

Career planning in Spain: Do temporary contracts delay marriage and parenthood?

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Abstract

The aim of this paper is to find an empirical connection between the striking increase in the use of temporary contracts in Spain and the observed delay in the age at marriage and maternity.

Using the six available waves of individual information from the European Household Panel for Spain, we find that holding temporary contracts relative to permanent ones delays marriage for both men and women, although the effect is stronger for men. The labor market situation of both members of the household affects entry into parenthood. In particular, if women have temporary contracts rather than permanent ones, parenthood is delayed independently of the husband's contract. These results give strong support to the career planning motive for delaying maternity in Spain, given that an unstable labor market situation of female workers is found to be an important deterrent to entry into motherhood.

JEL classification: D1, J1.

Keywords: Postponement of marriage and maternity, temporary contracts, career planning motive, fixed effects.

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1 Introduction

At the beginning of the sixties, north-western Europe started a drastic transformation in the pattern of household formation and reproduction, which was reflected in a pronounced increase in age at first marriage and a clear postponement of entry into maternity. Towards the end of the eighties, these features of behaviour had reached some of the Mediterranean countries, such as Portugal, Italy and Spain. Theoretical life-cycle models of fertility have analyzed the factors that may induce families to change their fertility pattern over their life-cycle (Cigno and Ermisch (1989), Cigno (1991), Walker (1995)). Children entail large costs in terms of time, maternal time costs of mothers which vary over their life cycle, and in terms of goods or direct expenditure on children. Therefore, changes in childbearing costs (direct expenditure and opportunity costs) and income over the family life-cycle may result in changes in the timing of fertility (see Hotz et al. (1997)). Women's educational attainment and their participation in the labor market affect childbearing costs (particularly through opportunity costs of childbearing) and household income over their life-cycle differently depending on their educational level. More educated women place a higher value on their time in the labor market at each age, given that if they decide to participate in the labor market, they will have higher earnings profiles than less educated women. Since childbearing imposes time, the higher the wages the higher the opportunity cost of childbearing for women (this is the well-known substitution effect). Furthermore, sometimes there is not only a loss in current income but also in their future earnings profile due to the depreciation of women's human capital at work during their temporary absence from the labor force for childbearing. The latter are the costs of children for the mother's career, which constitute the main point in the literature on the career planning motive for postponing maternity (see Joshi (1990, 1994, 1998), Dankmeyer (1996), Gustafsson (1996, 2001)). This effect is particularly important for highly educated women.

The observed postponement of fertility in Spain cannot be explained only by a transition from early parenthood by poorly educated females to late parenthood by

highly educated females. The reason is that, even though the distribution of more educated women of fertile age has increased, postponement of parenthood has been observed within each educational level. Recent empirical research (Ahn and Mira (2001)) stresses the connection between unemployment and fluctuations in marriage and fertility in Spain. They find an empirical link between high and persistent rates of unemployment and a delay in marriage in Spain during the eighties. From an economic point of view, high and persistent unemployment must be viewed as a drop in current and future expected income, and given that children are normal goods, childbearing is expected to be delayed. This issue is particularly important in economics with imperfect capital markets, where households need savings so as to afford the fixed costs imposed by children (Kalwij (1999)).

The aim of this paper is to find an empirical connection between another particular labor market phenomenon and the delay in marriage and maternity in Spain. The labor market phenomenon we focus on is the huge increase in the use of temporary contracts that young Spanish workers, in particular, have suffered since the mid eighties. This increase is due to a labor market reform which took place in 1984 and whose main point was that employers were allowed to contract workers on a temporary basis even when the nature of the job was not temporary. Since this reform, the vast majority of new contracts in Spain have been and still are on a temporary basis. These temporary contracts are at least partially responsible for the important “career break job penalty” that Spanish mothers are exposed to. As Gutierrez-Domenech (2002) shows, one third of women who were at work one year before childbearing were unemployed nine months later, and this is mainly due to women with pre-birth temporary contracts. Our hypothesis is that given that Spanish women with temporary contracts are aware of the career break job penalty they are exposed to when they become mothers, many of them decide to postpone starting a family until they get a more stable labor situation, i.e., until they get an indefinite contract.

We want to measure the extent to which the type of contracts individuals hold delayed the decision to form a family during the nineties, which is when such

contracts were most widely extended. Using the six available waves of the European Household Panel for Spain, we estimate empirically the impact of the type of contract on postponement of marriage and parenthood. Given the panel structure of the data, we use fixed effects estimation in order to reduce the unobserved individual heterogeneity.

Results reveal that holding temporary contracts relative to indefinite ones delays marriage for males and for females. However, the negative effect is stronger for men. Not working (relative to holding an indefinite contract) also delays marriage for men and women, although the impact is much stronger for men, which is consistent with Spain being mainly a male breadwinner system. The labor market situation of both members of the household affects entry into parenthood. In particular, if the woman has a temporary contract rather than an indefinite one, parenthood is delayed independently of the husband's contract. Moreover, postponement of motherhood is more affected by the labor market instability of women (temporary versus indefinite contract) than by the labor market instability of their husbands. This latter result gives support to career planning as a motive for postponing parenthood.

The rest of the paper is organized as follows: Section 2 presents the stylized facts concerning the observed delay in the average age at marriage for men and women for Spain, as well as the observed delay in the average age at motherhood from the mid eighties to the late nineties. In section 3 we describe the institutional context regarding temporary contracts in Spain. Section 4 is devoted to describing the data. In section 5 we estimate the impact of the type of contracts individuals (men and women separately) hold on entry into marriage, and on entry into parenthood for married or cohabiting women. Section 6 concludes.

2 Stylized facts - Observed delay in Spain

Table 1 reports the observed average age at first marriage¹ for males and females in 1985 and 1998, respectively. It can be seen that both have delayed marriage by around three years on average, which represents a remarkable postponement in such a short period of time.

[Insert Table 1]

With regard to average age at motherhood, table 2 reveals that for 1985-1998, there is an average postponement of maternity of 3,38 years, and that postponement is higher the higher the educational level of women. Although the lack of data for 1985 prevents us from looking at the delay in maternity for females according to their labor market situation, the data for 1998 reveals that female workers with a stable labor market situation have their first child much earlier on average than those with temporary contracts.

[Insert Table 2]

Given these results, the next question we must pose is why individuals postpone marriage and parenthood. Concerning the latter, the fact that more educated individuals delay longer than the less educated ones means that higher educational attainment cannot be the only explanation of the observed average postponement in parenthood. Therefore, there is not only a compositional change, but also a change in behaviour within educational levels concerning the optimal time for forming a family. Our hypothesis for that change in behaviour is that the large increase in the use of temporary contracts between the mid eighties and nineties might offer at least a partial explanation for the delay.

In order to understand the changes that the increase in the use of temporary contracts has brought about in Spain since the mid eighties, section 3 presents the

¹In the remaining of the paper, marriage must be understood as either getting married or forming a stable union.

institutional background of temporary contracts in Spain, and a description of the notable increase in their use during this period.

3 Temporary contracts in Spain

3.1 Institutional background

The basic legal reference point regarding labor contracts in Spain is the Workers' Statute of 1980 (Estatuto de los Trabajadores, Ley 8/80, March 10). This law considers that the general contracting framework is one of indefinite contracts, with temporary contracts assumed to be used only for jobs whose nature is temporary (seasonal jobs, temporary substitution of workers with indefinite contracts, temporary increase in activity, etc.). The essence of this law must be understood in a context where unions, which had been legalized in 1977, were trying to achieve higher job protection for workers, and this meant stability in contracts on the one hand, and high severance payment in case of layoff on the other. These two aims led the Spanish labor market to face the beginning of the eighties, a period of recession, with a workforce the vast majority of which held indefinite contracts with high severance payments in case of dismissal for economic reasons². Some type of flexibility was considered necessary and it is in this context that the reform of 1984 took place. This reform created a new type of temporary contract, called an "employment promotion contract". Such contracts would be temporary, although the type of job associated with them would not necessarily be of a temporary nature. These "employment promotion contracts" could be signed for a minimum of six months and a maximum of three years. The contract could not be renewed after three years and the worker had to be either laid off or offered an indefinite contract. If the worker was laid off, the firm could not employ another worker for the same job for at least one year. The indemnities at termination for these type of contracts

²If the dismissal was considered "fair", the worker had the right to receive 20 days' wages per year of tenure. If considered "unfair" by the labour court, which happened very frequently, the worker would be awarded 45 days' wage per year of tenure. For more details, see Toharia and Malo (1999).

were negligible³. This reduction of firing costs produced an impressive change in the way firms contracted labor from then onwards. In fact, as Güell and Petrolongo (1998) show, from 1986 to 1992, 98 % of new contracts registered at the employment office were “employment promotion contracts”.

This reform brought about a striking change in the distribution of employment contracts in Spain. Whereas in 1987 only 15 % of all contracts were temporary, by 1991 the figure was 33 %, and the percentage has remained stable since then⁴. However, given that the situation of workers that already held indefinite contracts was unaffected by this reform, by the beginning of the nineties academic experts started to advise against the pervasive effects of these temporary contracts (see Segura et al (1991), Bentolila and Dolado (1994), and Jimeno and Toharia (1993)). In particular, they advised against the creation of a segmented labor market with two types of job, good (indefinite) ones and bad (temporary) ones, given that workers with temporary contracts might be led to hold unstable, relatively unprotected (in terms of severance payments) and poorly paid jobs, whereas workers with indefinite contracts enjoyed high protection and also higher wages⁵.

These perceptions gave rise to the reforms of 1994 and 1997. The spirit of both reforms was to enhance indefinite contracts to the detriment of temporary ones, while reducing firing costs of the former. In 1994 the general applicability of fixed-term contracts was virtually eliminated, except for specific groups of workers (older than 45, disabled and long-term unemployed). In addition, firing procedures were restructured in an attempt to reduce them⁶. Finally, the 1997 reform created a new type of indefinite contract, with lower severance payment in case of unfair dismissal (33 days’ wage per year worked in the firm for workers younger than 30 or older than 45) and gave fiscal incentives to firms that contracted workers in this form over the first two years of the contract (reductions of employers’ social security contribution

³For more details on severance payments associated with temporary and indefinite contracts, see Güell and Petrongolo (1998) and Segura et al (1991).

⁴See Toharia (1996) for a picture of the trend in temporary contracts from 1987 to 1995.

⁵De la Rica (2003) estimates that for 1995, the adjusted wage gap between temporary and permanent workers is around 18% for men and 9% for women.

⁶For more details, see Toharia and Malo (1999).

by 40 percent or by 60 percent for contracting workers over 45 or disabled under indefinite contracts⁷). Recent empirical studies find a positive effect of the reform of 1997 on the hiring of workers (particularly young workers) on an indefinite basis, but the overall impact of these reforms has been found to be rather small (see Kugler et al (2002)).

In summary, we can see that whereas in the early 1980s workforce adjustment was in general terms considered rigid, during the eighties and nineties the Spanish pattern was to search for more flexibility. However, this flexibility is only achieved at the margins, i.e., for workers signing new contracts, given that severance payments for workers that were already in the labor market holding indefinite contracts before the reform was introduced were unaffected, and therefore they were and are still highly protected against job loss.

3.2 Temporary contracts in Spain

Table 3 presents the change in the average use of temporary contracts for different groups of population and for different periods of time. There is a striking increase in the use of temporary contracts, particularly among the youngest group of population. It can also be seen that the trend was strongly increasing until the beginning of the nineties and since then has remained stable. Finally, the incidence is higher among women than among men, and higher for women without higher education.

[Insert Table 3]

Another important feature concerning temporary contracts in Spain is their transition to other types of contract. As Hernanz (2002) shows, during the nineties, annual transitions of women workers from temporary jobs were distributed as follows: 13% of them changed to a indefinite job, 18% went to unemployment, 9% left the labor force, and 60% of them remained with a temporary job. Moreover,

⁷The current contribution of employers to social security is 24 % of wages.

the transition to an indefinite job had (and still has) to be done virtually always through a temporary contract, given that, as mentioned in the introduction, Güell and Petrongolo (1998) show that for this period 98% of new contracts registered at the employment office were “employment promotion contracts”, which implies that transition from non-employment to permanent employment is very unlikely. Regarding the likelihood of making the transition from temporary to indefinite contracts, Hernanz (2002) shows that age and more importantly, tenure in the firm clearly facilitate such transition. On the other hand, working in small firms, and in blue-collar occupations makes the transition more difficult. Finally, the same study also shows that having a temporary job is basically a temporary status, and therefore there does not seem to be a “temporary job” trap given that, through a cohort analysis, she reveals that the percentage of temporary contracts decreases a great deal with individuals’ age.

Finally, holding a temporary contract relative to an indefinite one has important effects regarding future prospects for women that become mothers. In Spain, maternity leave provisions for women workers envisage 16 weeks, and the legal coverage is 80% of wages. In principle, workers with both indefinite and temporary contracts are allowed to make use of this provision. Indeed, almost all salaried workers with indefinite contracts make use of it when they give birth. However, a significant proportion of temporary workers that become mothers cannot make use of it, because for many of them, their temporary contract expires before they give birth, and employers have no incentive to renew or make indefinite the contracts of women that are giving birth, and therefore are likely to be absent from work for 16 weeks for maternity leave. Therefore, women with temporary contracts that become mothers are much more likely to become non-employed after the birth than women with pre-birth permanent contracts. Moreover, once they have become non-employed, if they want to return to work the career break job penalty they are exposed to is very high given that as the transition from non-employment to permanent employment is very unlikely, so these workers have to go through temporary contracts again before getting a stable situation.

4 The data

As mentioned in the introduction, the data we use are the six available waves of Spanish data from the European Household Panel (1994-1999). This database has advantages and drawbacks that must be mentioned. Among the advantages, we must note that the period under analysis seems very suitable for the aim of this paper, given that the nineties is the period when temporary contracts had the greatest impact in the Spanish labor market. Furthermore, extensive information concerning partners' labor market situations, in particular their types of contract, is available. Such information is clearly relevant in order to learn about the (in)stability of the labor situation of the household, given that although female labor force participation is increasing at a high pace, Spain is still mainly a male breadwinner system.

But the European Household Panel has disadvantages which it is important to take into account. The biggest drawback is that the panel is very short, so we cannot follow individuals throughout their fertile adult life, which would be the best way to proceed in order to look at the factors determining postponement of marriage and parenthood. Moreover, there is no retrospective information regarding the labor market situation before or around marriage or parenthood for those who got married or had their first child before 1994. Given these limitations, the samples we have constructed in order to estimate the impact of temporary contracts on postponement of marriage and parenthood are the following: For the analysis of the determinants of marriage, we take all individuals (men and women separately) who at the time of the first interview have never been married and are not cohabiting. These individuals either do not change their situation while they are observed, or get married at some point during the observation period. The latter are removed from the sample once marriage takes place. For the analysis of the determinants of parenthood, we take all women who are married (or cohabiting) and childless at the first interview. These women either have their first child during the observation period or remain childless. The former are removed from the sample once they have their first child, while the others remain in the sample throughout the observation period.

The main disadvantage of these samples is that individuals are very heterogeneous from the very first moment they are observed, given that they have different ages, and consequently, very different biological fecundity prospects. Therefore, the standard analysis of duration until an event takes place does not make sense with these data. In this setting, empirical analysis of postponement is particularly difficult, given that postponement is closely related to the age at which a particular event takes place. In order to tackle this difficulty, we have considered three different stages at which events (marriage and motherhood) may take place: (i) An earlier stage of the fertile cycle, when individuals are between 18 and 24 years of age, (ii) an average stage, when individuals are between 25 and 31, and finally, (iii) a later stage, when individuals are older than 31⁸. By doing this, we can analyze postponement of marriage and parenthood by looking at the effects of the explanatory variables, in particular, education and type of contract, at the particular age-interval at which marriage and parenthood take place.

The empirical approach we follow is to estimate the probability that each of the events (marriage and parenthood) takes place assuming a logistic functional form. The panel structure of the data allows us to reduce a large part of unobserved individual heterogeneity (that which is invariant with time, such as tastes for marriage and for children) by introducing unobserved fixed effects into the estimation. Given that some of the variables we introduce into the empirical analysis present very little or no within-individual variance, we also present the results from the estimation of the probability of marriage and parenthood when the data are considered as pooled data.

Tables 4A and 4B present the mean of the variables to be included in the empirical analysis⁹. Table 4A presents the means of the sample of single individuals (men and women) by educational level and type of contract¹⁰, as well as the

⁸We have considered these three intervals in order to consider an equal span of seven years in each. However, minor changes in these periods do not make for significant changes in the empirical analysis.

⁹Descriptive statistics presented in tables 4A and 4B are obtained from the pooled data.

¹⁰Concerning the type of contract, we have proceeded as follows: salaried workers with a permanent contract and self-employed are assigned to permanent contracts, salaried workers with a

percentage of marriages that take place in each age interval. It can be seen that there are very few marriages at the earliest stage (18-24 years), whereas marriages seem to be concentrated more in the second age interval. Regarding the type of contract, it is interesting to note that the percentage of indefinite contracts increases with the age of individuals, whereas the percentage of temporary contracts only decreases when individuals are older than 31. In order to give a more precise idea of the distribution of marriage by education and by type of contract, we present Graphs 1-4, on which the distribution of marriage by education and by type of contract is depicted¹¹. In particular, Graphs 1 and 2 present the probability of being married/cohabiting at each age for women of different education levels (graph 1) and for different types of contract (graph 2). We can see that the higher the educational level, the later marriage takes place, which indicates that higher education seems to be positively correlated with delaying marriage. Regarding the type of contract, graph 2 shows that women who do not work are more likely to get married. However, the pattern of marriage does not seem to differ much between those with temporary and those with indefinite contracts. Graphs 3 and 4 present the probability of being married/cohabiting at each age for men by educational level (graph 3) and by type of contract (graph 4). As with women, more educated men seem to marry later. The graph also reveals that men with secondary education seem to present marriage percentages which are smaller than for both primary and university levels. Finally, we can see in graph 4 that non-workers are those who marry least at every age, as expected, given the Spanish male breadwinner system. Comparing temporary and indefinite contracts, we can see that those with indefinite contracts marry earlier.

[Insert Table 4A]

[Insert graphs 1-4]

temporary contract and workers employed in a training regime are assigned to temporary contracts. The category of non-workers includes all those who are unemployed, family help with no pay, out of the labor force or work less than 15 hours a week (the latter are less than 5 percent).

¹¹The percentages shown in the graphs are the relative frequency of marriage (motherhood) by age, weighted by the proportion of the sample in each education level or in each type of contract at each depicted age.

With respect to the sample used to estimate the determinants of entry into maternity, table 4B presents the means of the most relevant variables¹². As with the above sample, those in the sample of childless married (or cohabiting) women are younger, (18-24 years), less educated, and mostly do not work. The number of observations in this category is rather small. In the middle age group (25-31) women are much more highly educated, and the percentage of workers increases. The percentage of indefinite contracts also increases relative to the younger group. It can be seen that most husbands of women over 24 have indefinite contracts. To give a better idea of the distribution of maternity by education, type of contract and husband's type of contract, we have depicted that distribution in Graphs 5-7. Graph 5 presents the probability of having a first child at each age by education, and it can be seen that married (or cohabiting) women tend to have their first child later than women with primary education. Differences are particularly large between women with university studies and the others, given that the pattern of motherhood is clearly increasing with age, up to 32, whereas the pattern of motherhood for women with less than university studies is decreasing from the age of 20 onwards. This is consistent with the already mentioned delay in childbearing by more educated women relative to less educated ones.

Concerning the type of contract, Graph 6 reveals that women who do not work seem to enter into maternity earlier than those who are working, either with temporary or indefinite contracts. For those who are out of the labor force (non-workers minus unemployed workers), childbearing only entails direct expenses (there is no substitution effect), and therefore, given that parents value their offspring, we would expect women that are out of the labor force to find it optimal to have their children early in their fertile cycle.

Regarding workers, we can see that women with temporary contracts are highly unlikely to enter motherhood at any age. As mentioned in the introduction, their expected career break job penalty, which lowers their expected future income, make them postpone fertility. This is not observed for those with indefinite contracts,

¹²As before, these descriptive statistics are obtained from the pooled sample.

given that although they are observed to delay motherhood longer than non-workers, they present an increasing pattern of motherhood with age (up to 32). Finally, if we look at the distribution of motherhood by husband's type of contract, graph 7 reveals that having a husband with an indefinite contract seems to be positively correlated with entry into motherhood. A husband with a temporary contract decreases current and expected future household income which leads to a postponement of maternity compared to husbands with indefinite contracts.

[Insert Table 4B]

[Insert graphs 5-7]

5 Estimation

To learn the impact of variables such as education and especially type of contract on getting married and on having a first child, we must isolate the effect of each variable in a multivariate estimation setting. We use maximum likelihood to estimate the factors affecting the probability of non-cohabiting men and women getting married (or cohabiting) at different age intervals. For the determinants of entry into maternity, we estimate the probability of married (or cohabiting) women having a first child also at different age intervals. As mentioned before, for both estimations we use a logistic functional form and use fixed effects in order to reduce the unobserved individual heterogeneity. We also present the result of such estimations when the data are considered as a pooled data.

Before we present the results, a word must be said concerning the endogeneity of some of the explanatory variables, in particular education and type of contract, for estimating the determinants for forming a family. Women who do receive higher education are likely to behave differently from less educated women regarding childbearing (they might require more quality for their children which would decrease quantity (Becker and Lewis (1973)), or we might think that due to their higher attachment to the labor force, their preferences for children might be lower

(Francesconi (1998)). However, instruments are very difficult to find, given that it is not easy to find variables that affect the level of education individuals finally reach and do not directly affect the decision to form a family. Given that the impact of education is not the main issue of this paper, we have included it in the estimation as if it were exogenous, although we must take into account that its impact could be biased.

Regarding the type of contract, however, we must take into account that all workers prefer an indefinite contract to a temporary one. Temporary contracts do not present any advantage for the worker relative to indefinite ones. The latter are more stable, better paid and the number of hours worked in each type of contract is basically the same. Therefore, any worker would choose an indefinite contract if he/she could choose between them. This fact suggests that, for workers, the type of contract is exogenous to them. It is true that some individuals might choose not to work and this might be correlated with preferences for entering into parenthood, but given that our main issue is to estimate the impact of having an unstable labor market situation (temporary contract) relative to a stable one (indefinite contract), we think that the issue of endogeneity of the type of contract is of no great concern for the purpose of this paper.

Table 5 presents the estimation of the impact of variables such as education and type of contract, on getting married at an earlier, average or later stage for men and women, separately. Tables 6A and 6B present the results of the impact of these variables on the probability of entry into maternity at an earlier, average or later age.

5.1 The decision whether to get married

We have estimated the decision whether to get married separately for men and for women, since the fact that Spain is mainly a male breadwinner country makes it likely that the impact of the labor market situation will differ greatly by gender. Table 5 presents the results. The dependent variable, getting married, takes the

value of one when a never married individual (man or woman) gets married at a particular point of time during the observation period. It takes the value of zero for all other cases. Each individual is included in the sample up to the moment of his/her first marriage. All variables related to education and to type of contract are interacted with the three age intervals. The impact of these interacted variables on the decision on marriage can help us to understand the effect of education and type of contract on the postponement of marriage. In the fixed effects estimation, region controls are not included due to the almost inexistent within-individual variability. For the estimation using the pooled data, however, four controls for region have been introduced.

Starting with men, the first result to note is that, as expected, individuals with higher education get married later than those with lower education. Results from the fixed effects estimation reveal that men with university or secondary education tend to delay marriage up to the later stage relative to those with primary education. It is also interesting to compare the results obtained from the fixed effects estimation with those obtained from the estimation with the pooled data. In the former, more highly educated individuals show a higher probability of getting married when they are over 31 years of age, but this effect is not observed from the pooled estimation. Postponement is, therefore, more clearly observed from the fixed effects estimation.

Concerning the type of contract, the two empirical approaches indicate the same results: (i) holding a temporary contract seems to discourage the decision whether to get married at an earlier stage, relative to holding an indefinite contract; (ii) the lack of a job clearly postpones marriage up to the later stage of life (over 31 years). Moreover, postponement is much stronger when we compare the lack of a job with an indefinite contract, than when we compare temporary with indefinite contract. This is quite an expected result, given the importance of male wages in the total household income.

Tble 5 presents quite a similar picture regarding women. It can be observed that comparing women with university or secondary education with those with primary education or less, the former tend to delay marriage up to the later stage (over

31 years). As before, the delay up to the later stage is not observed from the pooled estimation, although postponement is also observed. Concerning the type of contract, fixed effects estimation reveals that both holding a temporary contract and not working discourage marriage at an early stage, relative to holding an indefinite contract, although the negative impact of temporary contracts is stronger. From an economic perspective, postponement of marriage (or in general of formation of a family) for women that do not work can only be understood if these women intend to work in the near future, i.e., if they are not thinking of being out of the labor market in the future. This is indeed the case, given that 75 percent of the women that we observe not working at an earlier age (18-24), are either studying or unemployed. Postponement is not observed for non-workers that are older than 25.

5.2 The decision whether to enter into parenthood

Tables 6A and 6B present the results for the estimation of the probability of entry into parenthood for those couples who are observed to be childless at the first interview. The dependent variable, having a first child, takes the value of one when a childless woman who cohabits with a partner has her first child. Each woman is included in the sample up to that time. In both tables, results derived from the fixed effects estimation as well as from the estimation when data are taken as a pooled data are presented.

In table 6A, the explanatory variables include educational level and variables related to type of contract, not only of the woman but also of her partner. Table 6B presents the impact of these variables when the type of contract of both the woman and the partner are interacted. Under this specification, we have constructed every possible pair of types of contract, so as to reflect the importance of different degrees of uncertainty regarding the future labor market situation in the decision whether to have a first child.

Results presented in table 6A reveal that women with university studies delay motherhood for quite a long time, given that compared to those with less than university studies, it is at the later age that they are more likely to have their

first child¹³. This result is driven from the estimation when the data are taken as a pooled data, given that fixed effects estimation presents very poor results concerning education, due to the low variability of educational variables within individuals. Regarding their own type of contract, we can see that having either a temporary contract or not working discourages entry into motherhood, particularly at young ages (less than 25 years), relative to having an indefinite one.

With respect to the husband's type of contract, although having either a temporary contract or being a non- worker presents a negative sign for the probability of parenthood, the impact is not significantly different from zero. We find, therefore, that the negative impact of temporary contract is particularly strong when it is the woman who holds a temporary contract relative to an indefinite one.

In order to better capture the potential disincentive that different types of contracts held by the male and female components of the household pose for parenthood, we have constructed all possible types of contract of males and females, and we have estimated the impact of the different combinations for delaying parenthood. Results are presented in table 6B. The reference category is both women and men with permanent contract, which represents the most stable labor market situation. The first type of contract is the woman's type of contract, and the second the man's. The impact of some of the pairs included presents a very high standard error, and therefore is not significantly different from zero given that there are very few observations in some categories. This is particularly so for those categories where the man is not working. Therefore, we will concentrate on the comparison of indefinite versus temporary contracts, which is the main issue of the paper. In this line, the most interesting things to highlight are the following: Compared to both the woman and man having a indefinite contract, which is the reference category, if it is the husband who has an unstable situation, while the woman has a stable one, the disincentive to enter into parenthood at an earlier stage is lower than when the labor situation is reversed (woman with unstable and man with stable

¹³We have not included secondary education as an additional category because no matter which specification is used, females with secondary education behave identically to those with primary education concerning entry into motherhood.

contract). However, for entry into parenthood at an average age (25-31 years), an unstable situation of the husband discourages parenthood more than when it is the woman who suffers the unstable situation. One possible reason for this result is that as women age, biological fecundity prospects decrease and this factor dominates the career break job penalty.

In summary, from tables 6A and 6B we can conclude that temporary contracts of both components of the household, relative to indefinite ones, clearly delay parenthood, but the negative impact is stronger when it is the woman who holds the unstable job status.

6 Conclusion

The aim of this paper is to find an empirical connection between the striking increase in the use of temporary contracts and the delay in marriage and maternity in Spain. Holding a temporary contract increases uncertainty about the future and prevents workers from having a stable labor market situation. In this context, individuals may feel inclined to postpone the decision to form a family until their labor market situation becomes more stable. Using the six available waves of individual information from the European Household Panel for Spain, we estimate empirically the impact of the type of contract on postponement of marriage and maternity in Spain. We use fixed effects estimation to reduce the unobserved individual heterogeneity.

Results reveal that holding temporary contracts relative to indefinite ones delays marriage for both men and women, although the effect is much stronger for men, which is expected given that Spain is mainly a male breadwinner system. Concerning maternity, the labor market situation of both members of the household affect entry into parenthood. In particular, holding temporary contracts instead of indefinite ones clearly delays parenthood. However, an unstable job status of the woman discourages parenthood more than an unstable job status of her partner. This result gives strong support to career planning as a motive for delaying maternity in Spain, given that an unstable situation for female workers is found to be an important deterrent to entry into parenthood.

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Table 1: Average Age at First Marriage				
	Males		Females	
	1985	1998	1985	1998
Total	26,88	29,83	24,78	27,78

Source: Spanish Institute of Statistics (INE)

Table 2: Average Age at motherhood		
All Women		
	1985	1998
Average	25,74	29,12
<i>By educational level</i>		
Primary	24,83	26,00
Secondary	25,72	29,79
University	27,85	32,39
<i>By type of contract</i>		
Indefinite	—	29,71
Temporary	—	36,33
No work	—	28,45

Source: Fertility Survey, INE

Table 3: Incidence of Temporary Contracts (%)			
Years	1987	1990	1998
Average	15,6	29.8	32.9
<i>By educational attainment</i>			
Primary or less	18.0	33.8	35.9
Secondary	19.0	39.1	35.5
University	9.6	20.3	22.9
<i>By age</i>			
16-24	36.2	73.9	73.1
25-34	15.4	37.9	41.2
35-49	9.5	19.1	20.7
<i>By gender</i>			
Males	14.4	27.8	32.1
Females	18.4	34.2	34.4

Source: Spanish Labor Force Survey (EPA), 2nd terms.

Table 4A: Descriptive statistics* - (%)						
Sample to estimate the probability of marriage						
	Males			Females		
Age intervals	18-24	25-31	>31	18-24	25-31	> 31
<i>Educational level</i>						
University	17.3	32.6	23.9	20.7	43.2	32.4
Secondary	42.8	28.0	17.9	52.7	28.5	18.8
Primary	39.9	39.6	58.2	26.6	28.3	48.7
<i>Type of contract</i>						
Indefinite	20.5	29.7	44.3	15.0	20.4	38.8
Temporary	24.4	26.3	19.0	16.0	23.7	18.9
No work	55.1	45.0	36.7	69.0	55.9	42.3
% Marry	0.92	5.42	3.91	2.11	7.54	4.62
N.obs.	2280	3581	1430	2084	2690	1321

* This sample includes all individuals who are observed to be single and with no partner at their first interview. Some of them remain in the same situation throughout the observation period and others get married (or cohabit) at some point during that time. The latter are removed from the sample when they marry. These percentages are obtained from the pooled data.

Table 4B: Descriptive statistics* - (%) -			
Sample to estimate the probability of maternity			
	18-24 years	25-31 years	>31 years
<i>Educational level</i>			
University	13.1	39.3	32.6
Secondary	33.5	26.5	20.2
Primary	53.4	34.2	47.2
<i>Woman's type of contract</i>			
Indefinite	28.0	36.3	36.7
Temporary	21.9	25.4	15.5
No work	50.1	38.3	48.9
<i>Husband's type of contract</i>			
Indefinite	55.7	63.1	75.6
Temporary	32.3	27.5	12.0
No work	12.0	9.4	12.4
% 1 st birth	19.9	16.8	9.9
N.obs	343	1168	426

* This sample includes all females which have a partner and are childless at their first interview. Some of them remain childless throughout the observation period, whereas others enter into parenthood. The latter leave the sample once they have had their first child. These

percentages are obtained from the pooled sample.

Table 5 - Prob. of Getting Married (or cohabiting)								
Dependent Variable: 1 : Marry or Cohabit								
0: Otherwise								
	Males				Females			
	Fixed Effects		Pooled data		Fixed effects		Pooled data	
Variables	Coef.	z	Coef.	z	Coef.	z	Coef.	z
<i>Education (ref. Primary)</i>								
University (18-24)	—		-2.31	2.28	-2.32	2.39	-0.65	1.85
University (25-31)	0.73	1.24	-0.06	0.39	0.12	0.23	0.22	1.32
University (>31)	3.48	3.04	0.05	0.18	—		-0.39	1.35
Secondary (18-24)	-0.85	0.94	-1.74	3.27	-3.51	3.64	-1.51	4.42
Secondary (25-31)	0.09	0.18	-0.27	1.43	0.15	.027	0.07	0.40
Secondary (>31)	2.87	2.57	0.21	0.71	2.29	2.02	0.08	0.29
<i>Type of contract (ref: Indefinite)</i>								
Temporary (18-24)	-1.62	3.49	-0.66	1.83	-1.17	2.20	-0.22	0.56
Temporary (25-31)	0.05	0.23	0.19	1.14	0.39	1.37	0.31	1.61
Temporary (>31)	-0.34	0.65	-0.28	0.89	0.91	1.49	-0.08	0.25
No work (18-24)	-2.59	4.36	-1.69	3.76	-0.87	2.26	-0.30	1.07
No work (25-31)	-0.49	2.13	-0.41	2.35	0.05	0.22	0.03	0.17
No work (>31)	0.54	0.89	-1.07	3.31	0.75	1.51	-0.03	0.10

Estimations are based on the specification of a logistic functional form with panel data assuming fixed effects.

Some variables are dropped due to no within-individual variance.

Table 6A - Probability of having a first child				
Dependent Variable: 1 : Have a first child; 0: Otherwise				
	<i>Fixed Effects</i>		<i>Pooled Data</i>	
Variables	Coef.	 z 	Coef.	 z
Age	—		-0.09	4.94
<i>Education (ref: less than university)</i>				
University (18-24)	—		-0.34	0.79
University (25-31)	-0.70	1.28	-0.11	0.73
University (> 31)	—		0.51	1.80
<i>Type of contract (ref: Indefinite)</i>				
Temporary (18-24)	-3.07	2.32	-0.85	2.20
Temporary (25-31)	-0.01	0.03	-0.20	1.03
Temporary (> 31)	0.02	0.01	-0.18	0.44
No work (18-24)	-1.48	2.08	-0.28	1.07
No work (25-31)	-0.42	1.34	-0.25	1.46
No work (> 31)	-0.07	0.08	-0.35	1.11
<i>Type of contract of the husband(Ref: Indefinite)</i>				
Temporary (18-24)	-1.52	1.54	-0.39	1.32
Temporary (25-31)	-0.46	1.32	-0.25	1.36
Temporary (>31)	—		0.18	0.42
No work (18-24)	-1.63	1.47	-0.51	1.13
No work (25-31)	-0.03	0.05	-0.15	0.54
No work (> 31)	-0.56	0.33	0.40	0.90

Estimations are based on the specification of a logit functional form. The first column presents the coefficients from the fixed effects estimation. The third column presents the results of the estimation using the pooled data.

In the fixed effects estimation, some variables are dropped due to no within-individual variance.

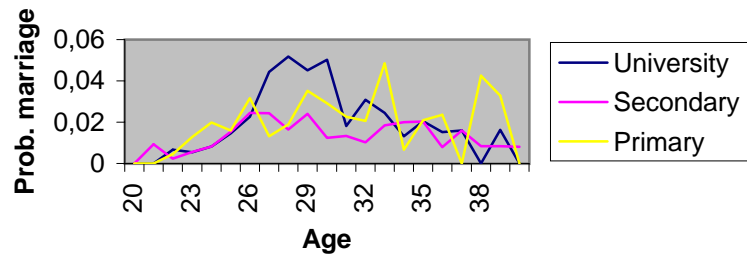
Table 6b - Probability of having a first child				
Dep. Variable: 1= Have a first child; 0 = Otherwise				
	<i>Fixed Effects</i>		<i>Pooled Data</i>	
Variables	Coef.	 z 	Coef.	 z
Age	—		-0.09	4.85
<i>Education (ref: less than university)</i>				
University (18-24)	—		-0.31	0.70
University (25-31)	-0.61	1.09	-0.11	0.66
University (> 31)	—		0.51	1.78
<i>Pairs of contracts Female-Male (Ref: pp: Indefinite-Indefinite)</i>				
Temporary-Indefinite (18-24)	-3.58	2.29	-0.81	1.81
Temporary-Indefinite (25-31)	-0.66	1.40	-0.56	2.20
Temporary-Indefinite (> 31)	—		-0.11	0.23
Temporary-No work (18-24)	-1.75	0.01	-0.94	0.85
Temporary-No work (25-31)	—		-0.94	0.85
Temporary-No work (> 31)	—		0.23	0.48
Temporary-Temporary (18-24)	—		-1.78	2.35
Temporary-Temporary (25-31)	-0.27	0.58	-0.26	0.9.
Temporary-Temporary (> 31)	—		-0.51	0.47
Indefinite-Temporary (18-24)	-2.98	1.56	-0.72	1.24
Indefinite-Temporary (25-31)	-1.33	2.17	-0.43	1.29
Indefinite-temporary (> 31)	—		0.43	0.62
Indefinite-No work (18-24)	—		-1.25	1.15
Indefinite-No work (25-31)	-0.39	0.39	-0.95	1.54
Indefinite-No work (> 31)	-0.11	0.01	-0.58	0.54
No work-Indefinite (18-24)	-2.51	2.10	-0.51	1.63
No work-Indefinite (25-31)	-0.61	1.55	-0.51	1.63
No work-Indefinite (> 31)	-0.94	0.82	-0.54	1.39
No work-Temporary (18-24)	-3.85	2.43	-0.58	1.66
No work-Temporary (25-31)	-0.84	1.40	-0.72	2.60
No work-Temporary (> 31)	-3.45	2.37	-0.27	0.42
No work-No work (18-24)	—		-0.79	1.48
No work -No work (25-31)	-0.68	1.11	-0.45	1.12
No work-No work (> 31)	—		0.39	0.73

Estimations are based on the specification of a logit functional form. The first column presents the coefficients from the fixed effects estimation. The third column presents the results of the estimation using the pooled data.

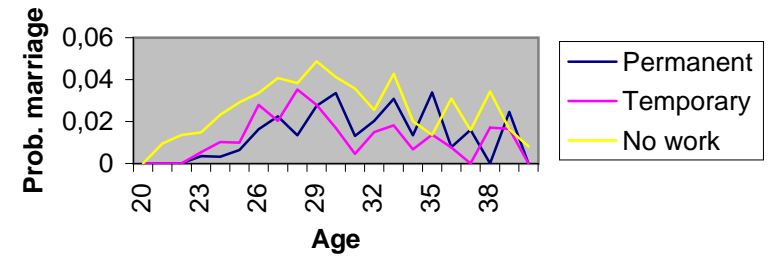
The first contract of the pair refers to the female, and the second, to the partner.

In the fixed effects estimation, some variables are dropped due to no within-individual variance.

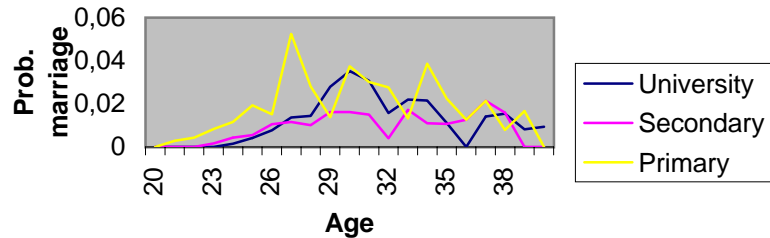
Graph 1: Probability of being married/cohabitant at each age by education - Females



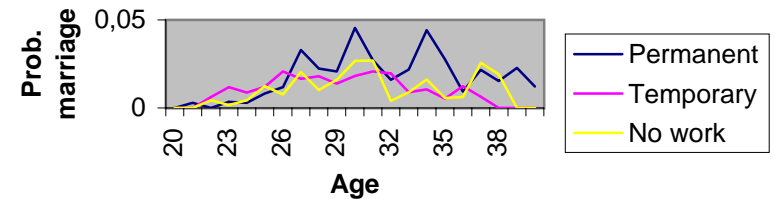
Graph 2: Probability of being married/cohabitant at each age by type of contract - Females



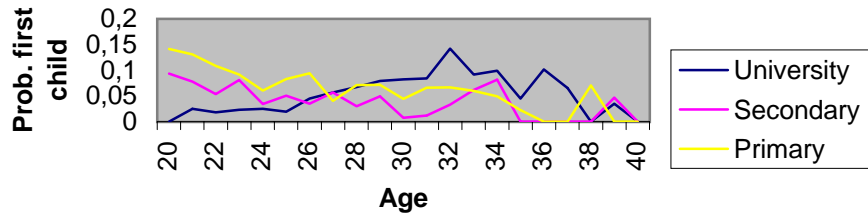
Graph 3: Probability of being married/cohabitant at each age by education - Males



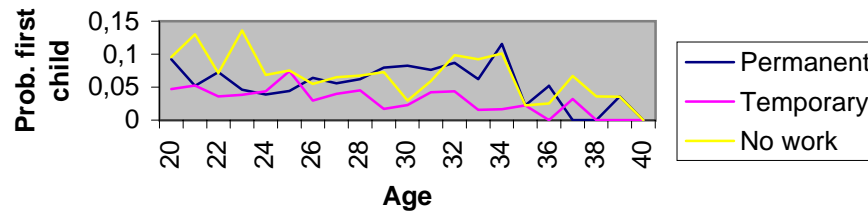
Graph 4: Probability of being married/cohabitant at each age by type of contract - Males



Graph 5: Probability of having a first child at each age by education



Graph 6: Probability of having a first child at each age by type of contract



Graph 7: Probability of having a first child at each age by husband's type of contract

