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Supplements to the Economics of First Birth Timing: A Comparison of Married Men and Women in the Netherlands and Spain using a New Country Comparative Data Source

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1 Introduction

Postponement has been a major keyword in the description and the study of demographic trends observed in developed countries during the last decades. With few exceptions, during the recent decades demographic events such as those leading to the formation of new households and families have occurred later and later in the lives of women and men. Although considerable heterogeneity exists both between and within countries in this general pattern of postponement, almost everywhere in the developed world events such as leaving the parental home, forming a new union, getting married and becoming a parent are being experienced on average later in life than ever before. Postponement has been particularly important in understanding the fertility decline observed across Europe over the last few decades. As Table 1.A in Appendix 1 shows, such postponement has been pervasive, with increases in the mean age at first birth of the order of magnitude of three in the Netherlands and four years in Spain during the 1980-2004 period. The facts are that first time mothers in Europe have never before been as old as they are now, and that this postponement of maternity is also causing total fertility rates to decline (Tables 1.B and 1.C in Appendix 1 give detailed figures over time).[1]

Researchers from various disciplines have discussed and analysed the main driving forces of postponement (Billari, Liefbroer and Philipov 2006 provides a good overview), such as the idea of a "Second Demographic Transition" (Lesthaeghe and Van de Kaa 1986), the crucial importance of increasing female human capital accumulation (Willis 1973), and the potential role of uncertainty (De la Rica and Iza 2005, Ermisch 2003, Happel, Hill and Low 1984, Hotz, Klerman and Willis 1997, Gustafsson 2001, Gustafsson and Wetzels 2000). Most studies analyse one nation, we focus on a cross-country comparative perspective using data on the Netherlands and Spain. We use the cross-country comparative data to improve our understanding of whether and which gender equality and employment conditions in two countries lead to the high mean age of motherhood. Since our study is interested in the potential effects of employment conditions on timing of parenthood we focus on employees.

Some studies up till now have paid specific attention to the effect of an immigrant background on the timing of motherhood (Alders 2000 in the Netherlands, Roig Vila and Castro Martin 2005 in Spain, Andersson and Scott 2004 in Sweden). However, none of these studies analysed the timing of fatherhood, nor applied a cross-country perspective, and as Kofman (2004) and Beldsoe (2004) have pointed out in their review of the literature on immigration and the family context, there is clearly a gap that needs to be bridged. Not only should female immigrants receive more attention from researchers since they are half of the

immigrant population in Europe, but the role of family formation of immigrants and the effects of household characteristics on family formation of immigrants is under researched, especially the timing of events such marriage and having children. Riphahn and Mayer (2000) focused on the effects of time since immigration or more specifically on the effects of the time period of fertile years in Germany on immigrants' number of children. This study includes information on age since migration and fertile years and as mentioned before we focus on employees.

Novel in this study is also the data source, which is collected in the project WOrkLIfeWEB [2]. Our research purposes require a rich data set, with detailed and specific cross-country comparable information on a large number of observations. The large scale Wage Indicator Survey in The Netherlands and Spain in 2004-2006 gives us opportunities to analyse expected relationships between the age of parenthood and covariates that previously were not taken into account.

We use parametric duration models to estimate the determinants of the age at finishing education, the time since finishing school till having the first child, and the duration from the age of 15 to the age at first birth. We correct for right censoring. Since our data are cross sectional but provide retrospective information on the year of starting to work with the current employer, we are able to include in our analyses employers characteristics for women and men not yet giving birth to the first child and women and men having their first child while with their current employer. As Figure 1 shows working for pay and having children is a less common combination for women in Spain than in the Netherlands in 2000. However, the proportion of women working for pay is higher before giving birth to the first child in the Netherlands and Spain. Our results of working for pay before giving birth to the first child have to be interpreted keeping this in mind.

To improve our understanding of postponement is important for at least three reasons. First, it will contribute to the prediction of fertility trends. Second, as ageing of maternity increases, a number of women will hit the biological limit of their reproductive capacity, leading to increasing medical costs as couples seek medical assistance in order to procreate or individual unhappiness if such assistance fails. Third, many European governments worry about below replacement fertility and the resulting ageing of the population and attempt to design policies that would make it less costly for young people to form families.

This paper is structured as follows. Section two presents an overview of relevant literature on research and results focusing on the timing of parenthood and explanatory factors. Informed by the findings of existing studies, we develop our own hypothesis in section three. Section four discusses the methodology used and section five discusses the data.

Our estimation results are presented in section six. The paper ends with a conclusion in section seven.

2 Literature Review

We first review the literature on the Second Demographic Transition (SDT), then we review the relevant literature of economic conditions and postponement of parenthood and finally we review some studies on immigration and postponement of parenthood.

According to the proponents of the Second Demographic Transition (SDT) concept, the transition started in northern Europe during the 1960s and has since diffused across the industrialised world (Lesthaeghe and Van de Kaa 1986; Van de Kaa 1987; Lesthaeghe 1995). The SDT framework suggests that demographic changes, including postponement of childbearing, are to a large extent due to ideational shifts, in particular to the increased emphasis on individual autonomy, the rejection of institutional control, the rise of values associated with the satisfaction of individuals' 'higher-order needs', and the growth in gender equality (see, e.g., Surkyn and Lesthaeghe 2004). These ideational changes have led to the emergence of 'post modern fertility preferences' (Van de Kaa 2001).

Surkyn and Lesthaeghe (2004) find a correlation between value orientations and family choices using data from the European Values Study. However, panel studies in which the actual childbearing behaviour is observed after values have been measured, offer much stronger evidence that values actually influence fertility behaviour. An example is Liefbroer (2005), who documents that the transition to parenthood is postponed among young adults who value individual autonomy and think that having a child will negatively influence their autonomy. Bernhardt and Goldscheider (2006) offers another useful illustration that "values matter". Their article focuses on Sweden, which is in the words of its authors "perhaps the furthest among the countries that have entered the Second Demographic Transition". It studies the relationship between gender equality, attitudes towards parenthood and timing of first births. They show that men who are not holding traditional attitudes towards gender equality tend to postpone childbearing as compared to those who do hold traditional attitudes. No such effect is found for women. The finding that egalitarian attitudes delay the transition to parenthood is therefore consistent with the SDT idea that ideational change goes hand in hand with the postponement of childbearing.

Although Testa and Toulemon (2006) study the role of a more proximate determinant of postponement, i.e., fertility intentions, their contribution to this issue also documents the important role-played by subjective ideas in determining fertility decisions. People who intend or expect to have a child within five years are much more likely to actually become parents within that time-span than people who do not intend or expect to do so. Interestingly,

this relationship is much stronger among highly educated respondents than among respondents with a low level of education, suggesting that the 'planning capacities' of the former are better than those of the latter.

Since the early work by Willis (1973), economic theory has predicted that women's value of time and her partner's income are the main determinants of women's age at first birth leading women with a higher educational level to entry motherhood later, and leading women with a higher husband's income to have their first child at an earlier age. The economic approach to explaining the timing of life cycle events is to view them as the outcome of a constrained utility maximization problem. The individual makes every period a cost benefit analysis. Benefits are thought of as including psychic benefits, and the financial benefits can be negative if the psychic benefits are large enough. The psychic benefits of marrying include love, companionship, and sex, in addition to the opportunity to start a family.

There are always opportunity costs to consider. A childless couple can spend their time differently than as a family with children. Eating out and going to concerts are less compatible with caring for young children. Children cost childcare time. Parents cut back on their career ambitions and pay for child minders, child care centre or nursery school fees. The opportunity costs of having a child include earnings foregone and investments in human capital not carried out. The opportunity costs can be lower by choosing a point in the life cycle, when for example the intended fulltime education has been completed and a good job has been secured which includes the opportunity of a parental leave with a job protected leave period which is perhaps paid. In addition to the inter-temporal budget constraint, there is also a biological constraint because the fecund period of a woman is limited. Proportionately fewer, but proportionately more and more, first children are born to women after age 35. Appendix Table 2 summarizes some of the recent literature on education and the timing of motherhood (see also Kravdal 1994, Gustafsson and Kalwij 2006). Especially in the Netherlands, education has a highly significant effect on the timing of first birth compared with e.g. Sweden and Germany (Gustafsson, Kenjoh and Wetzels 2002). An early study on the Netherlands found women's wages to be the most important determinant of the timing of the first birth later in women's life in the early 1980s (Groot and Pott-Buter 1992).

Although cost benefit analysis as regards couple formation starts earlier, the cost benefit analysis of the timing of children is much more dependent on the labour force status. In most European countries, educational enrolment is scarcely compatible with childbearing, even if the length of education is in part determined by the same factors that drive the timing of first birth, and even if the extent of incompatibility differs between countries (Billari and Philipov 2004). Moreover, trends in educational expansion are correlated with the ideational

change that has been previously discussed as accompanying the SDT, i.e., both driving forces push in the same direction.

Furthermore, a given investment in human capital will give less expected returns in a severe labour market situation with high unemployment rates than in a situation when it is easy to find a job. When deciding about the timing of parenthood a couple will consider the probability of having a job and the income likely to be earned in the years to come. Del Boca and Locatelli (2007 forthcoming) show that the correlation between female labour force participation and fertility across countries has changed from being negative into becoming positive. Furthermore, they point out that fertility is lower in countries, where unemployment is higher.

In the European context, in spite of recent institutional changes, the southern European labour market still remains a highly regulated one, with strict regulations concerning the hiring and firing of workers and the types of employment arrangements permitted. The hiring system and high entry wages along with very strict firing rules severely restrict employment opportunities for labour market entrants. These labour market regulations have been largely responsible for the high unemployment rates of women and youth. Adsera (2004) finds that youth unemployment rates other things equal lower fertility rates. Insecurity during young adult years has been mentioned as an important driver of the postponement of childbearing in southern Europe (see, e.g., Kohler et al. 2002). However, also in the Netherlands perceived uncertainty has been shown to influence the postponement to parenthood (Liefbroer 2005). Under conditions of economic uncertainty, people's income becomes less reliable, and people are likely to postpone childbearing until their income becomes more stable and reliable (Blossfeld et al. 2005).

A few studies have specifically addressed labour market conditions on life events and postponement of parenthood in Spain. Ahn and Mira (2001) find that the most important variable to determine marriage among Spanish men is that they had a job the previous year. Once they marry fatherhood follows very quickly. De la Rica and Iza (2004) find that the widespread use of fixed-term employment contracts is one of the explanations for the low fertility rate in Spain. A man who did not work in a given year is less likely to marry next year, and also a man who has a fixed-term job contract is less likely to marry than a man who has an open-ended job contract. They also find that married women are less likely to have a child next year if they have a fixed-term job contract in comparison to if they have a regular open-ended job contract. In addition, becoming a mother in a given year may lower labour force participation next year.

Because of limited access to credit and housing markets to individuals without stable employment, southern European families traditionally provide income support to children during their usually lengthy search for a stable, "secure" job. This responsibility is likely to have a significant effect on women's participation and fertility (Giannelli and Monfardini, 2003, Martinez-Granado and Ruiz-Castillo, 2002).[3]

Moreover, there is substantial evidence from many studies that women decrease their work for pay when they become mothers (Gustafsson, Wetzels, Vlasblom and Dex 1996, Guitterez 2006, Del Boca and Locatelli 2007), and couples with children therefore have less income. Given that strict labour market regulations and unemployment discourage exits from the labour market and makes re-entry difficult, women in southern Europe participate less in the labour market and have fewer children (Del Boca and Pasqua 2005). As a result, women who decide to have a child, despite employment uncertainty and rigidity in working hours, either do not withdraw from the labour market or never re-enter after childbirth. In appendix Table 1.E we describe the labour force participation of mothers before and after having their first child in the Netherlands and Spain using the European Household Panel Data during the period 1994-2001. As Table 1.F in Appendix 1 shows, Spanish women's labour force participation is lower before the birth of the first child than in the Netherlands, but Spanish women remain in the labour market after the birth of the first child to a fairly high extent.

Kalwij (2005) analyses how much income is lost in the transition from being a childless two-person household into becoming a three-person household, when a child is born in the Netherlands. Using the Dutch socio-economic panel, he can follow income, savings and consumption from year to year. It turns out that the childless couple foresees to some extent that their household income will decrease. They do save more before having a child, but by far not enough to keep the same consumption standard, as before they had the child. The three-person household consumes less than they did when they were a two-person household. Given that there is an income loss due to labour force withdrawal to care for a young child it is no wonder that young people today postpone parenthood until the most important human capital investments have been done in school, as well as on the job market. Amuedo-Dorantes and Kimmel (2004) ask whether it pays to postpone maternity. They find, that college educated women in the United States who had their first child after they turned 30, earn more than similarly educated women, who had their first child before they were 30.

Analyzing in-kind transfers, it has been shown that the availability of childcare services significantly affects women's preferences for non-market time versus time spent in paid work. Differences emerge among European countries: in southern Europe the childcare services are typically inadequate and characterized by extreme rigidity in the number of weekly hours available. Southern European countries and the Netherlands show quite similar

percentages of children under three who are in childcare (which are quite low compared with other European countries such as Sweden and Denmark), and the proportion of children over three in childcare (which is relatively high even compared to northern European countries).

One of the few studies that analysed the effect of labour attachment on the timing of first birth in both immigrant women's and native women's lives is Andersson and Scott (2004). They find that practically all country groups of women in Sweden exhibit a first birth pattern, where women who are not established in the labour market also have a reduced propensity to become mothers. For those who are established, they find a positive relation between the level of annual earned income and the propensity to have a child. They also find that foreign-born women appear reluctant to become mothers when they are dependent on social welfare, while no such inhibiting effect is evident for the Swedish born population. Furthermore, the Swedish social democratic welfare state differs considerably from the Dutch Christian democratic welfare state (Gustafsson, Kenjoh and Wetzels 2002) and from the Mediterranean welfare state in Spain (Guitterez forthcoming). Swedish women benefit from higher maternity leave benefits if they earn a higher wage prior to giving birth over a considerably longer period (15 months-18 months). Meanwhile, Dutch mothers only have 16 weeks of maternity leave benefits and after delivery they have to negotiate with the employer to receive maternity leave benefits of 6 months part-time; alternatively, employed mothers have an incentive to earn a higher wage before the first birth so as to pay for the less subsidised child care for their three months' old baby. Although Spanish parental leave duration is three years, and a job is guaranteed during one year, it is unpaid (See, Table A.2.b in the Appendix). In both countries a very low proportion of 0-2 year olds are in child care centres, whereas the proportion of 3-5 year olds is with 77% in Spain (Appendix Table A.2.e) quite high even with a high number of children per staff member, and limited opining hours. Appendix Table 2 provides more information on policies as regards the combination of paid work and care in the Netherlands and Spain.

3 Hypotheses

The literature review reveals that the decision of when to become a parent is driven by three main forces 1) post modern fertility preferences and for example men's attitudes towards gender equality, 2) women's increasing human capital accumulation, and 3) the role of uncertainty. Especially the first driving force has not been researched empirically by gender across countries. Liefbroer (2005) analysing the Netherlands and Bernhardt and Goldschneider (2006) analysing Sweden find that values matter as regards postponement of parenthood and that Swedish men who are not holding traditional attitudes towards gender equality postpone parenthood. We would like to contribute to this line of research on the

effects of gender equality on postponement of parenthood. Our approach is different from analyzing value orientations; instead we analyze the effects of gender equality in practice at the workplace and at home on the timing of parenthood. Firstly, we ask whether working in a gender-biased environment has an impact on the timing of parenthood. We expect especially Dutch women with male colleagues in similar positions to postpone, since the Netherlands scores similar to Botswana and Pakistan on percentages of women in top positions. In addition, all else equal, since leave arrangements and work flexibility are only well paid and well arranged for employees in public administration in the Netherlands, we expect employees in this sector to start parenthood earlier.

Hypothesis 1) reads as follows:

1.a) *Working in a department where colleagues in similar positions are male leads men to have children earlier (retain more traditional values), and women to have children later (since it is more difficult to work in non-traditional work-environment women in jobs previously held by men, and therefore postpone to secure their position), and even more so in the Netherlands*;

Hypothesis 1.b) *Women and men employed in public administration in the Netherlands start parenthood at an earlier age.*

Secondly, we consider outsourcing of household work by paying for domestic help[4] as a signal of non-traditional (values towards) organisation of housework and an indication of action towards more equality in sharing unpaid work between the household partners. Given that Liefbroer (2005), Bernhardt and Goldschneider (2005) found that non-traditional values as regards gender equality would lead men to postpone fatherhood we formulate:

Hypothesis 2.a) *Buying housework services (paid domestic help) is a signal of behaving in a non-traditional way (at least for the average earner in the Netherlands and Spain) and therefore leads married men and women living in such households to postpone children compared with men and women who do not live in a household where housework services are bought;*

In the same line of reasoning we expect men and women who prefer to be dual earner couples, and more specific dual permanent contract couples to postpone children and hypothesis 2.b) reads:

Married men whose wife is employed postpone having children and even more so when the wife has a fixed term contract (as a signal of a wish and/or a need to work for pay but not yet within a secure labour contract), compared to men whose wife is not in paid work; Married women having a permanent position with a husband who is not employed or in a fixed term

position enter parenthood earlier; (if the partner is willing to care for the child and she earns a high enough income, whereas she will be postponing the first birth is she is afraid of losing her position and plans to secure a higher income by postponement of maternity.

Furthermore, we consider women to be non-traditional and behave more gender equal if they act as independent workers providing for their own life time income and therefore to be concerned about their own pension.

2.c) *Married women who worry about their own pension are considered to be concerned about their individual long term financial situation and delay parenthood to secure their own long-term secure employment situation*.

Next, we wish to add to the literature on the driving forces 2 and 3 by analysing how investments in labour market qualifications and the labour market position explain the timing of parenthood in the Netherlands and Spain specifically. Since educational enrolment is scarcely compatible with childbearing in Europe (Billari and Philipov 2004), we focus on entry of parenthood after finishing education. Education is compulsory until age 16 in the Netherlands and Spain, and in both countries secondary education finishes officially at age 18 (European Commission 1995). The age at finishing education is likely to affect the duration after finishing education till parenthood, controlled for the education level obtained. The age at finishing education is affected by the level of education which takes longer the higher the level, but also on whether the person is born in an area where he/she does not necessarily leave the parental home to pursue a preferred education, whether the person started in gainful employment before finishing education and the number of calendar years of gainful employment before finishing education, whether the person is a migrant and the age at arrival in the host country. We expect that in Spain geographical distances may restrict educational opportunities if this implies leaving the parental home and this is a hurdle not to be taken (Billari, Philipov and Baizan 2001)[5], whereas we do not expect a delay of finishing education from geographical restrictions in the Netherlands.[6]

Our hypothesis 3 reads:

T*he age at finishing education will be higher if the region of birth offers proportionately fewer educational opportunities and even more for women (if women are even more restricted than men to leave the parental home when parental budgets are low or parental budgets are male biased allocated), when gainful employment precedes finishing education and the earlier the start in gainful employment before finishing education the later the age at finishing education. Additionally, immigrants who arrive in the host country during school age are later at finishing their education all else equal.*

Ahn and Mira (2001) showed that fixed term contracts and periods of non-employment lead men to enter marriage later (and therefore to enter fatherhood later). De la Rica and Iza (2006) show also that having a fixed-term rather than an indefinite labour contract delays entry into marriage for men, but not for women. A fixed-term contract held by a woman makes her delay motherhood. Our analysis aims to improve our understanding of the postponement of parenthood for married men and women. What determines married men and women's decision (who apparently are successful in finding a partner on the marriage market and are likely to be successful in the marriage market because they are successful in the labour market at least in finding a job) when to have children? We focus on the time since finishing education till having the first child and are interested in when men and women decide to have the first child given biological restraints, and the labour market effects and gender equality in their living environment.

Education level and age at finishing education may be a good promise to a stable labour market career but this is dependent on labour market opportunities (Ahn and Mira 2001, De La Rica and Iza 2006, Del Boca and Locatelli 2007) most particularly in the specific region where the couple lives even more so in Spain where family ties are stronger than in the Netherlands (Reher 1998) and housing and financial markets are restrictive to moving to other regions and the distances are longer between regional labour markets. The time since finishing school till parenthood is likely to be related to the age at finishing education, the biological constraints women face and therefore also their partners since partnerships do not show large age differences in Europe and labour market restrictions to earn a high enough stable income to provide for children and other preferences that imply time and/or money.

Hypothesis 4: *Women and men finishing education at a later age enter parenthood*

4.a) earlier after finishing education due to women's biological fecundity restrictions (also for men if we assume that the age differences between husband and wife are not big), or because of better labour market opportunities for more recently and probably higher educated; whereas

4.b) later if finishing education is a signal of career ambitions which lead to postpone the time of being a parent or refrain from parenthood.

Our fifth hypothesis is as follows:

5.a) *Labour market conditions that increase autonomy such as a permanent contract and a high wage lead to earlier parenthood if a wish for children is not competing with other preferences that cost time and money;*

5.b) *Given a financial budget restraint, a job which matches your qualifications, obtained additional qualifications, and job promotion may increase preferences for spending less time with children and therefore leads to postponement, whereas a job with less potential for promotion is likely to lead to earlier parenthood if financial conditions are met;*

5.c) *Being overqualified in comparison to having a job that matches your qualifications leads to further search to find another job that does match qualifications better and in this way lead to postponing parenthood.*

Very few studies have analyzed the impact of having an immigrant background on the timing of parenthood. We define immigrants as non-natives. Natives are defined as being born in the country of our analysis with parents born in this country. Beyond the potential differences in human capital investments of immigrants compared to natives, costs related to immigration, such as time consuming immigration procedures, are higher for immigrants and will only lead to postponement when the migration takes place before the first child is born.[7] Furthermore, parenthood of immigrants may also be later since immigrants have to settle first and face labour market discrimination. However, the child may also be earlier since immigrants may already feel they are late in forming a family compared to their peer group in the country of origin, and immediately start family formation. This is even more likely when the reason for immigration is family formation. Controlled for effects of age at arrival[8] we formulate

Hypothesis 6: *Migrants to the Netherlands and Spain*:

6.a) *moved to a low-fertility regime from countries that earlier on had a tradition of higher fertility and are earlier at entry of parenthood all else equal*;

6.b) *faced time and money costs related to their immigration and this leads to later parenthood;* [9]

Our research strategy is to estimate models that explain the age at finishing education, the duration of the time since education, and the duration of the time since age 15 and becoming a parent. The next section explains the empirical modelling of duration analysis. We will therefore first analyzing hypotheses 3-6, and then hypotheses 1 and 2. The analyses of hypotheses 1 and 2 are extensions of the empirical models used to analyse hypotheses 3-6.

4 Econometric and empirical specification

In analyzing timing decisions a hazard analysis approach is most commonly used. We apply this model to the time at finishing education from age 15[10] with no right censoring (every respondent finished education at age 15 or later), the duration since finishing education till entry of parenthood and the time from age 15 till entering parenthood. The last two duration

models take into account the effects of right censoring which means that we include observations who are not yet parents at the time of survey. We start from age 15 (although we experimented with starting at age 12) till finishing education and till having the first child. The second duration starts at age at which duration is finished. Firstly, we describe our econometric model for the first and third duration.

Time analysis in our model is a woman's age, with the earliest observed entry time being 15, which is the earliest age of first birth in the sample. Suppose that the random variable of the duration until entering motherhood since age 15, T has a continuous probability distribution f(t), where t is a realisation of T, then the corresponding cumulative distribution function is $F(t) = \int_0^t f(x)dx = \Pr(T \le t)$ and the survivor function S(t) can be defined by S(t) = 1-F(t).

The hazard (or hazard rate), or the probability of entering maternity at time t, given that the woman has not entered maternity until time t since age 15 is defined by:

$$h(t) = \lim_{dt \to 0} \frac{\Pr(t \le T < t + dt \mid T \ge t}{dt} = \lim_{dt \to 0} \frac{F(t+dt) - F(t)}{dtS(t)} = f(t)/S(t).$$

Since

$h(t) = f(t)/S(t) = [dF(t)/dt]/S(t) = [-dS(t)/dt]/S(t) = -d\ln S(t)/dt$, we can obtain the survivor function: $S(t) = \exp[-\int_0^t h(x)dx]$.

We estimate the proportional hazard function, in which the hazard depends on a vector of (time-invariant) explanatory variables or covariates, $\underline{x} = \{x_1, x_2, \ldots, x_k\}$ with unknown coefficients $\underline{\beta} = \{\beta_1, \beta_2, \ldots, \beta_k\}$ and h_0 : $h(t, \underline{x}, \underline{\beta}, h_0) = \phi(\underline{x}, \beta)h_0(t)$. The function $h_0(t)$ is a 'baseline' hazard corresponding to $\phi(\cdot) = 1$. The $h(\cdot)$ is an interpretation of the hazard function for the mean individual in the sample, which gives the shape of the hazard function for any individual. The term $\phi(\underline{x}, \underline{\beta})$ indicates the difference in the level of the hazard across individuals. We specify this $\phi(\underline{x}, \underline{\beta}) = \exp(\underline{x}', \underline{\beta})$, following the popular specification. We assume the baseline hazard function as $h_0(t) = pt^{p-1}$, with p >0. The parameter p indicates 'duration dependency'. That is, the hazard of giving birth to the first child after age 15 increases or decreases monotonically over time, if p >1 or p <1. For p =1, the hazard is time-independent, which brings us to the exponential distribution. Therefore we estimate Cox proportionate hazard models. Furthermore, since we observe women and men who experience the event of becoming a parent for the first time and childless women and men who do not yet

experienced this we correct for right censoring in our model and interpret the durations as they are contaminated by the probability of experiencing the event.[11]

We estimate parameters $\underline{\beta}$ and p, using maximum likelihood. The positive coefficient estimates of $\underline{\beta}$ indicate that higher levels of the variable increase the hazard of finishing education, entering parenthood after finishing education, entering parenthood after the age of 15, or equivalently, that the waiting time from age 15 until finishing education, starting a family is shorter. The negative coefficient estimates have the opposite effect. The hazard ratios, which are estimates of exp ($\underline{\beta}$), indicate the effects of a one-unit change in the corresponding variable. For example, if the hazard ratio of x_1 is 1.10, it means a 1 unit increase in x_1 raises the hazard rate by 10 per cent. If the hazard is smaller than 1, it indicates a negative effect of x_1 on the hazard rate.

Tests to analyze statistically whether our estimations fit the cox proportional hazard assumptions confirmed that this was a good choice for the time till finishing education. However, the second duration of the time since finishing education till first birth needs a different and parametric empirical model. We would expect the base line hazard to increase with time after age finishing education and to decrease because of the biological limit (which is rather varied among women but in general fertility diminishes after age 30). Which distribution to choose, especially with the non-sample type of data of employees that we use in our analyses, has led us to use some statistical tests that may help sort out how the base line hazard depends on time.

In Figure 3 we show graphs depicting how our basic model specification of the time since finishing education till entry of parenthood that we later will discuss as model 1 fits our data if we choose the exponential model, the Weibul model, the Lognormal and log logistic model in the Netherlands and Spain by gender. From these pictures we decided that our data fit best the last three models (the parametric models). Next, we show how the duration model with log normal distribution and with Weibull distribution perform by comparing the log likelihood and the AIC in Table 4. From these comparisons follows that both the AIC is the lowest and the loglikelihood is the highest when we choose the Weibull distribution.

A parametric duration model, different from the non-parametric Cox proportional model, assumes a particular functional form for *f(t)* and *S(t)* and therefore for the hazard function *h(t)*. The probability of someone entering parenthood after finishing education, given that is has not happened yet, is likely to increase sharply with age since we start at age 15 given biological restrictions[12]. We therefore adopt a Weibull distribution, which allows for such a shape. The hazard function for the Weibull model takes form

$$h(t) = p(\lambda t^{p-1})e^{-\lambda t^p} \text{ where } \lambda = e^{X\beta}$$

and λ and p – the duration dependence variable – are parameters to be estimated.

Individual differences in the hazard function are characterized partly by the observed explanatory variables x_i and in part by the unobserved characteristics of the individual. In addition to the observed heterogeneity captured by our included variables the relationship between decisions regarding timing of the first child after finishing education and the age at finishing education may also be affected by unobserved heterogeneity. James Heckman and James Walker (1990) distinguish between two different types of unobservables: those known to the interviewed person in the survey and unknown to the analyst, and those unknown to both. If unobservable characteristics are correlated with the observables, then not including an estimate of the unobservables will lead to incorrect inference regarding the impact of observables on the timing of events and to problems of identification.

There are a number of ways of extending duration models to account for heterogeneity A direct approach is to model heterogeneity in the parametric model by divining the survival function conditioned on the individual specific effects, assign to this model a term for the unobserved heterogeneity. This is the same principle as incorporating a disturbance term in a regression model. We use a Gamma distribution for the unobserved heterogeneity. Thus the model can be rewritten as

$$h(t) = p(\lambda t^{p-1})[S(t)]^{\theta},$$

where θ is a parameter for unobserved heterogeneity with θ=0 being the case of no unobserved heterogeneity.

Although we may have solved some of the econometric mistakes by our choice of a two separate analysis of the age at finishing education and the time since finishing education till first birth and the use of the parametric Weibull model that controls for unobserved heterogeneity, we have probably at least two sources of possible bias. First, the way that the data are collected and our own selection of data used may introduce a selection bias. We had selected our data so that firstly we could analyze the effects of the employer situation on the timing of the first child. Secondly, we wish to compare our analysis across countries. In our case, the larger the differences in age at finishing education and time since finishing education till parenthood for cased included in our study, and those not included, the larger is the potential selection bias. In the appendix to this paper, we show how our analysis is affected by the selection of having the first child in the survey compared with having a child earlier than the survey year (in both cases the first child is born while working for the current employer). Another reason for biased estimates is that if we do not account for all variables likely to influence the decisions, there may be an omitted variable bias. Using a sample consisting only

of woman in couples with employment information at the time of birth allows using information about the employment, which if not used in the estimations may have resulted in an omitted variables bias. The result is that one must choose which bias is more acceptable. Furthermore we present a basic model and a model with a more extended set of variables, which may show some effects of how omitted variables may bias our estimates. Our explanatory models of the duration since leaving education and since the age of 15, will start with a specification that only includes information that was available when the decision to become a parent was made. Next, we extend our models with information that describes the situation at the year of survey (and therefore not necessarily before the child is born) such as whether the contract is permanent, the hourly wage, reaching the top of the wage grade, worries about own pension, whether the job is frequently regarded as boring, promotion, good career opportunities, and whether the job has become more interesting in the last year. The extended models will be interpreted with caution since they might be affected by the birth of the child. In our report of the results of these extended models we will also comment on the results of our models when we selected only women and men having their first child while working with their current employer in the year of survey. In this situation, the information at the time of survey applies to the situation at having the child. Selection of parents having their first child during the year of survey may cause other problems of selection of participation in the survey.

Since our data consist of women and men in paid work we would expect to find the duration till entry into first parenthood to be more selected if women compared with men are more restricted in combining paid work and parenthood or prefer to make a choice between motherhood and a paid career. Since we do not restrict our sample to full-time work but working at least one hour per week, we may also expect the choice for paid career and motherhood more in Spain with fewer opportunities to work part-time and more difficulties in finding a permanent job then in the Netherlands where part-time jobs are common and widespread covering different occupations. However, the age at finishing different education levels may differ per country and for men and women.

Our research strategy is firstly, to estimate an explanatory model of age at finishing education to test our hypothesis 3) that includes the education level, the region of birth (to control for constraints such as leaving the parental home to pursue an education which is less likely when born in a city with all educational opportunities), starting salaried employment before finishing education, the number of years in salaried employment before finishing education, having a migrant background and age at immigration. We control for the birth cohort. Secondly, we estimate explanatory models of time since finishing education till entering first parenthood, and the time since age 15 and entering parenthood including three

groups of covariates: personal characteristics, household characteristics and labour market characteristics. Table 1 describe the variables in each group and we will discuss the data further in the following section.

5 The Data and Variables

5.1 Data

Our analysis uses data from the Wage Indicator Survey (WI). Since 2004, this has interviewed on a voluntary basis individuals on a wide range of subjects including basic demographics, household composition and circumstances, employment status and recent employment history, job characteristics if employed, income from all sources and so on. Currently three years of data are available, covering the period 2004-2006. We restrict our analysis to women aged between 15 and 45 (inclusive), who report being in paid work as their main status. We select only people who were full respondents. We focus only on employees, because the inclusion of self-employed workers in our data is problematic for several reasons.[13]

Furthermore, we select married men and women living in one household since we are interested in the timing of the first child for men and women who matched in couples. For the purpose of using information on the employer conditions in which the decision for parenthood is made, we make a selection of women and men who had their first child while working for their current employer and became parents (in the survey year).[14] The proportion of men and women entering parenthood while working with their current employer is fairly similar across the countries around 21% for women and 37% for men.

Some of the relevant information is only available in the year of survey (such as the current wage) and may therefore be affected by the event of entering parenthood. In some cases we use this information, which we then interpret with caution. However, in some cases we have to trade-off the risk of the parent suffering from demotion or being assigned to another job while working with the current employer, or having changed their household organisation because of the event of becoming a parent, with not using some specific relevant information and its impact on the testing of our hypotheses. Selection based on these criteria and selecting respondents born between 1960 and 1990 (inclusive) (and dropping observations with missing information) results in observations on 3,691 Dutch women, 3,332 Dutch men, 1,061 Spanish women, and 1,649 Spanish men.

Table 1 gives the definitions of our dependent and independent variables. Tables 2.A-2.B show a summary of means and standard deviations for dependent and independent variables for all women and men in the Netherlands and Spain.

5.1.1 Dependent Variables

Our first dependent variable is age at finishing education. Spanish men and women are on average 1-1.5 years older at finishing education (NL: women: 21.5 years; men: 21.9 years; ES: women 23.1 years; men 23.0 years). There are no gender differences in the average age at finishing education in the Netherlands and Spain.

Our second dependent variable is the time since finishing education till birth of the first child. *Table 2.A* the duration in years from finishing education till first birth was 8 years for Dutch and Spanish women and 9 years for men in the Netherlands and Spain. This figure for women is in line with the average time since education in the Netherlands, Germany, Sweden, and the UK found in Gustafsson, Kenjoh and Wetzels (2002) using micro economic household panel data.

Our third dependent variable is the time since age 15 till first pregnancy. Tables 2.A-2.B indicate that currently women are two years older in Spain at first parenthood and men are one year older at first fatherhood in Spain than in the Netherlands. Women and men having their first child while working with their current employer, leaves 462 Spanish women having their first child on average at the age of 31.1 and 1,124 Spanish men becoming on average father at the age of 31.7. 1,866 Dutch women had their first child while working with their current employer and their age at first birth is 29.2, and men becoming a father while working for their current employer on an average age of 30.9.

5.1.2 Independent variables

The description of our independent variables focuses on the variables that are less common in this research area and that are crucial in our analyses. Furthermore, the Tables 2A-B show that a number of variables show very similar means in the Netherlands and Spain such as 1) distribution across birth cohorts, 2) the time since finishing education, 3) tenure with current employer (four years), and 4) the proportions of men and women owning their house (73%). In addition, gender differences in the two countries are shown by women being proportionately less responsible for household income (in NL: 33% of women; 74% of men; in ES: 29% of women; 73% of men), and men having reached the top of their wage grade to a higher extent (26% for Spanish men as compared to 23% for Spanish women; 18% of Dutch men as compared to 13% of Dutch women). Furthermore, proportionately more men are employed in permanent contracts compared to women in Spain (75% of women; 88% of men) but not in the Netherlands (84% of women; 77% of men).

Moreover, our data show also some clear differences in means across countries such as variables on the labour market position and our variables on gender equality in practice at the workplace and at home. Firstly, labour market conditions are worse in Spain than in the

Netherlands. Compared to Dutch women, more Spanish women are overqualified for their position (41% vs. 22%), less Spanish women are under qualified (5% vs.11%), more Spanish women have invested in additional qualifications (79% vs.59%), more Spanish women reached the top of their grade (23% vs.13%), less Spanish women have a permanent employment contract, more Spanish find their job frequently boring (rates between 1-5: 2.7 vs.2.5), less Spanish women find that their job has become more interesting during the last year (rated between 1-5: 2.7 vs. 3.5) and less Spanish women think that their job has good career opportunities (20% vs. 45%), and Spanish women are promoted to a lesser extent (33% vs. 42%). Our data in Table 1 show a similar trend for Spanish men compared to Dutch men.

Secondly, proportionately more women and men in the Netherlands work in gender biased departments which is most likely related to the distribution across sectors. Furthermore, more Spanish households in our data make use of paid for domestic help (20%) than Dutch households (14%), but Spanish households also indicate to have more often arguments at home on division of housework than Dutch (28% of Spanish women and 22% of Spanish men; vs. 15% of Dutch women and 10% of Dutch men). Table 1.f in the Appendix 1 shows that Spanish women in paid employment work more hours per week for pay on average compared to Dutch women, and Spanish men contribute on average far less proportionately to domestic labour. This may explain the country differences in average proportions of having arguments on division of housework.

Our independent variables in the model to explain the age at finishing education, duration since education till entry of parenthood, and the age at parenthood concern three groups of covariates: personal characteristics, household characteristics and employment characteristics. In Table 3 we summarize our hypotheses and the crucial variables that we use to test them.

To test our hypothesis 3 we make use of the information on the highest education level that is attained with certificate in the national specific education. This level is recoded into the worldwide International Standard Classification of Education (ISCED) classification, which was designed by UNESCO, known as ISCED 1997. Appendix Table 2 shows the recoding in the Netherlands and Spain. The base category in our analysis is the lowest level, which includes only basic education, all education up to high school. Secondly we use information on the region of birth, which is coded according to the NUTS classification. A region has a numerical code composed of the three digit numerical ISO code, a follow up number and the numerical part of the NUTS code. We include as variables the city or region where we had proportionately most observations. Tables 2.A-2.B show that the spread of region of birth is more concentrated in Spain (18% of women; 15% of men in Madrid) compared to the Netherlands (5% (women and men) in Amsterdam). Similarly, information

on the region of work has been coded, and this information is used as controls in the models testing hypotheses 1, 2, and 4-6. In both countries more people work in the capital (region) than the proportion born in this region revealing migration patterns related to labour market opportunities (21% of women, 19% of men in Madrid; 6% of men and women in Amsterdam).

[Insert Table 3 about here]

To test our hypothesis 1b specifically, and as control variable in the testing of all other hypothesis except for hypothesis 3, we use information on the industry of employment. Industries are coded following the NACE classification, which is firmly standardized by Eurostat. We use the 1-digit code and distinguish between commercial services, public sector, health and education and our base category consists of agriculture, manufacturing, construction, trade, transport and hospitality. A comparison of our data between the countries shows that the distribution across these industry levels are fairly similar, with the exception of women employed in the health care sector (23% of the women in our Dutch data, compared to 7% of the women in our Spanish data).

To test our hypothesis 6, we define an immigrant background by combining the information on country of birth and parents' countries birth. Table 1 shows the categories of immigrant background that we distinguish. Tables 2.A-2.B show that the proportion of women who are either themselves born abroad, or have one or more parent born abroad, and we define the categories with missing information on parents' country of birth. The proportion of women who are not born in the Netherlands or have at least one parent not born in the Netherlands is 13%. For men in the Netherlands the figure is 11%, whereas in Spain both the proportion of women and men with a migrant background (not born themselves or at least one parent not born in Spain) is 8%. The proportion of foreign-born women with her parents born abroad is 3% in the Netherlands and Spain, and 2% for men in the Netherlands and 3% in Spain. Furthermore, in the Netherlands about half of all immigrants in our data were born in the Netherlands with a Dutch father and a non-Dutch born mother, whereas in Spain this proportion is only one fourth of all immigrants. In Spain we have slightly more 1st generation immigrants with Spanish born parents (3%). We categorize the age at which men and women immigrated to the Netherlands and Spain.

All other variables are quite straightforward. Further details on the definitions and type of variable are presented in Table 1 and the means in Tables 2A-B.

6 Results from Parametric Duration Analysis

Tables 4-6 show parametric duration analyses of the determinants of 1) the age at finishing education, 2) the duration since finishing education till having the first child, and 3) the duration since age 15 till having the first child. For 1) and 3) we use Cox proportionate hazard models and for 2) we use a parametric duration model with Weibul distribution and gamma frailty. All models control for birth cohort.

6.1 Age at finishing education

Firstly, Tables 4.A-4.B present the models explaining the age at finishing education to test hypothesis 3. Controlled for birth cohort, education level, immigrant background, starting gainful employment before finishing education, and region of birth, Dutch men finish their education later than Dutch women and no such gender effect is found in Spain. Comparing our models by gender in the Netherlands, we find that women's age at finishing education is more affected by the level of education than men, especially by obtained ISCED levels 3 and 4 women are later at completion. In Spain the opposite holds especially for ISCED levels 5 and 6. As expected from restrictions of leaving the parental home due to financial and housing market constraints in Spain but less in the Netherlands, the region of birth has less effect on Dutch men and women's age at finishing education compared with Spanish men and women's education. We only find an effect of finishing education later among women born in Amsterdam, and finishing education earlier for women born in GrootRijnmond. In Spain being born in Madrid, Barcelona or the region Catalonia leads to finishing education at an earlier age both for women and men, which shows that being born in an area with ample educational opportunities speeds up finishing education and even more so for Spanish women born in Madrid, Barcelona or Catalonia, whereas the age at finishing education is later for men and women born in Asturia.

Starting the first salaried job before finishing education leads Dutch women to complete education at a younger age whereas this leads Spanish women to be older at finishing education. There are no effects for Dutch and Spanish men of having had a job before finishing education. However, the age at starting salaried employment before finishing education leads to an older age at finishing education for Dutch and Spanish men and women giving support to h.3, but most for Dutch women followed by Dutch men and less for Spanish men and women (who do not differ much).

In the model explaining the age at finishing education we include a more detailed immigrant background in the Netherlands than in Spain.[15] In both countries we find that first generation immigrants finish their education at a later age, but that the age at immigration has a different effect in the Netherlands, where only immigrating as a very young child leads to

finishing education at a younger age whereas in Spain immigrating at the age between 16 and 23 leads to finishing education at an earlier age (probably in the country of origin). We find that the effects of immigration are not significant for Spanish women. In the Netherlands, women born abroad with a Dutch born father and a mother not born in the Netherlands, and women born in the Netherlands with a Dutch born mother and a father not born in the Netherlands finish education at a later age. Both Spanish and Dutch first generation immigrant men finish education at a later age, but in the Netherlands, also foreign born men, with Dutch born parents, or with one parent Dutch born finish their education at a later age (where a Dutch born father has the most delaying effect on finishing education compared with immigrant men with a mother Dutch born). Moreover, men born in the Netherlands with a Dutch born mother are later when finishing education. Immigrating to the Netherlands at the age between 0-3 and 4-15 leads Dutch men to complete education at a younger age compared to immigrating at an older age, whereas in Spain immigration at the between 4-15 and 16-23 leads to finishing education at a younger age. This indicates that immigrants choose for shorter duration of education (lower level of education).

To conclude, we find on average a higher age at finishing education in Spain than in the Netherlands, we find support for hypothesis 3 that there are different determinants of age at finishing school in the Netherlands and Spain, and there are gender differences. Next, we turn our analysis to, whether the age at finishing education affects the time since finishing education and the age since 15, and whether the other hypothesized determinants of the timing of parenthood are supported by our data.

6.2 Time since education till entry into parenthood

Secondly, Tables 5.A-5.B show the results of the hypothesized effects of the age at finishing education and the labour market on the timing since finishing education till becoming a parent for the first time (hypotheses 4 and 5).

6.2.1 Age at finishing education

We control for the birth cohorts. First, we estimate a simple model using the information on the current employer. The effect of the age at finishing education on the time from finishing education till entering parenthood supports the hypothesis 4.a and not 4.b that the biological fecundity limits lead to earlier parenthood after a longer education for women and men (who are affected by their wife's biological limits of giving birth to healthy children) in both countries or due to more opportunities in the labour market for highly educated. The estimates show similarities between Dutch and Spanish women that women finishing education older than 25 clearly the quickest at entering parenthood after finishing education followed by the next younger age at finishing followed by the next younger age at finishing education

compared to the base category which is completing education at age 20 or before. This confirms that that biological constraints are the cause of this effect, unless the time to find a secure job is exactly shorter for each age category at finishing education.

6.2.2 Labour market and employment conditions

We find support for hypothesis 5.b but not for 5.a: obtaining further qualification leads Dutch women but not Dutch men to a longer time after finishing education. In Spain, further qualifications leads to an earlier time after finishing education.

We find support for the hypothesis 5.c that over qualification leads to postponement of parenthood after finishing education till having the first child for Dutch women and Spanish men. There is no effect of under-qualification found.

We also find that the time between finishing education and finding a job leads to a longer time from finishing education till entering parenthood with the exception of Spanish women whose time from education till parenthood is not affected by the time needed to find a job after finishing education. This later finding may fit with the results of De la Rica and Iza (2005) that for women the type of contract does not seem to effect on their chances on the marriage market.

Next, we extend our models with information on the job in the survey year, such as tenure with employer, reaching the top of the grade, permanent contract, gross hourly wage, paid domestic help, having often arguments on household tasks, and being the main responsible person for earning the household income. [16] We experimented with including information such as job is boring, job has become more interesting, and net household income, however the correlations between these variables needs more analysis.

Adding tenure with current employer and its square reveals that longer tenure with employer leads women and men in the Netherlands and Spanish men to have their first child earlier after finishing education. In contrast, the effect for Spanish women is that a longer tenure has a negative effect on the probability of having the child sooner. Extending the model with the variable "reaching the top of the grade (wage)" leads Dutch women and men to have the first child earlier after finishing education giving support for the hypothesis 5.b that when the financial incentive/career motive is gone, all else equal, parenthood will start earlier, whereas no such effect is found in Spain. Adding a permanent contract leads to earlier entry into parenthood after finishing education for men and women in the Netherlands and in Spain affects the effect of tenure on time till parenthood after education.[17]

6.2.3 Immigration

All our estimation models (Tables 2A, 2B, 3A, 3B) included information on the immigrant background. In these models the effects of having an immigrant background is to be interpreted as being independent of the labour market variables and the "gender equality in practice variables". Actually, the results for immigrant background do not change after including labour market information and gender information.

Considering that the number of observations on immigrants in our data is quite low, we still think that our result contribute to our understanding of the independent effect of having an immigrant background on the timing of parenthood. In the Netherlands and in Spain, controlled for age at immigration, first generation migrant women wait longer after finishing education than native women, which gives support to hypothesis 6.b. First generation migrant women with one parent Dutch born wait even longer than first generation immigrant women in the Netherlands with both parents born abroad. If first generation women arrive at the age between 16-23 in the Netherlands they are sooner at entering parenthood compared with immigrant women arriving when they are between 0-15 years old and then they immigrated at age 24 or older. In Spain women arriving at the age between 16-23 are sooner compared to first generation migrant women arriving when they are 24 or older. For immigrant men in the Netherlands and in Spain we do not find any effect on the time between leaving education and becoming a father.

Extending the model specification with labour market characteristics does not change our results on the effect of being a migrant on the timing of parenthood. However, extending the model with information on house ownership makes the effects of first generation migrant women in Spain insignificant whereas the first generation immigrant men in Spain show earlier entry into fatherhood compared to native Spanish men. In contrast, in the Netherlands, extending the model with house ownership does not change the results.

We started our model on immigrants by only including immigration variables in the duration models on timing since finishing education. First generation Spanish men were more likely to enter parenthood earlier than native Spanish men, whereas first generation immigrants with Spanish born parents were more likely to become parents later after finishing education compared with native Spanish men. An immigrant background seemed to affect women only if they arrived in Spain at the age between 16-23, which related to being more likely to become a mother earlier after finishing education. Next, this model was extended with the age at finishing education and showed that, controlled for the age at finishing education, first generation Spanish women were more likely to become a parent earlier after finishing education, and only Spanish first generation migrant men with Spanish born parents were significantly later at entering parenthood. Then we included instead of five broader

categories of age at finishing education ten detailed categories of age at finishing education. This later model revealed that controlled for detailed age at finishing education also second generation migrant men with mixed Spanish-non Spanish born parents enter fatherhood later after finishing education. Next, we added information whether the house is owned and this led to take away the effects on timing of parenthood of being a first generation migrant for men and women in Spain. However, second generation women with mixed Spanish-non-Spanish parents were more likely to become mothers sooner. In contrast, in the Netherlands, the effects of having an immigrant background remained stable from the simplest specification to the more extended model.

6.2.4 Gender equality

The extensions of the models presented in Tables 6.A-6.B estimate the effects that we expected from living in gender equal environments: at the work place and at home (as in hypotheses 1 and 2). The effect of "colleagues in the same position are male" confirm hypothesis 1.a reading that Dutch women in male departments will postpone motherhood after finishing education, whereas for men there is no significant effect. In Spain, we do not find significant effects of a work place where colleagues in similar positions are men, but the signs point in similar directions as in the Netherlands.

The results of the analysis of Dutch men's timing at parenthood supports the hypothesis 1.b that starting a family is likely to occur earlier in sectors that offer more stable jobs and more generous leave arrangements and work arrangements for parents, such as the public administration in the Netherlands. This was also found for Dutch women, and Dutch women have their first child shorter after leaving education if they work as financial intermediaries, in education or in health as compared to work in manufacturing, transport etc. In Spain we do not find a significant effect of the sector of employment on the time between finishing education and starting a family.[18]

Extensions of the model with survey information

To test our other hypotheses on the effects of "gender equality" on postponing parenthood we extend our models with information applying to the date of survey. The extended models in Tables 5.A-5B show that having paid domestic help leads to entering parenthood earlier in Spain and brings therefore no support to hypothesis 2.a. However, for Spanish men having arguments on division of household tasks shows a delaying effect on becoming a father supporting hypothesis 2.a indirectly.

To test hypothesis 2.b, we estimated the effects of the partner's principal activity on the time since finishing education and the time since age 15 in the Netherlands (in Spain this question on partner's principal activity was asked only recently and therefore we do not have

enough data yet). Based on our estimations, it seems that Dutch women behave along traditional values. For Dutch women, a partner having a permanent contract (and owning the house) leads her to have the first child earlier since the age of 15 and earlier since leaving education. On the other hand, Dutch men seem to behave in a more non-traditional way: they become fathers at a later age when their partner is employed, and even later when the partner has a fixed term contract as compared with a permanent contract.

Dutch women also do not enter motherhood earlier when they are the main responsible earner of the household as Spanish women, which is what traditionally men do, and still do, as our data reveal that Dutch men as Spanish men become a father at a younger age when they are mainly responsible for the household income (and when the house is owned).

No specific significant effects found of worries on pension in the extended models. Therefore, we find no support for hypotheses 2.c.

Control variables

Working in Amsterdam or in Noord-Holland has a delaying effect on parenthood. Regional effects are only revealed for Spanish women working in Barcelona (earlier maternity after finishing education) and for men working in Madrid: they become father at a later age.

6.3 Time till parenthood since age 15.

The analyses of the time since age 15 till parenthood uses similar specifications as 2). We find that in Spain waiting since age 15 till parenthood is longer when women work in education, whereas we find in the Netherlands that women become mothers at a younger age when working in health care, in financial intermediaries, in education, in sales, in public administration and real estate compared to the base sector: manufacturing, transport etc. As opposed to Spain where sector of employment does not affect men's age at parenthood, we find that Dutch men age at parenthood is younger when working in public administration, and older when working in real estate.

For women owning the house affects having a child at an earlier age. We find that men who are mainly responsible for the household income give birth a younger age, owning the house also leads to earlier fatherhood, but a higher hourly wage delays fatherhood (career hunter?). Men working in Madrid or Catalonia are later at entry of parenthood.

Table 7: Summary of hypotheses and findings

Hypotheses	Findings~
1.a) Working in a department where colleagues in similar positions are male leads men to have children earlier, and women to have children later, and even more so in the Netherlands;	H1.a:confirmed in the NL for women; in Spain no effect found. H1.b: confirmed for women and men in NL
1.b) Women and men employed in public administration in the Netherlands start parenthood at an earlier age.	
2.a) Buying housework services leads married men and women to postpone children compared with men and women who do not buy housework services;	2.a) only confirmed for Dutch men, effects disappears if data restricted to children born in survey year, however, then, having arguments about household tasks affects the timing of fatherhood negative. The opposite of the hypothesized effect is found for men and women
2.b) Married men whose wife is employed postpone having children and even more so when the wife has a fixed term contract, compared to men whose wife is not in paid work; Married women having a permanent position with a husband who is not employed or in a fixed term position enter parenthood earlier;	2.b) confirmed for Dutch men;
2.c) Married women who worry about their own pension delay parenthood.	2.c) no support in extended models. Several specifications have been experimented with. Models including worries about pension were not significant in Spain. In the Netherlands models including children born before the survey did show significant effects, and further analysis would require to analyse in depth whether pension worries indeed start after the birth of the child (and so for Dutch women when they have reduced work hours or had a career break). We decided from this preliminary analysis that including worries about pension is not determining the timing of parenthood. Being the main responsible for household income leads women to postpone and men to have children earlier in the Netherlands and Spain.
3. The age at finishing education is higher if the region of birth offers proportionately fewer educational opportunities *and even more for women*, when gainful employment precedes finishing education and the earlier the start in gainful employment before finishing education the later the age at finishing education.	3. confirmed
Women and men finishing education at a later age enter parenthood 4.a) earlier after finishing education due to women's biological fecundity restrictions or because of better opportunities for more	4) confirmed in the Netherlands and Spain In Spain results for women differ between data on having child in survey and having child before survey (both data on having child while with current employer)

recently and probably higher educated; whereas 4.b) later if finishing education is a signal of career ambitions	
5.a) Labour market conditions that increase autonomy lead to earlier parenthood if a wish for children is not competing with other preferences that cost time and money. 5.b) Given a financial budget restraint, a job which matches your qualifications, obtaining additional qualifications, and job promotion increase preferences for spending less time with children and therefore leads to postponement, whereas a job with less potential and less fit to qualifications is likely to lead to earlier parenthood.	Results come from various specifications. Described in the paper are results from including permanent contract, hourly wage and wage top. 5.a) *permanent contract* leads to earlier timing of parenthood in NL and ES; *hourly wage* leads to earlier motherhood for children in survey in NL (when other variables such as wage top, permanent job are exluded); *Promotion* in job: leads to earlier fatherhood in NL and ES; 5.b) *Reaching top of wage grade* leads to earlier parenthood in NL A job that has become more *interesting* in last year leads to earlier motherhood in NL (also for child in survey); A job *with career perspective* leads to later fatherhood in NL and later motherhood in ES if child born in survey;
Migrants to the Netherlands and Spain: 6.a) moved to a low-fertility regime from countries that earlier on had a tradition of higher fertility and are earlier at entry of parenthood all else equal; 6.b) faced time and money costs related to their immigration and this leads to later parenthood; This is very likely reinforced by more difficult labour market situation of migrants compared to non-migrants.	6.a) confirmed in NL and ES: immigrating at teenage leads to earlier motherhood; 6b) controlled for age at immigration later parenthood (especially motherhood in NL and ES) compared with men and women born in NL/ES with parents born in NL/ES.

~Findings from Cox proportionate hazard models.

7 Discussion and Conclusion

In this paper, we analyze empirically the potential influence of living (in the workplace and at home) in more gender equal environments, employment conditions, and immigration on the timing of parenthood of married men and women in a European context. Though a number of existing studies have indicated that attitudes towards gender equality and post-modern fertility preferences, women's investment in labour market capital, and insecurity of the economic environment have explanatory power as regards the postponement of having the first child in life in the industrialised world, few studies compared cross country married men and women in their choice for the timing of becoming a parent. In addition, little empirical work has been conducted which also includes the influence of migration especially on the timing of fatherhood. This paper addresses these issues in the European context by including data with more specific information cross nationally from the Netherlands and Spain than any other

study. Specifically, we compare the probability that married men and women will choose to become a parent now or still wait or even refrain from children and analysed six hypotheses: one analysed the age at finishing education; one analysed the effect of age at finishing education on the time since education till becoming a parent; two hypotheses analysed specific employment conditions and two hypotheses analysed specific effects of gender equality in practice at the workplace and at home. In order to analyse these additional dimensions, we utilize data on married women and man becoming parent of the first child or still wait while working with their current employer.

Our hypothesis on age at finishing education was confirmed. Controlled for the level of education, being born in a region with ample educational opportunities leads to a younger age at finishing education in Spain, and starting salaried employment leads women and men in the Netherlands and Spain to finishing education later.

Our results also confirmed the hypothesis that the country contexts of the NL & Spain, the choice for parenthood by women and men after finishing education is significantly influenced by an older age at finishing education (earlier, also controlled for the level of education). Although our results confirmed the previous findings that a permanent contract is associated with earlier parenthood, we also register some clear country differences. The rate at which parenthood is induced by a permanent contract is much higher for Dutch women than for Spanish women. This applies similarly for Dutch men becoming father sooner than Spanish men if they have a permanent contract. Furthermore, the choice for parenthood is made earlier in the Netherlands when the top of the wage grade is reached. No such effect was found in Spain.

Women in Spain tend to invest more in schooling, stay longer in school and may encounter more difficulties finding a job after completing schooling than women in the Netherlands and as compared to men in Spain. But the Spanish women who enter the labour market later, may be additionally motivated to earn a living. We found that Spanish women not only finish schooling at a later age, but also that a higher proportion has gained additional qualifications, and that both the age at finishing education and obtaining additional qualifications have much stronger effects on the timing of maternity since finishing education than it has for Dutch women. The age at finishing education leads to stronger inducement of earlier motherhood after finishing education and obtaining additional qualifications leads to stronger postponement after finishing education in Spain compared to the Netherlands. We also find stronger effects of delaying motherhood for first generation migrants with foreign-born parents in Spain compared to women with a similar immigrant background in the Netherlands.

As regards our hypotheses on living in gender equal environments on the timing of parenthood, we found that living in gender equal environments seems to affect Dutch men's timing of becoming a father to be later as we expected of having non-traditional values (buying housework services, and having a partner in employment and more so a partner with a fixed term contract is associated with Dutch men to become fathers later). Also, working in public administration has an effect of earlier fatherhood, probably indicating that these men have a positive value of being a father earlier after finishing school. For Spanish men we only found the effect of having arguments on the division of household tasks leading to the postponement of fatherhood. The effect of paid domestic help was associated with becoming a parent sooner in Spain, whereas we found the opposite in the Netherlands. However, Dutch women did not show to be affected by non-traditional values as approximated by living in more gender equal environment. If they are the main earner they postpone motherhood (as Spanish women do), [if the department is male they postpone having children], and if their partner has a permanent contract they start motherhood sooner after finishing education.

This study includes the immigration background in the analysis of the timing of first birth in a woman's and a man's life. Controlled for age at arrival in the destination country, immigrants finish school at a later age. In addition we find that immigrant background affects the timing of parenthood, but in the Netherlands mostly motherhood (and controlled for age: the effect is later entry into motherhood). In Spain we find effects for women and men, which are opposite (later motherhood, earlier fatherhood). In Spain, extending the model takes away some effects of having an immigrant background and these correlations need further investigation.

The main contributions of this paper are threefold. By further investigating the relationship between gender equality in practice, employment status, immigration and entering parenthood for women in men in two countries with similar age at first birth, similar obligatory age for education and similar official age at finishing secondary education, flexible labour markets but different opportunities to become permanently employed we obtain insights into the conditions for entering parenthood at a certain age. In focusing our analysis on people having a first child while working with their current employer, we further flesh out what we would consider the influence of the employment conditions on the 'aspiration' for parenthood for women and men.

Secondly, we refine our analysis to further understand what leads men and women who are married to have a first child or wait and maybe refrain from children. Our results indicate that there exist a difference not only mothers but also fathers are affected by migrant background and by financial resources in their choice for parenthood. We find indications that gender differences in industry have an effect in the Netherlands, and not in Spain. We also

find that some aspects of gender equality do seem to affect the timing of parenthood, but that "gender equal environments" seem to have different effects in the Netherlands and Spain. Thirdly, we obtain differing country results and the magnitude of effects for a number of issues as regards employment conditions such as obtaining additional qualifications, having an interesting job and immigrant background. Overall, we have shown that the timing since finishing education and the timing since age 15 does not lead our results to come to different conclusions. Although we did find that industry has an effect on the timing of parenthood from age 15 and not on the time since leaving education, which leads us to think that some industries in Spain do recruit employees from specific age of finishing education.

This paper constitutes an initial exploration into the issue of the potential influences of gender equality in practice, employment conditions and immigrant background on the timing of parenthood children. Our results have indicated some interesting relationships and further research is needed in order to obtain a more comprehensive understanding of these issues. Further detailed analysis breaking down the employment status into specific sectors and categories of occupation could increase our insights into the different types of employment situation chosen and the age at entry parenthood for the first time. Moreover, further education-level specific analysis may reveal more clearly the trade-offs between investments in education and rewards in the labour market and the timing of parenthood. Furthermore, we hope that further research will cover other countries.

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9 Appendix

Appendix 1: Facts on the Netherlands and Spain: Fertility, age at motherhood, age at leaving parental home

Table A.1a. Total Fertility Rate in the Netherlands and Spain, 1960-2006.

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2006
Netherlands	3.12	3.04	2.57	1.66	1.60	1.51	1.62	1.53	1.72	1.66
Spain	…	2.95	2.88	2.79	2.20	1.64	1.36	1.18	1.24	1.28

Source: Council of Europe (2002), Recent Demographic Developments in Europe.

Table A.1.b. Completed Fertility of Women in the Netherlands and Spain, Cohorts born 1930 or after.

	1930	1935	1940	1945	1950	1955	1960	1965
Netherlands	2.67	2.49	2.22	2.00	1.89	1.87	1.85	1.77
Spain	…	…	…	2.43	2.10	1.90	1.75	1.59

Source: Council of Europe (2002), Recent Demographic Developments in Europe.
Note: Figures for 1960 and 1965 are based on estimates

Table A.1.c. Mean Age of Women at Birth of the First Child in the Netherlands and Spain, 1960-2004.

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2004
Netherlands	25.7	25.2	24.8	25.2	25.7	26.6	27.6	28.4	28.6	27.7
Spain	…	…	…	25.1	25.0	25.8	26.8	28.4	29.1	28.2

Source: Council of Europe (2002), Recent Demographic Developments in Europe. Data on 2004 (Billari, Liefbroer and Philipov 2006)

Table A.1.d. Median age at leaving home in the Netherlands and Spain (cohorts born around 1960)

	Women	Men
Netherlands	20.5	22.5
Spain	22.9	25.7

Source: Adapted from Billari, Philipov and Baizán (2001).
Primary data: Fertility and Family Surveys carried out during the early 1990s.

Table. A.1.e. Marriage and out-of-wedlock childbearing in the Netherlands and Spain

	Average age at marriage, 1991-97		% births out-of-wedlock, 1994-98
	Women	Men	
Netherlands	28	31	21
Spain	26	28	12

Source: Brien and Sheran (2003). Primary source: The World's Women 2000: Trends and Statistics.

Table A.1.f: Women's labour force status before and after the birth of the first child during (1994-2000) in the Netherlands and Spain (in percentages)

Country	Lfpbfr	Lfpyb	Lfpaft	Lfpaft2	EE	EN	NE	NN	Total
Netherlands	83.69	86.10	70.48	72.28	65.90	19.65	7.51	6.93	100.0
(n)	(331)	(259)	(315)	(267)					(173)
Spain	56.12	50.12	40.61	40.89	34.84	14.64	8.59	41.92	100.0
(n)	(335)	(415)	(362)	(269)					(198)

Source: Own calculations using ECHP 1994-2000.
Key:

Total number of respondents in brackets
Lfpbfr = Women's labor force participation rate one survey before giving birth to the first child;
Lfpyb = Women's labor force participation rate in the survey year that the first child is born;
Lfpaft = Women's labor force participation rate one survey after giving birth to the first child;
Lfpaft2 = Women's labor force participation rate two surveys after giving birth to the first child;
EE = Women who were employed both one survey before and two surveys after birth;
EN = Women who were employed one survey before birth but not two surveys after;
NE = Women who were not employed one survey before birth but employed two surveys after birth;
NN = Women who were not employed either one survey before birth or two surveys after birth.

Table A.1.g: Women's Average hours work for pay per week and % of male domestic labour to total

	Women's Weekly hours	*% male domestic labor*
Netherlands	25.2	35
Spain	36.0	12

Source: OECD 1999,UNPD 1995

Table A.1.h: Organisation of employment of couples aged 20-49 by FT/PT

♂ / ♀	EU-25	NL	ES
FT / FT	45	27	44
FT / -	29	21	43
FT / PT	19	44	9
Other	7	8	4

Table A.1.i. Share of dual participant households by education level of female partner, 2000.

% of couple households with at least one partner in work

	Low	Medium	High
E	31.2	50.2	68.9
NL	54.5	70.0	80.9

Source: Women and men reconciling work and family life, Statistics in focus, theme 3 - 9/2002

Appendix 2: Social Policies relevant for combing paid work and children in the Netherlands and Spain

Table A.2.a Maternity and Paternity leave arrangements

	Prenatal duration	Postnatal duration	Total duration	Employment period to qualify for maternity leave	Indemnification rate or level	Paternity leave	Indemnification rate or level
	weeks	Weeks	weeks	days	% of earnings	days	% of earnings
ES	-	6 (+10 shared)	16	180	100%	2 (+ up to 10 weeks if mother transfers)	100%
NL	4-6 compulsory	10-12	16	0	100%	2	100%

Source: MISSOC (2003)

Table A.2.b. Parental Leave arrangements

	Parental leave duration	Transferability	Compulsory duration and fraction ability	Part-time leave arrangements	Child age limit	Qualification conditions	Job and pension guarantees	Monthly benefit level
ES	Up to 3 years following childbirth for each parent. Also 1 h (or 2 half-hours) of breastfeeding leave each workday until the child is aged 9 months	Individual right (both can take leave at the same time); the right expires if another leave is claimed (for the 2d child e.g.)	No compulsory duration (less than 1 year may be taken); if 1 year is taken, this can be done before the child's 3rd birthday	PT leave until child aged 6 (hours reduced between 1/3 min and 1/2 max)	3	being employed	job guaranteed during 1 year of leave (tenure, social rights and participation in training courses at return)	unpaid
NL	13 times the amount of hours regularly worked per week	Individual right for each parent and for each child	Possible to split leave in 3 periods of at least 1 month; parents can go on leave together or one after the other; legally, leave can be taken over a max. period of 6 months but if there is an agreement with the employer, leave can be spread over a period >6 months	the length of leave and the number of leave days per week (with a max. of half the number of weekly working hours) are fixed in advance in agreement with employer; full-time leave is possible if employer agrees	8	private and public sector (regular waged workers employed for at least 1 full year by the same employer)	contract, seniority and pension guaranteed by some collective agreements only, especially in the social services sector	Civil servants: 70-75% paid; Private sector: only 6% of collective agreements (in 2000) pay the leave (up to 30%)

Table A.2.c Take-up rates of Parental leaves by sex according to different sources

	Female take-up	Male take-up	Average female duration of leave	Average male duration of leave	Source
ES	100%		N.a.	N.a.	http://www.childpolicyintl.org/
NL	40%	9%			Lourie (1999); http://www.childpolicyintl.org/
	25% of all parents (50% of women and 75% of men get paid while on leave)		8 months	11months (but women more hours per week)	Knijn (2003)
		take-up rates average 13% for part-time leave	The Netherlands is the only country in the EU where fathers do not take shorter leaves than mothers		Stancanelli (2003) (data 1998)
	44%	12%			NIDI (2003) (data 2000)
	49% (public sector)	12% (public sector)			

Table A.2.d. Cash benefits features in the Netherlands and Spain

	Age limit conditions	Monthly amounts	Variation with income
ES	usual: 18 years / serious infirmity: no limit	24.25 euros /child	household income ceiling to receive child benefits: 8264.28 euros per year (raised by 15% per child from the 2nd)
NL	usual: 17 years	children born since 01/1995: 0-5y: 58.11 euros each; 6-11y: 70.57 euros each 12-17y 82.02 euros born before 1995 it is according to the number of children: 1c: 82.02; 2c: 93.78; 3c: 97.36; 4c: 105.25, etc., each per child aged 12-17, 85% of each amount if aged 6-11y)	no

Source: MISSOC (2003).

Table A.2.e. Tax benefits features

	Tax unit retained	Relief for marital status	Relief for children	Relief for lone parent	Relief for childcare or education costs
ES	Spouses are taxed separately	Basic allowance of 3400 E euros UR for each spouse or individual	<25y: tax allowance of 1400 euros for 1st c, 1500 euros for 2nd c, 2220 euros for 3rd c and 2300 euros for 4th c.	The basic allowance for individual is raised to 5550 euros	Additional tax allowance of 1200 euros for each child <3y / Maternity credit (non wastable) up to 1200 euros for working females with children <3y (limited by SSC due)
NL	Tax unit is the individual but certain credits depend on joint income	no	Means-tested wastable child credit (independent of the number of children): 575 euros if joint Y <27438 euros, 365 euros if joint Y <29108 euros and 41 euros over. Combination wastable credit if presence of children under 12: 214 euros if joint Y > 4206 euros. Wasted credit can however be reported on spouse's tax due according to a certain scheme.	Wastable tax credit of 1348 euros + 4.3% of earnings (latter limited to 1348 euros)	no

Source: own calculations based on OECD (2004) and Law 46/2002 of January 18th and Agencia Tributaria (2004) for Spain.

Table A.2.f. Coverage and opening hours of childcare according to different sources

Country	Coverage		Hours	
	0-2 year olds	3-5 year olds	0-2 year olds	3-5 year olds
Spain	5% in (d)	77% in (a) (96% covered but 19% private)	7 in (a)	5 in (c) and (e)
Netherlands	2.3% in Berg-Le Clercq et al. (2002)	66% in (a) and Berg-Le Clercq et al. (2002) (100% from age of 4 at school and 1.7% of 3y in DC)	10.5 in Berg-Le Clercq et al. (2002)	5.5 in Berg-Le Clercq et al. (2002) (8h30-16h30 – 1h at lunch)

Sources: (a) Eurydice (2005), (c) TSFEPS (2002); (d) OECD (2001a); (e) Eurostat (2002);

Table A.2. g. Share of costs covered by public funds and child/staff ratio according to different sources

Country	Share of cost covered by public funds		Nbr of children per staff member	
	0-2 year olds	3-5 year olds	0-2 year olds	3-5 year olds
Spain	80% in (c), (e) and (j)	100% in (a) and (j)	13.7 in (c)	25 in (c)
Netherlands	64.5% in Berg-Le Clercq et al. (2002)	100% in (d) (*basisonderwijs*)	5 in (c) and (j)	20 in (j) (*basisschool*)

Sources: (a) Eurydice (2002), (c) TSFEPS (2002); (d) OECD (2001a); (e) Eurostat (2002); (j) The Clearinghouse on International Developments in Child, Youth and Family Policies (2003);

Appendix Table 3 Review of recent studies on the timing of maternity in the Netherlands and Spain

Author(s)	Year	Country of study	Methodology	Findings
Ahn, N. and Mira, P.	2001	Spain	Proportional hazard on marriage and first birth conditional on marriage for men	Spells of non-employment have a strong negative effect on the hazard of marriage. Part-time or temporary employment has a negative effect on the hazard of marriage. Non-employment has an indirect effect on births through the delay of marriage.
De la Rica, S. and Iza, A.	2006	Spain	Logit and hazard on marriage and first birth	Having a fixed-term rather than an indefinite labour contract delays entry into marriage for men, but not for women, but a fixed-term contract held by a woman makes her delay motherhood.
Gustafsson, S. et al.	2002	UK, Germany, Sweden, Netherlands	Cox proportional hazard on first birth	Highly educated women become mothers later in their life in all four countries, especially in the UK and the Netherlands. Small educational differences in the timing of maternity, and also find ultimate childlessness in Sweden and former East Germany.
Gustafsson, S. and Wetzels, C.	2000	West Germany, UK, Netherlands, Sweden	OLS on timing of first birth and simulations of present value of lifetime earnings loss of having the first child	First births occur later the higher the mother's and father's respective levels of education. However, there is no evidence that having husbands with high incomes encourages earlier birth. A woman with higher education gains more than a woman with lower education by a careful timing decision.
Kalwij, A.S.	2006	Netherlands	Conditional Euler equations on income growth and consumption growth	Couples save more before having a child than after, which is in line with a consumption-smoothing hypothesis. Couples with children consume less, not more than childless couples.

Appendix Table 4 Comparable educational levels

Wage Indicator Survey question: What is the highest level of education that you have attained? If you are studying now, please codify the highest level you have finished. [Obligatory] Country specific information

ISCED	age at attain[19]	NL 4	SP
0: no schooling		Lagere school niet afgemaakt	
1: primary school	12-13	lagere school	eso
	14-15		
2:lower level secondary	15-16	MAVO/VBO/ LLW	
3: upper secondary	16-17	HAVO	
4:post secondary non-tertairy	17-19	VWO	bachillerato
4	19-20	MBO	fp - ciclo corto
	20-21		fp – ciclo largo
5 1st stage tertairy:includes up to Master;	21-22	HBO	
	22-24	universiteit	universidad – ciclo corto
	25		universidad – ciclo largo
6: PdD	26	PhD	postgrado
			Encuesta de Calida de Vida en el Trabajo 2001

Table 1A Dependent variables defined

Variable	Description
Age at finishing education (years)	Continuous variable
Time since leaving education (years) since age15	Continuous variable
Age at first birth since age 15	Continuous variable
Having a child	

Table 1B Independent variables defined

	Variable	Description
Personal Characteristics		
	1. Birth Cohorts	Four Dummy variables: 1. Born between 1960-1965; 2. Born between 1965-1970; 3. Born between 1970-1975; 4. Born between 1975-1980. Base: born between 1980-1990.
	2. Regions of Birth	Six Dummy variables in Netherlands: 1. Amsterdam; 2. North Holland; 3. South Holland; 4. Utrecht; 5. Great Rijnmond; 6. East South Holland. Base: all other regions of birth. Seven Dummy variables in Spain: 1. Madrid; 2. Barcelona; 3. Cataluna; 4. Andalucia; 5. Castilla y Leon; 6. Galicia; 7. Asturia. Base: all other regions of birth
	3. Immigration background #	1. Born in NL; parents not born in NL; 2. Born in NL; one of parents not born in NL; 3. Not born in NL; parents not born in NL; 4. Not born in NL; parents not born in NL. Base: Born in NL; parents born in NL. Similar for ES
	4. Age at immigration	1. immigr. at age 0-3; 2. immigr. at age 4-15; 3. immigr, at age 16-23. Base: immigr. at age 24 or older
	5. Reason of immigration: family	1 = yes; 0 = otherwise
	6. Education (highest level of education attained)	Three Dummy variables are used: Levels of education in national system have been recoded to ISCED levels (see also Appendix 2) 3,4,5,6. Base: ISCED2.
	7. Respondent's Age at finishing education	Four Dummy variable: Respondent finished education at 1. Age 18-20; 2. Age 21-22;

			3. Age 23-24; 4. Age 25 or older. Base: age 15-17;
	8.	Entering first salaried job before finishing education	1 = yes; 0 = otherwise
	9.	Number of years that work in salaried employment started before finishing education	Continuous variable
Household Characteristics			
	1.	Mainly responsible for household income	1 = yes; 0 = otherwise
	2.	Paid domestic help	1 = yes; 0 = otherwise
	3.	Often arguments on division household tasks	1 = yes; 0 = otherwise
	4.	House is owned	1 = yes; 0 = otherwise
	5.	Grouped net household income per month	Categorical variable: 22 values: 1. less than 500 euros; 2-21: adding 250 euros f.e. 500-750; etc; 22. >5500
	6.	Partner has permanent contract	Dummy variable: 1 = partner has permanent contract; 0 = otherwise
	7.	Partner has fixed-term contract	Dummy variable: 1 = partner has fixed term contract; 0 = otherwise
	8.	Partner is self employed	Dummy variable: 1 = partner is self employed; 0 = otherwise
Labour Market Characteristics			
	1.	Respondent is under qualified for job	Respondent's opinion on being under qualified for job 1 = yes; 0 = otherwise
	2.	Respondent is overqualified for job	Respondent's opinion on being overqualified for job 1 = yes; 0 = otherwise
	3.	Respondent has gained further qualifications	1 = yes; 0 = otherwise
	4.	Number of years between finishing education and finding a job	Continuous variable
	5.	Number of years that respondent works for current employer	Continuous variable
	6.	Number of years that respondent works for current employer squared.	Continuous variable
	7.	Respondent works in private sector	1 = yes; 0 = otherwise
	8.	Respondent has permanent contract	1 = yes; 0 = otherwise
	9.	Respondent's Industry of employment:	Dummy variables: 1. Financial intermediation; 2. Whole sale and retail trade; 3. Real estate and renting; 4. Public administration and Defence; 5. Education; 6. Health and Social Work. Base: all other industries of work
	10.	Log hourly wage (gross)[20]	Continuous variable

11. Respondent reached the top of wage grade	1 = yes; 0 = otherwise
12. Respondent finds job boring	Categorical variable: Respondent finds job boring? 1 = never; 5 = daily
13. Colleagues in similar positions are men	1 = yes; 0 = otherwise
14. Respondent's opinion on: "Job has become more interesting in the past year"	1 = wholly disagree; 5 = wholly agree
15. Respondent has been promoted in current firm	1 = yes; 0 = otherwise
16. Respondent has good career opportunities	1 = yes; 0 = otherwise
17. Respondent's region of work:	Six dummy variables in NL: 1. Amsterdam; 2. North Holland; 3. South Holland; 4. Utrecht; 5. Great-Rijnmond; 6. East-South Holland; Base: all other regions of birth Seven dummy variables in Spain: 1. Madrid; 2. Barcelona; 3. Cataluna; 4. Andalucia; 5. Castilla y Leon; 6. Galacia; 7. Asturia. Base: all other regions of birth.

Key:

 # In which country were you born, and in which country were your parents born? Answers (both for the respondent and respondents' parents): The six main categories of origin countries applicable to the Netherlands were provided with the 7.th option Other country, which country? And then first continents, and countries could be chosen from a menu. The question on parents' country of birth provided an additional option to choose "not applicable". Similar questions were posed in Spain.

Table 2 Characteristics of Employed Men and Women living with a partner (Means and standard deviations) Netherlands and Spain

	Netherlands				Spain			
	Women(n = 3,691)		Men(n = 3,332)		Women(n = 1,061)		Men(n = 1,649)	
Variable*	Mean	StDv	Mean	StDv	Mean	StDv	Mean	StDv
Age at finishing education (years)	21.558	3.53	21.898	3.78	23.060	3.67	22.995	3.86
Time since leaving education (years)	8.001	5.08	9.739	5.52	8.052	4.30	9.496	5.07
Age at first birth (years) if parent	29.103	3.73	30.677	3.79	31.436	3.41	31.856	3.80
Time since age 15 (years)	14.559	4.76	16.636	4.81	16.190	4.88	18.912	5.10
Having a child (%)	0.217		0.372		0.222		0.385	
1. Personal Characteristics (%)								
Born between 1960-1965	0.047		0.120		0.050		0.130	
Born between 1965-1970	0.114		0.214		0.133		0.236	
Born between 1970-1975	0.236		0.311		0.324		0.351	
Born between 1975-1980	0.374		0.270		0.389		0.250	
Base: born between 1980-1990								
Region of birth**:								
Amsterdam/Madrid	0.047		0.048		0.179		0.151	
North Holland/Barcelona	0.030		0.031		0.069		0.063	
South Holland/Cataluna	0.039		0.036		0.080		0.085	
Utrecht/Andalucia	0.073		0.074		0.062		0.091	
Great Rijnmond/Castilla y Leon	0.056		0.053		0.053		0.051	
East South Holland/Gallicia	0.033		0.028		0.025		0.035	
./Asturia					0.029		0.025	
Born NL/ES; parents born in NL/ES	0.866		0.885		0.918		0.916	
Born NL/ES; parents not born in NL/ES	0.019		0.020		0.001		0.002	
Born NL/ES; one parent not born NL/ES	0.071		0.064		0.022		0.023	
Not born NL/ES; parents not born NL/ES	0.033		0.021		0.029		0.028	
Not born NL/ES; one parent born in NL/ES	0.012		0.009		0.030		0.031	
Base: Born NL/ES; parents born NL/ES								
Immigr. at age 0-3	0.009		0.008					
Immigr. at age 4-15	0.011		0.009					
Immigr. at age 16-23	0.011		0.004					
Immigr. at age 24+					0.028		0.029	
Reason of immigration: family	0.015		0.012	0.11	0.024	0.15	0.020	0.14
Entered emplym bfr finishing ed	0.306		0.297	0.46	0.392	0.49	0.368	0.48
Years of emplym bfr finishing ed	1.297	2.75	1.400	2.97	1.735	3.07	1.594	2.99
Period between finish ed & 1st job (yrs)	0.425	1.25	0.555	1.50	0.510	1.09	0.645	1.44
Education								
ISCED3	0.052		0.049		0.255		0.278	
ISCED4	0.387		0.380					
ISCED5	0.461		0.412		0.534		0.483	
ISCED6	0.005		0.007		0.080		0.068	
BASE: ISCED 2								
Age at finishing education:								
At age 15-17	0.105		0.114		0.062		0.079	
At age 18-20	0.300		0.264		0.162		0.177	
At age 21-22	0.218		0.196		0.163		0.136	
At age 23-24	0.199		0.190		0.308		0.265	
At age > 25	0.178		0.234		0.305		0.343	
2. Household characteristics (%)								
Main responsible for hh. income	0.333		0.738		0.286		0.734	
Paid domestic help	0.140		0.131		0.187		0.208	
Often arguments on division hh. tasks	0.154		0.097		0.275		0.218	

House is owned	0.730		0.781		0.707		0.785	
Grouped net hh. Income per month	10.924	3.83	10.609	4.04	10.037	4.66	10.250	5.00
Partner has permanent contract	0.704		0.632		♣		♣	
Partner has fixed-term contract	0.116		0.122		♣		♣	
Partner is self employed	0.088		0.034		♣		♣	
3. Labour market characteristics (%)								
I am overqualified for my job	0.216		0.162		0.410	0.49	0.326	0.47
I am under qualified for my job	0.112		0.164		0.046	0.21	0.058	0.23
Has gained further qualifications	0.591		0.707		0.787	0.41	0.728	0.44
Tenure curr. employer bfr 1st child (yrs)	3.994	3.49	5.126	4.16	4.054	3.77	5.177	4.40
Tenure curr. Empl. Bfr 1st child squared	28.132	57.12	43.596	73.08	30.624	56.83	46.135	75.35
Private sector	0.547		0.924		0.569		0.600	
Permanent contract	0.842		0.765					
Industry of work:								
Financial intermediation	0.082		0.057		0.074		0.076	
Whole sale and retail trade	0.109		0.101		0.117		0.070	
Real estate and renting	0.189		0.207		0.261		0.268	
Public administration and Defence	0.075		0.067		0.062		0.079	
Education	0.055		0.017		0.067		0.039	
Health and social work	0.227		0.045		0.080		0.029	
Base: all other industries of work								
Log hourly wage (gross)	2.550	0.40	2.706	0.42	2.132	0.54	2.381	0.59
I reached the top of my grade	0.134		0.182		0.229		0.263	
Finds job boring (1-5)	2.518		2.417		2.713		2.702	
Colleagues in similar positions are men	0.302		0.837		0.376		0.654	
Job more interesting in the past year (1-5)	3.453	1.35	3.562	1.25	2.736	1.55	2.753	1.47
Has been promoted in current firm	0.418		0.579		0.334		0.481	
Has good career opportunities	0.453		0.549		0.203		0.256	
Region of work: **								
Amsterdam/Madrid	0.062		0.057		0.213		0.188	
North Holland/Barcelona	0.022		0.027		0.084		0.072	
South Holland/Cataluna	0.013		0.020		0.075		0.083	
Utrecht/Andalucia	0.086		0.075		0.035		0.048	
Great Rijnmond/Castilla yLeon	0.060		0.054		0.023		0.026	
East South Holland/Gallicia	0.036		0.030		0.012		0.027	
./Asturia					0.018		0.020	

Source: own calculations based on Wage Indicator Survey Data 2004-2006.
*Key: * = For a description of variables please refer to Table I.*
*♣ = too few observations. ** Base: all other regions of birth/work; (1-5: 1=wholly disagree; 5=wholly agree)*

Table 3 Summary of hypotheses and key independent variables

Hypotheses (apply to women and men living with a partner who are employed and have their first child while with current employer or are still childless)	Dep. Var.	Key independent variables	survey info
1.a) Working in a department where colleagues in similar positions are male leads men to have children earlier, and women to have children later, and even more so in the Netherlands; 1.b) Women and men employed in public administration in the Netherlands start parenthood at an earlier age.	2;3	1a) Depmale 1b) Industry	
2. a) Buying housework services (paid domestic help) leads men and women to postpone children compared with men and women who do not buy housework services; 2. b) Men whose wife is employed postpone having children and even more so when the wife has a fixed term contract, compared to men whose wife is not in paid work; Women having a permanent position with a husband who is not employed or in a fixed term position enter parenthood earlier; 2. c) Women who worry about their own pension delay parenthood.	2;3	2a) Paid domestic help; arguments on division of household work 2b) Partner's labour market position; mainly responsible for household income; 2c) Worry about own pension	x
3. The age at finishing education is higher if the region of birth offers proportionately fewer educational opportunities *and even more for women*, when gainful employment precedes finishing education and the earlier the start in gainful employment before finishing education the later the age at finishing education.	1	3) Region of birth Start work before and duration	
Women and men finishing education at a later age enter parenthood 4.a) earlier after finishing education due to women's biological fecundity restrictions or because of better opportunities for more recently and probably higher educated; whereas 4.b) later if age at finishing education is a signal of career ambitions	2;3	4.A,b) Age at finish ed	
5. a) Labour market conditions that increase autonomy lead to earlier parenthood if a wish for children is not competing with other preferences that cost time and money. 5. b) Given a financial budget restraint, a job which matches your qualifications, obtaining additional qualifications, and job promotion increase preferences for spending less time with children and therefore leads to postponement, whereas a job with less potential and less fit to qualifications is likely to lead to earlier parenthood.	2;3	5.A) Permanent contract; gross hourly wage; promotion 5.B+c) Over/under qualified; additional qualification; job promotion;	5.A) X
Migrants to the Netherlands and Spain: 6.a) moved to a low-fertility regime from countries that earlier on had a tradition of higher fertility and are earlier at entry of parenthood all else equal; 6. b) faced time and money costs related to their immigration and this leads to later parenthood; This is very likely reinforced by more difficult labour market situation of migrants compared to non-migrants.	2; 3	Migrant background age at arrival	

Key: Dependent variable (dep.var.): 1. Age at finishing education; 2. Duration since finishing education till first child/survey; 3. Duration since age 15 till first child/survey;

X=yes. The information at survey date may be affected by the event of having the first child. All other variables can be relied upon as giving information on the period when the decision to become a parent was made since our data apply to the employer women and men worked with a year before they had the child till now.

Table 4: Modelling time since education till birth of the first child: Cox and choice of parameterization and choice of frailty. Comparison of model performance: loglikelihood and [AIC] (n between brackets)

	Netherlands		*Spain*		*Netherlands*		*Spain*	
					having child in survey year			
	Women (n=3691)	*Men (N=3532)*	*Women (n=1291)*	*Men (n=1914)*	*Women (n=3207)*	*Men (n=2452)*	*Women (n=1127)*	*Men (n=1445)*
Model 1								
Cox	-5767.51 [11593.0]	-8994.10 [18046.2]	-1772.33 [3606.7]	-4806.09 [9676.2]	-2201.58 [4461.2]	-2442.96 [4941.94]	-779.03 [1612.1]	1611.46 [3280.9]
Lnormal (gamma)	-1776.87 [3617.7]	-2211.9 [4493.9]	-553.10 [1176.2]	-1119.38 [2308.8]	-900.55 N.u.h [1865.1]	x	-323.29 [710.6]	-506.75 [1077.5]
Weibull (gamma)	-1755.85 [3575.7]	-2162.57 [4389.1]	-541.99 [1154.0]	-1094.64 [2259.3]	-893.09 [1850.2]	-896.47 [1856.9]	-320.77 [705.5]	-500.48 [1065.0]
Lnormal (inv.gauss)	-1777.53 [3619.0]	x	-553.10 [1176.2]	-1119.51 [2209	-900.55 N.u.h. [1865.1]	-909.91 N.u.h. [1883.8]	-323.31 [710.6]	-506.75 [1077.5]
Weibull	x	x	-544.76	-1115.77	x	x	x	x
Model 4 (A)								
Cox	-5545.11 [11160.2]	-8653.92 [17378.2]	-1772.33 [3606.7]	-4806.09 [9676.2]	-2118.88 [4307.8]	-2339.16 [4748.3]	-719.95 [1507.9]	-1523.22 [3116.4]
Lnormal (gamma)	-1677.61 [3431.2]	-2067.66 N.u.h [4211.3]	-553.10 [1176.2]	-1119.38 [2308.8]	-854.93 N.u.h [1785.9]	-854.60 [1785.2]	-298.03 [672.1]	-465.38 [1006.8]
Weibull (gamma)	-1658.11 [3392.2]	-2023.6 [4123]	-541.99 [1154.0]	-1094.64 [2259.3]	-846.45 [1768.9]	-845.01 [1766.0]	-292.54 [6611]	-455.55 [987.1]
Lnormal (inv.gauss)	-1677.89 [3431.8]	-2067.66 N.u.h. [4211.3]	-553.10 [1176.2]	-1119.51 [2309.0]	-854.8.3 N.u.h. [1785.9]	-854.60 [1785.2]	-298.04 N.u.h. [672.1]	-465.38 N.u.h. [1006.8]
Weibull (inv.gauss)	X	x	-544.76 Unobs H.	-1115.77 Unobs H.	x	x	x	x

Key: Model 1 includes variables that apply to employer situation and have not changed while working for employer and therefore characterize the situation before the first child is born.

Model 4(A) includes in addition to Model 1: overqualified for job; under qualified for job; obtained additional qualifications; most colleagues in similar positions are male; I reached the top of my grade (wage); permanent contract; gross hourly wage; main responsible for household income; paid domestic help;

Model 4(B) extends Model 4 (A) with household and employment characteristics that may have changed while working with the employer and while having a child. In Spain, the data on the household situation as regards paid domestic help and the variables concerning the labour market position of the partner have not been collected during the entire period. Therefore the number of observations is lower than in Model 1. In the Netherlands we have sufficient observations to select women and men having their first child in the survey year and we evaluate the model for the selected sample to rule out the effects caused by the child or change in household and employer situation. In Spain, selecting the number of men and women having their first child in the survey year reduces the sample a lot proportionately.

AIC= AKAIKE information criterion. Although the best fitting model is the one with the largest log likelihood, the preferred model is the one with the smallest AIC value. AIC= -2(log likelihood)+ 2(c+p+1) where c is the number of model covariates and p is the number of parameters for: 1) Exponential accelerated failure time (AFT): $\lambda j = \exp(-\rho x_j \beta)$;2) Weibull (AFT): $\lambda j = \exp(-\rho x_j \beta)$;3) lognormal (AFT): $\mu_j = x_j \beta$

Unobs.h: unobserved heterogeneity. N.u.h. no unobserved heterogeneity.

X= model is not concave.

Table 4.A Determinants of time till finishing education. Estimates from a Cox proportional Hazard Model of Time since age 12.

The Netherlands, Women and Men aged 15-45.

Independent Variables*	Total		Women			Men		
	HazR	Std. Err.	HazR	Std. Err.	Z-value	HazR	Std.Err.	Z-value
Born between 1960-1965	0.505	0.03	0.536	0.07	-4.93	0.503	0.04	-8.84
Born between 1965-1970	0.427	0.02	0.407	0.03	-12.84	0.439	0.03	-13.65
Born between 1970-1975	0.424	0.01	0.397	0.02	-19.58	0.446	0.02	-15.47
Born between 1975-1980	0.541	0.01	0.524	0.02	-19.19	0.549	0.03	-12.04
Born in NL; parents not born in NL	0.961	0.06	1.047	0.09	0.52	0.878	0.08	-1.37
Born in NL; one parent not born in NL	0.896	0.07	0.886	0.10	-1.06	0.904	0.06	-1.62
Not born in NL; parents not born in NL	0.625	0.11	0.840	0.14	-1.05	0.456	0.13	-2.77
Not born in NL; one parent born in NL	0.816	0.15	1.118	0.19	0.64	0.558	0.17	-1.92
Born in NL; father born in NL, missing info on mother	0.731	0.16	0.952	0.23	-0.2	0.521	0.18	-1.85
Not born in NL	0.502	0.10	0.510	0.13	-2.63	0.465	0.13	-2.72
Born in NL	0.625	0.04	0.570	0.04	-7.76	0.597	0.04	-7.24
Immigr. at age 0-3	1.500	0.29	1.325	0.25	1.48	1.834	0.56	1.99
Immigr. at age 4-15	1.216	0.23	0.885	0.17	-0.62	1.671	0.48	1.79
Immigr. at age 16-23	1.253	0.25	0.946	0.18	-0.28	1.771	0.62	1.64
Paid job before finishing education	1.034	0.04	1.121	0.05	2.63	0.972	0.05	-0.52
Years of paid job before finishing edu.	0.832	0.01	0.821	0.01	-18.39	0.834	0.01	-18.3
ISCED3	0.659	0.06	0.628	0.08	-3.44	0.697	0.07	-3.76
ISCED4	0.341	0.02	0.315	0.04	-9.68	0.361	0.03	-12.8
ISCED5	0.119	0.01	0.111	0.01	-16.56	0.122	0.01	-22.89
ISCED6	0.070	0.01	0.060	0.01	-15.56	0.076	0.01	-17.21
Region of Birth:								
Amsterdam	0.941	0.06	0.809	0.08	-2.22	1.099	0.07	1.39
North Holland	0.925	0.07	0.948	0.07	-0.73	0.911	0.12	-0.72
South Holland	0.924	0.06	0.922	0.09	-0.82	0.914	0.06	-1.27
Utrecht	0.967	0.05	0.938	0.06	-1.08	1.006	0.07	0.09
Great Rijnmond	1.068	0.07	1.117	0.07	1.86	0.998	0.10	-0.02
East South Holland	1.084	0.07	1.034	0.08	0.43	1.129	0.12	1.13
Sex	0.884	0.02						
Number of subjects		7,023			3,691			3,332
Number of failures		7,023			3,691			3,332
Time of risk		179825			93358			86467
Number of obs.		7.023			3,691			3,332
Log likelihood		-64558.52			-30965.147			-27858.904
Prob > 2 chi 2		0.0000			0.0000			0.0000
Wald chi 2 ( )		3545.14			2245.57			2389.91

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in the Netherlands; parents born in the Netherlands; Arrived in the Netherlands at age 24 or older; Base: ISCED2; Base: All other regions of birth. NL: the Netherlands.
Key:
* = For a description of these variables please refer to Table I.

. Table 4.B Determinants of time till finishing education. Estimates from a Cox proportional Hazard Model of Time since age 12.
Spain, Women and Men aged 15-45

Independent Variables*	Total			Women			Men		
	Haz. R	Std. Err.	z-value	Haz. R	Std. Err.	z-value	Haz. R	Std. Err.	z-value
Born between 1960-1965	0.527	0.05	-7.05	0.353	0.06	-5.66	0.692	0.07	-3.4
Born between 1965-1970	0.408	0.04	-10.18	0.292	0.04	-8.83	0.548	0.06	-5.6
Born between 1970-1975	0.381	0.03	-13.25	0.316	0.03	-10.82	0.472	0.05	-7.59
Born between 1975-1980	0.555	0.04	-8.6	0.498	0.05	-7.02	0.657	0.06	-4.49
Born in ES, one parent not born in ES	1.014	0.10	0.15	1.187	0.16	1.28	0.912	0.12	-0.71
Not born in ES, parents not born in ES	0.793	0.11	-1.72	0.931	0.16	-0.42	0.705	0.13	-1.84
Not born in ES, one parent born in ES	0.983	0.13	-0.13	1.064	0.23	0.29	0.867	0.15	-0.8
Immigr. at age 0-3	0.943	0.26	-0.21	0.533	0.21	-1.6	1.409	0.51	0.95
Immigr. at age 4-15	1.184	0.25	0.79	0.713	0.25	-0.95	1.711	0.39	2.36
Immigr. at age 16-23	1.445	0.25	2.11	0.995	0.23	-0.02	2.287	0.56	3.36
Paid job before finishing education	0.841	0.05	-2.87	0.783	0.07	-2.77	0.885	0.07	-1.63
Years of paid job before finishing edu	0.875	0.01	-13.62	0.878	0.01	-9.13	0.871	0.01	-11.09
ISCED3	0.434	0.04	-8.58	0.436	0.06	-5.74	0.433	0.05	-6.95
ISCED5	0.215	0.02	-15.67	0.254	0.04	-9.78	0.192	0.02	-13.07
ISCED6	0.163	0.02	-16.56	0.182	0.03	-11.07	0.150	0.02	-13.08
Region of birth:									
Madrid	1.217	0.06	4.28	1.258	0.08	3.49	1.212	0.07	3.16
Barcelona	1.069	0.15	0.49	1.429	0.18	2.83	0.850	0.18	-0.77
Cataluna	1.381	0.10	4.63	1.480	0.13	4.34	1.328	0.13	2.81
Andalucia	1.064	0.07	0.91	1.106	0.14	0.77	1.026	0.08	0.34
Castilla y Leon	0.904	0.07	-1.29	0.843	0.10	-1.4	0.922	0.09	-0.85
Galicia	0.968	0.09	-0.36	0.856	0.16	-0.84	0.987	0.09	-0.14
Asturia	0.679	0.08	-3.4	0.698	0.10	-2.53	0.662	0.11	-2.39
sex	0.994	0.04	-0.16						
Number of subjects			2,710			1,061			1,649
Number of failures			2,710			1,061			1,649
Time of risk			78251			31912			46339
Number of obs.									
Log likelihood			-23780.169				-8419.999		-13042.456
Prob > 2 chi 2			0.0000			0.0000			0.0000
Wald chi 2 ( )			1348.94			(22)			(22)

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Spain; parents born in Spain; Arrived in Spain at age 24 or older; Base: ISCED2; Base: All other regions of birth. ES: Spain.
Key:
* = For a description of these variables please refer to Table I

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child in survey year or still childless. Model 1.

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	1.384	0.18	7.8	1.384	0.14	9.91
Born between 1965-1970	0.812	0.10	8.42	0.765	0.11	7.27
Born between 1970-1975	0.473	0.08	6.07	0.403	0.10	4.08
Born between 1975-1980	0.161	0.07	2.3	0.172	0.10	1.75
Born in NL; parents not born NL	0.030	0.15	0.2	-0.150	0.14	-1.09
Born in NL, one parent not born in NL	-0.048	0.08	-0.61	0.025	0.08	0.32
Not born in NL, parents not born in NL	0.085	0.21	0.41	0.050	0.23	0.22
Not born in NL, one parent born in NL	0.234	0.30	0.78	0.214	0.35	0.62
Immigr. at age 0-3	-0.304	0.33	-0.92	-0.180	0.35	-0.51
Immigr. at age 4-15	-0.364	0.26	-1.4	-0.095	0.29	-0.32
Immigr. at age 16-23	-0.285	0.27	-1.04	5.012	#	0
Finished education						
At age 21-22	-0.246	0.06	-4.32	-0.251	0.05	-4.65
At age 23-24	-0.316	0.06	-5.13	-0.399	0.06	-7.1
At age > 25	-0.731	0.07	-10.97	-0.754	0.06	-13.62
Base: finished education $\geq$ 20						
Time from finish ed. Till first job	0.040	0.02	2.35	0.030	0.01	2.1
Tenure current employer (till 1st chld)	-0.051	0.02	-2.54	0.021	0.01	1.52
Tenure crr. empl.sq.	0.005	0.00	3.16	-0.001	0.00	-0.79
Region of Work:						
Amsterdam	0.109	0.09	1.27	0.276	0.10	2.79
North Holland	0.260	0.17	1.53	-0.196	0.11	-1.81
South Holland	-0.145	0.14	-1	-0.012	0.13	-0.09
Utrecht	-0.032	0.07	-0.43	-0.041	0.07	-0.59
Groot Rijnmond	0.015	0.09	0.17	0.021	0.08	0.27
East south Holland	0.109	0.13	0.87	-0.035	0.11	-0.32
Industry:						
Financial intermediation	-0.143	0.08	-1.86	-0.186	0.08	-2.48
Whole sale and retail trade	0.062	0.08	0.8	0.163	0.08	2.14
Real estate and renting	0.038	0.07	0.59	-0.085	0.05	-1.79
Public administration and Defence	-0.058	0.08	-0.69	-0.188	0.08	-2.47
Education	-0.089	0.10	-0.94	-0.076	0.14	-0.56
Health and social work	-0.182	0.06	-3.08	-0.013	0.10	-0.13
Const.	2.738	0.14	19.84	2.556	0.12	20.74
/ln_p	1.260	0.09	13.76	1.311	0.08	16.82
/ln_the	1.216	0.48	2.55	1.060	0.34	3.15
p	3.527	0.32		3.710	0.29	
1/p	0.284	0.03		0.270	0.02	
theta	3.373	1.61		2.888	0.97	
	4.803	2.50		2.556	0.99	
Number of subjects	3207			2452		
Number of failures	320			370		
Time of risk	25613			24169		
Number of obs.	3207			2452		
Log likelihood	-893.09			-896.47		
LR ch2(29)	260.25			364.3		
Prob>ch2	0.000			0.000		
Likelihood-ration test of theta==0						
Chbar2(01)	6.95			12.38		
Prob>=chbar2	0.004			0.000		

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I
# = too few observation

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child or still childless. Model 1

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	-0.206	0.10	-2.12	-0.255	0.11	-2.4
Born between 1965-1970	-0.143	0.08	-1.74	-0.181	0.10	-1.74
Born between 1970-1975	-0.121	0.08	-1.6	-0.115	0.10	-1.12
Born between 1975-1980	-0.048	0.07	-0.68	-0.078	0.10	-0.75
Born in NL; parents not born NL	0.056	0.13	0.41	-0.139	0.10	-1.34
Born in NL, one parent not born in NL	-0.028	0.07	-0.4	0.015	0.06	0.26
Not born in NL, parents not born in NL	0.441	0.20	2.15	0.082	0.16	0.5
Not born in NL, one parent born in NL	0.795	0.32	2.51	0.405	0.29	1.39
Immigr. at age 0-3	-0.603	0.35	-1.74	-0.424	0.30	-1.42
Immigr. at age 4-15	-0.683	0.27	-2.57	-0.153	0.22	-0.69
Immigr. at age 16-23	-0.835	0.27	-3.11	-0.106	0.27	-0.39
Finished education						
At age 21-22	-0.161	0.05	-3.37	-0.157	0.04	-4.12
At age 23-24	-0.158	0.05	-2.96	-0.235	0.04	-5.58
At age > 25	-0.452	0.06	-8	-0.456	0.04	-10.75
Base: finished education $\leq$ 20						
Time from finish ed. Till first job	0.070	0.01	5.12	0.059	0.01	6.2
Tenure current employer (till 1st chld)	-0.057	0.02	-3.55	0.007	0.01	0.65
Tenure crr. empl.sq.	0.007	0.00	6.33	0.003	0.00	4.14
Region of Work:						
Amsterdam	0.318	0.08	3.86	0.220	0.06	3.38
North Holland	0.259	0.13	1.98	-0.129	0.09	-1.49
South Holland	0.118	0.16	0.73	0.136	0.11	1.2
Utrecht	-0.032	0.06	-0.5	0.031	0.05	0.56
Groot Rijnmond	0.117	0.08	1.49	0.095	0.07	1.45
East south Holland	-0.045	0.10	-0.45	0.033	0.08	0.41
Industry:						
Financial intermediation	-0.170	0.07	-2.57	0.013	0.06	0.22
Whole sale and retail trade	-0.085	0.06	-1.34	0.032	0.05	0.66
Real estate and renting	-0.019	0.06	-0.34	0.107	0.04	2.79
Public administration and Defence	-0.149	0.07	-2.07	-0.134	0.05	-2.51
Education	-0.176	0.08	-2.08	0.164	0.12	1.41
Health and social work	-0.328	0.05	-6.4	0.018	0.07	0.25
Const.	2.826	0.10	27.66	2.559	0.11	22.96
/ln_p	1.164	0.05	21.52	1.187	0.04	27.36
/ln_the	1.155	0.14	8.14	0.751	0.11	6.54
p	3.204	0.17		3.279	0.14	
1/p	0.312	0.02		0.305	0.01	
theta	3.173	0.45		2.119	0.24	
Number of subjects	3691			3332		
Number of failures	804			1250		
Time of risk	29532			241632497		
Number of obs.	3691			3332		
Log likelihood	-1755.84			-2162.57		
LR ch2(29)	310.56			402.0		
Prob>ch2	0.000			0.000		
Likelihood-ration test of theta==0						
Chbar2(01)	103.24			134.61		
Prob>=chbar2	0.000			0.000		

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child in survey year or still childless. Model 4(A).

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	1.402	0.18	7.79	1.359	0.15	9.16
Born between 1965-1970	0.842	0.10	8.42	0.744	0.11	6.62
Born between 1970-1975	0.487	0.08	5.97	0.383	0.10	3.7
Born between 1975-1980	0.174	0.07	2.46	0.139	0.10	1.36
Born in NL; parents not born NL	0.010	0.15	0.07	-0.179	0.14	-1.25
Born in NL, one parent not born in NL	-0.052	0.08	-0.64	0.004	0.08	0.06
Not born in NL, parents not born in NL	-0.196	0.11	-1.75	0.066	0.14	0.46
Not born in NL, one parent born in NL	-0.070	0.18	-0.38	0.047	0.20	0.23
Finished education						
At age 21-22	-0.210	0.06	-3.62	-0.244	0.06	-4.37
At age 23-24	-0.258	0.07	-3.95	-0.423	0.06	-7.19
At age > 25	-0.704	0.07	-9.64	-0.767	0.06	-12.63
Base: finished education $\underline{>}$ 20						
Overqualified	0.132	0.06	2.32	-0.043	0.05	-0.81
Under qualified	0.089	0.07	1.28	0.004	0.06	0.07
Has obtained more qualifications	0.142	0.04	3.17	0.038	0.04	0.87
Time from finish ed. Till first job	0.044	0.02	2.59	0.031	0.01	2.1
Tenure current employer (till 1st chld)	-0.005	0.02	-0.25	0.033	0.01	2.2
Tenure crr. empl.sq.	0.002	0.00	1.71	-0.001	0.00	-1.17
Region of Work:						
Amsterdam	0.090	0.09	1.05	0.247	0.10	2.46
North Holland	0.229	0.17	1.36	-0.208	0.11	-1.95
South Holland	-0.181	0.15	-1.24	0.005	0.13	0.04
Utrecht	-0.016	0.07	-0.22	-0.059	0.07	-0.83
Groot Rijnmond	0.023	0.09	0.26	-0.018	0.08	-0.22
East south Holland	0.118	0.13	0.94	-0.035	0.11	-0.31
Industry:						
Financial intermediation	-0.155	0.08	-1.98	-0.192	0.08	-2.46
Whole sale and retail trade	0.075	0.08	0.95	0.138	0.08	1.78
Real estate and renting	0.052	0.07	0.78	-0.103	0.05	-2.09
Public administration and Defence	-0.049	0.09	-0.57	-0.206	0.08	-2.51
Education	-0.089	0.10	-0.9	-0.030	0.14	-0.21
Health and social work	-0.143	0.06	-2.29	-0.036	0.10	-0.34
Most colleagues in similar positions male	0.065	0.05	1.33	0.014	0.06	0.25
I reached top of my grade (wage)	-0.112	0.06	-1.78	-0.056	0.05	-1.04
Permanent contract	-0.556	0.11	-5.06	-0.284	0.09	-3.05
Gross hourly wage	-0.073	0.07	-1.07	0.001	0.06	0.01
Main responsible for hh.income	0.035	0.04	0.78	-0.300	0.05	-6
Paid domestic help	-0.005	0.06	-0.08	0.054	0.06	0.91
Const	3.115	0.24	12.83	3.002	0.21	14.39
/ln_p	1.284	0.09	14	1.341	0.08	16.86
/ln_the	1.216	0.44	2.79	1.129	0.31	3.66
p	3.610	0.33		3.822	0.30	
1/p	0.277	0.03		0.262	0.02	
theta	3.375	1.47		3.094	0.95	
Number of subjects	3118			2389		
Number of failures	313			356		

Time of risk	24942	23519
Number of obs.	3118	2389
Log likelihood	-846.46	-845.01
LR ch2(29)	307.74	411.67
Prob>ch2	0.000	0.000
Likelihood-ration test of theta==0		
Chbar2(01)	7.94	17.09
Prob>=chbar2	0.002	0.000

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I
♣ = too few observations

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child or still childless. Model 4(A).

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	-0.149	0.10	-1.47	-0.146	0.11	-1.27
Born between 1965-1970	-0.055	0.09	-0.64	-0.103	0.11	-0.92
Born between 1970-1975	-0.095	0.08	-1.22	-0.074	0.11	-0.68
Born between 1975-1980	-0.027	0.07	-0.36	-0.074	0.11	-0.67
Born in NL; parents not born NL	0.006	0.13	0.04	-0.151	0.10	-1.48
Born in NL, one parent not born in NL	0.007	0.07	0.1	-0.021	0.06	-0.37
Not born in NL, parents not born in NL	-0.149	0.11	-1.31	-0.035	0.10	-0.34
Not born in NL, one parent born in NL	0.199	0.20	1	0.151	0.17	0.9
Finished education						
At age 21-22	-0.149	0.05	-3.07	-0.157	0.04	-4.15
At age 23-24	-0.133	0.06	-2.34	-0.260	0.04	-6.05
At age > 25	-0.461	0.06	-7.84	-0.495	0.04	-11.07
Base: finished education $\underline{>}$ 20						
Overqualified	0.193	0.05	3.82	0.055	0.04	1.29
Under qualified	0.069	0.05	1.27	0.013	0.04	0.34
Has obtained more qualifications	0.133	0.04	3.4	-0.009	0.03	-0.27
Time from finish ed. Till first job	0.067	0.01	5	0.060	0.01	6.11
Tenure current employer (till 1st chld)	-0.014	0.02	-0.89	0.014	0.01	1.32
Tenure crr. empl.sq.	0.005	0.00	4.47	0.002	0.00	3.46
Region of Work:						
Amsterdam	0.274	0.08	3.31	0.174	0.06	2.68
North Holland	0.225	0.13	1.71	-0.111	0.09	-1.29
South Holland	0.070	0.16	0.44	0.161	0.11	1.43
Utrecht	-0.010	0.06	-0.15	0.006	0.05	0.1
Groot Rijnmond	0.108	0.08	1.36	0.066	0.07	0.99
East south Holland	-0.007	0.10	-0.07	0.044	0.08	0.56
Industry:						
Financial intermediation	-0.176	0.07	-2.62	0.015	0.06	0.24
Whole sale and retail trade	-0.077	0.06	-1.19	0.005	0.05	0.1
Real estate and renting	0.004	0.06	0.07	0.083	0.04	2.13
Public administration and Defence	-0.121	0.07	-1.65	-0.163	0.05	-3.01
Education	-0.162	0.09	-1.89	0.116	0.12	0.99
Health and social work	-0.260	0.05	-4.81	-0.010	0.08	-0.12
Most colleagues in similar positions male	0.114	0.04	2.7	-0.022	0.04	-0.51
I reached top of my grade (wage)	-0.173	0.05	-3.63	-0.109	0.03	-3.17
Permanent contract	-0.758	0.10	-7.35	-0.574	0.10	-6.03
Gross hourly wage	-0.020	0.05	-0.39	-0.045	0.04	-1.18
Main responsible for hh.income	0.054	0.04	1.4	-0.345	0.04	-9.17
Paid domestic help	-0.048	0.05	-0.99	0.136	0.04	3.13
Const	3.289	0.18	17.94	3.532	0.18	19.52
/ln_p	1.150	0.06	20.53	1.153	0.04	25.97
/ln_the	1.010	0.16	6.42	0.514	0.13	3.89
p	3.158	0.18		3.167	0.14	
1/p	0.317	0.02		0.316	0.01	
theta	2.745	0.43		1.672	0.22	
	3.375	1.47		3.094	0.95	
Number of subjects	3589			3250		
Number of failures	784			1220		
Time of risk	28756			3168		

Number of obs.	3589	3250
Log likelihood	-1658.1	-2023.6
LR ch2(29)	414.32	570.04
Prob>ch2	0.000	0.000
Likelihood-ration test of theta==0		
Chbar2(01)	85.48	99.14
Prob>=chbar2	0.000	0.000

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I
♣ = too few observations.

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child in survey year or still childless. Model 4(B).

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	1.391	0.18	7.54	1.379	0.15	9.28
Born between 1965-1970	0.845	0.10	8.47	0.780	0.11	6.9
Born between 1970-1975	0.508	0.08	6.21	0.419	0.10	4.04
Born between 1975-1980	0.188	0.07	2.61	0.176	0.10	1.72
Born in NL; parents not born NL	0.007	0.15	0.05	-0.190	0.14	-1.34
Born in NL, one parent not born in NL	-0.053	0.08	-0.67	0.006	0.08	0.07
Not born in NL, parents not born in NL	0.038	0.21	0.18	-0.060	0.25	-0.24
Not born in NL, one parent born in NL	0.218	0.30	0.73	0.131	0.37	0.35
Immigr. at age 0-3	-0.289	0.33	-0.88	-0.110	0.37	-0.3
Immigr. at age 4-15	-0.368	0.26	-1.42	-0.008	0.30	-0.03
Immigr. at age 16-23	-0.296	0.27	-1.09	5.056	#	
At age 21-22	-0.211	0.06	-3.65	-0.226	0.06	-4.04
At age 23-24	-0.266	0.07	-4.09	-0.429	0.06	-7.27
At age > 25	-0.693	0.07	-9.62	-0.756	0.06	-12.41
Overqualified	0.112	0.06	1.97	-0.061	0.05	-1.14
Under qualified	0.085	0.07	1.24	0.005	0.06	0.08
Has obtained more qualifications	0.145	0.04	3.23	0.042	0.04	0.94
Time from finish ed. Till first job	0.042	0.02	2.47	0.029	0.01	1.95
Tenure current employer (till 1st chld)	-0.006	0.02	-0.3	0.031	0.01	2.09
Tenure crr. empl.sq.	0.003	0.00	1.74	-0.001	0.00	-1.09
Amsterdam	0.076	0.09	0.88	0.214	0.10	2.1
North Holland	0.231	0.17	1.36	-0.208	0.11	-1.94
South Holland	-0.144	0.15	-0.96	-0.014	0.13	-0.11
Utrecht	-0.005	0.07	-0.07	-0.073	0.07	-1.04
Groot Rijnmond	0.019	0.09	0.22	-0.044	0.08	-0.55
East south Holland	0.109	0.13	0.86	-0.052	0.11	-0.47
Financial intermediation	-0.146	0.08	-1.88	-0.202	0.08	-2.58
Whole sale and retail trade	0.101	0.08	1.25	0.133	0.08	1.69
Real estate and renting	0.048	0.07	0.73	-0.110	0.05	-2.21
Public administration and Defence	-0.044	0.08	-0.52	-0.216	0.08	-2.63
Education	-0.088	0.10	-0.9	-0.040	0.15	-0.27
Health and social work	-0.132	0.06	-2.11	-0.035	0.10	-0.33
Most colleagues in similar positions male	0.070	0.05	1.43	0.024	0.06	0.42
I reached top of my grade(wage)	-0.111	0.06	-1.8	-0.042	0.05	-0.77
Permanent contract	-0.546	0.11	-4.85	-0.258	0.10	-2.68
Gross hourly wage	-0.074	0.07	-1.09	0.048	0.06	0.77
Worries about pension	-0.013	0.02	-0.76	0.020	0.02	1.23
Main responsible for hh.income	0.015	0.05	0.32	-0.310	0.05	-6
Paid domestic help	0.008	0.06	0.14	0.063	0.06	1.07
Partner permanent contract	-0.090	0.09	-1.01	0.034	0.05	0.64
Partner fixed term contract	-0.081	0.10	-0.79	0.152	0.08	1.98
Partner self employed	-0.158	0.11	-1.49	0.018	0.12	0.16
House owned	-0.089	0.05	-1.65	-0.174	0.06	-3.11
Const.	3.338	0.27	12.26	2.878	0.22	12.81
/ln_p	1.242	0.09	13.62	1.346	0.08	16.81
/ln_the	0.936	0.53	1.76	1.084	0.31	3.47
p	3.461	0.32		3.843	0.31	
1/p	0.289	0.03		0.260	0.02	
theta	2.549	1.35		2.957	0.92	
Number of subjects	3102			2372		

Number of failures	310	351
Time of risk	24838	23381
Number of obs.	3102	2372
Log likelihood	-845.83	-817.47
LRch2(35)	310.8	424.4
ChiBar2(01)	5.06	16.48
Prob>=chibar2)	0.012	0.000

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries; partner not employed and not seeking for job. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I
♣ = too few observations

Table 5.A Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Netherlands, Women and Men aged 15-45. Having first child or still childless. Model 4(B).

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-	Coeff	Std. Err.	z-value
Born between 1960-1965	-0.076	0.11	-0.72	-0.113	0.12	-0.99
Born between 1965-1970	-0.006	0.09	-0.07	-0.094	0.11	-0.85
Born between 1970-1975	-0.032	0.08	-0.41	-0.066	0.11	-0.61
Born between 1975-1980	0.048	0.07	0.66	-0.084	0.11	-0.76
Born in NL; parents not born NL	0.023	0.14	0.16	-0.163	0.10	-1.58
Born in NL, one parent not born in NL	-0.015	0.07	-0.2	-0.015	0.06	-0.24
Not born in NL, parents not born in NL	0.299	0.19	1.54	-0.010	0.17	-0.06
Not born in NL, one parent born in NL	0.708	0.29	2.42	0.407	0.32	1.28
Immigr. at age 0-3	-0.574	0.32	-1.78	-0.224	0.31	-0.73
Immigr. at age 4-15	-0.623	0.26	-2.43	-0.017	0.24	-0.07
Immigr. at age 16-23	-0.778	0.25	-3.1	-0.031	0.30	-0.1
At age 21-22	-0.156	0.05	-2.98	-0.147	0.04	-3.55
At age 23-24	-0.159	0.06	-2.68	-0.272	0.05	-5.93
At age > 25	-0.498	0.06	-8.1	-0.547	0.05	-11.98
Overqualified	0.191	0.05	3.6	0.038	0.05	0.84
Under qualified	0.056	0.06	0.96	-0.003	0.04	-0.07
Has obtained more qualifications	0.148	0.04	3.55	0.017	0.04	0.47
Time from finish ed. Till first job	0.072	0.01	4.81	0.066	0.01	5.94
Tenure current employer (till 1st chld)	-0.014	0.02	-0.81	0.021	0.01	1.93
Tenure crr. empl.sq.	0.005	0.00	4.39	0.002	0.00	2.66
Amsterdam	0.267	0.09	3.02	0.137	0.07	1.95
North Holland	0.245	0.14	1.73	-0.074	0.09	-0.82
South Holland	0.158	0.19	0.85	0.171	0.12	1.45
Utrecht	0.000	0.07	0	0.000	0.06	0
Groot Rijnmond	0.093	0.08	1.11	0.089	0.07	1.3
East south Holland	-0.020	0.10	-0.19	0.037	0.09	0.43
Financial intermediation	-0.168	0.07	-2.28	0.007	0.07	0.1
Whole sale and retail trade	-0.050	0.07	-0.73	-0.003	0.05	-0.05
Real estate and renting	0.007	0.06	0.12	0.099	0.04	2.36
Public administration and Defence	-0.100	0.08	-1.31	-0.198	0.06	-3.42
Education	-0.146	0.09	-1.63	0.080	0.12	0.66
Health and social work	-0.250	0.06	-4.37	-0.012	0.08	-0.14
Most colleagues in similar positions	0.125	0.04	2.77	-0.028	0.04	-0.62
I reached top of my grade (wage)	-0.208	0.05	-4.09	-0.134	0.04	-3.59
Permanent contract	-0.703	0.10	-7.2	-0.563	0.10	-5.88
Gross hourly wage	-0.001	0.05	-0.01	-0.019	0.04	-0.45
Worries about pension	0.004	0.01	0.28	0.015	0.01	1.23
Main responsible for hh.income	0.019	0.04	0.44	-0.338	0.04	-8.48
Paid domestic help	-0.029	0.05	-0.56	0.151	0.05	3.24
Partner permanent contract	-0.126	0.08	-1.58	0.186	0.04	4.95
Partner fixed term contract	-0.012	0.10	-0.12	0.290	0.06	4.83
Partner self employed	-0.074	0.10	-0.77	0.052	0.08	0.64
House owned	-0.124	0.05	-2.4	-0.184	0.04	-4.14
Const.	3.551	0.21	16.96	3.500	0.19	18.92
/ln_p	-0.319	0.04	-7.37	-0.409	0.02	-18.55
/ln_the	-1.865	1.20	-1.55	-14.287	370.05	-0.04
p	0.727	0.03		0.664	0.01	
1/p	0.155	0.19		0.000	0.00	
theta	2.549	1.35		2.957	0.92	
Number of subjects	3570			3233		
Number of failures	778			121		

Time of risk	28622		31542	
Number of obs.	3570		3233	
Log likelihood		-1657.500		-2030.1
LRch2(43)	426.44	Prob.ch2=0.00	605.90	Prob>ch2=0.000
ChiBar2(01)	0.73		0.00	
Prob>=chibar2)	0.196		1.00	

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Netherlands; parents born in Netherlands; Arrived in Netherlands at age 24 or older; Base: All other regions of work; Base: all remaining industries. NL: Netherlands.
Key:
* = For a description of these variables please refer to Table I
♣ = too few observations

Table 5.B Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity.
Spain. Women and Men aged 15-45. Having first child in survey or still childless. Model 1.

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	1.211	0.25	4.76	1.084	0.18	6
Born between 1965-1970	0.701	0.17	4.08	0.759	0.17	4.59
Born between 1970-1975	0.404	0.15	2.61	0.490	0.16	3.02
Born between 1975-1980	0.305	0.15	2.09	0.307	0.16	1.89
Born in ES, one parent not born in ES	-0.066	0.18	-0.36	0.131	0.13	1.01
Not born in ES, parents not born in ES	0.306	0.21	1.45	0.111	0.12	0.96
Not born in ES, one parent born in ES	0.451	0.29	1.53	0.249	0.14	1.77
Immigr. at age 0-3	#		0	-0.024	0.29	-0.09
Immigr. at age 4-15	#		0	-0.063	0.23	-0.28
Immigr. at age 16-23	-0.879	0.33	-2.66	-0.168	0.27	-0.61
Finished education						
At age 21-22	-0.149	0.09	-1.58	-0.237	0.06	-4.1
At age 23-24	-0.320	0.08	-3.82	-0.479	0.05	-9.82
At age > 25	-0.674	0.09	-7.42	-0.692	0.05	-13.46
Base: finished education $\geq$ 20						
Time from finish ed. Till first job	0.027	0.03	1.04	0.024	0.01	1.83
Tenure current employer (till 1st chld)	-0.028	0.02	-1.25	0.021	0.01	1.92
Tenure crr. empl.sq.	0.003	0.00	1.79	-0.001	0.00	-1.04
Region of Work:						
Madrid	-0.049	0.07	-0.66	0.055	0.04	1.23
Barcelona	0.051	0.10	0.48	0.055	0.07	0.83
Cataluna	0.038	0.12	0.31	0.103	0.07	1.52
Andalucia	0.074	0.14	0.52	-0.065	0.07	-0.89
Castilla y Leon	0.135	0.21	0.64	0.145	0.13	1.09
Galicia	0.002	0.23	0.01	0.111	0.11	1.02
Asturia	-0.188	0.21	-0.89	0.073	0.12	0.62
Industry:						
Financial intermediation	-0.130	0.12	-1.09	-0.047	0.07	-0.7
Whole sale and retail trade	-0.016	0.09	-0.18	0.031	0.07	0.46
Real estate and renting	0.028	0.07	0.38	-0.003	0.04	-0.08
Public administration and Defence	-0.204	0.14	-1.45	-0.088	0.07	-1.21
Education	0.100	0.13	0.79	-0.079	0.09	-0.85
Health and social work	-0.019	0.11	-0.17	0.012	0.11	0.11
Const.	2.485	0.19	12.79	2.328	0.17	13.63
/ln_p	1.552	0.15	10.31	1.650	0.10	17.31
/ln_the	1.569	0.52	3.01	0.938	0.39	2.42
p	4.721	0.71		5.209	0.50	
1/p	0.212	0.03		0.192	0.02	
theta	4.803	2.50		2.556	0.99	
Number of subjects	1127			1445		
Number of failures	136			273		
Time of risk	9048			3911		
Number of obs.	1127			1445		
Log likelihood	-320.771			-500.475		
LR ch2(29)	109.08			267.85		
Prob>ch2	0.000			0.000		
Likelihood-ration test of theta==0						
Chbar2(01)	5.52			10.76		
Prob>=chbar2	0.009			0.001		

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Spain; parents born in Spain; Arrived in Spain at age 24 or older; Base: All other regions of work; Base: all remaining industries.
ES: Spain.
Key:
* = For a description of these variables please refer to Table I
# = too few observation

Table 5.B Determinants of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Spain, Women and Men aged 15-45. Having first child or still childless. Model 1

Independent Variables*	Women			Men		
	Coeff.	Std. Err.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	-0.257	0.20	-1.31	-0.378	0.22	-1.75
Born between 1965-1970	-0.191	0.18	-1.04	-0.144	0.21	-0.67
Born between 1970-1975	-0.042	0.18	-0.24	-0.032	0.21	-0.15
Born between 1975-1980	0.154	0.17	0.9	-0.009	0.21	-0.04
Born in ES, one parent not born in ES	-0.160	0.17	-0.93	0.162	0.11	1.45
Not born in ES, parents not born in ES	0.412	0.23	1.82	0.049	0.11	0.47
Not born in ES, one parent born in ES	0.073	0.19	0.39	0.346	0.15	2.35
Immigr. at age 0-3	#			-0.256	0.28	-0.92
Immigr. at age 4-15	0.312	0.47	0.67	-0.186	0.24	-0.76
Immigr. at age 16-23	-0.697	0.28	-2.5	-0.311	0.23	-1.34
Finished education						
At age 21-22	-0.194	0.08	-2.49	-0.081	0.05	-1.59
At age 23-24	-0.161	0.07	-2.31	-0.192	0.04	-4.34
At age > 25	-0.360	0.08	-4.74	-0.394	0.04	-8.86
Base: finished education $\geq$ 20						
Time from finish ed. Till first job	0.045	0.02	2.25	0.052	0.01	5.09
Tenure current employer (till 1st chld)	-0.031	0.02	-1.58	0.020	0.01	1.76
Tenure crr. empl.sq.	0.005	0.00	3.88	0.002	0.00	2.99
Region of Work:						
Madrid	0.042	0.06	0.66	0.094	0.04	2.15
Barcelona	0.213	0.11	2.02	0.007	0.06	0.11
Cataluna	-0.011	0.09	-0.12	0.094	0.06	1.55
Andalucia	-0.004	0.12	-0.03	-0.096	0.07	-1.46
Castilla y Leon	0.163	0.16	1	0.001	0.10	0.01
Galicia	-0.107	0.18	-0.59	-0.106	0.10	-1.09
Asturia	-0.193	0.15	-1.29	0.275	0.13	2.14
Industry:						
Financial intermediation	-0.147	0.10	-1.53	-0.090	0.06	-1.57
Whole sale and retail trade	-0.045	0.08	-0.56	0.075	0.06	1.19
Real estate and renting	0.056	0.07	0.86	0.086	0.04	2.05
Public administration and Defence	-0.142	0.09	-1.55	-0.059	0.06	-1.03
Education	0.064	0.10	0.66	-0.051	0.08	-0.64
Health and social work	-0.020	0.10	-0.19	-0.086	0.10	-0.87
Const.	2.738	0.19	14.67	2.492	0.22	11.56
/ln_p	1.210	0.08	14.86	1.299	0.05	23.79
/ln_the	0.386	0.31	1.26	0.527	0.15	3.41
p	3.354	0.27		3.664	0.20	
1/p	0.298	0.02		0.273	0.01	
theta	1.471	0.45		1.693	0.26	
	4.803	2.50		2.556	0.99	
Number of subjects	1292			1914		
Number of failures	301			742		
Time of risk	10563			18379		
Number of obs.	1292			1914		
Log likelihood	-548.82			-1104.16		
LR ch2(29)	152.77			318.6		
Prob>ch2	0.000			0.000		
Likelihood-ration test of theta==0						
Chbar2(01)	20.70			85.97		

Prob>=chbar2	0.000	0.000

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Spain; parents born in Spain; Arrived in Spain at age 24 or older; Base: All other regions of work; Base: all remaining industries. ES: Spain.
Key:
* = For a description of these variables please refer to Table I
# = too few observation

Table 5B. Determinant of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Spain Model 4(A) Having first child in survey year or still childless aged 15-45.

Independent Variables*	Women			Men		
	Coeff.	Std.	z-value	Coeff	Std. Err.	z-value
Born between 1960-1965	1.241	0.25	4.93	1.164	0.18	6.65
Born between 1965-1970	0.739	0.17	4.23	0.823	0.16	5.14
Born between 1970-1975	0.418	0.16	2.65	0.561	0.16	3.59
Born between 1975-1980	0.353	0.15	2.38	0.388	0.16	2.48
Born in ES, one parent not born in ES	-0.077	0.18	-0.42	0.114	0.12	0.94
Not born in ES, parents not born in ES	0.125	0.22	0.57	0.060	0.11	0.55
Not born in ES, one parent born in ES	0.162	0.20	0.79	0.210	0.11	1.83
Overqualified	-0.208	0.10	-2.07	-0.244	0.06	-4.15
under qualified	-0.365	0.09	-4.15	-0.490	0.05	-9.94
Obtained further qualifications	-0.699	0.09	-7.39	-0.687	0.05	-13.42
Finished education						
At age 21-22	-0.027	0.06	-0.43	0.074	0.04	2
At age 23-24	-0.060	0.14	-0.43	-0.067	0.07	-1.02
At age > 25	0.136	0.07	1.93	0.074	0.04	2.04
Base: finished education $\geq$ 20						
Time from finish ed. Till first job	0.012	0.03	0.48	0.021	0.01	1.63
Tenure current employer (till 1st chld)	-0.010	0.02	-0.44	0.040	0.01	3.56
Tenure crr. empl.sq.	0.002	0.00	1.23	-0.001	0.00	-2.42
Region of Work:						
Madrid	-0.018	0.08	-0.23	0.068	0.04	1.52
Barcelona	0.040	0.11	0.37	0.089	0.07	1.34
Cataluna	0.064	0.13	0.5	0.112	0.07	1.69
Andalucia	0.070	0.14	0.48	-0.091	0.07	-1.24
Castilla y Leon	0.186	0.21	0.9	0.160	0.13	1.19
Galicia	0.111	0.24	0.46	0.132	0.11	1.24
Asturia	-0.305	0.23	-1.32	0.059	0.12	0.51
Industry:						
Financial intermediation	-0.118	0.13	-0.88	-0.067	0.07	-1.01
Whole sale and retail trade	0.038	0.09	0.42	0.029	0.07	0.43
Real estate and renting	0.044	0.07	0.6	0.013	0.04	0.33
Public administration and Defence	-0.182	0.14	-1.31	-0.109	0.08	-1.44
Education	0.076	0.13	0.58	-0.182	0.09	-1.94
Health and social work	-0.023	0.12	-0.2	-0.054	0.11	-0.47
Const.						
Most colleagues in similar positions male	0.099	0.06	1.58	-0.023	0.04	-0.63
I reached top of my grade (wage)	0.013	0.07	0.2	-0.009	0.04	-0.25
Permanent contract	-0.266	0.09	-3.05	-0.239	0.07	-3.67
Gross hourly wage	0.052	0.06	0.86	0.005	0.03	0.15
Main responsible for hh.income	-0.012	0.01	-0.85	-0.005	0.01	-0.68
Paid domestic help	-0.054	0.02	-2.49	-0.021	0.01	-2.22
Const	2.427	0.24	10.11	2.338	0.18	12.75
/ln_p	1.508	0.16	9.57	1.684	0.09	18.47
/ln_the	1.234	0.63	1.96	0.871	0.35	2.49
p	4.519	0.71		5.385	0.49	
1/p	0.221	0.03		0.186	0.02	
theta	3.435	2.16		2.389	0.84	
Number of subjects	1037				1372	
Number of failures	129				236	
Time of risk	8407				3281	
Number of obs.	1037				1372	

Log likelihood	-292.5	-455.0
LRch2(35)	123.97	293.36
ChiBar2(01)	-2.39	12.37
Prob>=chibar2)	0.061	0.000

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Spain; parents born in Spain; Arrived in Spain at age 24 or older; Base: All other regions of work; Base: all remaining industries. ES: Spain.
Key:
* = For a description of these variables please refer to Table I.

Table 5B. Determinant of time since finishing education till having the first child. Estimations from a Weibul Model of Time since finishing education controlling for unobserved heterogeneity. Spain Model 4(A) Having first child or still childless aged 15-45.

Independent Variables*	Women Coeff.	Std. Err.	z-value	Men Coeff	Std. Err.	z-value
Born between 1960-1965	-0.141	0.21	-0.69	-0.237	0.22	-1.09
Born between 1965-1970	-0.117	0.19	-0.6	-0.031	0.22	-0.14
Born between 1970-1975	0.000	0.19	0	0.070	0.21	0.32
Born between 1975-1980	0.235	0.19	1.27	0.086	0.22	0.4
Born in ES, one parent not born in ES	-0.146	0.17	-0.84	0.157	0.11	1.45
Not born in ES, parents not born in ES	0.472	0.27	1.76	-0.004	0.10	-0.04
Not born in ES, one parent born in ES	0.019	0.16	0.12	0.178	0.11	1.61
overqualified	-0.270	0.08	-3.25	-0.109	0.05	-2.09
under qualified	-0.188	0.07	-2.57	-0.198	0.05	-4.38
Obtained further qualifications	-0.417	0.08	-5.41	-0.400	0.05	-8.87
Finished education						
At age 21-22	0.023	0.06	0.41	0.104	0.04	2.92
At age 23-24	-0.021	0.14	-0.16	0.066	0.06	1.04
At age > 25	0.206	0.06	3.51	0.102	0.03	2.92
Base: finished education $\geq$ 20						
Time from finish ed. Till first job	0.032	0.02	1.5	0.048	0.01	4.67
Tenure current employer (till 1st chld)	-0.008	0.02	-0.37	0.038	0.01	3.34
Tenure crr. empl.sq.	0.004	0.00	2.88	0.001	0.00	1.67
Region of Work:						
Madrid	0.103	0.07	1.55	0.117	0.04	2.67
Barcelona	0.270	0.11	2.35	0.082	0.06	1.28
Cataluna	0.027	0.09	0.3	0.146	0.06	2.37
Andalucia	0.003	0.12	0.02	-0.110	0.06	-1.7
Castilla y Leon	0.220	0.16	1.38	0.024	0.10	0.25
Galicia	-0.059	0.18	-0.32	-0.078	0.09	-0.82
Asturia	-0.266	0.16	-1.68	0.235	0.13	1.87
Industry:						
Financial intermediation	-0.107	0.10	-1.09	-0.081	0.06	-1.38
Whole sale and retail trade	-0.024	0.08	-0.29	0.078	0.06	1.24
Real estate and renting	0.055	0.07	0.82	0.091	0.04	2.15
Public administration and Defence	-0.172	0.09	-1.85	-0.106	0.06	-1.8
Education	-0.015	0.10	-0.15	-0.168	0.08	-2.02
Health and social work	-0.067	0.11	-0.64	-0.143	0.10	-1.39
Most colleagues in similar positions male	0.020	0.05	0.38	-0.081	0.04	-2.27
I reached top of my grade (wage)	0.001	0.06	0.02	0.005	0.03	0.15
Permanent contract	-0.392	0.09	-4.29	-0.439	0.08	-5.77
Gross hourly wage	0.025	0.05	0.54	-0.011	0.03	-0.35
Main responsible for hh.income	0.002	0.01	0.18	-0.018	0.01	-2.28
Paid domestic help	-0.025	0.01	-1.89	-0.011	0.01	-1.29
Const	2.807	0.23	12.19	2.735	0.24	11.51
/ln_p	1.113	0.09	12.02	1.282	0.05	23.94
/ln_the	-0.253	0.58	-0.44	0.354	0.16	2.18
p	3.044	0.28		3.603	0.19	
1/p	0.329	0.03		0.278	0.01	
theta	0.776	0.45		1.424	0.23	
Number of subjects	1194			1826		
Number of failures	286			717		
Time of risk	9837			7495		

Number of obs.	1194	1826
Log likelihood	-506.2	-1025.0
Prob > 2 chi bar	0.024	0.000
LRch2(35)	177.56	374.33

Source: own calculations based on Wage Indicator Survey Data 2004-2006. Base-born in 1980-1990; Base: born in Spain; parents born in Spain; Arrived in Spain at age 24 or older; Base: All other regions of work; Base: all remaining industries. ES: Spain.
Key:
* = For a description of these variables please refer to Table I

Table 6.A Netherlands time since age 15. Estimations from a Cox proportional hazard model

Independent Variables*	Women			Men		
	Haz. Ratio	St. Err.	z-value	Haz. Ratio	St. err	z-value
Born between 1960-1965	1.036	0.22	0.17	0.806	0.23	-0.76
Born between 1965-1970	1.070	0.21	0.35	0.776	0.22	-0.91
Born between 1970-1975	1.010	0.19	0.05	0.723	0.20	-1.16
Born between 1975-1980	0.753	0.14	-1.51	0.680	0.20	-1.33
Base: born between 1980-1990						
I am overqualified for my job	0.683	0.07	-3.74	0.861	0.07	-1.77
I am under qualified for my job	0.918	0.10	-0.8	0.999	0.07	-0.02
Has gained further qualifications (1if yes)	0.872	0.07	-1.71	1.053	0.07	0.76
Industry:						
Financial intermediation	1.443	0.18	2.88	0.917	0.11	-0.73
Whole sale and retail trade	1.298	0.18	1.91	0.972	0.09	-0.3
Real estate and renting	1.144	0.13	1.19	0.827	0.06	-2.52
Public administration and Defence	1.285	0.19	1.71	1.205	0.12	1.8
Education	1.323	0.21	1.74	0.763	0.17	-1.23
Health and social work	1.715	0.18	5.13	1.002	0.14	0.02
Base: all remaining industries						
Finished education						
At age 21-22	0.885	0.08	-1.28	0.870	0.06	-1.88
At age 23-24	0.548	0.06	-5.61	0.688	0.06	-4.53
At age > 25	0.492	0.05	-7.11	0.549	0.04	-7.8
Born in NL; parents not born in NL	0.931	0.27	-0.24	1.268	0.25	1.2
Born in NL; one of parents not born in NL	1.067	0.14	0.5	0.990	0.11	-0.09
Not born in NL; parents not born in NL	0.440	0.19	-1.88	0.850	0.28	-0.49
Not born in NL; one parent born in NL	0.271	0.15	-2.4	0.926	0.42	-0.17
Base: born in NL; parents born in NL						
Immigr. at age 0-3	2.379	1.49	1.39	1.337	0.65	0.6
Immigr. at age 4-15	2.706	1.41	1.91	1.167	0.49	0.37
Immigr. at age 16-23	3.099	1.71	2.05	1.146	0.70	0.22
Base: immigration at age 24 or older						
time period between finishing education and first	0.936	0.02	-2.52	0.940	0.02	-3.33
Colleagues in similar positions are men	0.794	0.06	-2.84	1.226	0.10	2.39
Number of subjects	1,061			1,649		

Source: own calculations based on Wage Indicator Survey Data 2004-2006
Key:
* = For a description of these variables please refer to Table I

Table 6.A (extended) Netherlands time since 15 extended model Estimations from a Cox proportional hazard model

Independent Variables*	Women			Men		
	Haz. Ratio	St. Err.	z-value	Haz. Ratio	St. err	z-value
Born between 1960-1965	1.032	0.22	0.14	0.822	0.24	-0.68
Born between 1965-1970	0.924	0.18	-0.4	0.718	0.20	-1.17
Born between 1970-1975	0.871	0.16	-0.73	0.648	0.18	-1.54
Born between 1975-1980	0.687	0.13	-1.98	0.632	0.18	-1.57
Base: born between 1980-1990						
I am overqualified for my job	0.686	0.07	-3.66	0.810	0.07	-2.4
I am under qualified for my job	0.915	0.10	-0.81	1.012	0.08	0.16
Has gained further qualifications (1if yes)	0.792	0.06	-2.86	1.044	0.07	0.64
Industry:						
Financial intermediation	1.534	0.19	3.4	0.861	0.11	-1.2
Whole sale and retail trade	1.282	0.18	1.81	0.917	0.09	-0.87
Real estate and renting	1.118	0.13	0.98	0.788	0.06	-3.09
Public administration and Defence	1.196	0.18	1.22	1.315	0.14	2.57
Education	1.246	0.21	1.31	0.709	0.16	-1.53
Health and social work	1.608	0.17	4.48	0.982	0.14	-0.13
Base: all remaining industries						
Finished education						
At age 21-22	0.786	0.07	-2.54	0.829	0.06	-2.51
At age 23-24	0.506	0.05	-6.37	0.617	0.05	-5.68
At age > 25	0.461	0.05	-7.68	0.491	0.04	-8.92
Born in NL; parents not born in NL	1.061	0.30	0.21	1.156	0.24	0.69
Born in NL; one of parents not born in NL	1.052	0.14	0.38	0.985	0.11	-0.13
Not born in NL; parents not born in NL	0.406	0.18	-1.98	0.981	0.31	-0.06
Not born in NL; one parent born in NL	0.319	0.17	-2.15	0.983	0.46	-0.04
Base: born in NL; parents born in NL						
Immigr. at age 0-3	1.840	1.15	0.97	1.348	0.66	0.61
Immigr. at age 4-15	2.928	1.56	2.02	0.947	0.39	-0.13
Immigr. at age 16-23	3.690	2.13	2.26	1.102	0.65	0.16
Base: immigration at age 24 or older						
tenure with current employer	1.148	0.04	4.07	1.047	0.02	2.19
tenure with current employer squared	0.986	0.00	-5.92	0.993	0.00	-6.01
time period between finishing education and	0.916	0.02	-3.23	0.929	0.02	-4.05
Colleagues in similar positions are men	0.803	0.07	-2.7	1.248	0.11	2.51
I reached the top of my grade	1.628	0.14	5.8	1.374	0.09	4.87
perm	5.336	1.38	6.46	3.339	0.75	5.37
Number of subjects	3,691			3,332		

Source: own calculations based on Wage Indicator Survey Data 2004-2006
Key:
* = For a description of these variables please refer to Table I

Table 6.B Spain time since age 15 till entry of parenthood. Estimations from a Cox proportional hazard model

Independent Variables*	Women			Men		
	Haz. Ratio	St. Err.	z-value	Haz. Ratio	St. err	z-value
Born between 1960-1965	0.000	0.00	-220.22	0.000	.	.
Born between 1965-1970	0.000	0.00	-155.18	0.000	0.00	-591.1
Born between 1970-1975	0.000	0.00	-80.34	0.000	0.00	-288.15
Born between 1975-1980	0.000	0.00	-33.27	0.000	0.00	-99.27
Base: born between 1980-1990						
I am overqualified for my job	0.940	0.12	-0.5	0.984	0.08	-0.21
I am under qualified for my job	0.930	0.32	-0.21	0.890	0.12	-0.86
Has gained further qualifications (1if yes)	0.824	0.13	-1.27	0.909	0.07	-1.26
Industry:						
Financial intermediation	0.963	0.22	-0.17	0.955	0.10	-0.43
Whole sale and retail trade	1.257	0.26	1.11	0.946	0.13	-0.42
Real estate and renting	0.874	0.15	-0.81	0.924	0.09	-0.81
Public administration and Defence	0.980	0.18	-0.11	0.878	0.09	-1.23
Education	0.610	0.12	-2.45	0.955	0.14	-0.31
Health and social work	0.714	0.18	-1.33	0.839	0.15	-0.97
Base: all remaining industries						
Finished education						
At age 21-22	1.067	0.21	0.34	0.901	0.10	-0.94
At age 23-24	0.753	0.12	-1.76	0.925	0.08	-0.86
At age > 25	0.450	0.08	-4.75	0.683	0.06	-4.24
Born in Spain, one parent not born in Spain	1.485	0.49	1.21	0.841	0.18	-0.8
Not born in Spain, parents not born in Spain	0.550	0.29	-1.15	0.989	0.23	-0.05
Not born in Spain, one parent born in Spain	0.638	0.26	-1.09	0.409	0.17	-2.09
Base: born in Spain; parents born in Spain						
Immigr. at age 0-3	0.000	0.00	-19.73	1.667	1.47	0.58
Immigr. at age 4-15	0.000	0.00	-17.48	2.003	1.05	1.32
Immigr. at age 16-23	4.710	3.05	2.4	1.218	0.73	0.33
Base: immigration at age 24 or older						
time period between finishing education and first	0.946	0.05	-1.08	0.979	0.02	-1.14
Colleagues in similar positions are men	0.902	0.11	-0.81	1.005	0.07	0.07
Number of subjects	1,061			1,649		
Number of failures						
Time at risk						
Number of obs.						
Log likelihood						
Prob > chi 2 =						
Wald chi 2 ( ) =						

Source: own calculations based on Wage Indicator Survey Data 2004-2006
Key:
* = For a description of these variables please refer to Table I
♣ = too few observations

Table 6.B (extended) Spain Time since age 15 till entry of parenthood. Estimations from a Cox proportional hazard model

Independent Variables*	Women			Men		
	Haz. Ratio	St. Err.	z-value	Haz. Ratio	St. err	z-value
Born between 1960-1965	0.000	.	.	0.000	.	.
Born between 1965-1970	0.000	0.00	-171.11	0.000	0.00	-276.18
Born between 1970-1975	0.000	0.00	-83.3	0.000	0.00	-93.24
Born between 1975-1980	0.000	0.00	-30.83	0.000	0.00	-25.9
Base: born between 1980-1990						
I am overqualified for my job	1.077	0.13	0.59	0.992	0.08	-0.1
I am under qualified for my job	0.774	0.25	-0.79	0.994	0.13	-0.04
Has gained further qualifications (1if yes)	0.766	0.12	-1.76	0.890	0.07	-1.5
Industry:						
Financial intermediation	1.015	0.25	0.06	1.038	0.11	0.35
Whole sale and retail trade	1.027	0.22	0.13	0.792	0.13	-1.43
Real estate and renting	0.851	0.13	-1.02	0.873	0.08	-1.4
Public administration and Defence	1.020	0.19	0.1	0.900	0.11	-0.86
Education	0.642	0.13	-2.24	0.998	0.15	-0.02
Health and social work	0.602	0.17	-1.75	0.858	0.19	-0.69
Base: all remaining industries						
Finished education						
At age 21-22	0.934	0.19	-0.35	0.896	0.11	-0.91
At age 23-24	0.598	0.10	-3.2	0.853	0.08	-1.69
At age > 25	0.339	0.06	-6.4	0.581	0.06	-5.64
Born in Spain, one parent not born in Spain	0.709	0.35	-0.7	0.789	0.16	-1.14
Not born in Spain, parents not born in Spain	0.405	0.24	-1.53	1.032	0.24	0.13
Not born in Spain, one parent born in Spain	0.590	0.22	-1.4	0.401	0.17	-2.2
Base: born in Spain; parents born in Spain						
Immigr. at age 0-3	0.000	0.00	-16.97	2.500	2.14	1.07
Immigr. at age 4-15	0.000	0.00	-17.6	1.814	0.89	1.21
Immigr. at age 16-23	4.768	3.13	2.38	1.020	0.65	0.03
Base: immigration at age 24 or older						
tenure with current employer	0.740	0.03	-7.21	0.843	0.02	-7.79
tenure with current employer squared	1.008	0.00	3.47	1.004	0.00	3.67
time period between finishing education and first	0.884	0.05	-2.08	0.991	0.02	-0.48
Colleagues in similar positions are men	0.969	0.12	-0.25	1.089	0.08	1.1
I reached the top of my grade	1.112	0.15	0.79	1.026	0.07	0.36
perm	2.783	0.71	4.04	2.405	0.47	4.54
Number of subjects	1,061			1,649		

Source: own calculations based on Wage Indicator Survey Data 2004-2006
Robust standard errors in parentheses * significant at 5%; ** significant at 1%
Key:
* = For a description of these variables please refer to Table I

Figures

Figure 1. Female participation and fertility (2000)

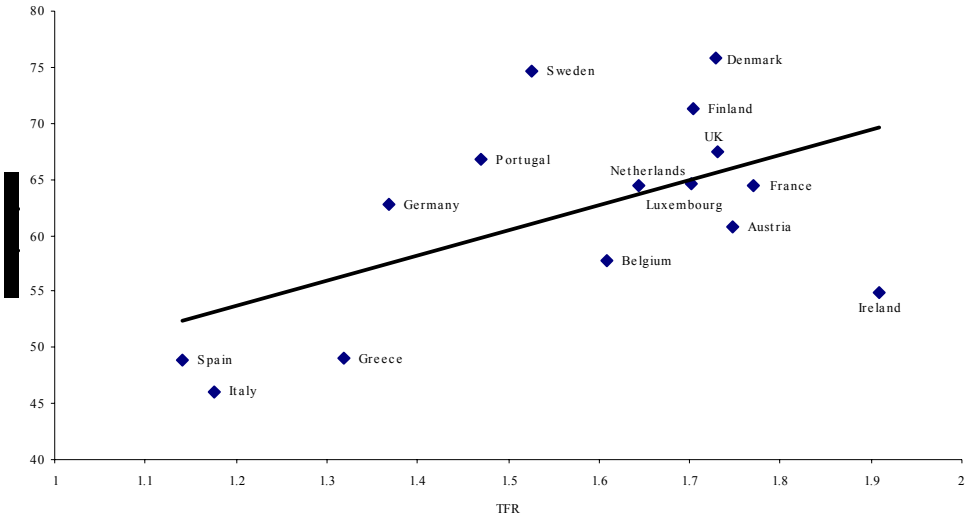
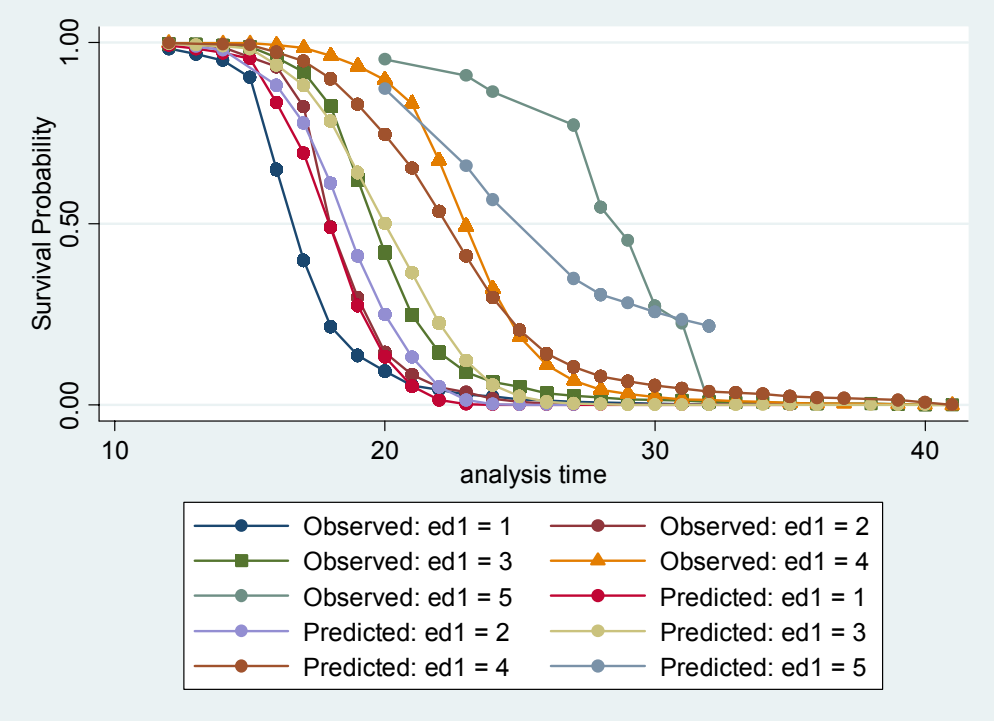
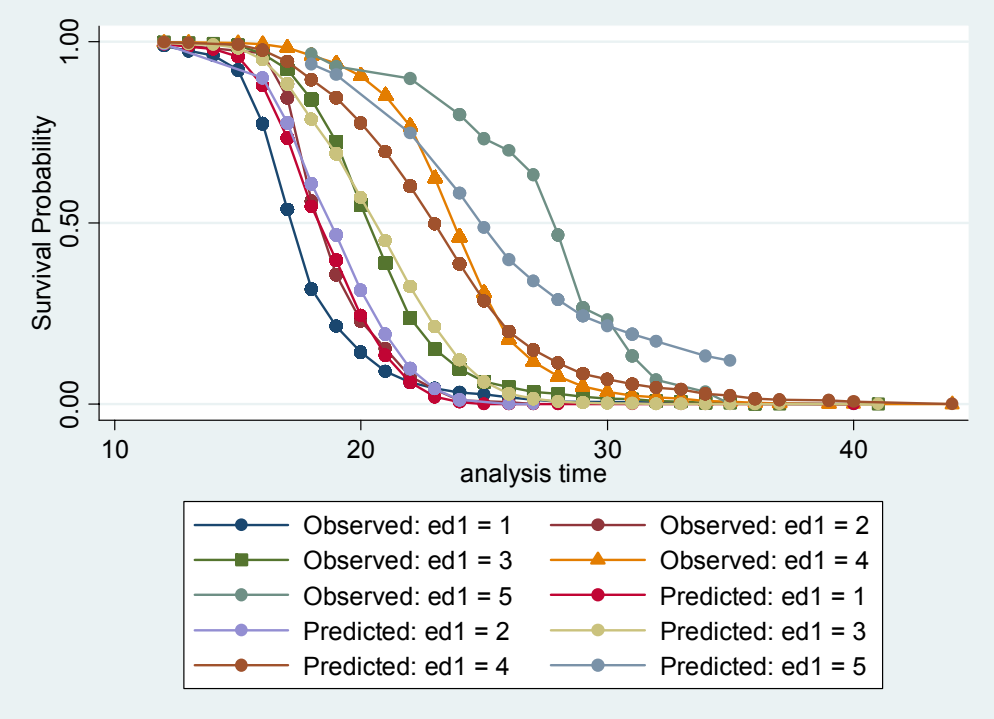


Figure: Netherlands. Women's Time till finishing education by education level

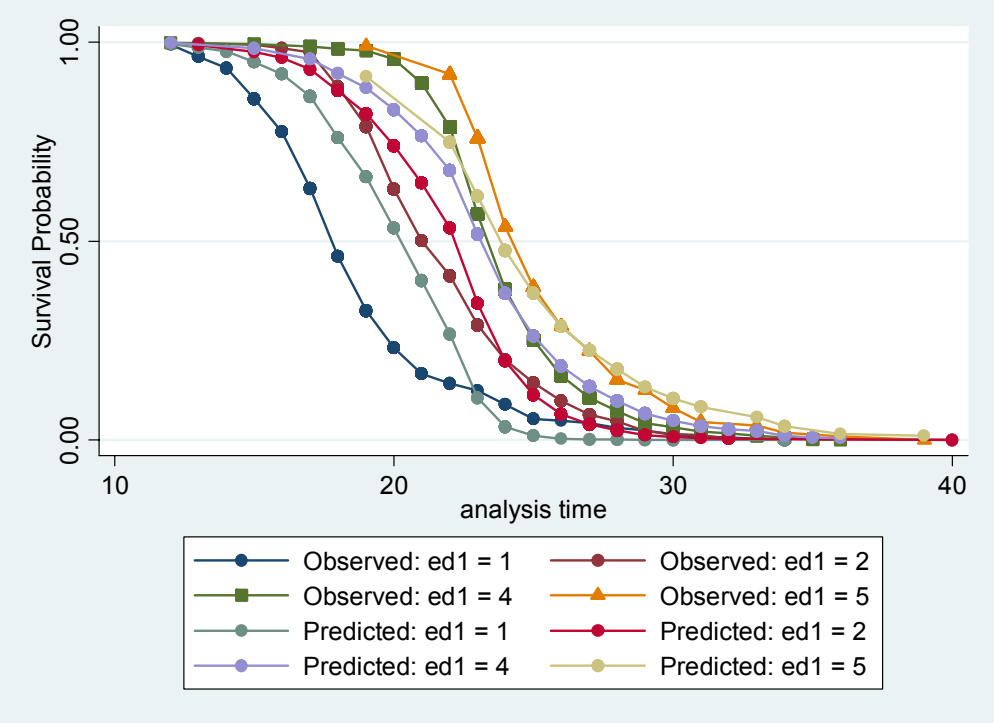
Key: ed1:ISCED1&ISCED2; 2:ISCED3; 3:ISCED4;4:ISCED5; 5:ISCED6



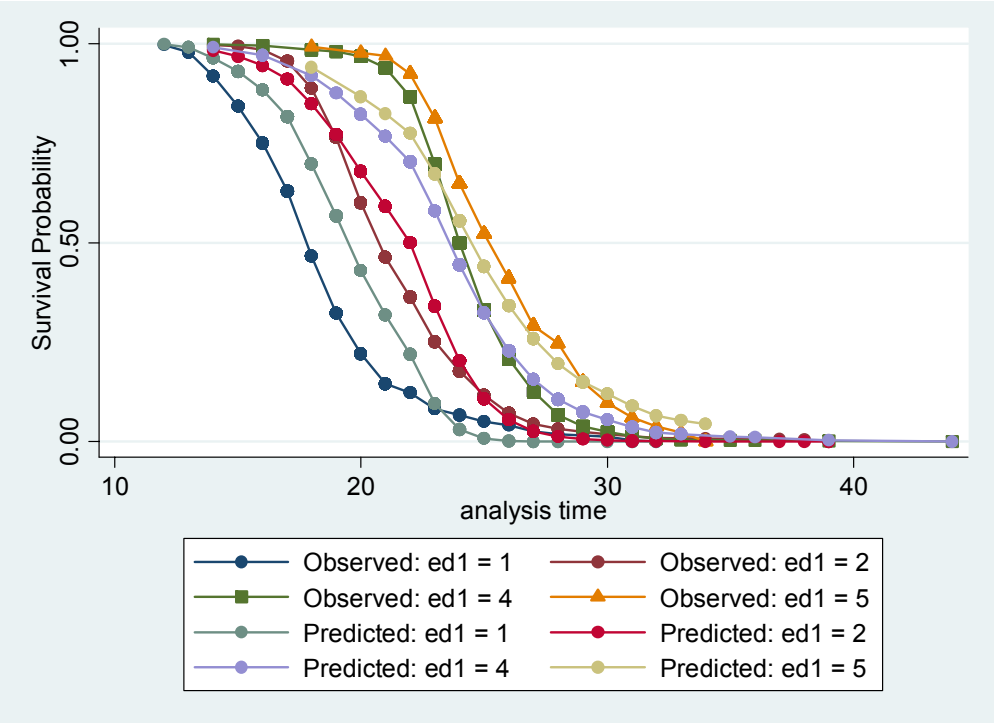


The Netherlands. Men's Time till finishing education by education level.

Key: 1:ISCED1&ISCED2; 2:ISCED3; 3:ISCED4; 4:ISCED5; 5:ISCED6

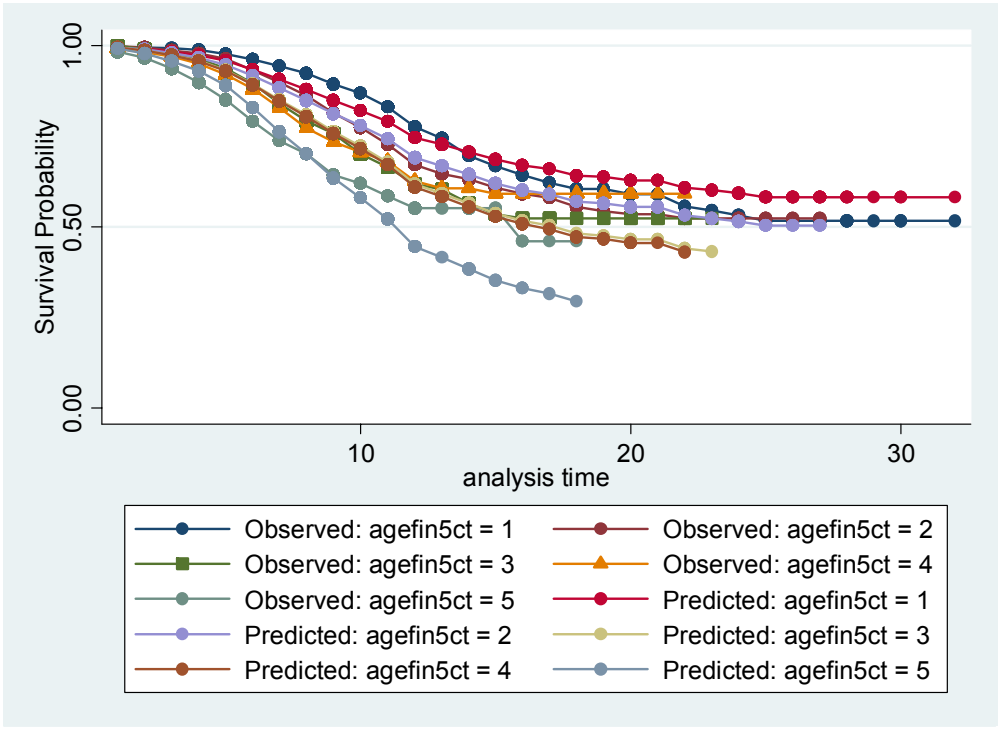


Spain. Women's time till finishing education by can level.



Spain. Men's time till finishing education by can level.

Key: agect5:
1:age at finishing education lower than 17; 2:>17&<=20; 3:>20&<=22; 4:>22&<=24; 5:>24



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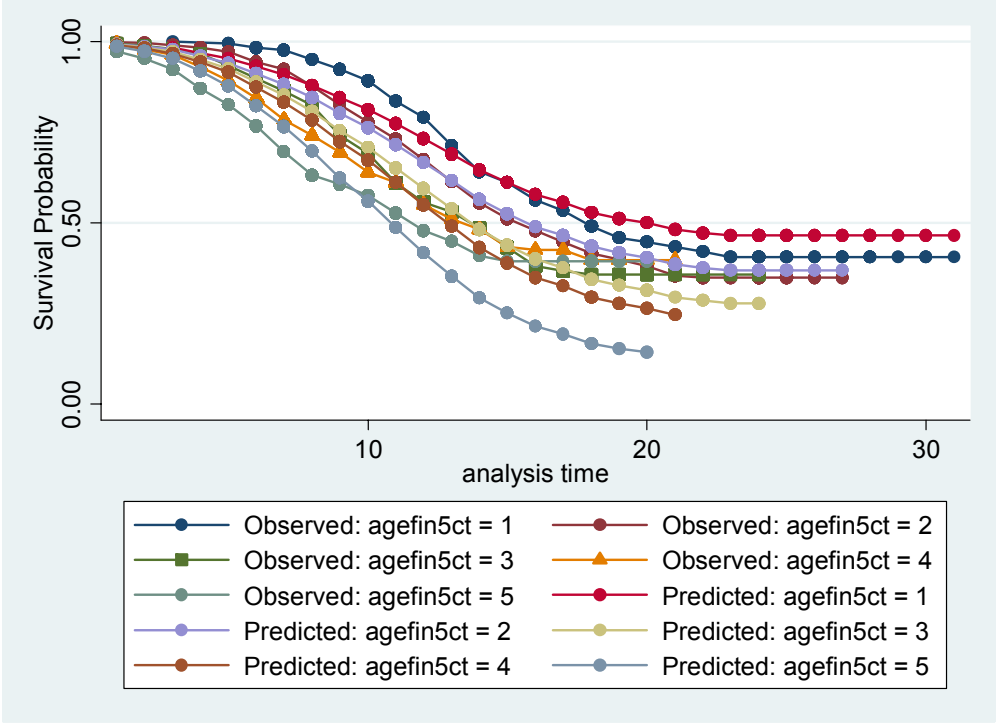
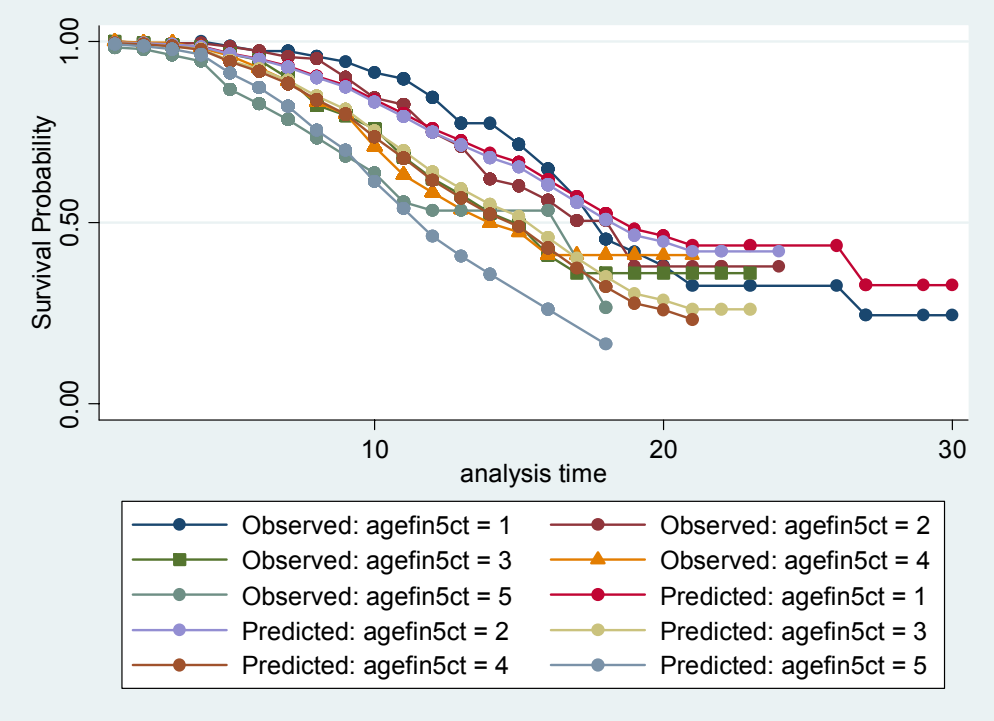
Netherlands. Women's time after finishing education till first birth by age finishing education.



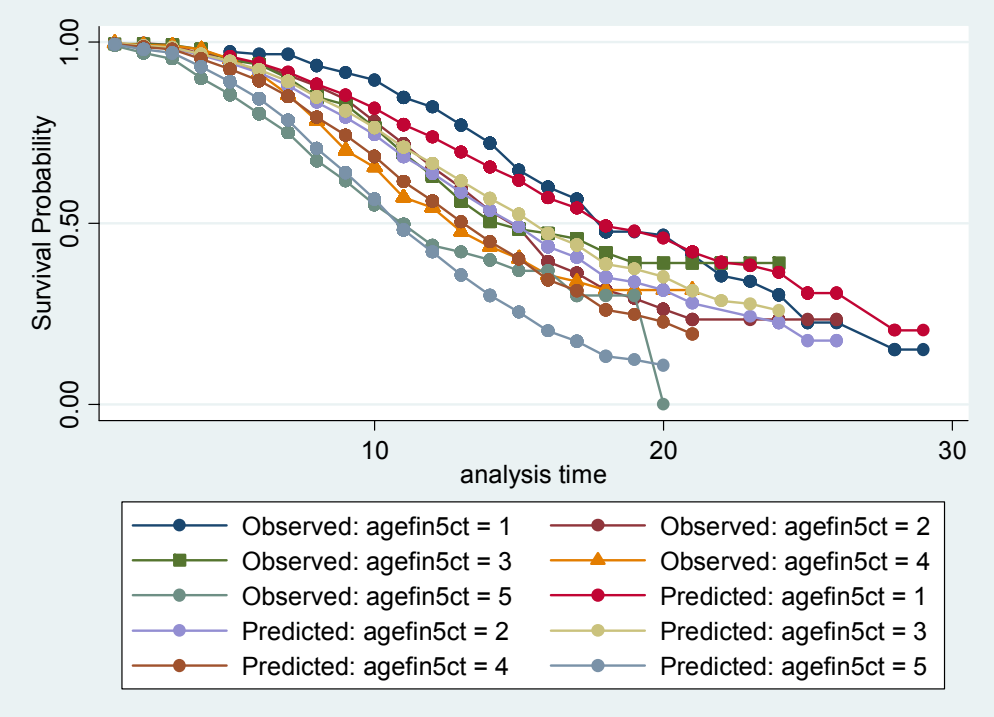
Netherlands. Men's time after finishing education till first birth by age finishing education.

Spain. Women's time after finishing education till first birth by age finishing education.

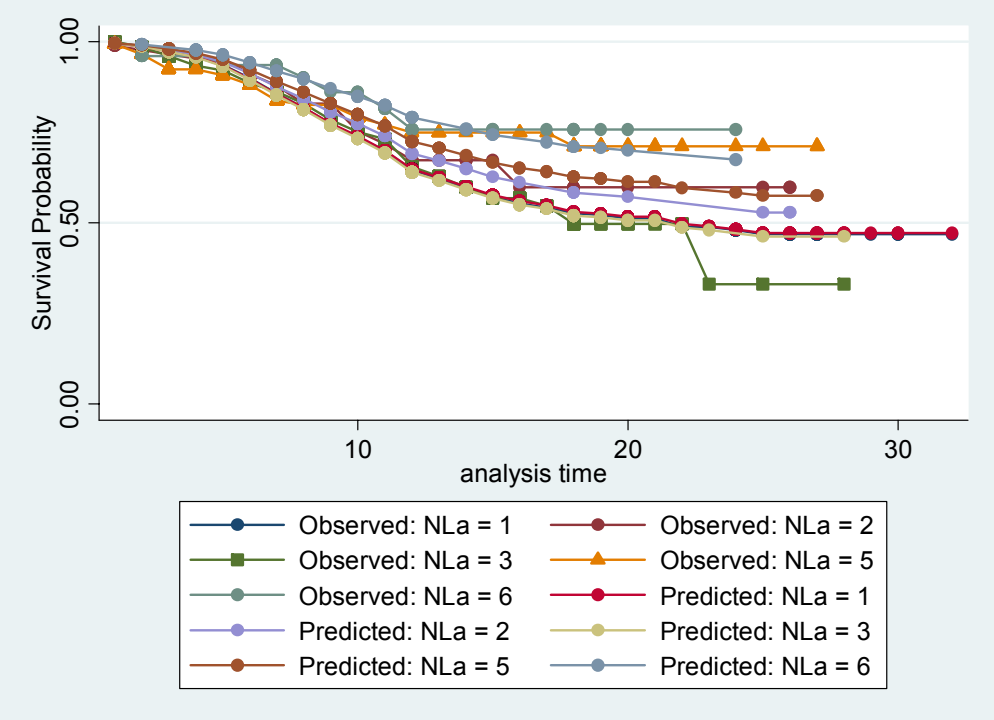
Key: agect5:
1:age at finishing education lower than 17; 2:>17&<=20; 3:>20&<=22; 4:>22&<=24; 5:>24



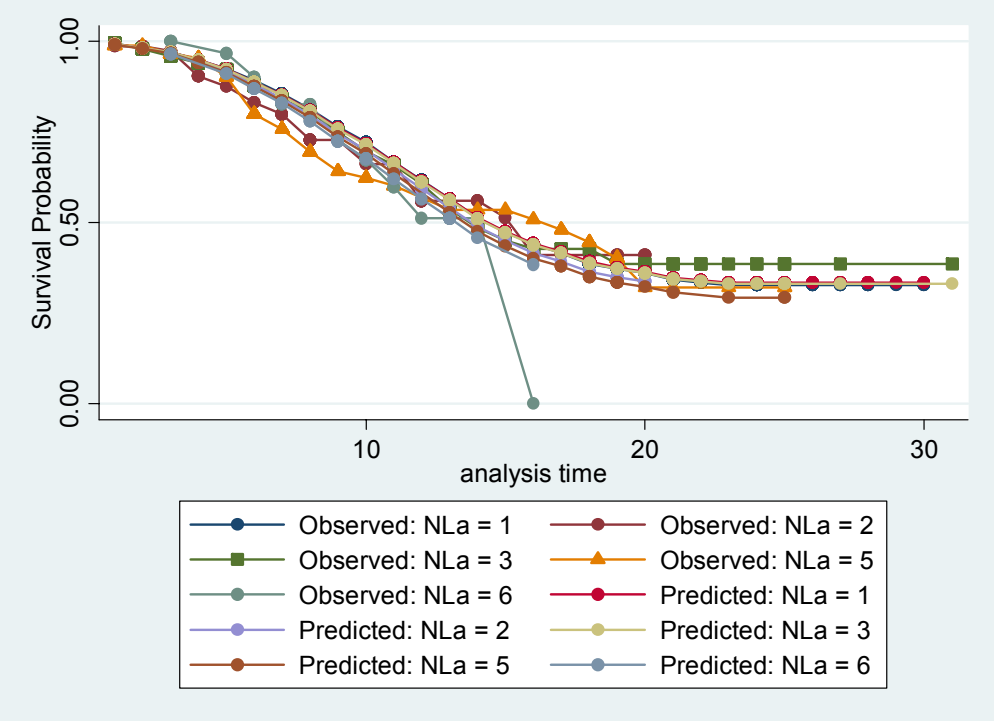
Spain. Men's time after finishing education till first birth by age finishing education.



Key:
NLa1: born NL; parents born NL;
NLa2: born NL; parents not NL;
NLa3: born NL; one of parents born NL;
NLa5: Not born NL; parents not born NL;
NLa6: Not born NL; parents born NL.

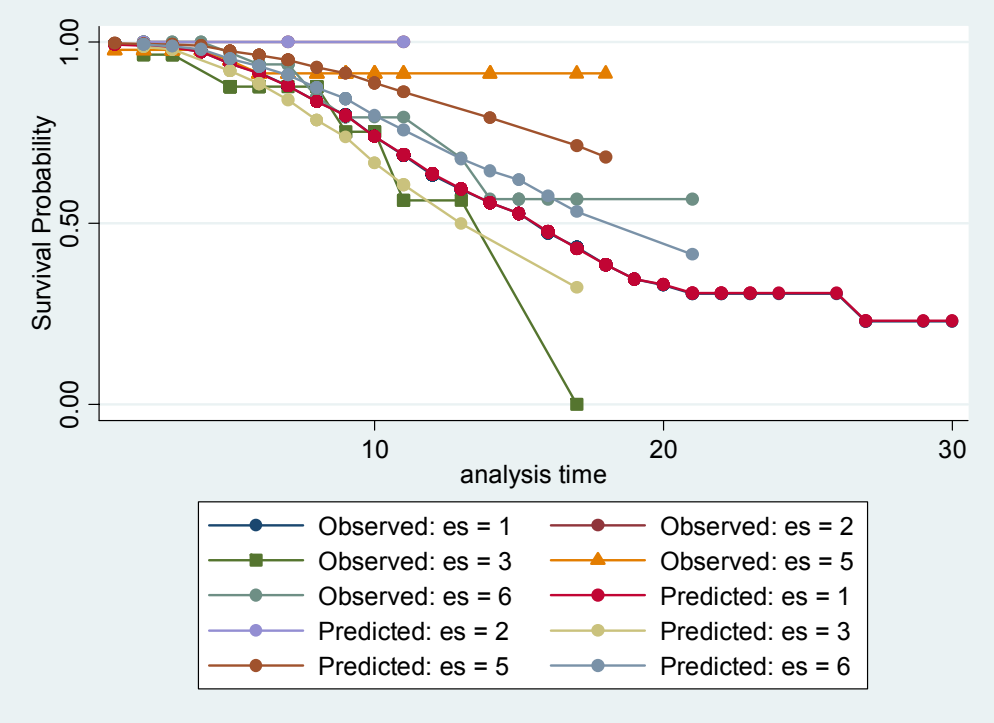


Netherlands. Women's time after finishing education till first child by immigrant background.

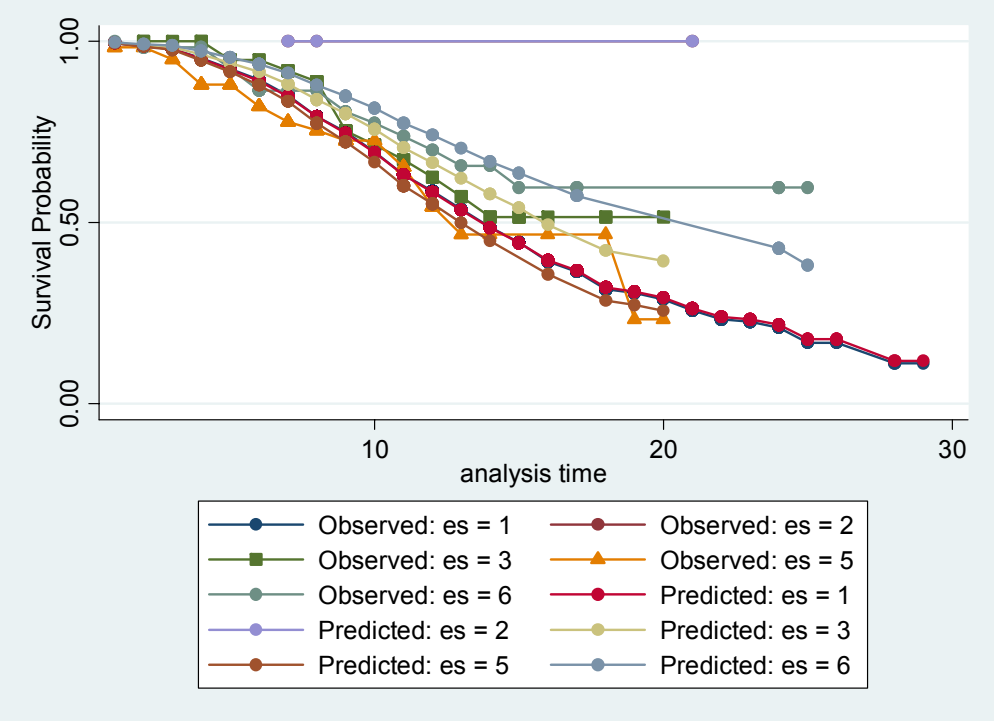


Netherlands. Men's time after finishing education till first child by immigrant background.

Key:
Es=1: born ES; parents born ES;
Es=2: born ES; parents not ES;
Es=3: born ES; one of parents born ES;
ES=5: Not born ES; parents not born ES;
Es=6: Not born ES; parents born ES.



Spain. Women's time after finishing education till first child by immigrant background

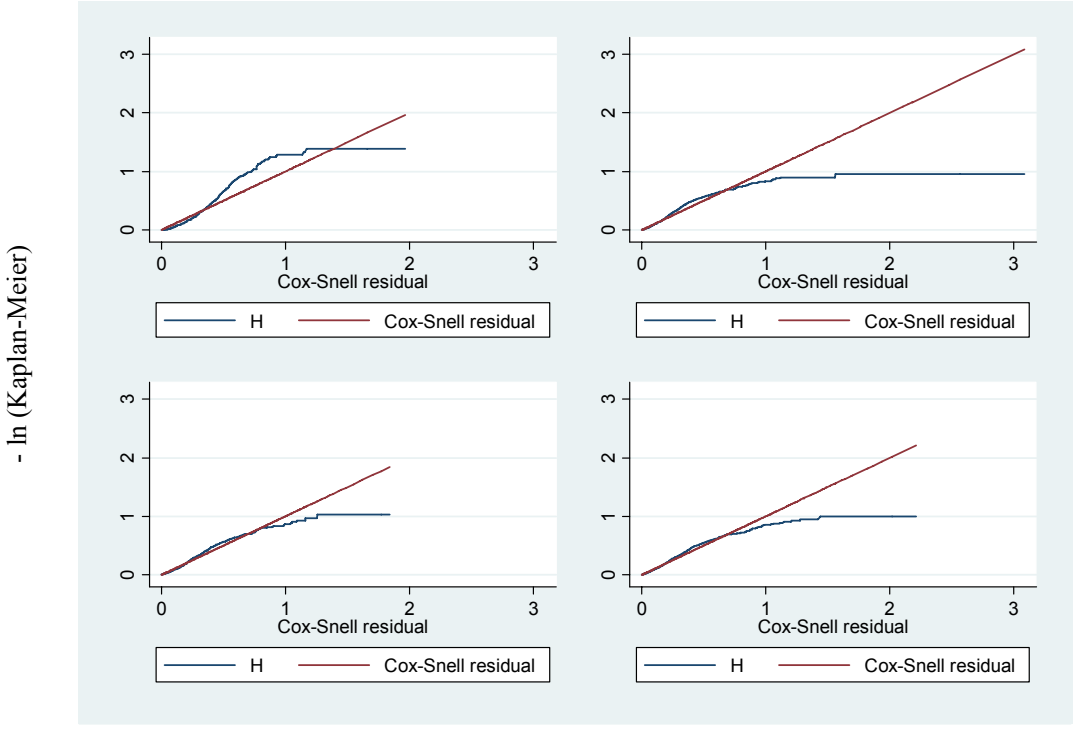


Spain. Men's time after finishing education till first child by immigrant background.

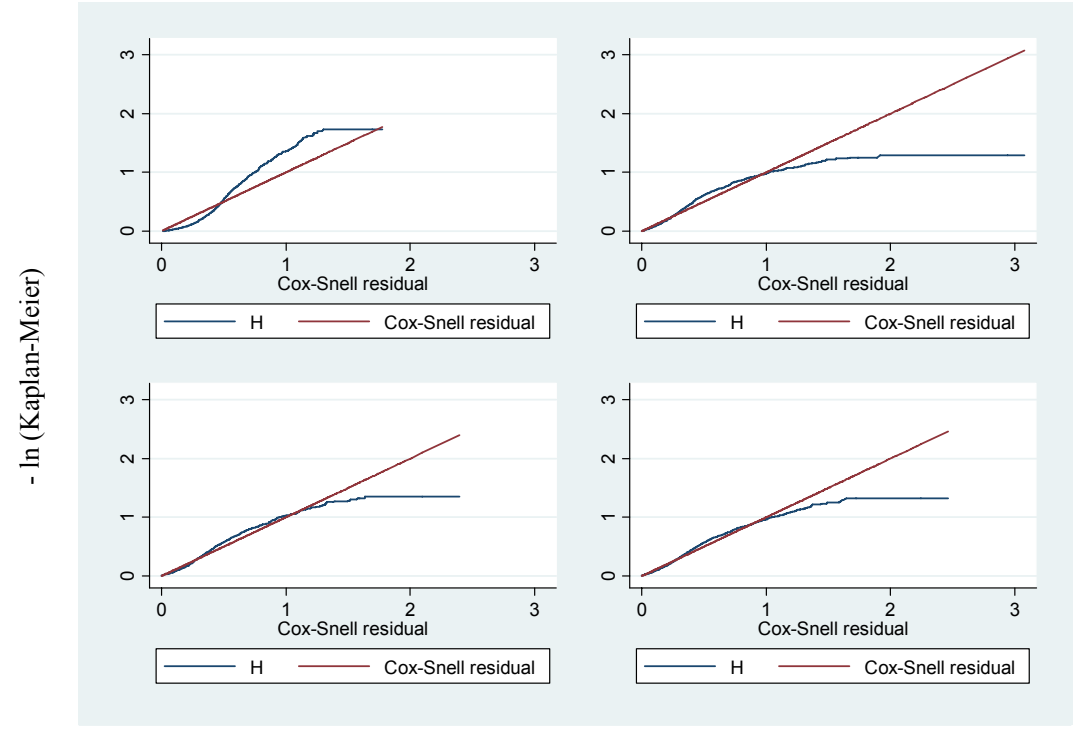
Figures: Time since finishing education till birth of the first child: Cox Snell residuals to evaluate model fit of the 4 parametric regression models. The Netherlands

Model 1. Clock round start left upper: Distribution is Exponential; Weibul; lognormal; loglogistic

a) Women



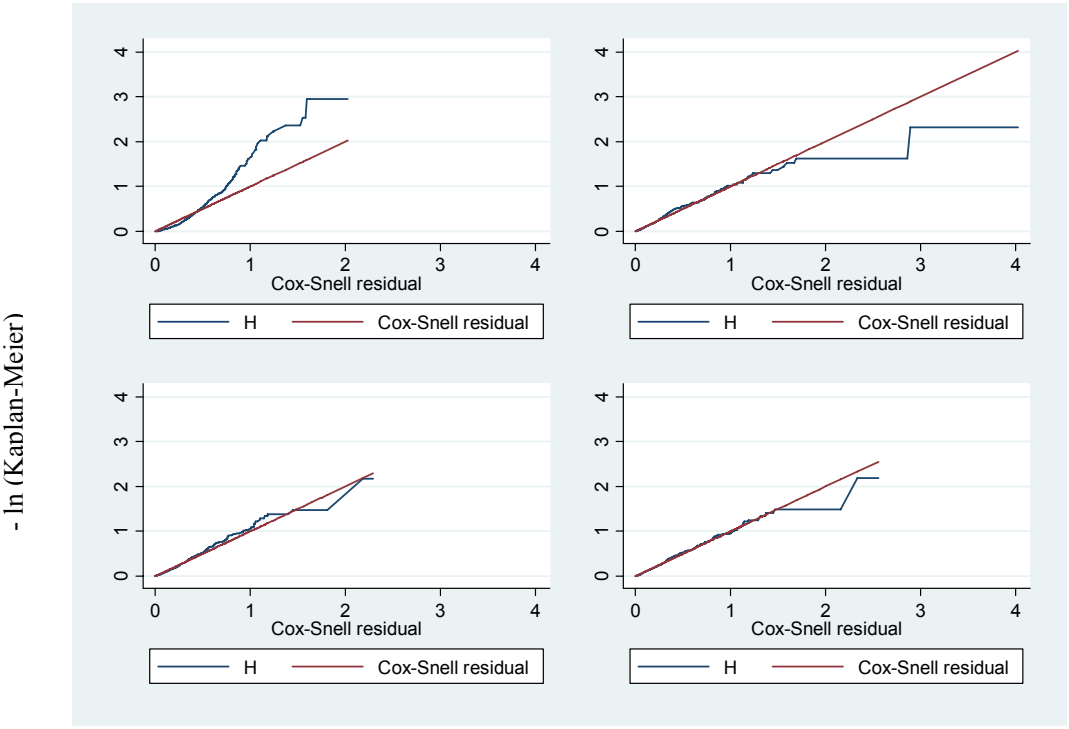
b) Men



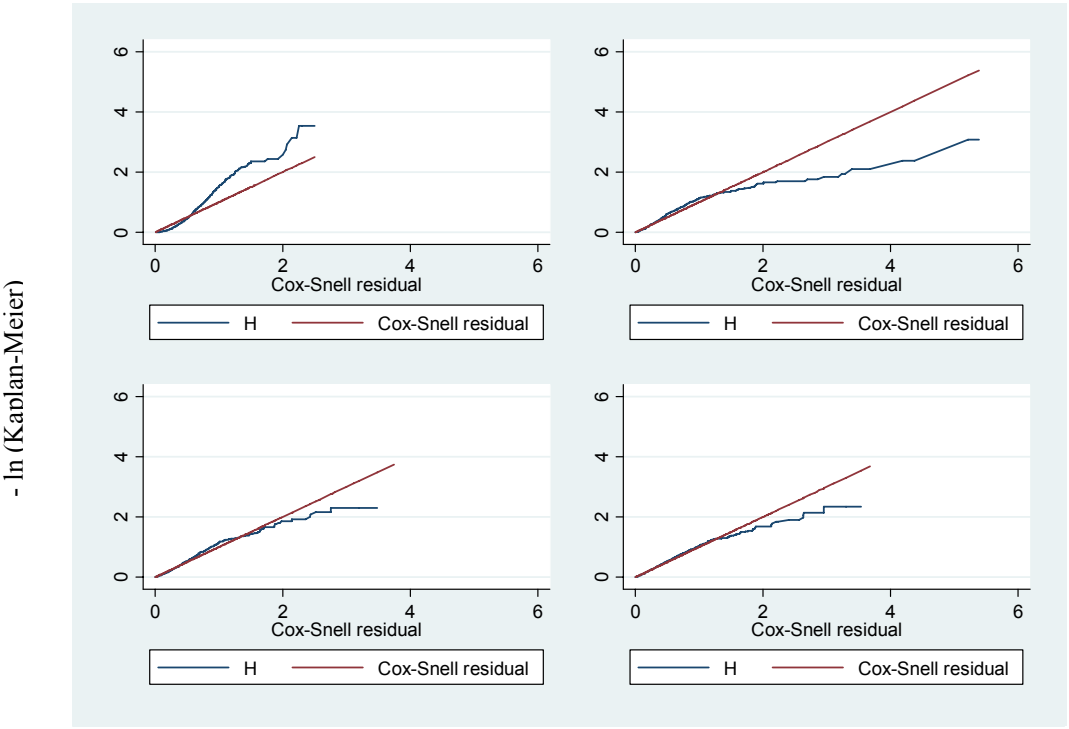
Figures: Time since finishing education till birth of the first child: Cox Snell residuals to evaluate model fit of the 4 parametric regression models. Spain.

Model 1. Clock round start upper left: Exponential; Weibul; lognormal; loglogistic

a) Women



b) Men



[1] The decline of European fertility rates is partly a decomposition effect and only partly due to complete family size becoming smaller. Even if all women were to have two children, in a period when the age at maternity is increasing, we will observe falling total fertility rates.

[2] The Research project: WOrkLIfeWEB is granted by European Commission under the 6th Framework Programme (KP6 STREP (FP6-2004-50659) and coordinated by prof. dr K.G. Tijdens. The project addresses the impact of the socio-economic framework on attitudes, preferences, and perceptions, and focuses on four issues: • perceptions of pay discrimination by gender or ethnicity in relation to any factual pay gap; • preferences for more or fewer working hours in relation to working hours and household duties; • attitudes towards collective bargaining coverage in relation to actual coverage by agreements; • perceptions of job insecurity in relation to dismissals and reorganizations at the workplace.

[3] As Del Boca and Locatelli (2007 forthcoming,) note the proportion of young adults aged 20-21, who co-reside with their parents is much larger in Italy, Spain and Greece than in Nordic and West European countries. Leaving the parental home often is a joint decision with either starting higher education or moving in together as a couple into a consensual cohabitation or marrying. Billari, Philipov and Baizán (2001) compute the proportion of young adults who leave their parental home before they have completed their fulltime education. Because the data are retrospective life cycle data, one can compute the sequence of timing of the events. Indeed, in those countries where leaving the parental home occurs at a younger age, this transition to a larger extent takes place before finishing education. In Spain 16 per cent of young women leave their parental home before they finish formal education. In Spain 73 per cent of young women leave their parental home at first marriage.

[4] Of course, this does not lead to gender equality of doing household work since paid domestic services are mostly performed by women.

[5] The latter may still show a gender bias, where women living close to educational institutions may benefit most, or women born in rural areas may need a longer time to finish education (or not be able to enter a certain type of education). QQQ Is there any evidence that families treat daughters and sons equally as regards access to education such as support sons and daughters equally to pursue an education even if this involves leaving the parental home nowadays in Spain??)

[6] If the person is a migrant at a young age we do not expect differences. However, a person migrating as a teenager is likely to finish school at a later age. Persons migrating after compulsory school years have had their education in their country of origin and the age at finishing will depend on the country of origin. Our cross-country comparable data do show quite small number of observations, and we therefore we control for migration but we feel not to test specific hypothesis on migrant background as regards age at finishing education.

[7] Family formation and the duration of the bargaining process on the marriage market and the regulations regarding migration will likely affect the timing of the first birth in the destination country. In 1994 a renewed law on immigration in the Netherlands and a new law on prohibiting of marriages of convenience also in 1994 restricted immigration on the basis of marriage. The number of marriages with immigrants has decreased in the Netherlands since 1994. Our data do not provide information on the country of birth of the partner.

[8] Therefore, we assume that the age of 0-3 at arrival will not lead to different timing of parenthood compared with the ethnic majority in the country. Arriving at the age between 4-15 may affect the timing of the first birth since most countries have a lower age at becoming a parent and immigrant may to some extent follow the pattern of their origin country. Arriving at the age between 16-23 may show this to a higher extent. Arriving when age 24 or older may only reveal mixed results.

[9] This is very likely to be reinforced by more difficult labour market situation of migrants compared to non-migrants. At this stage we are not able to test the labour market position of immigrant groups across countries since we do not yet have enough observations.

[10] We have very few cases where education was finished before the age of 15. Therefore we decided to focus on people finishing education after age 15. We also focus on people not in education and therefore every respondent has finished education.

[11] Individual differences in the hazard functions are characterized partly by the observed explanatory variables X_i and in part by the unobserved characteristics of the individual. If unobservable characteristics are correlated with the observables then not including an estimate of unobservables will

lead to incorrect inference regarding the impact of observables on the timing of events and to problems of identification (Gustafsson and Kalwij 2006, Heckman and Walker 1990a,b). There are a number of ways of extending duration models to account for unobserved heterogeneity. A direct approach is to model heterogeneity in the parametric models by defining the survival function conditional on the individual fixed effects, adding to this model a term for the unobserved heterogeneity. We intend to use in a next paper a Gamma distribution for the unobserved heterogeneity, where theta is a parameter for unobserved heterogeneity with theta being the case of no observed heterogeneity (as in Gustafsson and Worku 2005). There is also always the source of omitted variable bias.

[12] However, there is no theoretical framework to explain the time dependence, so we only have biological theory and post-modern fertility preferences that could guide us in the choice and therefore we used the statistical tests above.

[13] First, almost one half of the self-employed did not respond to the earnings question. Second, it is well documented that the self-employed have a tendency to under-report their earnings. Third, income from self-employment includes returns from both labour and from physical capital. Fourth, the number of hours worked in a normal week is likely to be more unreliable for the self-employed than employees.

[14] In the Netherlands, we also have information on the year the man and woman started to work in the current position. However, this information is lacking in many cases in Spain because the question was not posed in the year…. And therefore we do not use this information in this paper.

[15] This is due to the fewer number of observations in the Spanish data.

[16] Models not presented here that included only birth cohort and gross hourly wage revealed that in the Netherlands a higher gross hourly wage leads to having the first child earlier after finishing education and earlier since age 15 for women and men. A model with hourly wage and permanent contract still leaves hourly wage significant for women but the effect of a permanent contract is that the woman is 5 times more likely every year after finishing education to give birth to a first child compared to women who do not have a permanent contract. The effects of gross hourly wage and permanent contract are less strong for Dutch men. Adding the private sector shows that women working in the private sector become mothers later after finishing education, whereas this effect is not significant for Dutch men. The effect of net household income is negative, both with hourly wage and without. Since age 15: no effect of hourly wage on the age at parenthood in the Netherlands. Permanent contract affects women to be 6 times more likely to become a mother each year after 15. Working in the private sector leads women to become mother at a later age, but this effect is not found for men. In Spain similar model specifications show different results as regards the effect of the private sector which does not show significant effects on timing of parenthood, and a higher net household income has no effect on men's timing of parenthood, but it leads Spanish women to become mother earlier since finishing education. A model with only private sector shows even a positive effect on Spanish women's age at motherhood.

[17] In another model specification we controlled for "being promoted" which had a positive effect of entering parenthood sooner. No effects of income and hourly wage in that specification. We decided to present the most "clean specification (with the least correlation between the independent variables" in the Tables 5 and 6.

[18] The effect of industry is shown in simple models. Adding information on the employment position makes the industry insignificant in Spain.

[19] Age at attaining the education level (standard number of years required to attain the level)

[20] The hourly wage we use as an independent variable is constructed from respondents reported usual gross earnings from their main job and their reported weekly hours of work. Xiv This is expressed in real terms, deflated to January 2006 prices.