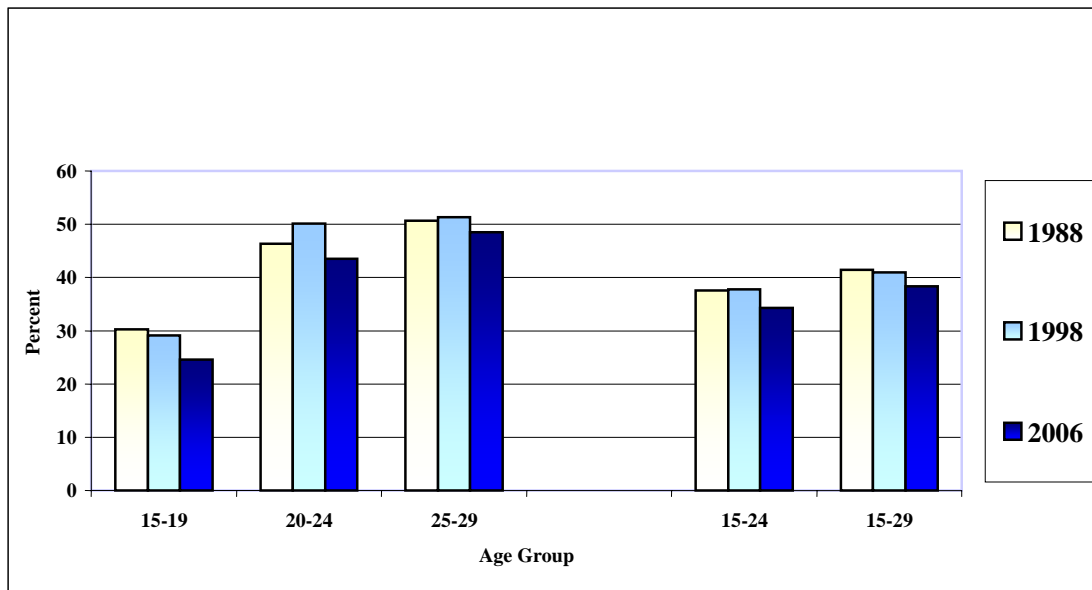
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.2.1: Male Labor Force Participation Rate, Ages 15-29, 1988, 1998 & 2006



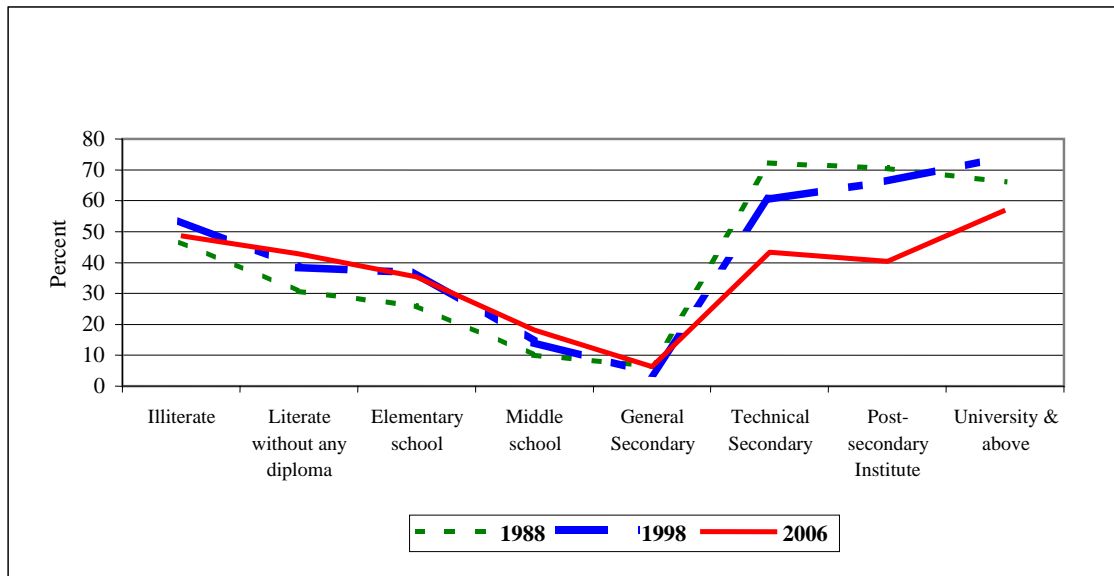
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.2.2: Female Labor Force Participation Rate, Ages 15-29, 1988, 1998 & 2006



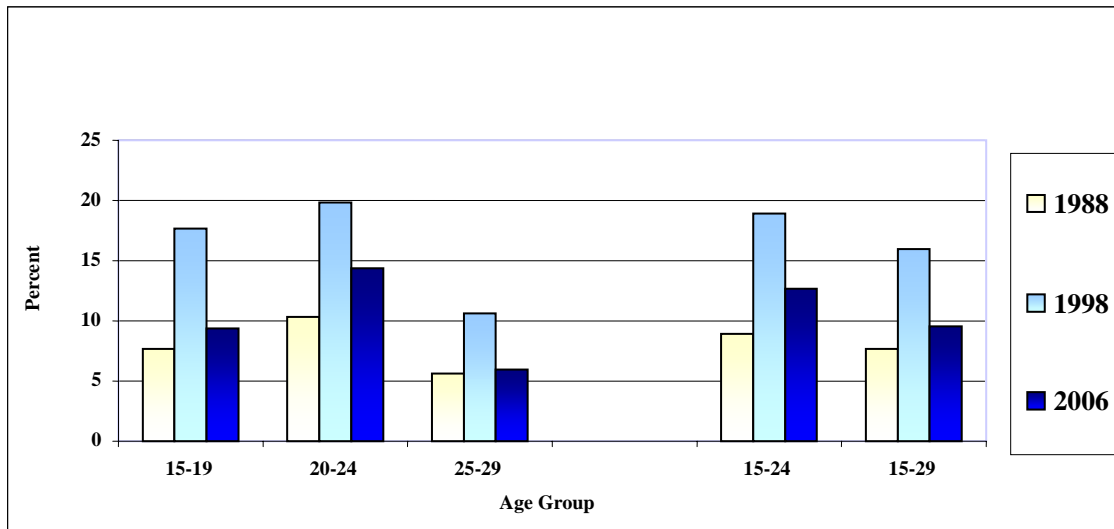
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.2.3: Female Labor Force Participation Rate (15-29) by Educational Level, 1988, 1998 & 2006



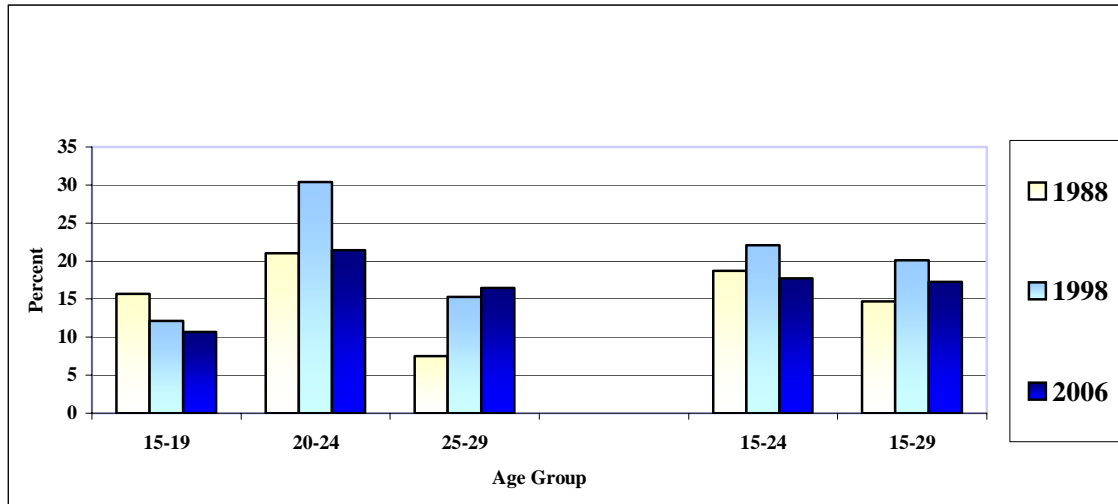
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.3.1: Male Unemployment Rate (15-29) by Age Group, 1988, 1998 & 2006



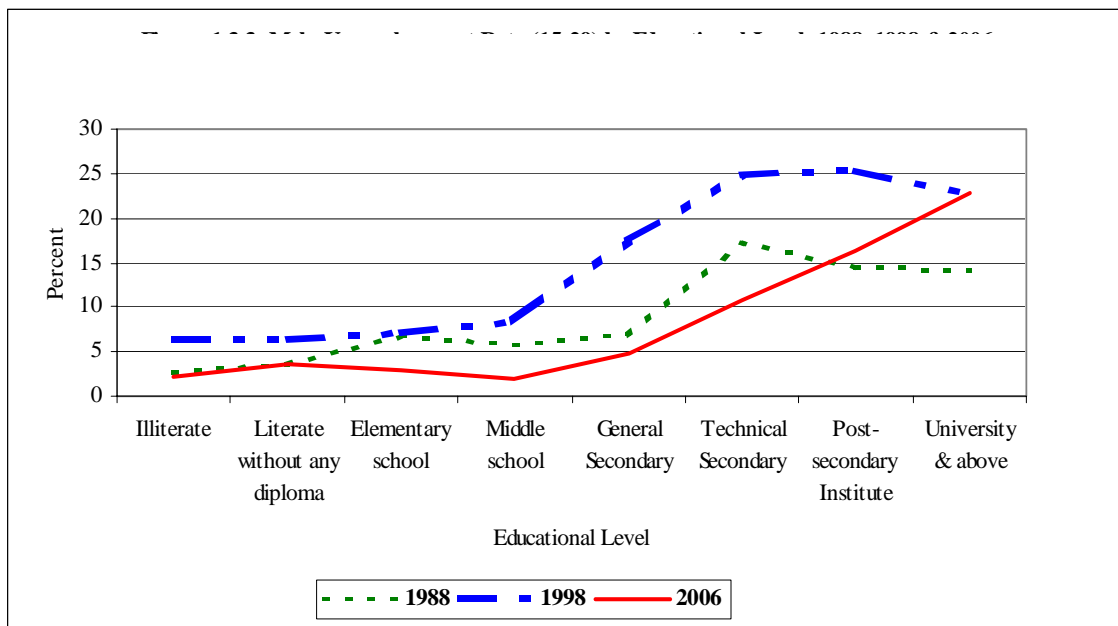
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.3.2: Female Unemployment Rate (15-29) by Age Group, 1988, 1998 & 2006



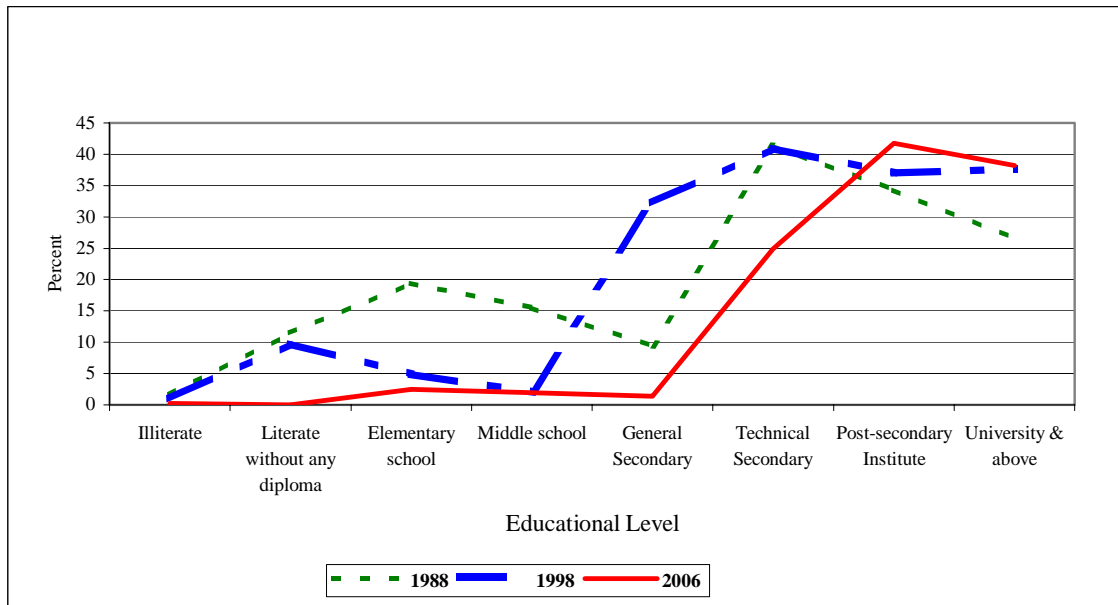
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.3.3: Male Unemployment Rate (15-29) by Educational Level, 1988, 1998 & 2006



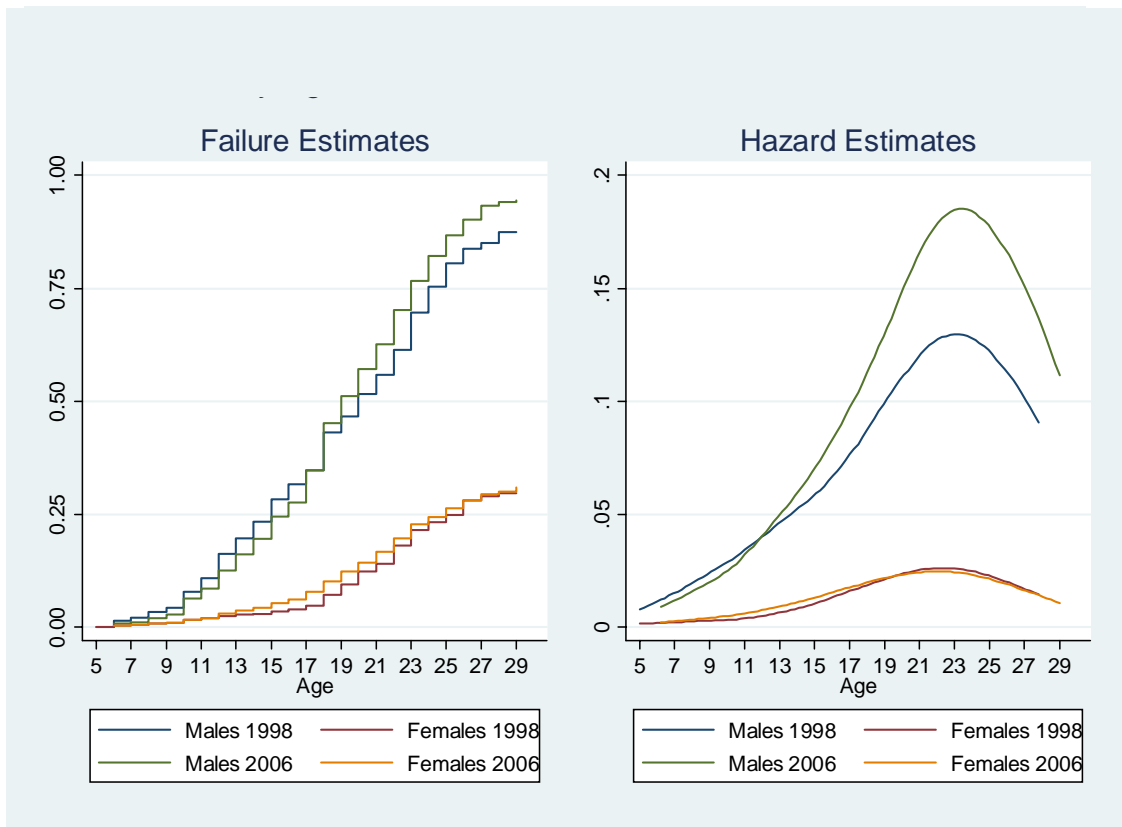
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 1.3.4: Female Unemployment Rate (15-29) by Educational Level, 1988, 1998 & 2006



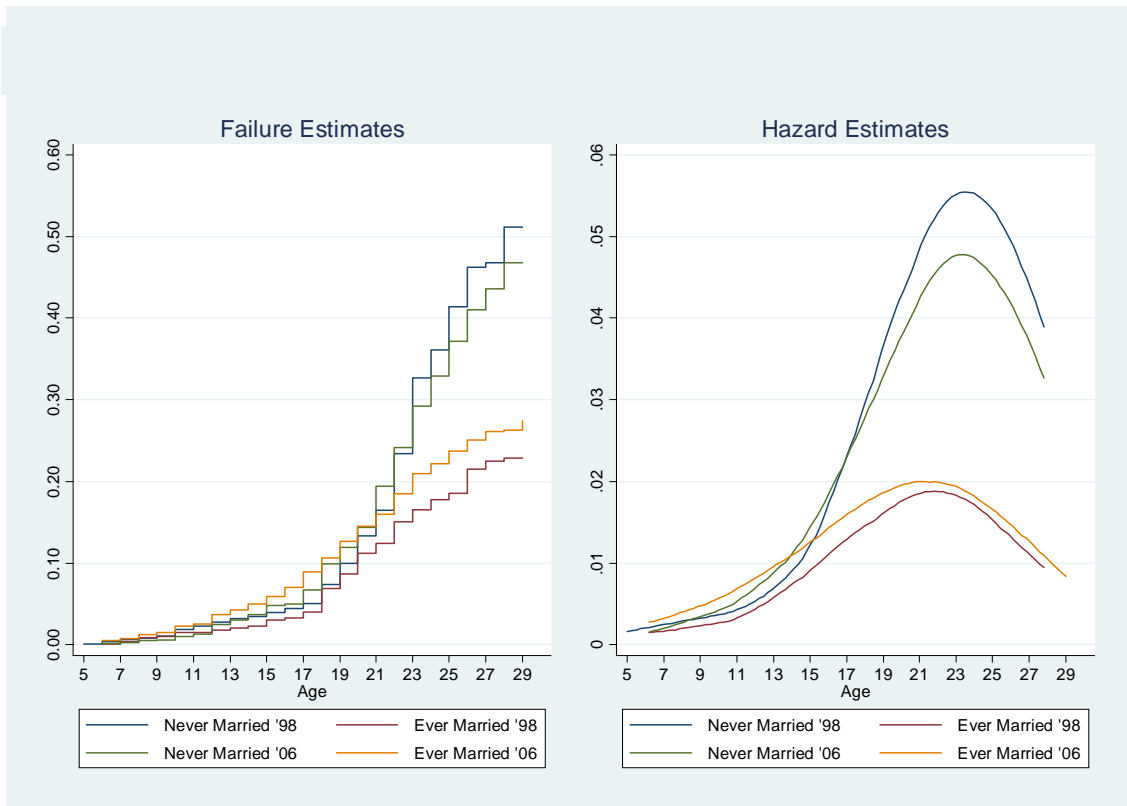
Source: Author's calculations based on LFSS 1988, ELMS 1998 and ELMPS 2006

Figure 3.1.1: Cumulative Probability of Transition from School-to-Work by Age at First Job and Gender, 1998 & 2006



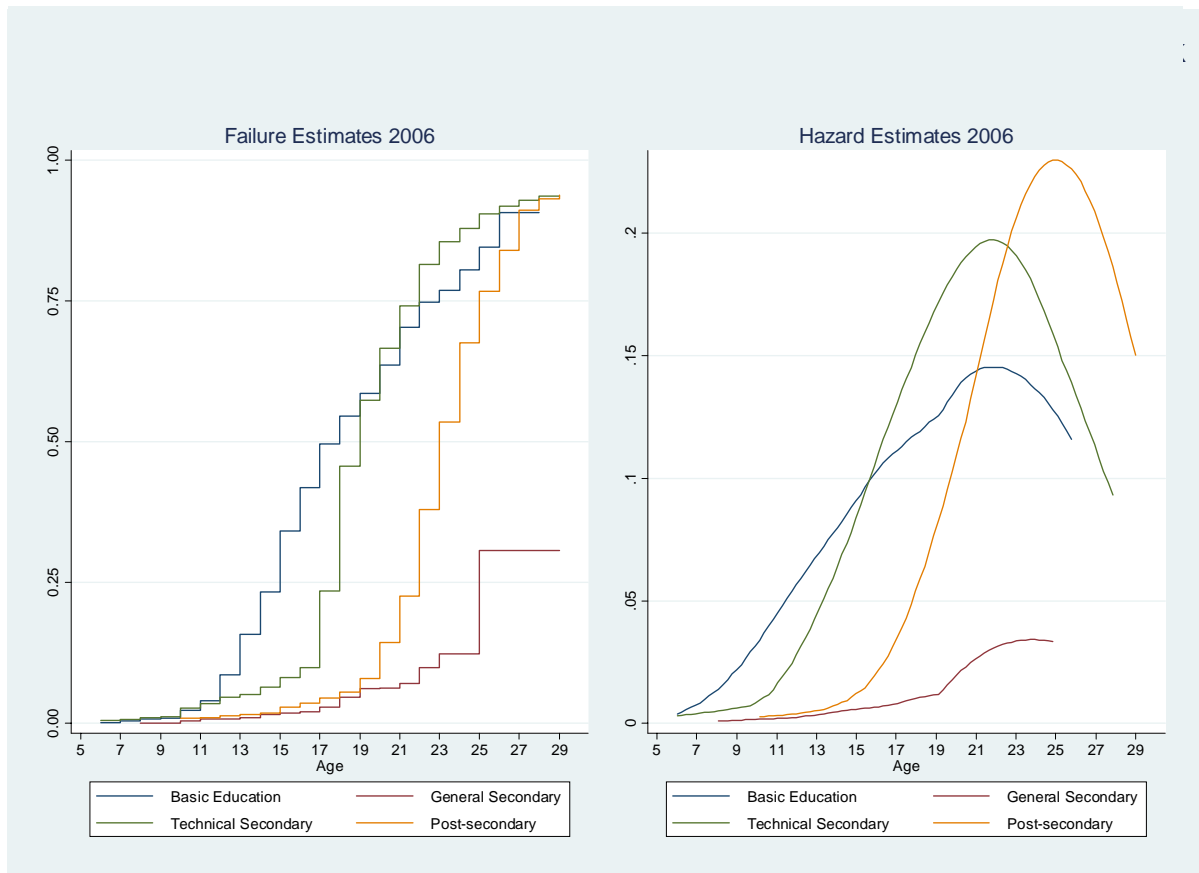
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.1.3: Female Cumulative Probability of Transition from School-to-Work by Age at First Job and Marital Status, Ages 15-29, 1998 & 2006



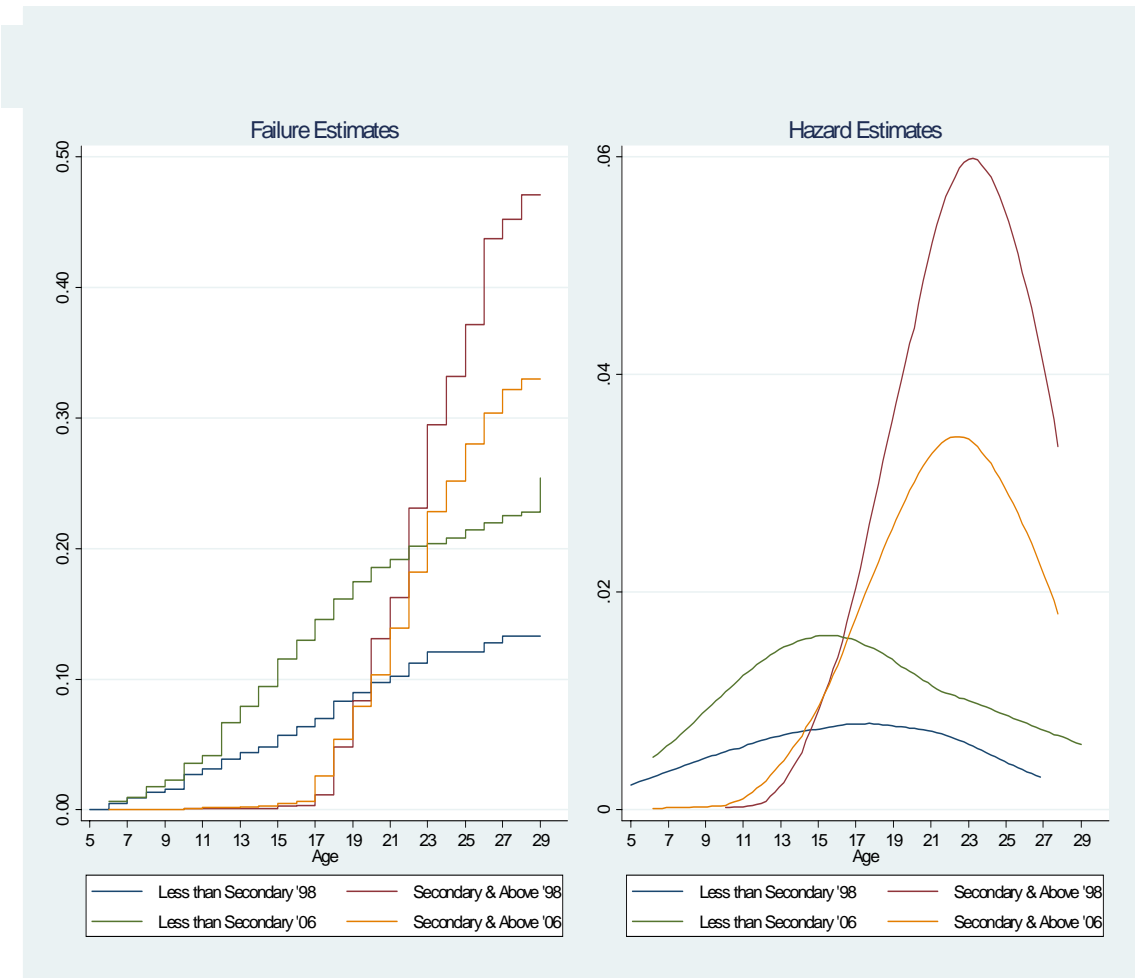
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.1.4: Male Cumulative Probability of Transition from School-to-Work by Age at First Job and Gender, 1998 & 2006



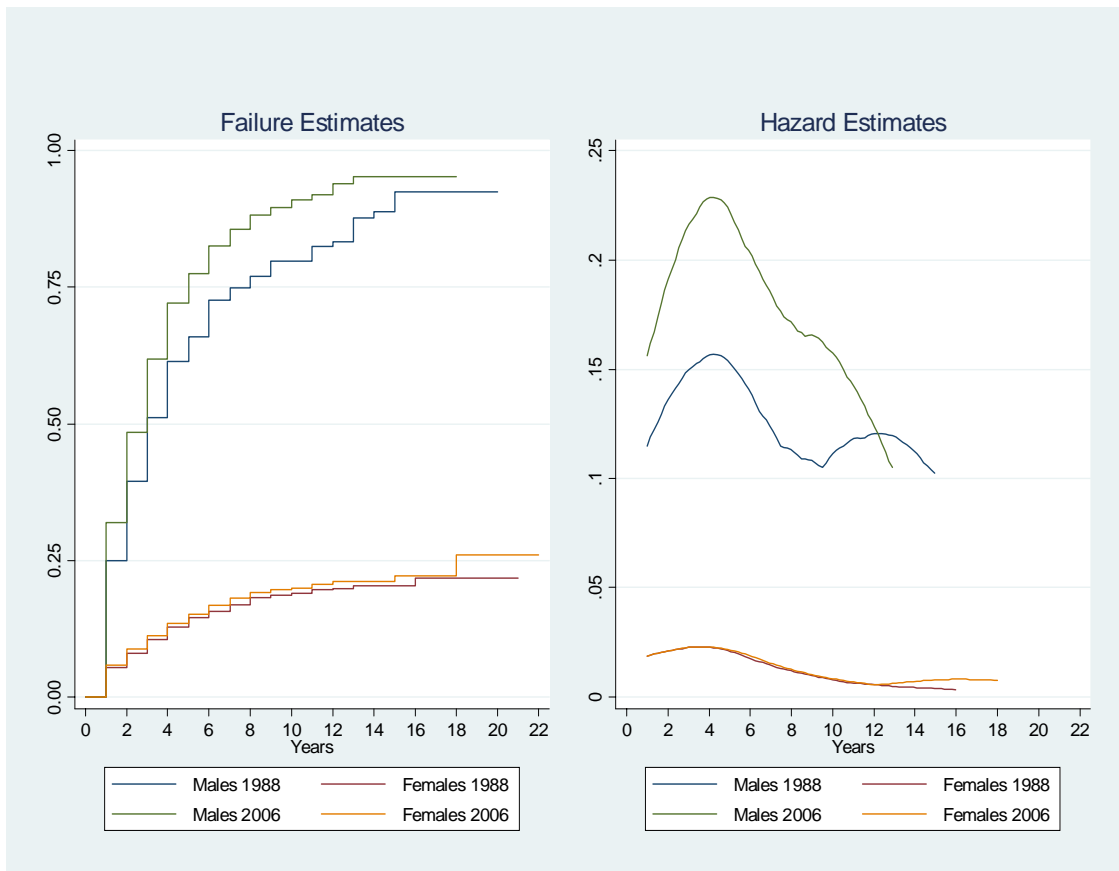
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.1.6: Female Cumulative Probability of Transition from School-to-Work by Age at First Job and Marital Status, Ages 15-29, 1998 & 2006



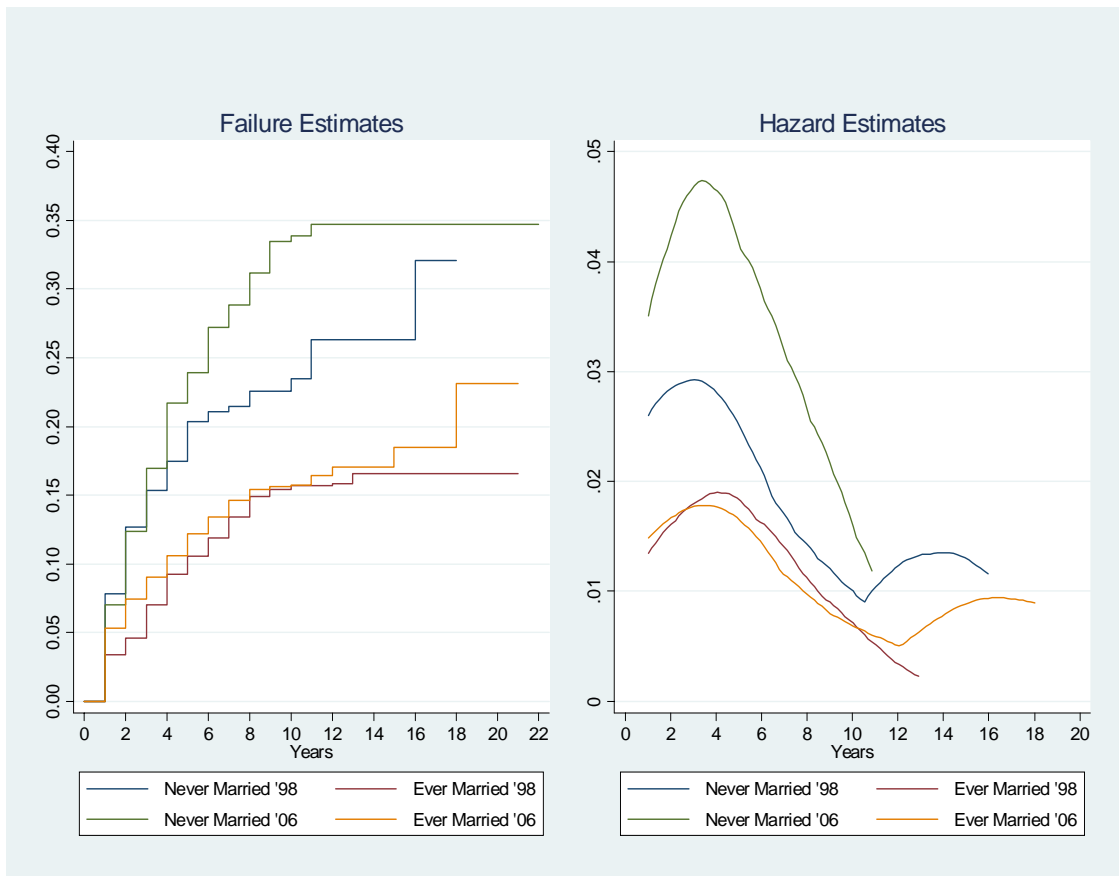
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.2.1: Cumulative Probability of Transition from School-to-Work by Years since Leaving School and Gender, Ages 15-29, 1998 & 2006



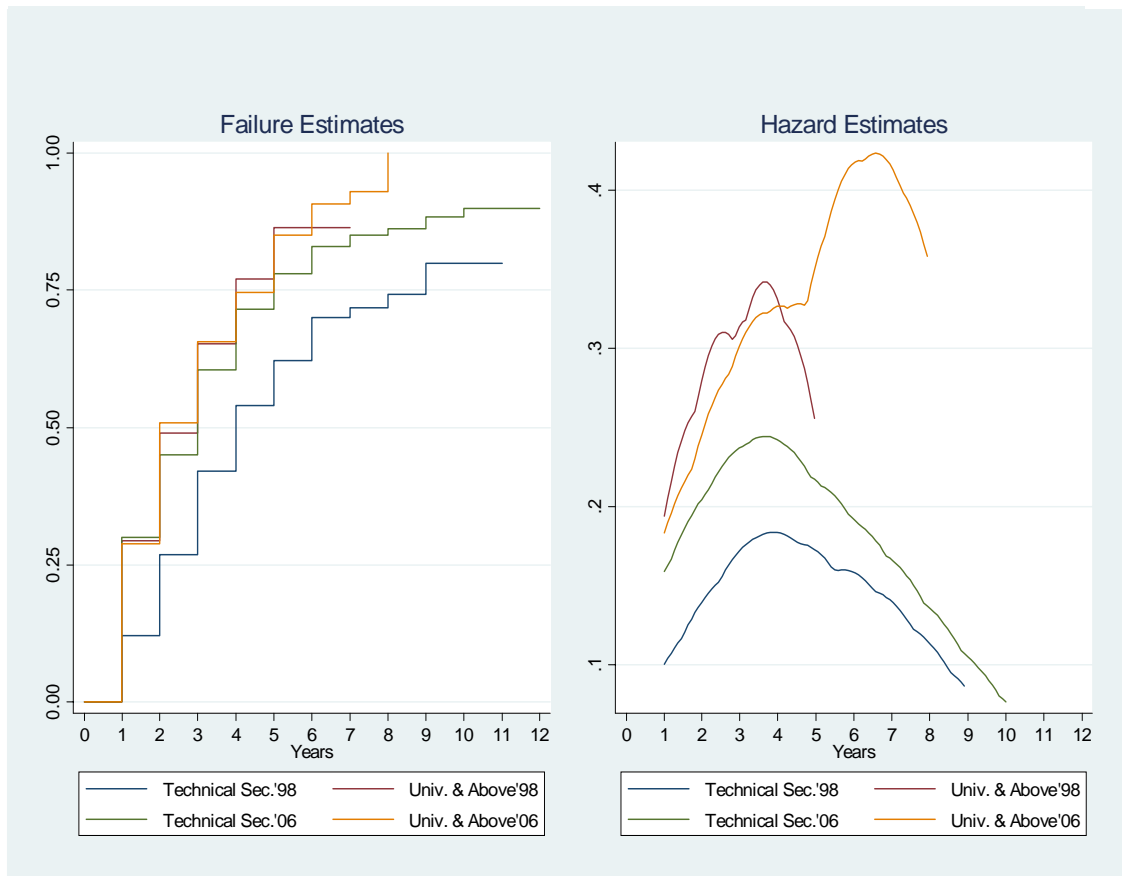
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.2.3: Female Cumulative Probability of Transition from School-to-Work by Years since Leaving School and Marital Status, Ages 15-29, 1998 & 2006



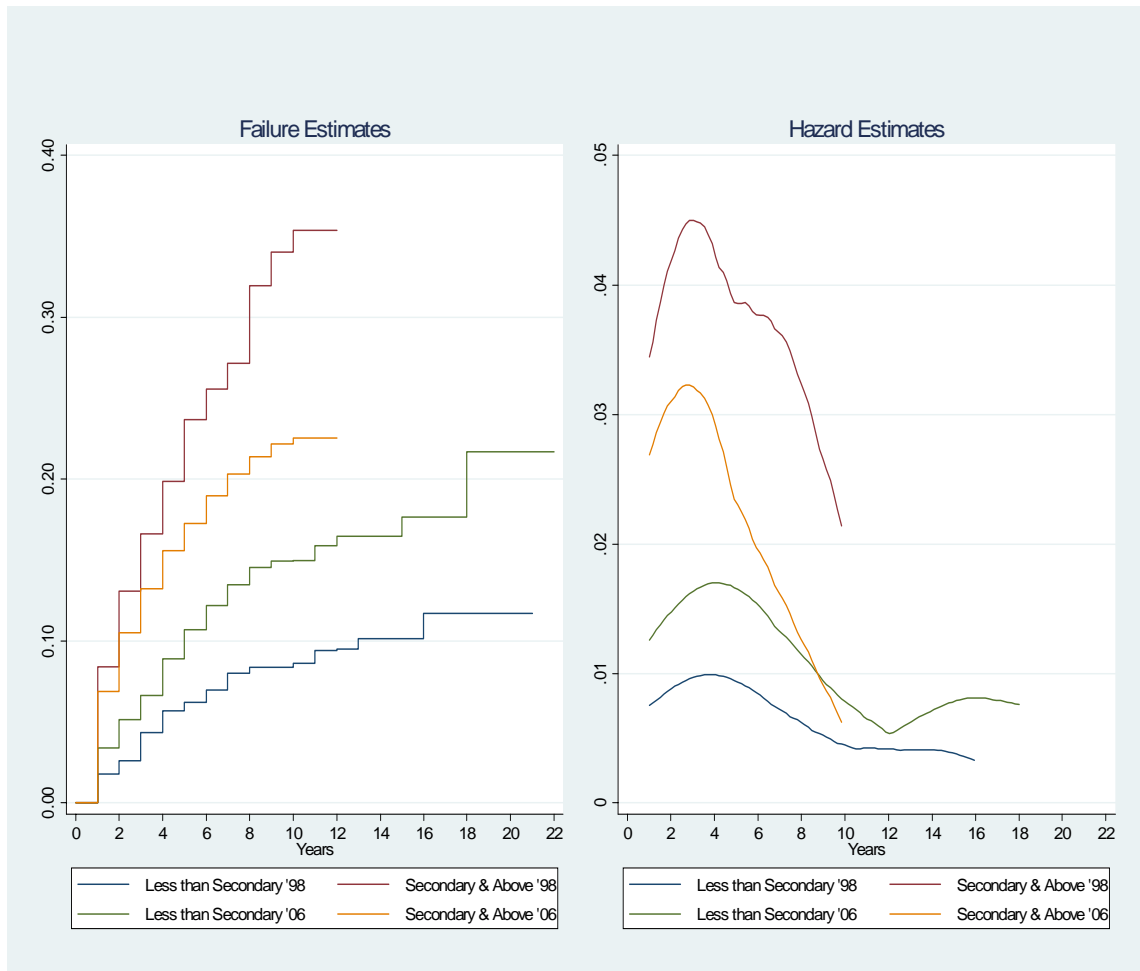
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.2.4: Male Cumulative Probability of Transition from School-to-Work by Years since Leaving School and Educational Attainment, Ages 15-29, 1998 & 2006



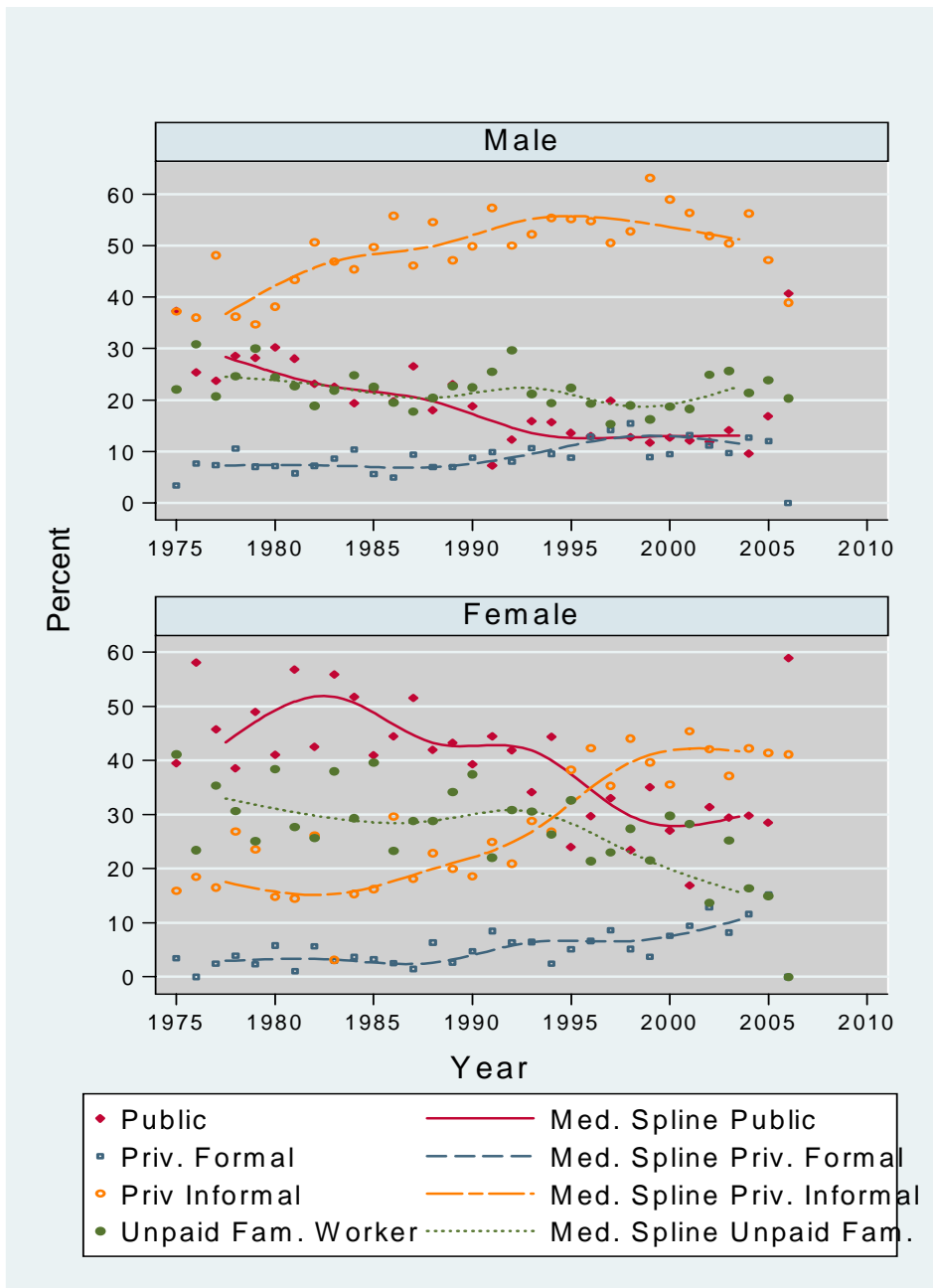
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.2.5: Female Cumulative Probability of Transition from School-to-Work by Years since Leaving School and Educational Attainment, Ages 15-29, 1998 & 2006



Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Figure 3.3.1: Distribution of New Entrants by Type of First Job, Ages 15-75, 1975-2006



Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Table 2.1.1: Distribution of the Males (Ages 15-29) According to their Current Employment Status in 1998 and 2006

	15-19		20-24		25-29		Total 15-29	
	1998	2006	1998	2006	1998	2006	1998	2006
Public	0.7	0.5	6.7	4.1	19.2	15.7	6.9	6.2
Private Formal	0.8	1.1	5.3	6.9	13.5	19.9	5.2	8.7
Private Informal	18.1	16.1	25.4	34.3	38.8	46.5	25.2	31.4
Unpaid Family worker	8.2	13.4	7.3	11.3	9.1	7.9	8.1	11.0
Unemployed	6.0	3.3	11.1	9.7	9.6	6.0	8.5	6.3
Student	60.2	60.3	20.9	16.3	2.8	0.9	34.1	27.6
Out of LF	5.9	5.3	23.2	17.4	6.9	3.2	12.0	8.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Sample Size</i>	<i>1,514</i>	<i>2,032</i>	<i>1,200</i>	<i>1,945</i>	<i>825</i>	<i>1,702</i>	<i>3,539</i>	<i>5,679</i>

Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Table 2.1.2: Distribution of Females (Ages 15-29) according to their Current Employment Status in 1998 and 2006

	15-19		20-24		25-29		15-19	
	1998	2006	1998	2006	1998	2006	1998	2006
Public	0.3	0.3	5.3	3.6	10.3	7.5	4.2	3.5
Private Formal	0.3	0.5	1.2	1.6	1.9	2.3	1.0	1.4
Private Informal	2.9	2.6	3.1	4.2	3.9	4.6	3.2	3.8
Unpaid Family worker	22.0	18.3	25.2	24.6	27.3	25.9	24.3	22.8
Unemployed	3.5	2.6	15.2	9.3	7.9	8.0	8.3	6.6
Student	49.0	52.1	14.7	11.6	1.3	1.5	26.9	22.9
Out of LF	21.9	23.5	35.2	45.1	47.4	50.3	32.2	39.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Sample Size</i>	<i>1,397</i>	<i>2,076</i>	<i>1,029</i>	<i>2,201</i>	<i>785</i>	<i>1,647</i>	<i>3,211</i>	<i>5,924</i>

Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Table 2.2.1: Distribution of Youth (15-29) According to their First Employment Status after School by Gender, 1998 and 2006

	Male		Female	
	1998	2006	1998	2006
Public	5.0	3.9	7.0	4.1
Private Formal	3.7	4.9	2.2	1.7
Private Informal	30.4	31.7	5.6	5.0
Unpaid Family worker	15.8	19.7	22.6	21.4
Unemployed	21.6	18.1	19.7	17.6
Out of LF	23.5	21.5	43.0	50.3
Total	100.0	100.0	100.0	100.0
<i>Sample size</i>	<i>1754</i>	<i>3326</i>	<i>1649</i>	<i>3495</i>

Tale 2.3.1: Male Mobility between First and Current Employment Statuses, Ages 15-29 in 2006

First Emp. Status after school	Current Employment Status in 2006						Total	Sample Size
	Public	Private Formal	Private Informal	Unpaid Family Work	Unemployed	Out LF		
Public	90.66	3.69	4.28	0	1.37	0	100	132
Private Formal	7.28	84.6	4.12	0.43	1.23	2.35	100	157
Private Informal	3.94	6.45	80.16	0.73	1.81	6.91	100	991
Unpaid Family worker	2.22	5.96	22.51	62.09	0.81	6.41	100	603
Unemployed	10.18	10.89	22.11	2.09	48.82	5.91	100	642
Out of LF	8.94	14.09	28.99	6.87	1.5	39.61	100	703
Total	9.47	12.6	40.31	14.3	10.13	13.19	100	3,228

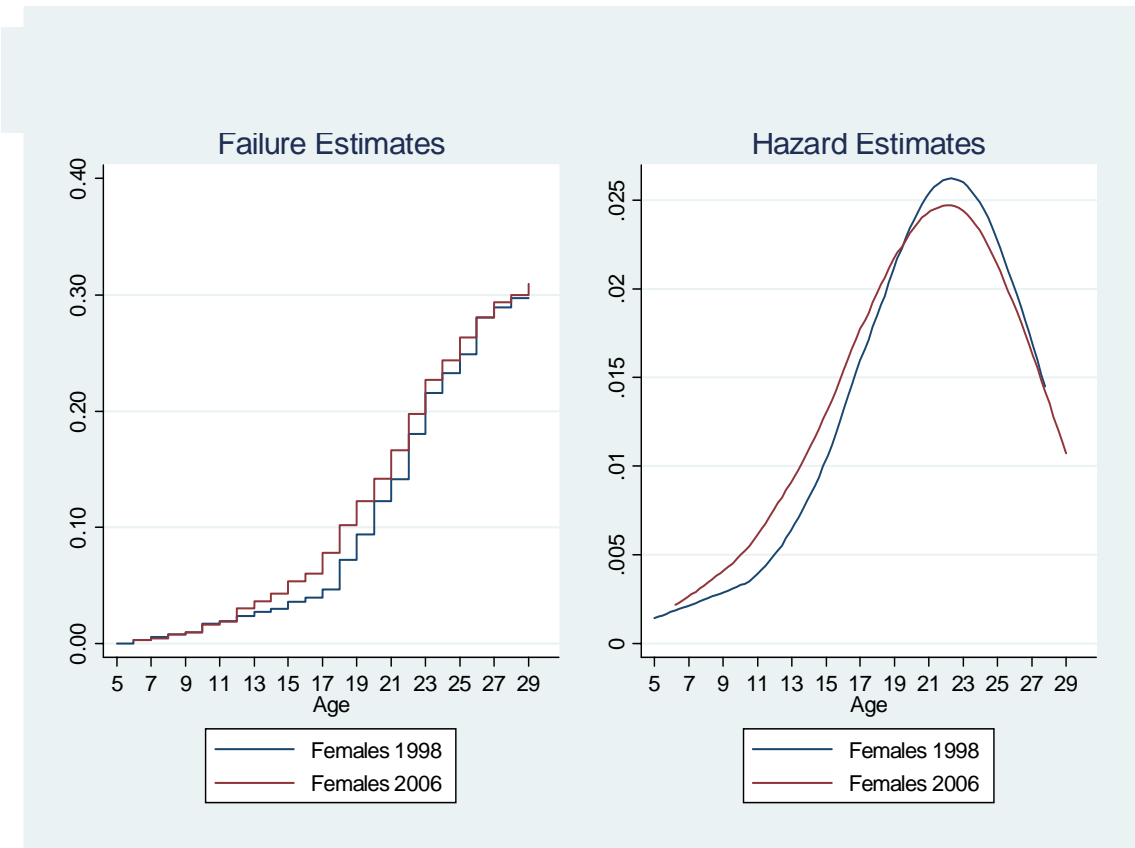
Source: Author's calculations based on ELMPS 2006.

Table 2.3.2: Female Mobility between First and Current Employment Statuses, Ages 15-29 in 2006

First Emp. Status after school	Current Employment Status in 2006						Total	Sample Size
	Public	Private Formal	Private Informal	Unpaid Family Work	Unemployed	Out LF		
Public	77.19	0	0	3.56	0.82	18.44	100	159
Private Formal	3.94	65.01	0	2.85	1.19	27	100	51
Private Informal	2.83	1.55	54.11	8.62	7.46	25.44	100	165
Unpaid Family worker	0	0	0.81	98.37	0	0.81	100	653
Unemployed	11.03	5.09	6.59	0.89	60.76	15.63	100	657
Out of LF	1.11	0.58	2.06	2.79	0.1	93.37	100	1,804
Total	5.87	2.34	5.03	23.24	11.15	52.37	100	3,489

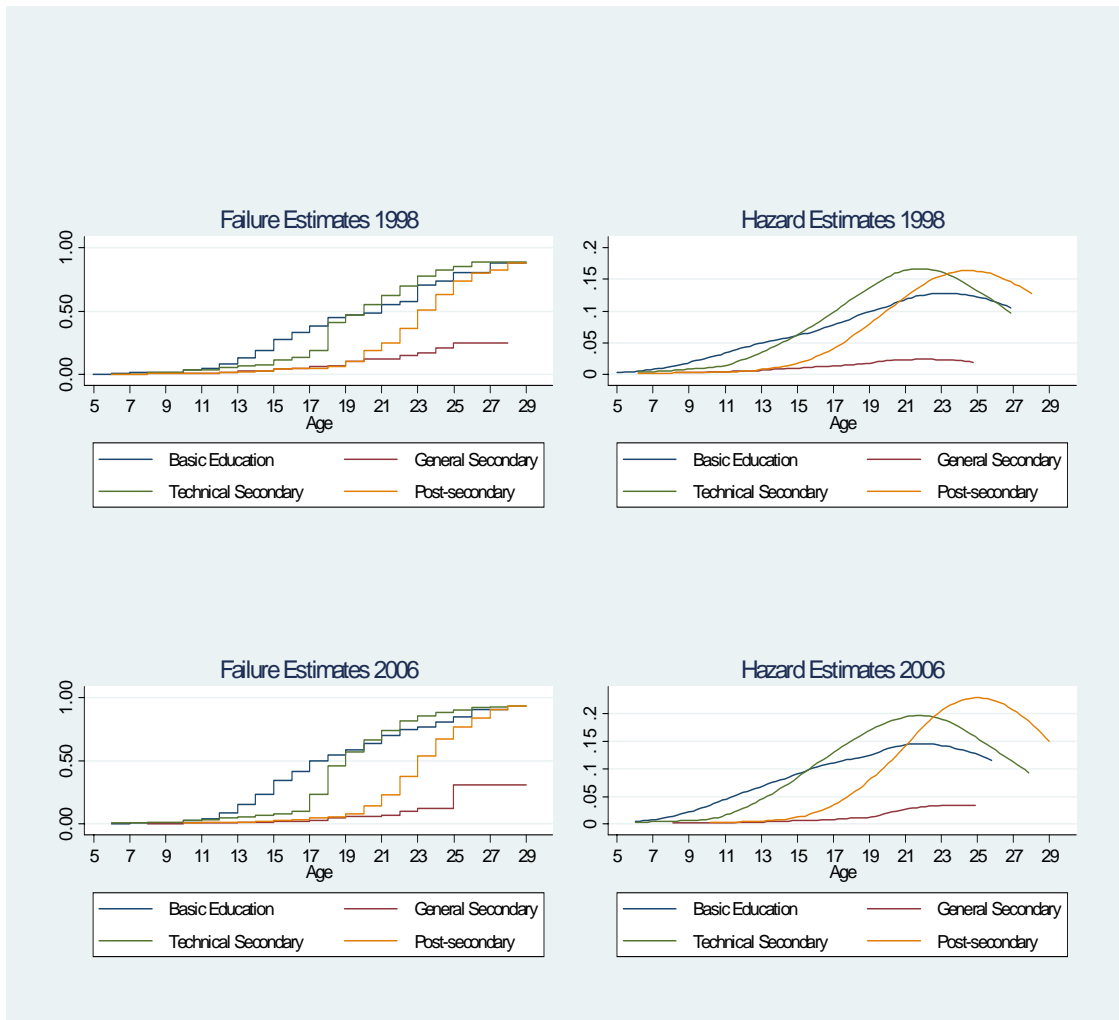
Source: Author's calculations based on ELMPS 2006.

Annex Figure 3.1.2: Female Cumulative Probability of Transition from School-to-Work by Age at First Job, Ages 15-29, 1998 & 2006



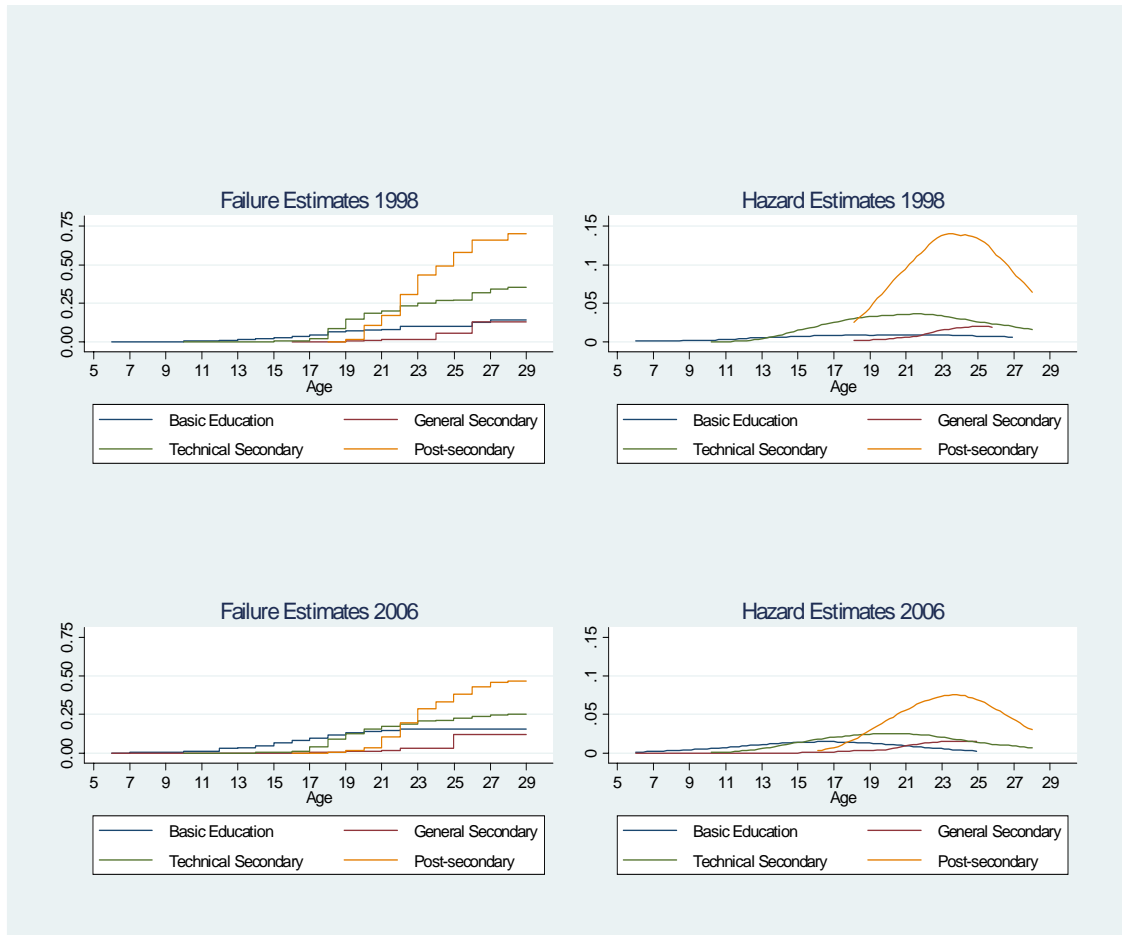
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Annex Figure 3.1.5: Male Cumulative Probability of Transition from School-to-Work by Age at First Job, and Educational Attainment, Ages 15-29, 1998 & 2006



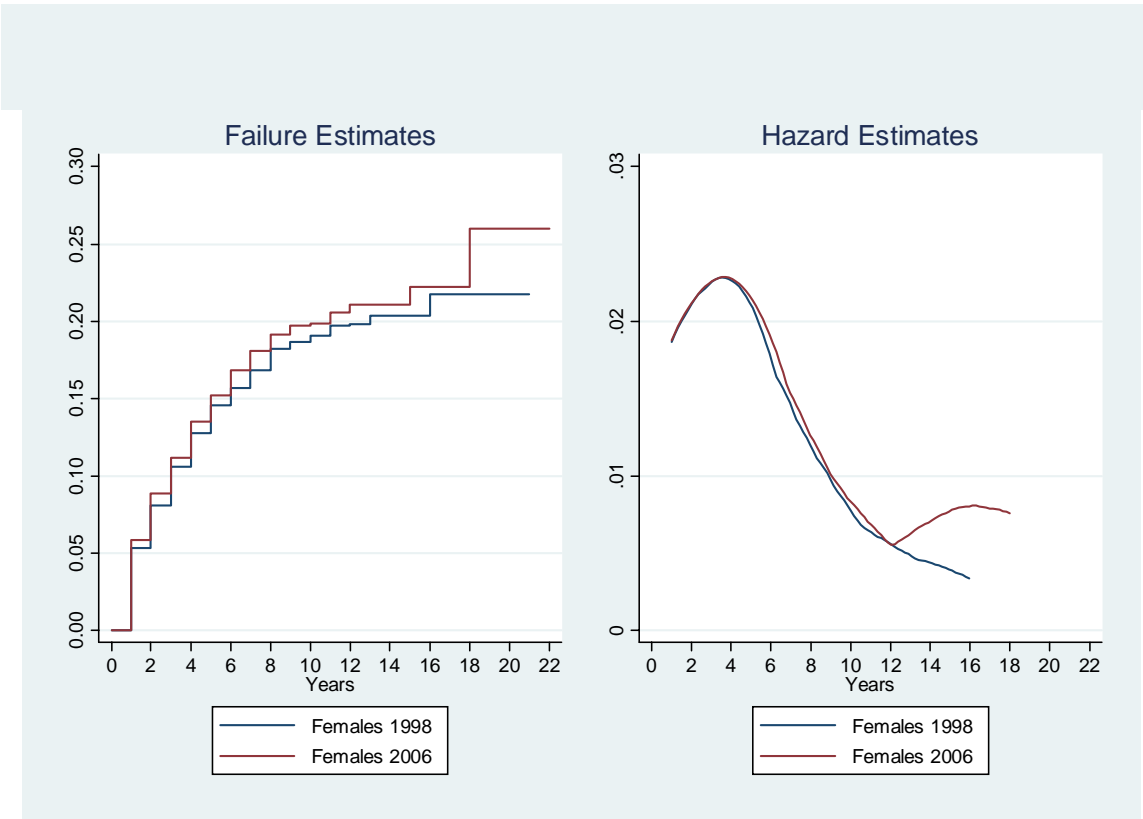
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Annex Figure 3.1.7: Female Cumulative Probability of Transition from School-to-Work by Age at First Job, and Educational Attainment, Ages 15-29, 1998 & 2006



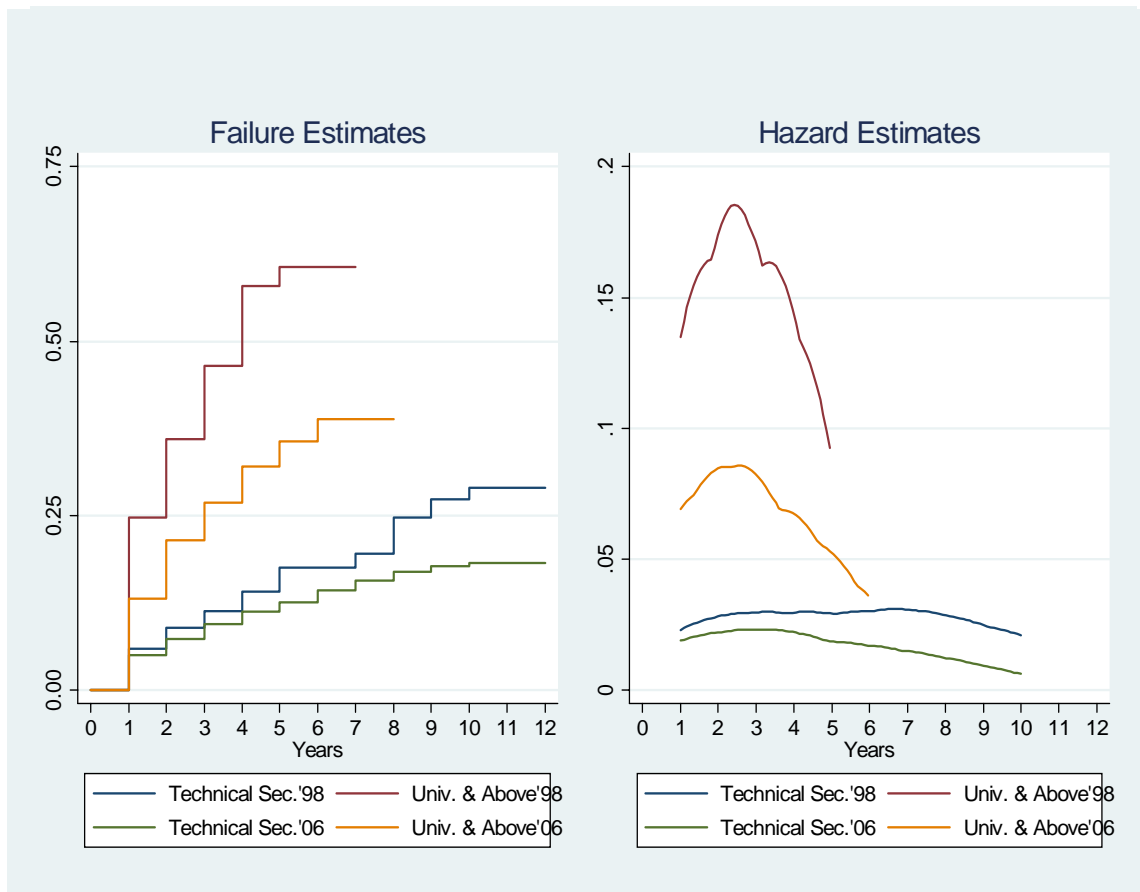
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Annex Figure 3.2.2: Female Cumulative Probability of Transition from School-to-Work by Years since Leaving School, Ages 15-29, 1998 & 2006



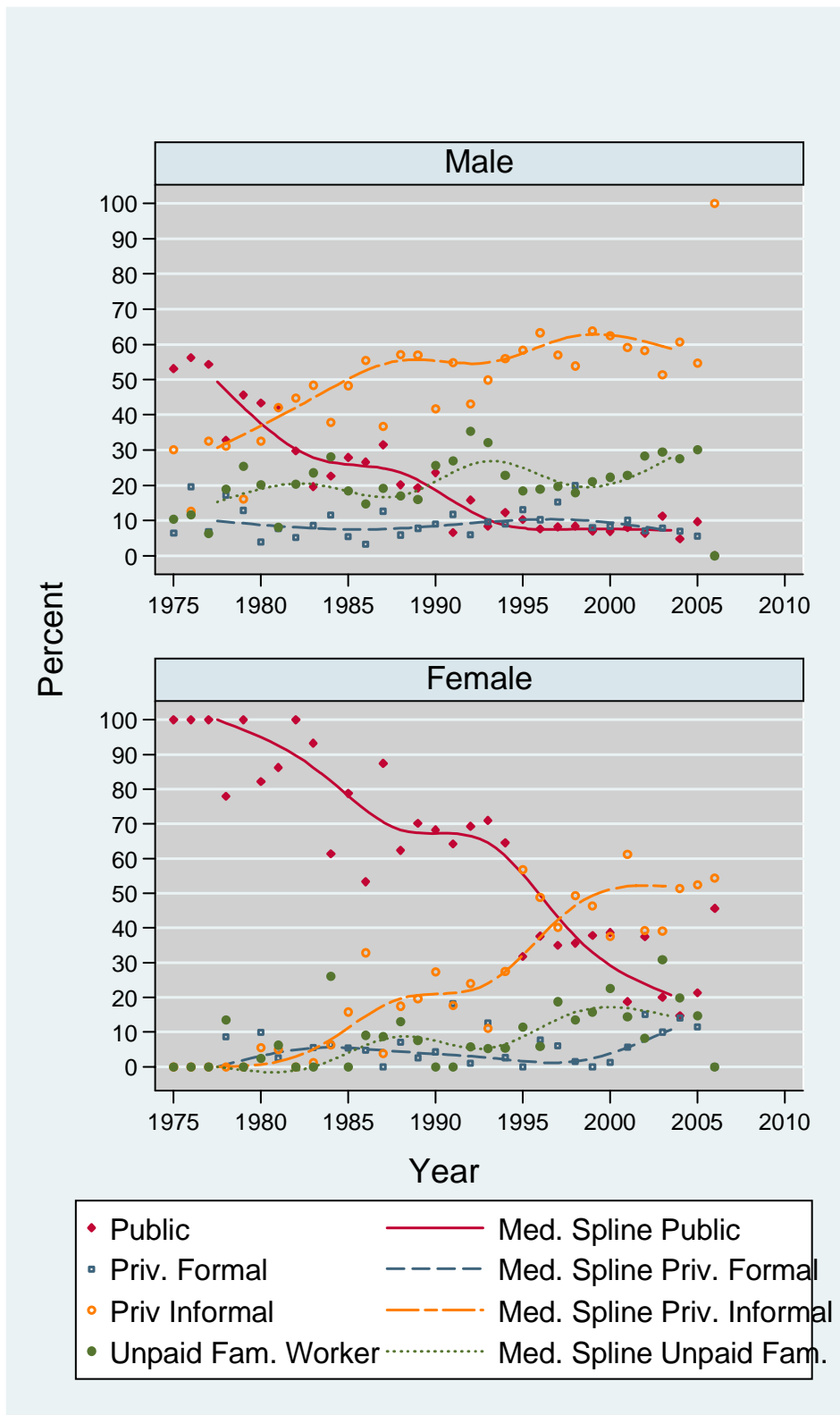
Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Annex Figure 3.2.6: Female Cumulative Probability of Transition from School-to-Work by Years since Leaving School and Educational Attainment, Ages 15-29, 1998 & 2006

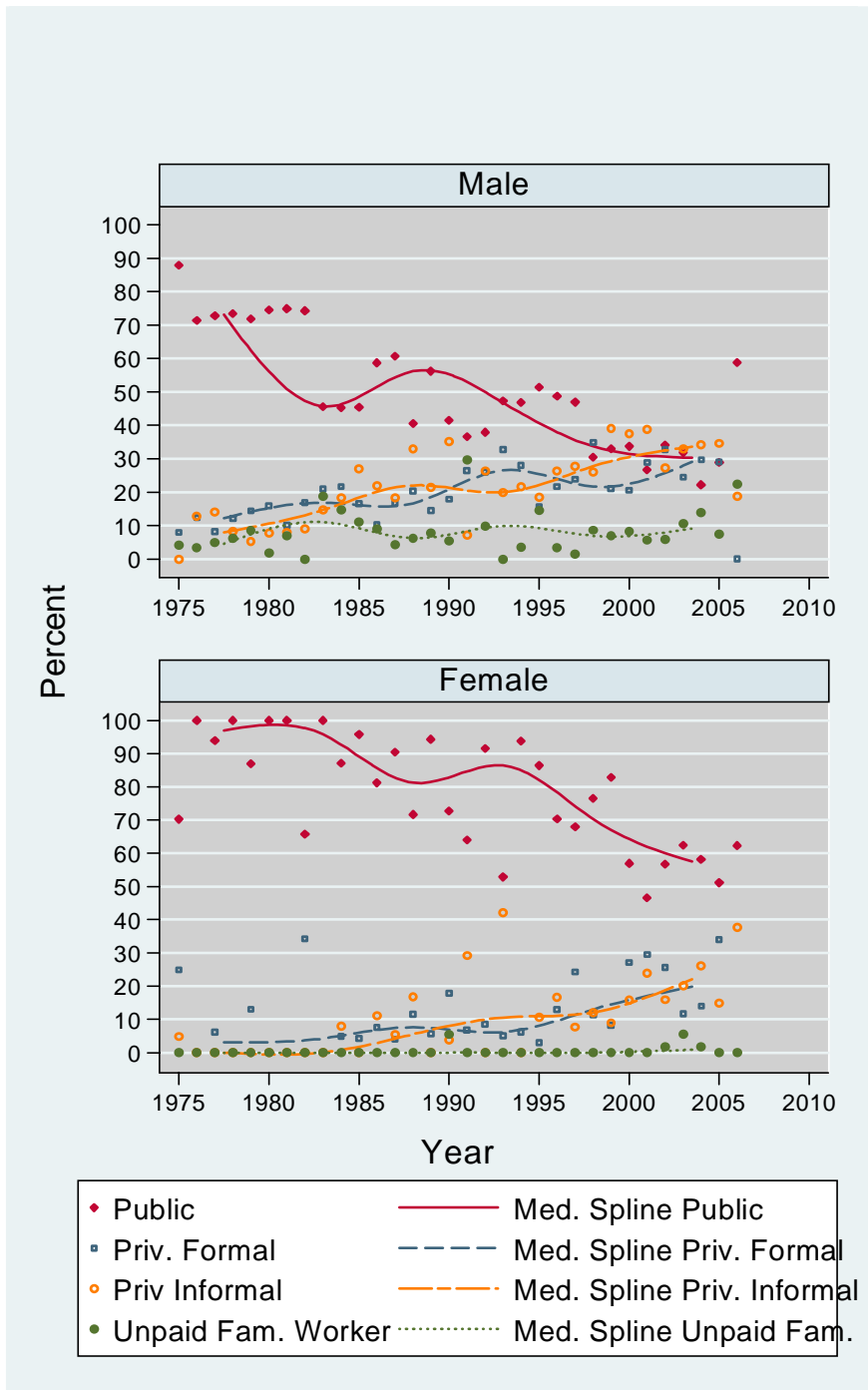


Source: Author's calculations based on ELMS 1998 and ELMPS 2006.

Annex Figure 3.3.2: Distribution of New Entrants by Type of First Job Among Technical Secondary School Graduates, Ages 15-75, 1975-2006



Annex Figure 3.3.3: Distribution of New Entrants by Type of First Job, Ages 15-75, 1975-2006 University and Above Graduates



Source: Author's calculations based on ELMS 1998 and ELMPS 2006.