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Leaving the Labour Market: Event-History Analysis of the Female Workers' Transition to Housework in Denmark, Germany, Great Britain and Spain

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ABSTRACT: This paper is aimed at exploring the determinants of female labour market activity from a dynamic perspective. An event-history analysis of the transition from employment to housework has been made resorting to data from the European Household Panel Survey. Four countries representing different welfare regimes and, more specifically, different family policies, have been selected for the analysis: Britain, Denmark, Germany and Spain. The results confirm the importance of individual-level factors, which is consistent with an economic approach to female labour supply. Nonetheless, there are significant cross-national differences in how these factors act over the risk of abandoning the labour market. First, the number of transitions is much lower among Danish working women than amongst British, German or Spanish ones, revealing the relative importance of universal provision of childcare services, vis-à-vis other elements of the family policy, as time or money. Second, the effect of childrearing on the likelihood of survival in the labour market of British, German and Spanish female workers is markedly negative for female workers who are pregnant or have a newly born child. In the German or Spanish case, the effect is not as acute as in the British case, but the negative effect of childcare over the likelihood of staying active extends over childhood. This could be an expression of the delayed negative effect of time leave over the risk of staying active in the Spanish, and especially the German, labour market. It could also be a sign of self-selection into inactivity: when forming a couple, German and Spanish female workers, unlike British ones, already area at a high risk of abandoning employment and passing to housework. This suggests that a family policy that is not significantly gender-friendly may act as a negative incentive for female employment from the very moment of forming a couple.

KEYWORDS : female labour market activity ; inactivity; event history analysis; family-friendly policies; welfare state.

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I. Introduction[1]

This paper explores the variation in the female transition out of the labour force in different institutional contexts. Three states are conventionally considered in the analysis of labour market activity: employment, unemployment and inactivity. The transition *from* unemployment *to* employment has received more attention than the transition to inactivity. Yet, the rate of labour market activity in some countries (i.e. Spain) is especially low and it affects both economic performance and individual well being; particularly, female well being (Garrido, 1993). Therefore, the transition from activity to inactivity deserves more attention.

The gender differential in the labour market activity may strongly differ depending on the institutional context. Different institutional settings have thus been selected for this study: Germany represents the 'continental' or 'conservative' welfare regime[2]; Britain, the 'liberal' one; Denmark, the 'social democratic' one; finally, although not initially included in the typology established by Esping-Andersen (1990, 1999), Spain has been considered here as an extreme case of the continental regime, typical of Southern Europe and characterized by an specially adverse position of women in the labour market.

According to the ILO, unemployment and employment are the two sides of labour market activity. Therefore, two different transitions (from unemployment to inactivity and from employment to inactivity) could be considered. Yet, the limit between unemployment and inactivity is more blurred than the limit between employment and inactivity, especially in some countries like Spain (Toharia & Garrido, 1993). Some evidence points to the fact that not all women who regard themselves as unemployed would be ILO unemployed, but ILO inactive. Conversely, many women who regard themselves as inactive would need to be properly considered as ILO unemployed. The divergence between ILO and the self-perceived labour status in the ECHP has been highlighted by Richiardi (2002) or Marzano (2003). The "misperceptions" of labour status is not high among employed or inactive people, but it is remarkably high among the unemployed (Richiardi, 2003). Therefore, the transition between inactivity and/or unemployment deserves an special attention, beyond the scope of this paper. The paper will focus just on the transition from employment to housework. Among the different kinds of inactivity as the destination, housework has been sorted as the kind of inactivity more detrimental for female labour market activity.

An event-history dataset has been set up out of the eight waves of the European Household Panel Survey (ECHP). A multiple-events, exponential model has subsequently been used for the analysis of this transition. It is also a competing risks model, since the transition from employment to housework naturally competes with

[1] I am grateful for the technical support provided by Ricardo Mora. I have also benefited enormously from the comments and technical support by Pau Baizan, Fabrizio Bernardi, Stefanie Brodmann, Josep Mestres and Tiziana Nazio. I especially thank Fabrizio Bernardi for his useful comments and encouragement throughout the research.

[2] The former FDR and GDR were completely different as regards family policy. The GDR was well knowledged by its generous, female-friendly family policy. FDR, on the contrary, developed a more 'conservative' and less female-friendly family policy. The progressive cohesion of unified German, along with the increasing labour market flows between the former two states, led me to treat them as a single country. Differentiated analyses for the former FDR appear in a previous version of the paper (Ortiz, 2004).

other possible destination states, like unemployment or inactivity for other reasons (i.e. education).

After unfolding the theories that have explained the gender differentials in female labour market activity, the paper will describe the national cases involved in this research. A presentation of the data and the different variables included in the model will follow. The method to explore the exit from the labour market will be then explained. Finally, the results of the research will be presented.

III. Theoretical framework

Individual independent variables

The most basic explanation of labour supply provided by neoclassical microeconomics is founded in two analytical tools: the individual's budget constraint and his/her indifference curves. The budget constraint (line A-C, fig.1) joins the "various combinations of nonmarket time and market goods" the individual can choose given his/her potential wage rate at the labour market and the nonlabor income available to him/her (Blau et al., 1998: 87-88). Nonlabour income may include government transfer payments, income from interest, dividends, etc. The partner's labour income may also be considered here.

In economic terms, the individual's decision to supply time to the labour market is also a function of the *utility* the individual draws from working there or applying his/her time elsewhere. Every individual's indifference curve joins the diverse combinations of market goods (time devoted to earn money to purchase them) and non-market time at which the individual gets exactly the same amount of *utility.* There are many possible indifference curves for a single individual (U_1, U_2, U_3, fig.1). A steep indifference curve indicates that the worth of one hour of nonmarket work is relatively high in terms of the market goods the individual would need to dispose of; a flat indifference curve indicates just the opposite. For every individual, any point at a given indifference curve is less desirable than any other one at a *higher* indifference curve, since at this latter one s/he would get either more market goods or more non-market time or both.

The individual maximizes their utility at the point the higher indifference curve is tangent to his/her budget constraint (point Y, fig.1). Other points of the same curve are unattainable and any point of lower indifference curves is either less satisfying or also unattainable. Ideally, both men and women will choose the level of activity represented by that point.

The 'reservation wage' "is equal to the value the individual places on her time at home". It is represented by the "slope of the indifference curve at zero hours of market work" (point A, fig.1) (Blau et al., 1998: 92-93). If the higher indifference curve touches the budget constraint it at the point of the reservation wage, this means the individual attaches the highest value to the nonmarket time; in other words, no other combination of nonmarket time and market goods, given her potential market wage and nonlabor income, could satisfy her more. If the market wage rises over the reservation wage, s/he would decide to join the labour market; otherwise, s/he would refrain from joining it.

[Figure 1, see Annex]

Income is one of the first factors theoretically conditioning labour market activity. It may have a positive effect on labour market participation ('substitution effect') or a negative one ('income effect'). As regards the latter, an income increase may be equivalent to an upward move of the budget constraint. In such a case, it would be more likely that the higher indifference curve touches the budget constraint at the reservation wage. The individual would thus leave the labour market. The income increase makes the nonmarket time more valuable; it thus facilitates that the individual leaves the labour market. As regards the 'substitution effect', it is represented by a steeper inclination of the budget constraint: the higher the wage per hour, the steeper the budget constraint. Thus, it will be more likely that a higher indifference curve touches the budget constraint at a point *higher than* the reservation wage. The opportunity cost of time spent in nonmarket activities will raise, and it will be more likely that the individual joins the labour market. According to Blau et al., it has been empirically demonstrated that "the substitution effect is more likely to dominate the income effect for women than for men" (102).

Other factors related to income may incline the budget constraint of women and hence have a positive effect on their labour supply. *Human capital investment* is expected to be returned by higher wages (Becker, 1981; Mincer, 1962; Blau & Ferber, 1986: 31-75); *tenure* enhances firm-specific human capital, thus raising productivity and wages; finally, *potential labour market experience* should also be rewarded by higher productivity. In all these cases the budget constraint gets steeper and it becomes less likely that it is touched by the higher possible indifference curve at the reservation wage. In dynamic terms, the instant likelihood of leaving the labour market decreases.

Other traits of the individual labour market performance are not related to income, but need to be controlled at studying the risk of leaving the labour market. Everything else being equal, *occupational prestige* attached to a job may act as a reward alternative to income. The amount of money paid to worker in order to motivate him/her to join the labour market, or increase the amount of time devoted to it, may be lower. This means a lower opportunity cost, in money terms, of every hour not devoted to the labour market. It is expressed by a set of indifference curves with a lower inclination. In such circumstance, it will be less likely that the higher indifference curve touches the budget constraint at the reservation wage; in other words, it would be less likely that the individual abandons the labour market. The *type of contract* may also affect this likelihood. The lower the job security, the lower the wages and the worse the working conditions. A decrease of job security would be equivalent to a increase of the slope of the indifference curve, increasing the likelihood that the higher indifference curve touches the budget constraint at the reservation wage. It would thus increase the likelihood of leaving the labour market. As it is well known, *self-employment* is a work status that some times resembles temporary or precarious employment, being associated to worse working conditions than dependent work[3]. Therefore, it should also work increasing the instant likelihood of leaving the labour market.

Theoretically, the effect of the abovementioned factors should be the same regardless of the gender of the individual. Other individual traits may have a more obvious gender effect. The *public sector* is well known to be more female friendly than the private

[3] Toharia shows that self-employment often turned into a refuge in times of recession for many Spanish employees who lost their jobs (Toharia, 1995).

sector: it integrates a significant share of female employment. Moreover, pay or employment discrimination by gender reasons is less likely at the public sector than at the private one. Therefore, working at the public sector should decrease the likelihood of leaving the labour market. As regards *part-time work*, Hakim & Blossfeld highlighted its importance for female labour market participation (Blossfeld & Hakim, 1997). Employers' incentives to invest in their part-time workers' training is less than with full-time jobs. Moreover, the working conditions are usually worse and the wage per hour is not equivalent to full-time jobs. Finally, the career prospects are lower. All these aspects should affect the utility or satisfaction the individual draws from labour market participation: they would lower the inclination of the budget constraint and/or the set of indifference curves of the individual, making more likely that the higher indifference curve touches the budget constraint at the reservation wage. Having a part-time job, therefore, would entail a higher risk of leaving the labour market, relative to holding a full-time job.

Finally, there are factors related to the partner's labour market status and earnings. They will be considered here as individual traits[4]. The 'added worker effect' predicts that a decline in household income due to the unemployment or inactivity of one of the members of the couple will delay the other partner's abandonment of the labour market, in order to compensate the income loss of the household (Lundberg, 1985; Martinez-Granado, 1998). The loss of the partner's income may be considered as a reduction of the reservation wage of the individual (women, in this case). In the opposite sense, an increase of the husband's income may be equivalent to the 'income effect' described above: it is equivalent to a move upwards of the budget constraint of his partner, and therefore could make more likely that a higher indifference curve touches the budget constraint at the reservation wage. In sum, it could lead to the labour market withdrawal of the wife. Some works have confirmed that husband's income is positively related to female labour market withdrawal after childbirth (Whittington, Averett & Anderson, 2000).

Institutional factors

A more sociological perspective has formulated a number of criticisms on the economic perspective on female labour supply. First, many of the corresponding hypotheses have not been fully confirmed by empirical evidence. Moreover, new findings demand a deep restructuring of them. For instance, the recent and increasing instability of employment in many national labour markets may reduce the gains derived from one member of the couple being specialized in full-time employment and the other member being specialized in full-time work at the household. The participation of both members at the labour market, albeit with different rates of dedication and/or earnings, may provide the household with greater security (Blossfeld & Drobnic, 2001: 23-24). Second, Human

[4] The existence of a household economy implies that labour market participation is a decision taken at the household level. According to Human Capital Theory, members of the couple usually specialize either in household or outside-of-the-household work, increasing the productivity in each one of these kinds of work and therefore increasing the total household income. The deeper the specialization in the former tasks, the less likely women, given a traditional role assigned to them, would participate in the labour market. Specialization in household work would turn into higher productivity at this field; in the opposite sense, specialization in labour market would increase productivity in this kind of work (Polachek, 1981; Mincer & Ofek, 1982). Unlike previous economic theories of labour supply, the right unit of analysis here is the family, not the individual. However, the current analysis will consider the income and status of the partner as an individual level variable.

Capital Theory usually lacks reference to power within the couple. It assumes both members of the couple take decisions at the same level. This assumption has been criticized by a number of theories within sociology (patriarchy model, resource-bargaining model, marital dependency model) that question that power inside the household is homogeneously distributed (Blossfeld & Drobnic, 2001: 26; Ludberg & Pollack, 1996). Finally, the economic approach to female labour supply usually misses the importance of institutional factors in filtering the effect of the factors mentioned in the section above. National institutions could substantially modify the power within the family. At this point, welfare states play a key role in explaining cross-national differences of female labour market activity. Welfare States may reduce male power within family structures, therefore contributing to a within-marriage equality. If economic effects mentioned so far were overwhelming, there would be scant cross-national differences in female labour market participation. Yet Blossfeld, Drobnic *et al*. have shown that there are indeed national differences in the rate of female participation in the labour market (Blossfeld & Drobnic, 2001). The present work updates Blossfeld, Drobnic et al.'s work, using the whole length of the ECHP and including some covariates not considered by them. Moreover, the ECHP allows for a more solid comparative analysis, given the availability of fully comparable data drawn from all the countries included in the survey.

Two clusters of national institutions could be highly influential in the hazard of leaving the labour market: labour market regulation and family policy. As regards labour market regulation, the availability of *different types of contract* may be considered. Labour market regulation some times results in a dual labour market. The Spanish case is salient in this respect. This paper will control for the effect of the type of contract, but will focus on the family policy.

Gornick *et al.* set up different indexes of policies supporting employment for mothers with children of different ages. They paid especial attention to family policy, which they split up in eighteen possible indicators aggregated in order to create the indexes. Two dimensions of family policy received especial attention: *services* and *leaves* (Gornick, Meyers & Ross, 1997). More recently, Koopmans & Schippers have refined this analysis, considering three elements any family policy could provide and could affect female employment: *time*, *money* and *services* (Koopmans & Schippers, 2003). Yet, money is implicitly considered in the analysis of childcare services or the way time is granted to women for maternity reasons. For this reason, I have preferred to restrict this dimension to the 'tax system'.

As regards *childcare,* availability, costs, and flexibility are dimensions to consider (Del Bocca, 2002: 7). The cost of childcare per hour may be taken as a tax levied in the female wage. For a woman needing to pay the care of their children to attend her job, this cost should in principle be deducted from her wage. If this wage is low, it is possible that the reservation wage turns into her best option as a result of childcare cost, leaving the labour market as a result[5]. Setting up a good network of public services or subsidising childcare services at private facilities would act in the opposite direction. Obviously, assessing the cost of public childcare services is not enough; we need to know the percentage of eligible children actually covered by them, as well as the

[5] Among other empirical studies, Cleveland, Gunderson & Hyatt (1996) have provided empirical evidence of the negative effect of childcare cost on female labour supply for the Canadian case.

flexibility of these services, since a rigid system of public childcare services constrains women's ability to keep up work.

As regards *taxes*, they reduce disposable income, therefore moving the budget constraint downwards. But it is important to know how taxes affect the household: "because the family is the tax unit, married women, often regarded as secondary earners, face relatively high tax rates on the first dollar of their labour market earnings"(Blau & Duncan, 103). It is thus necessary to classify welfare regimes according to the degree their corresponding tax systems promote the role of men as primary earner. The tax benefit ratio defines the taxes paid by the male breadwinner with a dependent wife and two children as a percentage of taxes paid by a single person without children (Sainsbury, 1999; Koopmans & Schippers, 2003). The higher the tax benefit ratio, the worse the effect on female labour market activity to be expected. A high tax benefit ratio acts as a negative incentive on the role of women as a dual earner in the household.

Finally, as regards *time*, wage replacement rate and the length of the leave (maternity, parental or childcare leave) condition the women's likelihood of leaving the labour market. If the wage replacement rate affects the budget constraint and the reservation wage through the net wage, the length of the leave affects female labour market activity through different mechanisms. It might be thought that the longer the leave, regardless of its replacement rate, the higher the obsolescence of the human capital invested by women and the lower their career prospects. Therefore, we might found that time, as a resource granted by family policy, has a negative effect on the likelihood of women staying active in the labour market. Yet, some cross-national empirical evidence have demonstrated that the duration of parental leave is associated with increased female employment rates (Ruhm & Teague, 1995).

Family policy is just one of the social policies any welfare state could be analysed into. The more 'defamililistic' the welfare state, the more generous we may expect it could be in the provision of the resources (time, taxes, services) just mentioned. Yet, it might happen that some welfare states are more generous in some dimensions than in others. Moreover, it might happen that one of these dimensions is more effective in promoting female employment than the other two[6]. A generous welfare state in terms of money, or time, may not be as effective as a welfare state generous in terms of childcare services[7]. We know little about the relative importance of these dimensions of family policy for promoting female labour market activity.

The most accurate way of assessing the effect of family policy on female employment would be an index. It is not the main purpose of this paper to do so. Unfortunately, the database used here for studying the effect of the institutional framework on the hazard of abandoning the labour market do not allow to isolate the effect of measures providing time[8], money or services in each one of the selected countries[9]. For this reason,

[6] In fact, time may have an adverse effect: "the provision of child-care leave (when unpaid and restricted to women) was criticized in some circles as a means of keeping women at home rather than providing them with more opportunities for equality" (Gauthier, 1996: 180).

[7] See Del Boca, for a review of the economic literature on the effect of childcare services on female labour market participation from an economic perspective (2002).

[8] The grant of time for maternity reasons, either paid or unpaid, could lead to wrong conclusions in a self-perceived assessment of the employment status. Female workers with an unpaid maternity leave might regard themselves as 'non-active' (Whittington, Averett & Anderson, 2000: 345). Yet, the International

variables considering the number of children by age, as well as the civil status, have been taken as proxies of the *joint* effect of the nature of social policy on the female instant likelihood of leaving the labour market. The conclusions will obviously not be but approximate and exploratory of the effect of time, money and/or services on the female risk of leaving the labour market. Four countries have been considered representing each one of the types of welfare states. Next, the relative importance of time, taxes and services in their respective family policies will be analysed.

III. Family policies in the countries selected

Germany

Family policy in Germany is neither aimed at fostering female employment, nor even neutral: in correspondence to the labelling of the German welfare state as 'conservative', the German family policy promotes the family as a social institution. The legislation on maternity leave works as an incentive for women to temporarily leave the labour market while caring their children (Ostner, 1998). In addition, many voluntary organizations belonging to the Church benefit from the 'subsidiarity principle' that traditionally guides the provision of day care services for children (Hank & Kreyenfeld, 2000: 9).

As regards time, women earn the total amount of their last salary during their maternity leave, but Germany, along with Ireland, has the shortest of this kind of leave in Europe (just 14 weeks). However, following the maternity leave, parents can choose to take up to 36 months (3 years) of parental leave; unlike many other countries, this is a paid leave. The household is entitled to income-tested benefits up to 307 € per month (Koopmans & Schippers, 2003: 6-12). In sum, Germany grant women the possibility of a long leave with a relatively high wage replacement rate.

Table I. Maternity leave benefits (1975-1990)

	1975		1980		1985		1990	
	Weeks	Pay %	Weeks	Pay %	Weeks	Pay %	Weeks	Pay %
Austria	12	100	16	100	16	100	16	100
Belgium	14	60	14	80	14	80	14	80
Canada	15	67	15	60	15	60	15	60
Denmark (1)	**14**	**90**	**18**	**90**	**28**	**90**	**28**	**90**
Finland	35	39	47	39	52	80	53	80
France	14	90	16	90	16	84	16	84
Germany	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**

Labour Organisation regards "maternity leaves" as "temporary absences from work" that should be included in the category of "employment" (Hussmans, Mehran & Verma, 1990). This study will rely on the fact that the ECHP use the ILO criteria to classify the individuals of the sample, according to prior responses they gave during the interview.

[9] An additional handicap for comparing the effect of family policy at an State level is that family policy is often quite decentralized, so that the administration at the local level (Denmark) or regional one (Spain; Germany) is a decisive instance of *variability* in the amount of resources and the way of administering them. This means there is an intra-national variation we are not able to account for, given the fact that data on region or locality is almost confidential in most of the ECHP. This forces us to be cautious as regards the generalizations to draw from our results.

Greece	12	50	12	50	12	50	15	50
Ireland	12	65	12	65	14	70	14	70
Italy	20	80	20	80	20	80	20	80
Japan	12	60	12	60	14	60	14	60
Luxembourg	12	100	16	100	16	100	16	100
Netherlands	12	100	12	100	12	100	16	100
Norway	12	30	18	100	18	100	35	80
Portugal	9	100	13	100	13	100	13	100
Spain	**12**	**75**	**14**	**75**	**14**	**75**	**16**	**75**
Sweden	30	90	52	70	52	70	65	75
Switzerland	8	100	8	100	8	100	8	100
United Kingdom	**18**	**30**	**18**	**30**	**18**	**30**	**18**	**45**

Source: Gauthier, 1996: 174
(1) Gauthier has added here the ten-weeks long 'parental leave' to the maternity leave.

As regards taxes, even if family allowances have been considered generous (Bradshaw et al., 1993; OECD, 2002b), they are means tested (Gauthier, 1996: 163-172), The conservative character of the tax exemptions is also revealed by the compulsory joint character of the taxation (Koopmans & Schippers, 2003: 17-18). The 'tax benefit ratio', which defines the taxes paid by the male breadwinner with a dependent wife and two children as a percentage of taxes paid by a single person without children, is quite low (see table II), revealing the extent to which the fiscal system benefits the first contributor, in relation to the latter.

Finally, Germany shares with Britain and Spain the lack of a universal network of child care services. Universal entitlement to childcare services only exists in Denmark, Finland and Sweden. In 2000, it was estimated that just 10% of the German children between 0 and 3 were enrolled in any kind of child care public facility, whereas 78% of the children between 3 and 6 were in kindergarten (Koopmans & Schippers, 2003: 21). The problem does not lie in the public character of the services (most of them are public and, therefore, easily affordable[10]; moreover, their quality is good, compared with services of the kind at the USA), but the scarcity of them; in other words, it is not a problem of affordability but of availability (Hank & Kreyenfeld: 2000: 11-14). Cash transfers specifically aimed at supporting the use of childcare out of home are of a "very limited importance". Therefore, many women are not invited to rely on private services for filling the gaps of the insufficient public network. Finally, public services are provided by local municipalities (Hank & Kreyenfeld, 2000: 4).

Table II. Family tax benefit ratio in the EU countries (%)			
Income taxes plus employee Contributions		Income tax plus employee contributions less cash benefits	
Germany	**47**	Luxembourg	0
Ireland	50	Ireland	27
Spain	**50**	Austria	27

[10] Both, the high control on the quality provision and the lack of adequate cash transfers destined to pay a private child care has possibly prevented the existence of a good private childcare market, what may make things even worse (Hank & Kreyenfeld, 2000: 11-14).

Luxembourg	53	**Germany**	**47**
Belgium	74	Portugal	49
Portugal	77	**Spain**	**50**
France	78	Belgium	50
Italy	84	Italy	52
Denmark	**85**	France	56
Netherlands	86	**United Kingdom**	**60**
United Kingdom	**90**	Netherlands	69
Austria	94	**Denmark**	**70**
Finland	100	Finland	72
Greece	100	Sweden	73
Sweden	100	Greece	100
Fuente: Sainsbury, 1999; updated by Koopmans & Schippers, 2003: 19			

Great Britain

British family policy is inspired by an old style of State non-interference in the economic decisions made at the household. It shares with other social policies its residual character: it only intervenes in extreme cases of deprivation, where the main insurance provider, the market, is not able to clear the female workers' risks derived from leaving the labour market due to household duties. The dimensions family policy has been analysed (time, money and services) fit this image.

As regards time, maternity leave lasts eighteen weeks but the benefits received decrease throughout the leave: the mother receives 90% of her salary for the first six weeks; and a flat rate of 95 € for the remaining twelve (Koopmans & Schippers, 2003: 7). Compared with other countries, British family policy cannot be regarded as generous in granting time to mothers. Beyond the maternity leave, the British legislation just comply with the 1996 European Union Directive on parental leave (96/34/EC): it grants the minimal requirement of three months of unpaid leave to one of the members of the family, not to the family as a whole, so that parents can decide who shall make use of this leave. Employers play an important role in providing or supplementing leave facilities. Although the wage replacement rate is not being calculated in this work, it is possibly lower than in Germany.

As regards money, the unit of taxation is necessarily the individual. The tax relief on the grounds of dependent children is not very generous. According to the tax benefit ratio, the fiscal system benefits male breadwinners less than in Spain or Germany, and only slightly more than in Denmark.

As regards services, there is a wide range of sources: voluntary organizations, private companies and, finally, the State. Public childcare services are provided by the local administration. Since the ideal scenario is the promotion of a private sector of childcare services, the public provision is residual. The informal sector is still important (family, friends…), mainly for non-skilled female workers (Lewis, 1998), but the proportion of children under three covered by childcare arrangements in Britain in the late 1990s is 34% per cent, higher than in either Germany or Spain (González & Vidal, 2004).

Proportion of children using formal childcare arrangements (public or private) in Europe: late 1990's			
	Age under 3	3 to mandatory school age	Year
Denmark	**64**	**91**	**1998**
Sweden	48	80	1998
Norway	40	80	1997
Ireland	38	56	1998
England	**34**	**60**	**2000**
Belgium	30	97	2000
France	29	99	1998
Finland	22	66	1998
Portugal	12	75	1999
Germany	**10**	**78**	**2000**
Spain	**10**	**93**	**2001**
Italy	6	95	1998
Netherlands	6	98	1998
Austria	4	68	1998
Greece	3	46	2000
Source: González & Vidal (2004)			

Denmark

Childcare was initially inspired by a concern for the well-being of female workers' children during the period of industrialization and urbanization, at the end of the XIXth. century. Later on, during the XXth century, a pedagogical concern was incorporated. Only during the 1960s, the mobilization of feminist organizations made that the new childcare regulation were explicitly aimed at favouring a gender equal access to the labour market. In 1964, a new act was issued to ensure universal access to childcare services. Like other Nordic countries, where similar acts were approved, Denmark turned into one of the OECD countries where family policies more clearly favoured women's work (Borchorst, 2002).

As regards time, Danish family policy does not seem outstandingly generous. Maternity leave lasts four weeks before birth and fourteen weeks afterwards. During maternity leave, female workers receive 90% of their salary, with a maximum of 394 € per week. Collective agreements between workers and the employer may deepen or enlarge the maternity leave (MISSOC, 1998; NAEH, 2003). Out of the fourteen weeks after birth, the father may take two weeks, with the same rights as the mother. Beyond the maternity leave, there is a paid 'parental leave' of up to 10 weeks, with a wage which is a percentage of the hourly wage received during the last week of work. This 'parental leave' is not specifically granted to the mother, but to the family as a whole, that decides which member will enjoy the leave. Besides, there is great flexibility regarding the share of the leave between the two members of the couple and the distribution of the maximum time to enjoy: parents may make an intermittent and flexible use of this time throughout the period up to the moment when the child is nine years old. Beyond the

'parental leave', there is even a 'childcare leave', whose difference with the previous type of leave is that parents are not allowed to use the municipal services of child care any more; they are supposed to take care of the children themselves. During the 'childcare leave' parents may still receive money from the State; not more than 60% of the unemployment subsidy[11]. In sum, if not as generous in time, the wage replacement rate is possibly similar to the German case, and higher, in any case, than in Spain or Britain.

As regards taxation, it is individual: each member of the couple should declare their earnings individually. This measure is intentionally aimed at preventing the creation of a fiscal incentive against the labour market participation of married women. Parents of children up to 17 years are entitled to exemptions. Considering the 'tax benefit ratio', Denmark scores much better than other countries (see table above).

Time and money are dimensions where Danish family policy already shows how favourable it could be to female employment. But it is child care services where its contribution to female employment stands out. The aim of the Danish government has been traditionally that everybody who wants to get access to child care services is able to do so. The range of services is outstandingly wide and the public effort, in terms of funding, remarkable (OECD, 2000; Borchorst, 2000). Local authorities are made responsible for the provision of child care services to everybody who requires them. We may thus say that child care services are a universal right. There are three types of services: day-care facilities; childminders and 'puljordninger', a system according to which a small group of children are looked after by their parents, who may outsource this service, contracting somebody to do so. Parents should not pay more than 30% of the cost of child care and they are exempted if their annual income is not more than 109.700 Danish *krone*. The flexibility of the child care system in Denmark (free for mothers) has been praised everywhere (OECD, 2000).

Spain

Although seriously underdeveloped, even in relation to the other 'continental welfare regimes', public support to childcare in Spain has increased since 1975. This improvement, though, has reflected the belief in the benefits of early education rather than a willingness to support mothers' work. In other words, it is the importance attached to equal access to education from an early age, not the willingness of making easier for mothers to keep their jobs, what fostered the above mentioned improvement (Valiente, 2002: 59-65). Public support to child care is still clearly deficient in relation to other countries of the European Union (González, 2003).

As regards time provision, apparently the Spanish legislation is extremely generous. Provided that the female worker has contributed to the Social Security for at least 180 days during the last five years, maternity leave lasts up to sixteen weeks (four months) with the mother earning the total amount of her last month wage. A Law of Conciliation of Work and Family Life (1999) opened up the opportunity that the father enjoys four out of the sixteen weeks of maternity leave, but just 1.3% of fathers used this possibility, according to Salido (2003). Beyond the maternity leave, the Workers'

[11] Even if Denmark family policy does not look outstandingly generous as regards time, the existence of a wide range of permissions, on different grounds, may allow parents to "complement" and artificially enlarge childcare leave. Such a possibility should be investigated.

Statute opens the opportunity for an unpaid leave for childcare reasons lasting up to three years. In this respect, Spain seems to be one of the EU countries where the provision of time is longer, albeit only remunerated in the case of maternity leave[12]. The wage replacement ratio must be low.

As regards taxes, the Spanish law allows to pay them as a household, instead of individually. The joint taxation "could be advantageous for the household if one [member of the couple] is employed, or the income distribution within the household is quite unequal" (González, 1998: 110). In other words, it may act as a negative incentive for female employment. The Spanish tax benefit ratio, in fact, is one of the lowest considered by Koopmans & Schippers. In other words, the Spanish fiscal system is not especially beneficial for female employment. It implicitly assumes and promotes a male-breadwinner model of family. The household may also enjoy meagre discounts in their taxes, depending on the number and age of their children (Valiente, 1997; MISSOC, 1998). In sum, it is not through money that the Spanish government has intended to *stress* their support to family formation.

Finally, childcare services are possibly the most underdeveloped dimension of family policy. The 1990 Act of General Regulation of the System of Education in Spain (LOGSE) meant a great step forward in the provision of services for child care. Education of children was split up in three segments: "infancy education", from 4 months to 3 years of age; "pre-school" education, from 3 to 6 years of age; and primary school education. Only the latter one was compulsory; yet, the law encouraged the different levels of the public administration to set up and develop a network of centres capable of providing the two previous levels of (voluntary) education. As regards the two first levels, whereas the first one should be paid by the parents, the second (3-6 years) is subsidized by the State. Nowadays, the level of educational coverage of the population between 3-6 years is quite substantial. However, the demand of places in public schools for infancy education (4 months-3 years) is largely unmet. Spain is one of the European countries where the use of educational services for children up to three years is lower (González, 2003: 11). The lack of the necessary flexibility is an additional shortcoming of the Spanish childcare services as a measure of support of female work.

The relative balance of time, money and services fits the characteristics of different types of Welfare State. In 'conservative' welfare states, like Germany, the public provision of childcare services is scarce; family policies mainly rely on time and money, both granted to the family, as a function of women assuming domestic and child rearing responsibilities. In 'liberal' welfare states, like Britain, the policy of non-interference even leads to a lack of generosity in financial terms. The "social democratic" welfare regimes stress their role as providers of childcare services; precisely because services are provided in the first instance, their provision of time and money is not as important[13]. Finally, in Southern European regimes, the role of the

[12] This length could be misleading. It would be necessary to calculate the number of women entitled to take up a three-year long unpaid leave who really do so. The fear of seriously damaging their career prospects, or even the security of their jobs, possibly restrict that number to just a percentage of those employed in the public sector.

[13] Gornick, Meyers & Ross quite explicitly supports the existence of a trade off between tax exemptions and public direct investments in child care services: "Those countries with the smallest direct

family is highlighted as much as in every 'conservative' regime, but the financial provision is not even as high. In return, time receives a great importance. Among all the three dimensions (time, money and services), time is predictably the more dubious as a measure of support of female labour market activity.

IV. Data and variables

The European Household Panel Survey (ECHP UDB 1994-2001) allows to control for a high number among the factors considered above and it is especially useful for exploring the effect of different national institutions on female labour market participation, since the same questions were asked throughout a wide range of countries.

The dependent variable is the instant likelihood of moving from employment to housework between 16 and 55 years of age in the four countries considered. The transition considered takes self-perceived[14] employment status as the state of origin. Next, I will present the *operationalization* of the covariates considered in the analysis.

Individual-level covariates

Age and potential labour experience[15]

Assuming age does not have a monotonical effect on the hazard rate of leaving the labour market (Vlasblom & Schippers, 2004), this continuous variable has been divided in four dummy variables, each one representing a different age interval: 'Age16-25', 'Age26-35', 'Age36-45' and 'Age45-55'[16]. Fifty five has been considered as the highest possible age a women may be looking after a child younger than sixteen. The latter age interval (45-55) has been used as baseline for the analyses (see Annex 1 & 2).

Labour market experience may be also an important predictor of the likelihood of staying active in the labour market, as argued above. Ideally, it should be computed as the sum of all the employment spells throughout the labour market career of the individual. Yet, it is convened that *potential* labour market experience could be

investments, the United States and Canada, were relatively generous in their provision of tax assistance. Tax credits were low or nonexistent in Sweden and Finland, where direct investments were high" (Gornick *et al*., 1996: 18).

[14] Although the ECHP provides information on a yearly basis, the respondent is asked to remember his/her labour status in the twelve months constituting the year before the interview. This allows for a reconstruction of the labour trajectory of the individual on a monthly basis (and, therefore, for a continuous-time model) but the labour status of the individual is necessarily a self-perceived one. The divergence between labour status according to the ILO conventions and the self-perceived labour status has been highlighted by Richiardi (2002) or Marzano (2003). The "misperceptions" of their labour status is not high among employed or inactive people, but it is remarkably high among employees (Richiardi, 2003).

[15] The cohort effect has been frequently considered as one of the areas event-history analysis enables to explore (Blossfeld & Drobnic, 2001). Its interest is undeniable in the study of the abandonment of the labour market. At this stage of the research, though, the variable has not been generated and included in the analysis.

[16] The presumed non-monotonical effect of age on the hazard rate of leaving the labour market may alternatively be captured squaring the age. The set of dummy variables has been preferred, so that they capture the possible effect of different stages in life.

computed as the difference between current age and sixteen years of age, the conventional entrance into labour market activity[17].

Since *potential* labour market activity is derived from age, it is not advisable to include both variables in the model. I have chosen age, since the different dummy variables give more information. It should thus be remembered that age implicitly includes the *potential* labour market experience of the individual.

Education

The ECHP considers three educational levels: the first captures *compulsory* education; the second level captures secondary education to the point of entry into university; finally, the third level corresponds to the attainment of a university degree. Three subsequent dummy variables were created ('Educa1', 'Educa2' & 'Educa3) and the basic educational level (first level) has been taken as baseline.

Type of contract, self-employment, part-time work and public sector

Four type-of-contract categories are considered by the ECHP: "permanent", "fixed-term or short-term contract", "some other working arrangement" and, finally, "casual work with no contract". Four dummy variables have thus been constructed: 'Typcont1', 'Typcont2', 'Typcont3' and 'Typcont4'. The baseline, in this case, is the "permanent contract" ('Typcont1'). Being the highest level of job security, we might expect the other types of contracts to increase relatively the of transition from employment to non-employment[18]. Dummy variables have also been created to capture self-employment ('selfempl'), working part-time ('part-time') and working in the public sector ('public').

Occupation

In order to prevent problems with the size of the sample, the most aggregated occupation variable in the survey has been used. Five dummy variables have been generated: 'servhigh' corresponds to "high-service occupations" ('legislators, senior officials and managers', 'professionals' and 'technicians and associate professionals'); 'servlow' corresponds to "low-level service occupations" ('clerks' and 'service workers and shop and market sales workers'); 'agrfish' corresponds to "skilled agricultural and fishery workers"; 'industry', to "industry workers" ('craft and related trades' and 'plant and machine operators and assemblers'); and, finally, 'element', to "elementary occupations". The first category has been used as baseline. Belonging to any other of the five categories is expected to increase the likelihood of leaving the labour market, relative to holding a high-skilled service occupation.

[17] Nowadays, it would not be realistic to assume labour career begins at sixteen, as it is officially stated. The beginning is later, but it differs according to many different circumstances. This question would need to be explored, so that a reasonable convention was reached, in order to include 'potential labour market experience' in the analysis.

[18] Since the 'not applicable' in the original variable includes a high percentage of the total amount of cases, a dummy ('tipMiss') has been introduced in the model in order to prevent a great loss of observations (see Annexes). This measures also allows for a correct interpretation of the baseline. Finally, it must be noticed that not all the types of precarious employment have been considered in the interviews held in every country. For this reason, the number of dummies corresponding to contract types are some times two, instead of three.

Tenure

Three dummy variables capture tenure. The first, used as baseline, corresponds to one-year long tenure. Many fixed-term contracts are one-year long. Therefore, the baseline is almost equivalent to temporary employment. The other two dummy variables ('ten25' & 'ten5plus') corresponds to a 2-5 years of tenure and more than five years of tenure, respectively. The hazard rates of these dummies are expected to be placed in a decreasing order in relation to the baseline.

Income

Higher utility derived from labour market work, vis-à-vis leisure or other kind of work, raises with income. Therefore, income is expected to be positively associated to a decrease in the likelihood of leaving the labour market; in other words, income increases the opportunity of staying employed; in the opposite sense, it decreases the hazard of leaving the labour market. The income variable ('income') has been collapsed in deciles, so that hazard ratios measure the effect of a jump to the next income decile.

Cohabitation

As argued in the theoretical framework, female employment may be affected by the fact of living alone or living in a couple. Two possible variables could be drawn from the ECHP: 'civil status' and 'cohabitation status'. The latter is richer than the former, since the positive answer considers both marriage and cohabitation. From this variable, a dummy variable ('single') assesses the effect of being single.

Partner's income and labour status

As female income, the original variable capturing partner's has been collapsed in deciles ('inc_partner'). A dummy variable has been created for those partners with zero income ('inc_partner0'), assuming they are either unemployed or inactive. The baseline here corresponds to the partner being employed. This allows to control for both the added-income effect and the effect of the partner's labour status.

Family policy covariates

Quite unfortunately, the ECHP does not allow to make a monthly analysis of the support received by every woman of the sample on the different dimensions of the family policy analysed above. The lack of institutional variables have been compensated by the use of dependent children as a proxy of the effect of family policy on female labour market vulnerability.

Dependent children

Children do require different amounts of time and attention at different ages. Amongst other reasons, children at different age intervals are more or less attended by the educational system, as we have seen above. Three numerical variables have been generated. The first one ('child03lag') reflects the effect of one child from 0 to 3 years of age on the female instant likelihood of leaving the labour market. This variable has been lagged so that it captures the moment of pregnancy, under the assumption that the

decision on labour market participation *do not wait* till the child is born, but is taken when pregnancy is known. Such a lag is not necessary for the other children variables. The second one ('child36') captures the effect of one *more* child from 3 to 6 years of age. This latter limit coincides with compulsory education in almost every country of the OECD. Finally, the third variable ('child6plus') considers the effect of having a child older than six. It is assumed that the "burden" this segment of age implies for the household in terms of care is decreasing; in other words, the attention required by a child from 0 to 3 years is more than the one required by a child in the next age segment; and this in turn is less than the one of a child with more than six years of age[19].

Family-related allowances

These allowances raise the net income of the household, therefore decreasing the utility of work outside household, according to basic economics of the family. Unfortunately, the ECHP does not provide information on the concept by which families receive financial aid from the State; it just states the money this aid amounts up to ('hallowances'). The lack of this information has obvious consequences on the straightforwardness of the conclusions on social policy possibly derived from this survey.

III. Methods

We may be reasonably sure that time has an effect on the transition rate to non-employment and there is an obvious interest to explore the causal relationship between labour market activity and other covariates. Blossfeld & Rohwer have properly highlighted the advantages of event-history analysis, vis-à-vis other statistical methods, in these circumstances (Blossfeld & Rohwer, 1995: 1-32). A piece-wise constant exponential model with competing events should have been applied to the data drawn from the European Community Household Panel, since it is quite likely that the effect of time is neither constant nor monotonic, and, finally, is so far unknown[20]. As a first stage in the research, though, a constant exponential multi-episode model will just be used. This means assuming a constant effect of time over the dependent variable. The introduction of the 'tenure' variable will roughly account for the effect of time.

The competing-events character of the model is required since the exit from employment to housework naturally competes with other destinations, like unemployment. Moreover, the model should be a multi-episode one: each individual of the sample might have more than one employment spell before leaving the labour market for housework; therefore, it may enter into the risk set again after having experienced a transition to housework.

The ECHP is not "event-history data", but "panel data" (Blossfeld & Rohwer, 1995: 11-19). The application of event-history analysis should first be treated cautiously[21];

[19] Given economies of scale and efficiencies attained in the children upbringing, it is quite likely the effect of having one child of 0-3 years of age is higher than having two of this very age. In other words, the effect of these numerical variables is not linear. Even so, the first value of each one of them is the most frequent.

[20] The effect of time will be then supposed to be constant *within* the time captured by each dummy, and to vary from dummy to dummy.

[21] One of the problems of panel data is the attrition of the sample (Blossfeld & Rohwer: 1995: 11-12). Attrition imposes right-censoring. There is no problem if the attrition is purely random, since event-

second, panel data needs to be carefully arranged to reasonably resemble event-history data[22]. Actually, the retrospective treatment of labour market status on a monthly basis at each wave is the only trait of the ECHP that allowed for an event-history analysis. There are retrospective information on the labour market status of the individual for every month in the year prior to the moment of the interview, so that information on the labour market activity may be reconstructed on a monthly basis; that is, almost as if it were continuous time data. We have to bear in mind, though, that many other covariates are annually recorded. This obliges to input the value of a covariate to all the months of a year, and necessarily implies ties and biases.

An additional limitation of the research design is that it does not account for unobserved heterogeneity surely derived from the close relation between many of the covariates considered. Along with the dependent variables, they constitute what Blossfeld & Rowher call "systems". These systems change homogenously; the effect of covariates inside of them is mutual, being difficult to isolate a causal relationship[23]. Blossfeld and Rohwer do not seem to attach great importance to this problem (chapter 7), unlike other scientists, especially demographers and economists, who have stressed this limitation of event-history analysis (see Lillard et al., 1995).

Finally, the analysis includes factors acting at individual, household and institutional level. However, the corresponding variables are bluntly entered into the analysis, without accounting for the fact that they act at different levels. A multi-level dimension will be eventually added to the analysis.

The models have been applied to a sample of women between 16 and 55 years of age in each one of the countries considered. The existence of a sample by country constrains the possibility of a direct cross-national comparison of the hazard ratios shown in the Annex. In order to proceed to such a comparison a single sample should have been created, with interactions between each covariate and a country dummy variable. Thus, the effect of each covariate should be assessed *inside* each country first; then, the comparison with the relative effect of the same covariate in another country may be analysed. For instance, the effect of being single should be first assessed *relative to being married* for every country; then, we may compare with the effect of being single *relative to being married* in a different country.

IV. Results

The marginally low number of events in Denmark highlights how unlikely the transition from employment to housework is in this country. For this reason, even if the effect of

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history analysis perfectly accounts for it. Randomness of the attrition should be confirmed, though. In other words, an analysis of the rate and randomness of the attrition in the selected sub-sample of EHPS would be required in a future stage of this research.

[22] Panel-data is not free of its own limitations. If right-censoring does not constitute a problem, left-censoring does constitute it, since it is not possible to know the beginning of the episode and its duration (Yamaguchi, 1991: 3-9). Left-censoring has been reasonably controlled here through the introduction of the variable 'tenure'. This variable informs of the length of the jobs of members of the sample who already are employed at their appearance in the survey.

[23] Norms, attitudes and values simultaneously affect different processes in the life cycle, like having a child and entering or leaving the labour market. Women with a higher family formation proneness would presumably have a lower preference for work in the labour market. Therefore, they might be over-represented among those who make the transition from activity to inactivity.

some of the covariates turn out statistically significant (see Annex), they should be treated cautiously. The number of transitions from employment to housework in Denmark fits with the expectations initially established in the paper. It is not so with the other three countries. First, Britain show a higher number of events relative to the number of subjects than either Germany or Spain. Second, the number of events in these two 'continental welfare regimes' is quite similar. According to the lower protection of female employment in the Southern European welfare regimes, a higher number of transitions would have been expected in Spain.

Transitions from employment to housework	
GERMANY	Subjects: 4552 Events: **423**
GREAT BRIT.	Subjects: 3554 Events: **1078**
SPAIN	Subjects: 3908 Events: **774**
DENMARK	Subjects: 1997 Events: **74**

Effect of the welfare regimes

Previous analyses of the ECHP paid attention to the transition to *broad inactivity,* instead of housework using both *unemployment* and *employment* as states of origin. They considered both men and women[24], and showed that welfare regimes are not gender neutral as regards the risk of leaving the labour market (Ortiz, 2003). I will now refer more specifically to the transition to housework. I will consider the two main proxies of the effect of family policy that I have considered: forming a couple and having children of different ages.

As regards children, as it may be seen in the corresponding tables of the Annex, controlling for all the possible factors theoretically affecting female labour supply, the hazard of passing from employment to housework for German or Spanish working women with a child under 3 is more than twice the hazard of working women not having a child of this age in their respective countries; in the British case, it is five times the hazard of women not having a child under 3 or being pregnant[25]. Even in the Danish case, we found this dummy ('child03lag') being significantly over 1, although, as it has been said before, we should bear in mind the variable contributes to the explanation of a very small number of transitions.

The highest hazard ratios correspond to this dummy variable, revealing that working women are especially at risk of passing from labour market work to housework when they are pregnant or their child has 0 to 3 years of age; that is, when the child is most dependent and family policies are less supportive in terms of provision of resources to working women. It is also noticeable that in Germany, Britain and Spain, the other two dummy variables capturing the effect rearing a child from 3 to 6 or above this age, still

[24] These analyses were made using just the first six waves of the ECHP.

[25] Since the children variables are numerical, they should be interpreted as the effect of having *one more child* over the hazard of leaving employment for houseworking. Yet, we know that values 0 and 1 are much more frequent than any other one in this variable.

affect significantly the hazard of leaving the labour market: to a lesser extent, childcare affects negatively the likelihood of keeping up work *throughout* the whole childhood. Even above school age, having one more child increases more than 20% the hazard of British women of passing into housework; it does so for German or Spanish women in more than 50%.

Beyond and before childrearing, the effect of forming a couple could act as an announcement of the broader effect of the welfare regime, or the family policy in particular, over the likelihood of passing from employment to housework. Here the findings fit with the degree of support of female employment the different welfare regimes are usually associated to. Single working women in Britain have a risk of leaving the labour market that is more than 70% of the hazard of British working women living in a couple. In the case of Germany, the hazard for single working women is around 60% of the hazard of women married of living in a couple. Quite significantly, in Spain the hazard of leaving the labour market of single working women is just 25% of the hazard of married working women. In other words, in Spain getting married increases significantly the hazard of leaving employment for housework. It is also quite remarkable that this variable is not even significant for the Danish case.

There may be a relationship between the effect of marriage and the effect of different children-age variables. It seems that marriage is a strong predictor of the transition from employment to housework in Spain and, to a lesser extent, in Germany. This may explain why children of 0 to 3 years old do not have there as strong an effect over female labour market activity as they have in Britain. Whereas in Britain children strongly affect the possibilities of survival of women in the labour market, in Germany and Spain they do less due to the fact that *many women have already selected themselves into housework from the very moment of forming a couple and before having children*.

Individual-level covariates

Individual-level covariates do have the effect expected from the theories mentioned above, but this effect do not cover the cross-national difference in the penalty that children and forming a couple mean for employed women.

Age and potential labour market experience

As argued before, age may be taken as a proxy of *potential* labour market activity. As such, it should protect against quitting the labour market. In such a case, it would have been expected a decrease of the hazard ratio from values above one as we move from 'age1625' to 'age3645'. The findings do not confirm this hypothesis. Instead, the effect of age seems to be related, first, to demographic events; and then to particular traits of the national labour markets considered.

The effect of age seems to be non-monotonic. In all the countries but Denmark, the hazard of leaving the labour market for household reasons is, in relation to the baseline, higher for those in the middle age ('Age26-35') than for those who belong to the other two age dummies. Additionally, the hazard of leaving the labour market for household reasons is significantly higher for German, British and Spanish women between 26 and 35 than for women over 45 in the respective countries. This is so *till household*

variables are included in the model. Quite obviously, these latter variables capture the effect of age.

The effect of the first age dummy is quite interesting for the British and Spanish cases. Whereas in Britain, the hazard of leaving employment for household reasons for working women between 16 and 25 is *higher* than for those in the baseline (45-55) (table 2.2), in Spain it happens the opposite (table 3.2). Quite possibly the dummy 'Age1625' is capturing single-motherhood in Britain, before household variables are entered in the model. This phenomenon is not so widespread in Spain, where, on the contrary, many working women at this age still live in their parents' household. For this reason, their hazard of exiting work to undertake housework is significantly lower than those Spanish women in the baseline.

In the Spanish case, the age dummies are still statistically significant when household variables are entered into the last model (table 3.2). The hazard of passing from employment to housework is lower in Spain for all the ages considered than for the baseline, *everything else held constant*. Possibly, this is capturing a cohort effect: the strong current integration of women into the labour market. Already completed in the other three countries considered, it is ongoing process in the Spanish labour market.

Education

As expected, finishing secondary education and having a university degree lowers the risk of exiting the labour market for household reasons. The effect of the investment in Human Capital is revealed by the fact that the hazard ratios for 'Educa3' (university degree) are systematically further away from 1 than for 'Educa2' (secondary education). For instance, the hazard of leaving the labour market for household reasons for German female employees with a university degree is 37% of that of German female employees with just compulsory education (baseline) in the basic model, whereas the hazard of those German employees with a secondary degree is 59% of the hazard of those with compulsory education (Table 1.2).

The effect of education in explaining the exit from employment to housework is weaker among the British sample. Unlike the German and Spanish cases, the effect there is immediately absorbed in the next model (Table 2.3). The new covariates included in it (public sector, type of contract and tenure) are possibly much more correlated with education than it occurs in Germany or Spain. In these latter countries, even controlling for other variables, education significantly decreases the likelihood of the transition from employment to housework. This is particularly outstanding in the Spanish case, where the variables are significant in all the models considered[26].

Type of contract

As in the case of education, the type of contract shows the expected effect over the likelihood of exiting to housework. In relation to holding a permanent contract

[26] This variable shows an odd behaviour in Denmark. The hazard ratio of the education dummies are systematically higher than 1. In principle, this should be interpreted as a risk of exiting to housework higher than for Danish women with basic education. Letting aside the low size of the sample, which might be creating problems, this could be just an statistical artefact: women belonging to the baseline in this country must be rare.

(baseline), having a temporary contract ('Typcont2') or even a more precarious one ('Typcont3', 'Typcont4') increases the likelihood of leaving the labour market to housework. This is particularly the case for British female workers, whose hazard ratios are systematically higher than 1 in most of the models considered (table 2.2).

The results for the German and especially the Spanish case may look suspicious. Spanish has an outstanding rate of temporary employment, and it affects particularly to the youth and women (Toharia and Malo, 2001). The hazard ratio lower than 1 for those women holding temporary contracts in Spain (Table 3.2) is initially puzzling. When making an isolated model for all the dummy variables related to type of contract, though, all types of contracts different than permanent one show a hazard ratio *much* lower than one; that is the hazard of exiting from employment to housework is always above 100% of the hazard of doing so when holding a permanent contract (table 3.1). Moreover, this figure increases with the precariousness of the contract.

This strategy for revealing the effect of temporary contracts does not work as well in the German or Danish cases (tables 1.1; 4.1). Here, holding a temporary contract ('Typcont2') does not even show a significant hazard ratio when types of contracts are isolated in their effect over the dependent variable. It is clear that the difference in the risk involved for a Spanish fixed-term female employee, vis-à-vis a permanent one, is much higher than in the case of a German, Danish or British one. Fixed-term contracts here do not involve the risk of labour market abandonment for female workers that entail in Spain.

Self-employment

As it has been argued above, self-employment may become a precarious kind of work. Certainly, both in Germany (table 1.2) and Spain (table 3.2) the hazard of exiting labour market activity for housework is substantially higher for those women who are self-employed than for those ones who are employees. The British case deviates from this pattern.

Part-time work

In relation to holding a full-time job, a part-time job severely increases the hazard of exiting the labour market to housework. In the British case, the hazard of exiting to housework is 20% higher than the female full-time workers in the last models considered. In the German and Spanish cases (part-time employment is rare in Spain) the hazard of exiting the labour market is higher, vis-à-vis full-time workers. Part-time work seem to predict more the exit from the labour market to housework in the German and Spanish cases. However, bearing in mind that part-time work is more frequent amongst British women than amongst German, and even more than amongst Spanish women[27], this could be the explanation that the number of transitions is unexpectedly high for Britain. First, the share of part-time female workers is higher; then, they may make more than one transition along a period of eight years.

Tenure

[27] In 1994, female part-timers were 44% of female employment in Britain; 33% in Germany; just 15% in Spain (Blossfeld & Hakim, 1997:5).

The data confirms that tenure ensures against the risk of transition to housework: the longer the tenure, the lower the hazard in relation to holding a job for less than one year. Indeed, this is possibly the covariate whose effect is more consistent cross-nationally. In the Spanish case, the hazard of leaving the labour market to assume household duties among women holding a 2-5 year-long job is 40% of the hazard of those holding a one-year long job in the initial model, whereas the hazard of women with tenure longer than five years is around 17% of the hazard of women in the baseline (table 3.2). The effect of being at the same job for more than five years, in relation to tenure equal or lower than one year, is higher for Spanish women than for British or German ones The strength of the effect of tenure is slightly lower in Britain.

Public vs. private work

When entering this variable in the transition to housework, it turns into a solid, and high predictor of staying employed and not leaving the labour market. The effect is remarkably higher in Spain than in Germany, and higher in turn than in Britain. The effect of working in the public sector logically diminishes when occupations enter the model, since many feminised occupations in the public sector are highly-skilled (i.e. public health, education). It also diminishes when female income is included, precisely because these occupations are located in the higher deciles of the income distribution. Even so, the effect of public sector in Spain and Britain remains significant till the last models. In the German case, for instance, the effect of public sector in promoting female activity is lost when income enters into the model: female income covers all the effect of the former variable. This possibly tells more about the likelihood of female discrimination in the Spanish and British *private* sector, vis-à-vis the public one. The public sector works as a refuge against gender discrimination for Spanish or British female employees (especially, female employees with children), more than for their German or Danish counterparts. In Germany or Denmark, the strength of the unions in the private sector, the coverage of collective bargaining and the sensitiveness towards gender employment issues might blur the difference between the private and the public sector, relative to what happens in Britain or Spain.

Occupation

High-skilled service jobs were sorted as the baseline. In relation to them, the behaviour of the different occupational dummies over the risk of leaving the labour market is the expected initially. In relation to female high-skilled employees, the lower the prestige of the occupation, the likelier the exit of employed women to housework. This effect is confirmed when looking at the models where the effect of the set of occupation dummies over the risk of leaving the labour market is introduced in isolation (tables 1.1; 2.1; 3.1; 4.1). Obviously, the effect of some occupations (like low-service ones) is frequently obscured when the variable enters in the same model along with education or income. These two latter variables are both highly correlated with this dummy. The Spanish case stands out as the only case where, even controlling for the income of the female worker and her educational level, all the occupation dummies show a hazard ratio higher than the baseline, corresponding to high-skilled service occupations. In other words, even controlling for education or income, the hazard of exiting to housework is higher for all these occupations than for high-skilled service jobs. Either the occupational prestige works here as an extent it does not in the other three countries or the income inequality within each one of the occupational categories defined is

higher in Spain than in the other countries considered. This argument might look plausible when comparing with Denmark or Germany, given the higher centralization of collective bargaining, but it is so obvious when comparing with Britain.

Income

As expected, the relative utility of staying employed severely diminishes when income gets lower. In this sense, the jump to a higher income decile means a lowering of the risk of leaving labour market activity for housework. Many women, especially in conservative welfare regimes, may consider that it does not worth the while earning a low income in a scarcely appealing occupation in order to pay childcare services that enable them to keep her job. It is a further demonstration of the positive 'substitution effect' of income on female labour market activity.

Individual-level variables related to the household

The household variables indirectly related to the weight of family policy in supporting female employment have already been dealt with. Other variables related to the household conditions of the female worker may also affect her hazard of exiting the labour market. The fact of having an unemployed or inactive partner (Inc_partner0), far from stimulating female labour market activity, increases the hazard of German or British women leaving the labour market. It is not so for Spanish female workers; at least, not significantly. This roughly coincides with the positive association between the labour market positions of husbands and wives already found by De Graaf and Ultee (2000). Educational homogamy, the regional unemployment rate and the spouses' resources to facilitate the activity of the individual might explain this positive association. It is also the case, as found by De Graaf and Ultee, that the association is weaker in a country like Spain, where female labour market participation is lower.

The husbands' income operates in the opposite direction: although marginally, the higher the partner's income the higher the likelihood of women making the transition to housework. This works as an additional confirmation of Human Capital Theory. But, again, Spanish female workers deviate from this behaviour.

V. Discussion

The ECHP has allowed for an event-history analysis of the transition from employment to housework. The results of the analysis confirm most of the hypotheses derived from an economic perspective on female labour supply. A higher income and educational level decrease the instant likelihood of passing from employment to housework. A decrease in job security, or the possession of types of contract frequently associated with worse working conditions, like part-time or self-employment, increase the instant likelihood of leaving employment for housework. Finally, occupational prestige is negatively associated with the risk that women abandon the labour market to assume household duties on a full-time basis. These are solid cross-national patterns. Even so, substantial cross-national differences have been found, not just in the behaviour of covariates related to welfare regimes, but even in other individual or household-level ones.

Previous research has shown that the influence of gender on the instant likelihood of entering into inactivity roughly corresponds with the order established by the Esping-Andersen's tripartite typology of welfare state. Spanish and German working women seem to be at a higher risk of abandoning the labour market than their British counterparts; in turn, all of them (British, German and Spanish women in the sample) are at a higher risk than Danish working women.

The number of transitions to housework, though, only partially confirms this idea. Certainly, this number is almost negligible for Denmark, but, among the other three national cases, we observe a relatively higher number of events in the British sample than in the German or Spanish ones. This impression is reinforced by the effect of being pregnant or having a child between 0 and 3 years of age. The hazard of passing from employment to housework for British working mothers in this circumstance is five times the hazard of British working women who do not share it, whereas the same hazard ratio is beyond two and three for German or Spanish women, respectively

According to Gornick et al., it is in the Anglo-Saxon countries considered by these authors "that we would expect to observe the greatest disruptions in employment among mothers with young children; that is, where we expect to see employment patterns that are highly differentiated by children ages" (Gornick et al., 1997: 64-65). Certainly, if the British tax system is more gender-neutral than the Spanish or the German ones, British family policy is, in other respects, not so generous. This is particularly true with respect to the time in public services provided for working women with children under school age. Therefore, we could initially confirm Gornick et al.'s expectations, and, subsequently, confirm the importance of time (leaves) in enabling working women to stay active in the labour market.

However, the possibility that working women are self-selected into inactivity (housework) even before entering into employment should also be considered. The suspicion of sample-selection bias is reinforced by the effect observed in the variable 'single'. Spanish working women forming a couple have a much higher hazard of passing from employment to housework than Spanish working women who stay single. To a lesser extent, this is also true for German women, and less so for British ones. Marriage seems to be a strong predictor of the transition to housework for Spanish working women, *even before they have children*. Many women who have already passed into housework could not even be in the risk set when analysing the effect of children on the transition from employment to housework.

The effect of forming a couple could be interpreted as a forward effect of the family policy. In different institutional scenarios, when forming a couple, women take into account the public support they will be entitled to at the moment of becoming mothers. This argument would decrease the importance of time leaves in increasing the survival rate of working mothers in the active population, although we have certainly observed that marriage is not as a strong predictor of the transition to housework in Germany as in Spain. As regards granting time for maternity reasons, both countries are more generous than Britain, but Germany stands out. The Spanish law grants time with a low wage replacement rate and the three-year long unpaid parental leave is not commonly enjoyed by most women working in the private sector.

Among the three dimensions of family policy considered, the low number of transitions in the Danish sample certainly stresses the importance of the public provision of childcare services. Working women are less likely to pass into housework where they have a universal network of childcare services. This kind of network does not exist in any one of the other three countries considered. Amongst the other two dimensions considered in the family policy, we have seen that the provision of time may have an effect on the moment of having children. In the Spanish case, however, it is possibly not so much this time provision as the possibility of outsourcing childcare to the family network which explains why working mothers, with a much less generous family policy, experience an increase in the hazard of passing into housework similar to the one found in Germany. The German and Spanish women who "survive" working at the moment of having their children seem to be more resilient to the threat of having to abandon employment for housework reasons than British ones.

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ANNEX

Table 1.1: GERMANY

	Sector Effect Isolated		Contract Type Effect		Occupation Effect	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Public	**0.2725 *****	0.0430				
selfempl			**2.8305 *****	0.4514		
tipMiss			*4.8161 ****	*0.6014*		
Typcont2			0.9208	0.2369		
Typcont3			**2.5260 ****	1.0426		
servlow					**1.2809 ****	0.1595
agrfish					**4.7216 *****	1.4241
industry					0.8704	0.2005
element					**2.8004 *****	0.4499
ocupaM					*5.5267 ****	*0.7969*

Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 1.2: GERMANY, Employment to Houseworking

	Basic Model		Adding Occupatn.		Adding Income		Adding Household Vars.	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Age1625	0.7677	0.1321	0.8178	0.1411	1.0871	0.1890	0.7828	0.1444
Age2635	**1.7087** ***	0.2416	**1.4109** **	0.2019	**1.9532** ***	0.2898	1.1474	0.1960
Age3645	1.0656	0.1618	1.0768	0.1661	**1.4993** **	0.2390	1.0605	0.1783
Educa2	**0.5908** ***	0.0651	**0.6806** ***	0.0776	**0.7583** **	0.0873	**0.6616** ***	0.0773
Educa3	**0.3742** ***	0.0601	**0.5870** ***	0.1021	0.9125	0.1608	0.7630	0.1355
Public			**0.6473** **	0.1125	0.8877	0.1558	0.9206	0.1612
selfempl			**2.0475** ***	0.3522	**1.8630** ***	0.3230	**1.8318** ***	0.3185
tipMiss			*0.9661*	*0.2370*	*0.7597*	*0.2077*	*0.7921*	*0.2266*
Typcont2			1.0565	0.2784	1.1000	0.2937	1.1216	0.2997
Typcont3			**2.0780** *	0.8588	**1.9785** *	0.8185	1.9717	0.8119
Part-time			**3.2940** ***	0.4258	**1.7668** ***	0.2417	**1.4195** **	0.2001
ten25			**0.4689** ***	0.0640	**0.6992** **	0.1001	**0.7226** **	0.1031
ten5plus			**0.1841** ***	0.0356	**0.3795** ***	0.0745	**0.3391** ***	0.0668
income					**0.4896** ***	0.0163	**0.4906** ***	0.0168
servlow			1.0198	0.1333	0.8494	0.1088	0.9027	0.1163
agrfish			**3.3125** ***	1.0130	**2.1195** **	0.6480	**1.9953** **	0.6138
industry			0.7973	0.1893	0.7761	0.1827	0.7377	0.1749
element			1.2080	0.2118	1.0208	0.1753	1.0322	0.1810
ocupaM			*3.2829* ***	*0.9151*	*2.0565* **	*0.6338*	*1.8528* *	*0.5990*
child03lag							**2.6015** ***	0.4013
child36							**1.3003** *	0.1921
child6plus							**1.5539** ***	0.1953
Single							**0.6631** ***	0.1303
Inc_partner0							**2.3579** ***	0.5362
Inc_partner							**1.0540** ***	0.0195
hallowances							0.9965	0.0032

Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 2.1: GREAT BRITAIN

	Sector Effect Isolated		Contract Type Effect		Occupation Effect	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Public	**0.2836 *****	0.0288				
selfempl			**1.5771 *****	0.2015		
tipMiss			*20.100 ****	*1.3044*		
Typcont2			1.3245	0.2880		
Typcont3			**2.2525 *****	0.5128		
servlow					**1.3717 *****	0.1205
agrfish					1.8931	1.1009
industry					1.0020	0.2018
element					**1.9961 *****	0.2719
ocupaM					*22.442 ****	*1.9097*

Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 2.2: GREAT BRITAIN

	Basic Model		Adding Occupatn.		Adding Income		Adding Household Vars.	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Age1625	**2.5731** ***	0.2649	**2.4460** ***	0.2532	**2.4711** ***	0.2561	1.0824	0.1194
Age2635	**2.3780** ***	0.2335	**2.5006** ***	0.2459	**2.5436** ***	0.2501	1.1314	0.1245
Age3645	1.0057	0.1157	1.1331	0.1307	1.1637	0.1343	1.0071	0.1213
Educa2	**0.8319** *	0.0787	0.9138	0.0871	1.0002	0.0956	1.0182	0.0977
Educa3	**0.7488** ***	0.0498	0.9436	0.0655	1.1143	0.0779	1.0689	0.0757
satisfX			*0.6627*	*0.3254*	*0.4629*	*0.2269*	*0.3568* **	*0.1773*
satisfn			**0.9187** ***	0.0290	**0.8974** ***	0.0281	**0.8631** ***	0.0272
Public			**0.6927** ***	0.0782	**0.7580** **	0.0860	**0.6803** ***	0.0783
selfempl			0.6612	0.1860	**0.5257** **	0.1479	**0.4035** ***	0.1118
tipMiss			*11779*	*354000*	*82777*	*239000*	*50052*	*157000*
Typcont2			**1.6235** **	0.3587	**1.4454** *	0.3198	**1.6268** **	0.3617
Typcont3			**2.0657** ***	0.4871	**1.6785** **	0.3958	**1.7011** **	0.4040
Part-time			**2.2886** ***	0.2393	**1.5779** ***	0.1687	**1.2500** **	0.1336
ten25			**0.5395** ***	0.0568	**0.6384** ***	0.0676	**0.6195** ***	0.0660
ten5plus			**0.5788** ***	0.0665	**0.7005** ***	0.0811	**0.6236** ***	0.0728
income					**0.7403** ***	0.0164	**0.7790** ***	0.0178
servlow			1.1421	0.1072	**0.8383** *	0.0810	0.8760	0.0850
agrfish			1.4141	0.8276	1.0642	0.6223	1.2108	0.7121
industry			0.9038	0.1865	**0.6884** *	0.1426	0.8052	0.1677
element			**1.2823** *	0.1869	0.8741	0.1292	0.8911	0.1327
ocupaM			*0.0000*	*0.0021*	*0.0000*	*0.0016*	*0.0000*	*0.0017*
child03lag							**5.6111** ***	0.4067
child36							**1.2129** **	0.0920
child6plus							**1.2749** ***	0.0926
single							**0.7221** ***	0.0748
Inc_partner0							**1.4364** ***	0.2275
Inc_partner							**1.0430** ***	0.0111
hallowances							**1.0091** ***	0.0011

Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 3.1: SPAIN

	Sector Effect Isolated		Contract Type Effect		Occupation Effect	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Public	**0.0697** ***	0.0176				
selfempl			**2.4522** ***	0.3194		
tipMiss			*11.0237* ***	*1.4276*		
Typcont2			**4.0943** ***	0.2095		
Typcont3			**6.6696** ***	0.7883		
Typcont4			**31.8906** ***	0.8578		
servlow					**2.4522** ***	0.4700
agrfish					**11.0237** ***	2.6449
industry					**4.0943** ***	0.9665
element					**6.6696** ***	1.2676
ocupaM					*31.8906* ***	*5.3776*

Notes: (a) Significant at: * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 3.2: SPAIN

	Basic Model		Adding Occupatn.		Adding Income		Adding Household Vars.	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Age1625	**0.6994** ***	0.0816	**0.6076** ***	0.0723	**0.6408** ***	0.0767	**0.5483** ***	0.0680
Age2635	1.1701	0.1209	**1.2569** **	0.1298	**1.2657** **	0.1307	**0.6893** ***	0.0791
Age3645	0.9054	0.0957	**1.2145** *	0.1287	**1.1930** *	0.1265	**0.8088** *	0.0896
Educa2	**0.4076** ***	0.0419	**0.6254** ***	0.0658	**0.6485** ***	0.0684	**0.7523** ***	0.0803
Educa3	**0.1560** ***	0.0193	**0.4482** ***	0.0596	**0.4745** ***	0.0631	**0.5524** ***	0.0747
satisfX			*1.6083*	*1.2522*	*1.6072*	*1.2528*	*1.0311*	*0.8081*
satisfn			**1.1269** ***	0.0284	**1.1232** ***	0.0285	**1.0490** *	0.0275
Public			**0.4133** ***	0.1113	**0.4459** ***	0.1202	**0.4105** ***	0.1111
selfempl			**1.4945** **	0.2482	**1.3633** *	0.2252	**1.3683** **	0.2292
tipMiss			*3.8718* ***	*1.2979*	*4.1399* ***	*1.3805*	*4.1296* ***	*1.3828*
Typcont2			**0.7061** **	0.1135	**0.7447** *	0.1197	0.7967	0.1290
Typcont3			0.9937	0.2261	1.0365	0.2357	1.4134	0.3228
Typcont4			1.4119	0.4879	1.4638	0.5056	1.4621	0.5058
Part-time			**1.6193** ***	0.2110	**1.5939** ***	0.2076	**1.4775** ***	0.1934
ten25			**0.3914** ***	0.0567	**0.4082** ***	0.0591	**0.4073** ***	0.0594
ten5plus			**0.1681** ***	0.0278	**0.1776** ***	0.0293	**0.1607** ***	0.0268
income					**0.9230** ***	0.0113	**0.9349** ***	0.0116
servlow			**1.6752** **	0.3446	**1.6845** **	0.3467	**1.8427** ***	0.3825
Agrfish			**3.6909** ***	0.9382	**3.3223** ***	0.8423	**3.3882** ***	0.8704
industry			**2.1746** ***	0.5502	**2.2997** ***	0.5830	**2.5290** ***	0.6508
element			**2.5230** ***	0.5535	**2.6754** ***	0.5897	**2.7607** ***	0.6160
ocupaM			*2.2747* **	*0.8403*	*2.0412* *	*0.7548*	*1.9220* *	*0.7153*
child03lag							**2.1736** ***	0.2214
child36							**1.4019** ***	0.1538
child6plus							**1.3504** ***	0.1128
Single							**0.2551** ***	0.3610
Inc_partner0							0.8295	0.1177
Inc_partner							0.9985	0.0133
hallowances							0.9967	0.0081

Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 4.1: DENMARK

	Sector Effect Isolated		Contract Type Effect		Occupation Effect	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Public	**0.4022 *** **	0.1023				
selfempl			**2.8252 ** **	1.3399		
tipMiss			**7.5624 *** **	*2.2895*		
Typcont2			1.8652	0.9781		
Typcont3			**9.3622 *** **	3.3094		
Typcont4			0.0000	0.0082		
servlow					0.9483	0.2644
agrfish					1.9925	2.0244
industry					0.7062	0.5152
element					0.8107	0.4902
ocupaM					5.4106 ***	*1.7017*

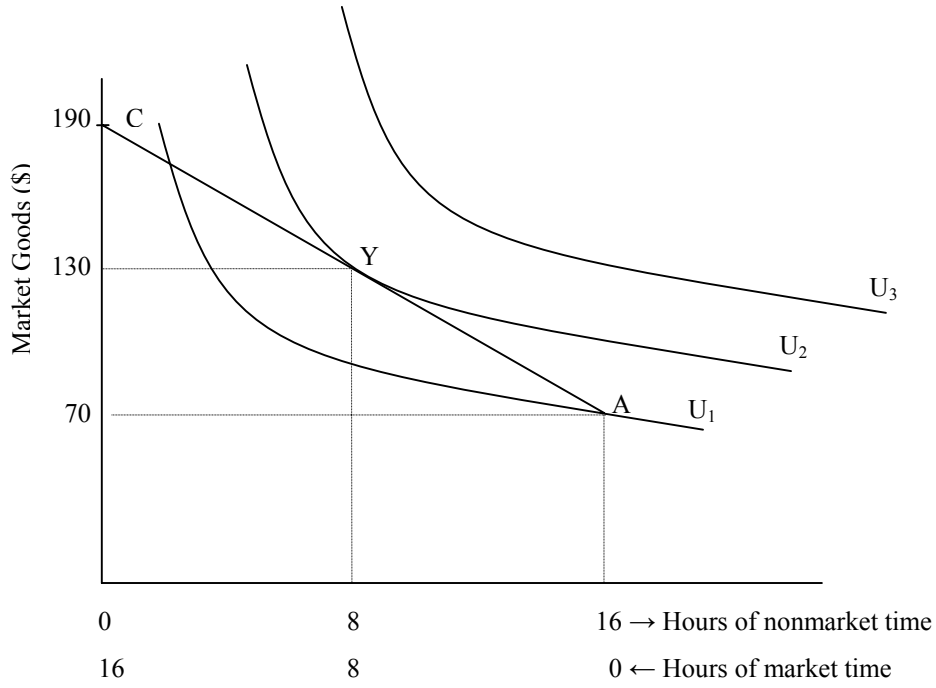
Notes: (a) Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observatio

Table 4.2: DENMARK

	Basic Model		Adding Occupatn.		Adding Income		Adding Household Vars.	
	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.	Haz. Rat.	Std. Err.
Age1625	0.7180	0.2471	**0.5164** *	0.1833	**0.5241** *	0.1854	**0.2776** ***	0.1077
Age2635	0.7235	0.2097	0.7628	0.2310	0.9345	0.2845	**0.4022** **	0.1507
Age3645	**0.3099** ***	0.1150	**0.4192** **	0.1582	**0.5024** *	0.1907	**0.3949** **	0.1604
Educa2	1.6410	0.6137	**1.9821** *	0.7630	**2.4281** **	0.9337	**2.2111** **	0.8722
Educa3	1.5374	0.5964	**2.2438** *	0.9571	**3.1154** ***	1.3251	**2.5287** **	1.0956
Minent			0.0000	0.0011	0.0000	0.0004	0.0000	0.0006
SatisfX			*2.0679*	*3.2694*	*1.5100*	*2.3467*	*0.8322*	*1.3118*
Satisfn			0.9682	0.0985	0.9538	0.0947	0.9141	0.0922
Public			**0.6050** *	0.1757	0.6184	0.1819	0.6359	0.1889
selfempl			1.9578	0.9893	0.7356	0.4294	0.9152	0.5292
TipMiss			*46133*	*955000*	*926650*	*431000*	*8951571*	*817000*
Typcont2			1.0759	0.5860	1.0048	0.5453	0.9773	0.5424
Typcont3			**4.5338** ***	1.7578	**3.6402** ***	1.3939	**2.7550** **	1.0863
Typcont4			0.0000	0.0025	0.0000	0.0014	0.0000	0.0024
Part-time			**2.2174** ***	0.6375	1.3939	0.4102	1.4799	0.4514
ten25			**0.3729** ***	0.1213	**0.4553** **	0.1485	**0.3384** ***	0.1114
ten5plus			**0.2029** ***	0.0733	**0.2883** ***	0.1053	**0.2204** ***	0.0800
income					**0.6290** ***	0.0502	**0.6730** ***	0.0530
Servlow			0.8426	0.2581	0.6357	0.1939	0.7282	0.2240
Agrfish			0.9984	1.0558	0.3839	0.4127	0.6019	0.6552
industry			0.5627	0.4256	0.4611	0.3489	0.3994	0.3141
element			0.5245	0.3369	**0.3288** *	0.2095	0.3751	0.2422
ocupaM			*0.0000*	*0.0011*	*0.0000*	*0.0005*	*0.0000*	*0.0011*
child03lag							**3.1229** ***	0.9867
child36							0.7912	0.2673
child6plus							0.9466	0.2876
Single							0.5111	0.2288
Inc_partner0							1.2314	0.9308
Inc_partner							1.0273	0.0424
hallowances							**1.0113** ***	0.0029

Notes: (a)Bold: significant at * p < 0.1; ** p < 0.5; *** p < 0.01
(b) Italics: variables to prevent the lose of missing observations

Fig. 1


190
C
130
Y
70
A
U3
U2
U1
Market Goods ($)
0
8
16 → Hours of nonmarket time
16
8
0 ← Hours of market time