Who Cares?

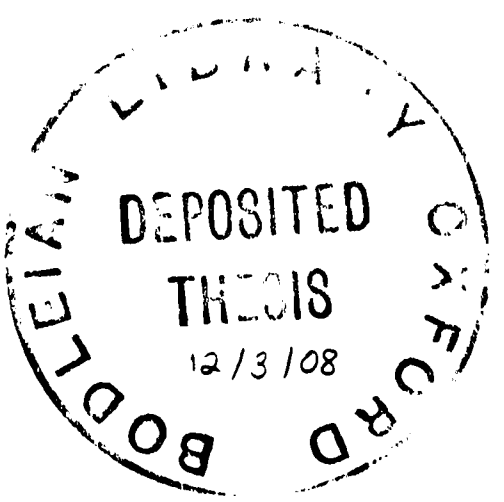
European Fathers and the Time They Spend Looking After Their Children

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The intellectual challenge of writing this thesis has coincided with the physical challenge of losing my right leg. I have drawn much strength from either process for managing the other. Principally, however, the most strength comes from being loved by my wonderful fiancé, friends, brother, mother, and of course father. And so I dedicate this thesis to the man who was surely its inspiration. Thanks Dad.

Declaration

This thesis is the result of my own work, except where otherwise indicated. All primary and secondary sources are acknowledged. It contains approximately 80,000 words.

Alison Smith

Edinburgh, 25th September 2006

Alors, il ne faut pas dire qu'une heure d'un homme vaut une heure d'un autre homme, mais plutôt qu'un homme d'une heure vaut un autre homme d'une heure. Le temps est tout, l'homme n'est plus rien; il est tout au plus la carcasse du temps.

Karl Marx, *Misère de la philosophie* (1847)

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Introduction

Across the European Union and, across industrialised societies generally, there has been huge social change in the latter half of the 20th century regarding women's access to public life (Crouch 1999). Women now have, in legal terms, equal access to education, to the labour market and to political life. As women are increasingly participating in the public sphere, the question of who fulfils their previous roles in the domestic sphere looms large: so, who cares? Are men increasingly willing and able to participate in roles traditionally carried out by women? Evidence would suggest that whilst there has been some shift in men's behaviour with regard to domestic work, men have not undergone an inverse transformation (Bianchi et al. 2000; Gershuny 2000; Hochschild 1989; Sayer 2005). This may be one of the reasons why despite all the changes, gender inequality in the labour market and in other areas of public life remains.

The onset of parenthood would appear to be pivotal to this persistence of gender inequality. As if someone had flicked a switch on a time machine, the onset of parenthood can result in the couple travelling back in time, and a gender division of labour is re-established (Kalmuss, Davidson and Cushman 1992). Young men and women start off on a more similar track than ever before (Erikson and Jonsson 1996; Shavit and Blossfeld 1993; Walby 1997), but this can change with the onset of parenthood, something which is occurring later and later in European societies (Billari and Kohler 2004), maybe precisely because of

the sacrifices in gender equity that it entails (Brewster and Rindfuss 2000; Chesnais 1996; McDonald 2000; Sleebos 2003).

Perhaps this restorative switch is a result of family life, including parenthood, being at the very heart of what we consider as private. It has always been the state's prerogative to regulate access to public life. The state can pass laws which ban gender discrimination in employment practice, and in case of an infringement, there is legal recourse. In contrast, the state typically exercises restraint in regulating household practices. Indirectly, however, it exerts influence on the gender division of domestic labour (Cooke forthcoming; Gauthier 2001; Hook 2006). It does so largely by legislation that concerns the production, well-being and care of children, which in turn affects parents' labour market participation.

An integral element of the dominant sociological and economic theories concerned with the gender division of domestic labour is the notion of teamwork. Teamwork refers to a combined effort, working together to achieve a common goal. Such working together can be realised in one of two ways. The team can specialise, each member carrying out a separate role thus creating a division of labour. Durkheim ([1893]1984), Parsons (1942) and Becker (1981a, 1985) all assume that the members of a marital team obtain optimal outcomes by taking on different, specialised roles within a household. An alternative is Oppenheimer's (1988, 1997) model of non-specialisation. In this model, team-members are able to carry out each others' roles, or at least multiple roles as and when required. Thus, dependance on the essential skills of any one team-member at a given time is reduced. This thesis explores the extent to which these models can be used to describe not only marital partnership but also co-residential parenthood across Europe at the dawn of the 21st century.

Compared with the determinants of the gender division of housework, less is known about the determinants of the gender division of child care (Sundström and Duvander 2002). Starting from this observation, this thesis explores how couples share the two central aspects of parenting: firstly, care provision, and secondly, financial provision. A substantial body of research has investigated how women are managing or failing to combine care and labour market participation (e.g. Gornick, Meyers and Ross 1997; Gornick and Meyers 2003). Howe-

ver, the other side of the coin has remained largely unturned and far less is known about how men manage to combine care and labour market participation (Kaufman and Uhlenberg 2000; Sundström and Duvander 2002). Here then lies the focus of the following inquiry. Potentially, learning more about those fathers who do spend time looking after their children will inform the debate about how to promote a more broadly defined equality of opportunity, which includes family life and not only professional life. At a conceptual level, it will contribute a piece to the sociological puzzle that is the enduring gender division of labour in our societies.

This thesis contributes to the growing body of research on fatherhood (e.g. Coltrane 1996; Furstenberg 1988; Hobson 2002; Hook 2006; Marsiglio 1995; O'Brien and Shelmit 2003), particularly in a comparative context. Whilst much of the literature and debate taking fathers as objects of sociological inquiry focuses on absent fathers or on non-resident divorced fathers (Bradshaw et al 1999; Dey and Wasoff 2000; Furstenberg, Morgan and Allison 1987; Simons et al 1994), this thesis takes the co-resident social father as the prime object of investigation. This focus is set in the context that the majority of households with dependent children still consist of a mother and father team living with their children (Eurostat 2003c; Keilman 1987; Wasoff and Morrison 2005), a majority which is further increased, when the broader definition of the social father is employed rather than the more limited biological definition.

The analytical framework of the thesis is informed by an unusual normative stance: it is assumed from the outset that fathers want to spend time looking after their children, but that they are limited in doing so, by certain constraints, be they economic or social. Such constraints will vary across social classes. This assumption is needed to contrast with the viewpoint that fathers do not spend time looking after their children because this is not their preference, and that they could if they did want to in the absence of any constraints. Again such constraints will vary across social classes. The question of whether men want to become caring fathers is not empirically pursued here. Rather, the argument for taking such a position, is that by doing so, the inquiry is framed in a certain way. Thus new insights are gained into the dynamics of gender inequalities in Euro-

pean societies. By thinking *as if* men would like to spend more time looking after their children, it becomes possible to further sociological understanding of co-residential fatherhood. The substantive chapters of the thesis provide an early testing ground for such an approach.

The European Union of the 1990s, provides an excellent forum for comparison in that countries are similar enough to compare, whilst at the same time exhibiting enough difference as to allow variation. Lijphart (1971: 683) states that there are three fundamental strategies of research facilitating causal inference: the experimental, the statistical and the comparative. The experimental method is rarely possible in social science. The statistical method uses mathematical manipulation of empirically observed data to approximate the experimental method. However, the statistical method requires a certain number of observations, which cannot always be obtained. This is when the comparative method is used. The statistical method is the principal method employed in this thesis. Where longitudinal household data are used the basic approach for the analysis is panel data modelling (random and fixed effects). The comparative method is used for analysing the policy differences between countries in chapter 5.

There are two levels of analysis in this thesis. The first is the EU-wide overview. Where comparison is cross-national, the EU countries between 1994-2001 are included in the analysis. The second, where comparison is within countries, focuses on France, (West) Germany and the UK. These countries have been chosen as they allow for the analysis of paternal time across national parental employment structures, within different family forms and between contrasting welfare regime types (Esping-Andersen 1990, 1999; Lewis 1997). This latter, in depth, inter- and intra country comparison permits a more accurate understanding of the importance of compositional differences as opposed to possible (unspecified) cultural variation. Thus the causes of differences in paternal time between countries may be more validly assessed.

There are technical and methodological hurdles to clear when developing a comparative measure of paternal time. A comparative study of paternal time across Europe requires comparable harmonised data such as that provided by

the European Community Household Panel (ECHP). Whether spending quality time rather than an increased quantity of time is more relevant to understanding the paternal relationship is certainly a worthwhile route of investigation (Dermott 2003). This is a question for qualitative methods. Given that this thesis aims to describe and analyse paternal behaviour both within and between countries using nationally representative samples, the quantity of time spent with children is taken to be the key indicator of paternal involvement. Paternal time is the central dependent variable of this thesis.

In summary, this thesis examines the relationship between the time spent by co-resident fathers on child care across the European Union during the period 1994-2001 and certain socio-economic variables, primarily using the European Community Household Panel. It is argued that individual level factors and institutional factors at the macro level will both impact on a father's ability to spend as much time with his children as he would like to. This thesis combines a certain amount of descriptive comparison with explanatory analyses across all EU countries. Four key questions are considered:

1. Do fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market?
2. Do fathers spend more paternal time in countries with more father-friendly legislation?
3. Do fathers earn more and work longer hours than non-fathers?
4. Do fathers, who spend more paternal time, work fewer hours and earn less than fathers spending less paternal time?

Chapter 1 introduces the literature concerning gender, parenting and the division of domestic child care. Chapter 2 develops the theoretical framework of the thesis. Chapter 3 considers the complexities of measuring paternal time and introduces the ECHP. Chapter 4 presents estimates of both the average paternal time of various groups of resident fathers as well as indicators of the gender differences in child care time in the different EU countries. The correlation

between the distribution of parental household employment types in a country and substantial paternal time is also explored. Chapter 5 considers father-friendly legislation across Europe, developing a father-friendly policy index to facilitate cross-national comparison and analysis of the correlation between legislation and paternal time. Chapter 6 considers how parental households are combining financial provision for their children with care, focusing on parental and pre-parental labour market outcomes and their relationship to fatherhood using random effects models. Chapter 7 continues inquiry into the correlation between labour market outcomes and the onset of fatherhood using fixed effects models. It also examines the correlation between paternal time and labour market outcomes. Chapter 8 concludes by drawing together the material from the previous chapters to address the key questions.

Chapter 1

Gender, Parenting and the Division of Domestic Child Care

During the 1990s in the European Union, fatherhood found a place on the political agenda both at a European level and within nation states, some more than others. One aspect of the continuing policy debate focuses on absent or non-resident fathers, particularly those who do not provide financial support for their children. Men father, but do not necessarily assume the responsibilities of fatherhood. But this is only part of the story. The other side of the policy debate has been characterised as revolving around "making" men into "active and engaged" fathers (Hobson 2002: 1). There are visible actors seeking to affirm both men's rights and responsibilities in relation to fatherhood. Such actors include EU institutions, as is reflected by the resolution of the Council of the European Union and the Ministers for Employment and Social Policy (2000/C 218/02) on the balanced participation of women *and men* in family and working life. Non-governmental organisations such as "Fathers Direct" in the UK, exist to promote the positive and active involvement of fathers and male carers in supporting the welfare of children. There has been much media representation of positive and confident solo fathers, mirroring changing perceptions around the ability of fathers to be equally competent care givers as mothers. In policy discourse, the question of who pays for the children is now increasingly paired

with the question of who cares for the children. This is also visible in the reconfigurations of family law that reflect a greater recognition of fathers' rights to shared custody. I consider how varied institutional settings and policy logics contour the options available to men, taking paternal time as a measure of active and involved fathering.

A sample of men living with dependent children is not representative of all men, or of all fathers. However, the co-residential parental household is still the dominant form of household containing dependent children (Eurostat 2003c). I focus on those men who live with their children within the structure of a two-parent co-resident family. Particularly within this context, changes in parental employment patterns are creating new socio-economic and cultural contexts for negotiating what it means to be a father. One such context is the "dual-earner/dual-carer" family model, that envisions, as both positive description and normative aspiration, a social and economic arrangement in which men and women engage symmetrically in both paid work in the labour market and in unpaid work in the home (Crompton 1999; Gornick and Meyers 2003). This family model is unusual in reality as women have, in general, become earners to a greater extent than men have become carers. Change has been asymmetric. There has been much research into the causes and consequences of women becoming more attached to the labour market; strikingly little complementary research[1] has been undertaken to discover either the causes or consequences of paternal care, particularly in relation to adult outcomes (rather than child outcomes).[2]

In this chapter, a series of rival arguments concerning the gender division of labour are presented. Among the arguments considered, some are older, developed in a historical period in which fathers were typically viewed as breadwinners and parental teamwork consisted of highly specialised roles for the mother and father. Others are relatively new, having developed in response to

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1 Exceptions include Cooke (2004) and Oláh (2003), who find that paternal time in child care affects the chance of second birth.

2 The focus of the thesis is on adult outcomes and not on child outcomes. This is as a result of the sociological puzzle in question, namely the persistence of a gendered division of labour.

the diversity in family structures and employment roles that has arisen during the past two decades, during which parental teamwork has, for some, become less about specialisation into different roles and more about an 'all hands on deck' non-specialisation. From these theories, hypotheses about the predeterminants and potential consequences of paternal time for the fathers in question are developed in the next chapter.

Paternal time, defined as the time fathers spend looking after their children, is just one component of the household work that men might carry out. Whilst many theories consider the gender division of labour particularly in the labour market, but also between the labour market and home, far fewer sociological theories deal specifically with parental time (defined as the time parents spend looking after their children) as distinct from household work. Fewer still consider paternal time as distinct from maternal time. It is necessary to start then with a review of the theories available for explaining the gender division of labour more generally, before drawing from these a framework more specifically suited to the analysis of paternal time.

Early sociological literature, whether influenced by Durkheim, Marx or Weber, traditionally regarded the conjugal family as the key unit of social stratification. Variation in the social position of the male family head as economic provider was the key dependent variable. The division of work between husbands and their wives was almost completely ignored as a potential source of inequality. As female (paid) employment has increased and the share of family income contributed by wives has steadily risen (see e.g. Sorensen and McLanahan 1987; Sweeney 1997), this pervasive "male bias" in the stratification literature has increasingly been criticised (see e.g. Acker 1973; Dex 1990; Huber and Spitze 1983; Sorensen and McLanahan 1987). Subsequently, the focus has gradually shifted from traditional stratification research to labour-market research and from household heads to individual women and men in the work place. There has been much emphasis on the idea that gender equality could be achieved by policy interventions in the education system and in the labour market. Again, the domestic sphere has been largely neglected.

Despite much policy intervention in the 1980s and 1990s, persistent inequalities between individual men and women in the labour market across industrialised societies remain (see e.g. Blau 1999; Blossfeld 1987; Huber 1988; Reskin and Roos 1990; Rubery and Fagan 1993). This is all the more surprising given that there has been the virtual disappearance of differentials in educational attainment levels of men and women leaving school in nearly all modern societies[3] (Erikson and Jonsson 1996; Shavit and Blossfeld 1993). The mechanisms by which gender inequalities have been maintained over decades and continue to be both an individual and an institutional practice remain a sociological puzzle. In part, they are certainly linked to sex segregation in the labour market and in educational choices. These mechanisms are also linked with the division of household labour. A central question of the thesis is the extent to which these mechanisms are challenged by change specifically in the gender division of domestic child care. Reasons for focusing solely on child care are discussed in the following section, suffice to say here that the most recent cohorts of men and women now have more similar labour market experiences and incomes than any previous generation. There is less inequality between young men and women than between younger and older women (Walby 1997), until these women have children and start to experience the "family gap" in pay (e.g. Harkness and Waldfogel 1999). A better understanding of the household dynamics of parental time and in particular of paternal time will shed light on the mechanisms maintaining gender inequalities.

There are a series of rival theories concerning the dynamics and division of labour between couples[4]. These can be usefully divided between economic and cultural considerations (Brines 1994). The economic perspective pays particular attention to the relative amount of income and other resources that spouses may exchange or bargain for unpaid work, most often focusing at the micro level (e.g. Breen and Cooke 2005). Practical considerations associated with the demands on an individual's time are taken into account.

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3 Though high levels of sex segregation according to subject area remain.
4 For a good summary see Blossfeld and Drobnič (2001:16).

On the other hand, the (mostly macro) cultural perspective, considers the normative context of housework, and focuses in particular on the relationship between unpaid work and the social construction of gender (Geist 2005; McFarlane et al. 2000). Both perspectives can be applied at either the micro (household) or the macro (institutional) levels. Micro level theories adhere to methodological individualism, whilst macro level theories are structuralist in nature finding that structural effects exist in addition to individual level processes. Later in the chapter, various theories of the gender division of labour are outlined and critically discussed, so that a theoretical framework more specifically orientated towards the analysis of paternal time can be constructed. In the next section, paternal time, which is the central dependent variable of the thesis is introduced and an explanation for narrowing the focus down from the gender division of all household work to only the gender division of child care is also developed.

1.1 Why Focus Exclusively On Paternal Time?

Parental time is defined as the amount of time spent by parents looking after their children. It is defined as time actually spent with the children, rather than time spent earning money to provide for the children. My definition of parental time is a broad one, in that it includes time spent directly interacting with the children, as well as time spent with children whilst perhaps also carrying out a simultaneous activity. Paternal time is correspondingly defined as the amount of time that fathers spend with their children and maternal time is the amount of time that mothers spend with their children. In other words, parental time is child care performed by parents. As this is such a central concept in the thesis, a full chapter (chapter 3) is devoted to a discussion of the measurement of the time that parents, and in particular fathers, spend looking after their children.

Child care is just one type of unpaid work that has to be shared out within the household (see table 1.1). Other types of unpaid work include maintenance work (small repairs and gardening), housework (such as grocery shopping and cleaning), food preparation, and other forms of care (such as care for the sick or elderly). This unpaid work contrasts with paid work, voluntary work and with leisure (Sayer 2005).

Table 1.1 *Forms of Work*

Work external to household	Household/domestic work
Paid work in the labour market	Child care
Unpaid work (volunteering/work experience/family business)	Maintenance work
Education	Housework (cleaning, laundry, shopping)
Military service or equivalent	Food preparation

The focus of this thesis is exclusively on the time spent by parents (in particular fathers) on child care. Following here is a discussion of the reasons for concent-

rating on child care and not on housework more generally. Parental time has infrequently been differentiated as a separate component of unpaid household work in the theoretical literature. Theories of the gender division of (domestic) labour point less rather than more explicitly to different factors affecting paternal time. Many of the theories discussed in this chapter do not necessarily apply in the same way to both tasks. The amounts of parental time and household work measured for any individual are likely to be positively correlated (O'Brien and Shemilt 2003). If an individual remains at home to care for the children whilst the other partner is active in the labour market, he or she will most probably also assume primary responsibility for other housework. Sometimes the boundary between what constitutes child care as distinct from other types of housework is blurred, for example, doing laundry and preparing meals for children. Despite this there are certainly grounds for the stand-alone study of child care, set apart from other forms of housework.[5]

1. Labour market outcomes and educational attainment of young men and women are more similar than they have ever been. Similarly, the domestic division of labour between childless men and women is more similar than ever before (Blossfeld and Drobnič 2001; Walby 1997). Then the children come along and traditional patterns can re-emerge (Kalmuss, Davidson and Cushman 1992). From these statements it can be deduced that it is the onset of parenthood that makes the difference, gender divisions in parental time being a particularly interesting element of housework in a study concerned with the gender division of labour.
2. The impact of paternal time on child outcomes is quite different to the impact of male involvement in housework. Outsourcing or contracting out of housework differs from paid child care in the sense that it does not

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5 An extension of this project would be to also look at male involvement in housework other than child care. This is beyond the scope of the main dataset used (the ECHP).

matter who cleans the house as long as somebody does it. Nonparental child care is available but it is regarded as complementary to parental care, not as a replacement or complete alternative.

3. Housework is more likely to be regarded as an onerous activity than child care. This is particularly relevant in the case of bargaining theories where it is assumed that responsibility for housework (including child care) falls to the partner with least negotiating power as each partner bargains to buy their way out of undesirable activity. It might be that a parent wants to spend time on child care but not doing housework.
4. There are institutional factors impacting directly on the possibilities for paternal time but no such legislation regarding other forms of domestic work. Domestic work is still considered firmly in the private domain whereas child care is considered as both public and private responsibilities. If national legislation or company policy is supportive of shared/equal parenting it is easier for individual men to exhibit a preference for spending more time looking after their children.
5. Before feminist criticism, the (social) citizenship theory literature, beginning with the influential work of Marshall (1950), had failed to recognise the consequences of women's disproportionate assumption of unpaid care work. Lewis (1997:4) sees this concept of care as one of the truly original concepts to have emerged from feminist theory. An emphasis on men's access to spend time looking after their children in the private sphere as a necessary complement to women's access to the public sphere is often lacking in the literature. Due to the assumption that domestic care is a female activity, there is often the lack of provision for men to care, even if that is their preference. The opportunity cost for men to care is perhaps also greater than for women, in terms of the assumptions their employers make about their commitment to work.
6. Parental time has increased whilst household work time has decreased (Bianchi 2000). Studies not separating child care and housework are unable to capture these effects.

Having put forward various explanations for an exclusive focus on paternal time in the thesis, the next step is to consider how the various theories of the gender division of labour can be best applied to a study of fathers and the time they spend looking after their children.

1.2 Micro Level Theories

Micro level theories focus on the *agency* of individual household members. The approach is that of methodological individualism. The premise is that all action, and therefore social explanation, must be mediated through individual *actors* (see for example Dowding and Hindmoor 1997).

1.2.1 Economic Theories of the Family

The economic theory of the family first developed by American economists such as Schultz (1974); Mincer and Polachek (1974) and most famously by Becker (1965, 1981a) is perhaps best known outside the field. The innovative element of this economic approach was that it gives consideration to the allocation of time and effort to both paid work in the labour market and unpaid work in the home, not as an isolated act, but as best understood within the context of the household. Central to the economic theory of the family is the concept of *comparative advantage*, which links human capital investment to the division of labour. If the traditional household model, for any given country, is male breadwinner/female homemaker, then from an early age, girls and boys will be accordingly socialised and make the relevant investments in different skills. Girls will invest in skills related to home making and boys will invest in their earning capacity. This will lead to a comparative advantage of young women over young men in household work (including child care) and a comparative advantage of young men over young women in the labour market.

The neo-classical economic basic assumptions of full information, rational maximisation of utility and equilibrium are made by Becker. As rational actors aim to maximise their well being, the couple will weigh up the advantages and disadvantages of different solutions for caring and housekeeping. There are no biological essentialist assumptions made. The theory accurately predicts that on average, fathers spend less time on parenting than mothers and explains this as a consequence of the average father having invested more in his earning capabilities, it thus being less efficient for him to spend time looking after his

children, in comparison to the average mother. A more normative aspect of the economic theory of the family is that this specialisation of labour is assumed crucial for the stability of the family as a social institution due to the reduced competition and increased interdependency that results between spouses. Thus, a negative relationship between female labour force participation and fertility and divorce is predicted (Becker 1985). This view was also shared, though via different reasoning, by structural functionalists (e.g. see Durkheim [1893]1984; Parsons 1942; Parsons and Bales 1966).

That such specialisation of labour within the family is an optimally efficient strategy has been challenged most notably by Oppenheimer (1994, 1997) who argues that, although specialisation may promote interdependence, it may not provide much cohesion for partnerships. If it is relatively easy for one partner to replace the other through divorce and remarriage, then a considerable amount of marital instability is produced by specialisation. Gender role specialisation also means that the small nuclear family is particularly vulnerable to the temporary loss (through unemployment and/or illness) or permanent loss (through separation or death) of a unique individual who provides an essential function either at home or in the labour market. The specialisation of spouses into full time provider and full time homemaker entails risks in a world characterised by unpredictable events and also because of the very nature of the family as a social unit, which varies in composition over its life cycle. From this perspective, mothers' employment and fathers' increased participation in household work can be viewed as a highly adaptive family strategy, rather than as a threat to the family as a social institution. There are also indications that marital satisfaction has increased as role differentiation has decreased within marriage, suggesting that empathy and companionship, two major predictors of marital satisfaction, are enhanced when spouses undertake similar roles (England and Farkas 1986; McRae 1986; Simpson and England 1981). When their roles are similar, spouses can understand one another better, and they enjoy each other's company more because of their common interests. From this standpoint, increased

paternal time should contribute to a stabilisation of or even a decline in divorce rates and increased fertility.[6]

1.2.2 Beyond Common Preference Models: Resource Bargaining

Both Oppenheimer's and Becker's theories employ a common preference model of family behaviour, which assumes that all family members make decisions to maximise the well being of the family as a whole. Lundberg and Pollak (1996:146) argue that such models are not sufficient. Instead, they argue in favour of resource bargaining models, where the interdependent decision-making processes within couples become the focus of analysis. This approach views each partner as pursuing his or her own utility rather than the joint utility of the whole family.

An initial issue with resource bargaining models is defining what constitutes a resource. Relative resources have typically been measured in terms of earning power. This theory would then predict that when the mother devotes more time to paid labour, earns more money and increases her resources relative to her partner, she gains more leverage or bargaining power to negotiate a more equitable division of domestic tasks. Similarly, when the father is employed fewer hours and earns less than his spouse, he has less bargaining power to avoid tasks and so participates more in child care. Other attempts to measure resources take educational level as a proxy for labour market value. Blau (1964) holds that relations between spouses are more complicated than economic exchange; they must also rely on non-economic exchanges.

The marital dependency model (England and Farkas 1986) argues that marriage represents the promise to reciprocate diffuse obligations at some unspecified future date. Every rewarding experience engenders obligations to reciprocate, and the recurrent reciprocation promotes trust to do larger favours. A key

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6 The analysis of relationship stability and fertility in relation to paternal time is beyond the scope of the thesis but is an area of research I would like to pursue in postdoctoral work.

argument of this theory is that marital *power*[7] is derived not only from contributions to the marital relationship, but also from one's alternatives outside the relationship. If wives undertake greater relationship-specific investments in traditional marriages, whilst husbands accumulate resources (primarily earning capacity) easily transferred to other relationships, unequal marital power is generated. Given that beneficiaries of much domestic work are children rather than men, and that, statistically, a mother is less likely to abandon her children than the father, this may also generate unequal power distribution in a relationship (England and Kilbourne 1990:180). From this perspective again, fathers' increased participation in child care should lead to more stable relationships.

A further contentious element of resource bargaining models is that they view household work as a source of dis-utility, an onerous activity one wishes to buy out of, either through purchasing services or demanding greater partner participation (Hiller 1984; Lee 1987; McRae 1986). First, as previously discussed, household work cannot be treated as a homogenous category and so it is problematic to treat all household work in the same way without deconstructing it into separate parts. Second, by viewing household work negatively, bargaining models are making the assumption of homogeneity of preferences to avoid all (parts of) household work. However, as developed further in the following chapter, this thesis assumes that fathers want to spend time looking after their children.

1.2.3 "Doing Gender"

Gender ideology theories assume that gender norms influence people's beliefs about the appropriateness of certain tasks for women and men. They assign duties to each other according to these beliefs, rather than according to the utility of the division of tasks or the comparative resources of the partners (Colt-

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7 Weber ([1922] 1972:28) defines *power* as the probability that an actor will be able to carry out his or her will even when opposed by others.

rane 1996). One such explanation for the persistence of a gender division in domestic labour is because couples "do" gender (Berk 1985).

This is an example of a micro cultural theory. The "doing gender" approach starts from the assumption that gender identities have to be produced and reproduced in recurrent everyday social interaction (see e.g. Fenstermaker et al. 1991; West and Zimmerman 1987). Such interaction provides the stage for the enactment of gender identities (Goffman 1977). Thus in a socio-institutional context where spending paternal time violates normative expectations of the gender ideal of what it is to be a man, traditional housework and child care arrangements are likely to be observed. Brines (1994: 664) finds that the effect of earnings on women's and men's parental time is not the same, and interprets this difference as support for a gender display theory. That is to say, men and women perpetuate traditional gender distinctions in the domestic setting particularly in the case that there is less distinction between them in the labour market. Thus, men who are economically dependent on their wives compensate by adopting gender-traditional behaviour elsewhere and do not necessarily automatically assume a greater responsibility for domestic work. Similarly, McDonald (2000) claims that very low fertility in advanced countries comes about due to a conflict between high levels of gender equity in individual-orientated social institutions such as the labour market, and sustained gender inequity in family-orientated social institutions.

Whilst this perspective provides some explanation as to the asymmetry of change in gender roles, depicting rigid gender-based division of household labour as normative and too invariant also poses a danger. In particular, it might mask the increasing diversity among couples in modern societies and disregard exceptions to normative patterns and their change over time. This theory has been included in the argument for the sake of completeness but given that ideology is not measured by the ECHP which has the measure of paternal time, it is beyond the scope of this thesis to test it other than by looking at behaviour.

1.3 Comparative Institutional Approaches: Macro Level Theories

Macro level theories assume structures and context as primary in description and explanation. The majority of macro level theories regarding the gender division of labour are comparative institutional approaches. It is most usual for the institutional unit of analysis to be the state, though some theories may focus exclusively on firms, in the context of the labour market.

1.3.1 Time Availability Theories

Time availability theories are economic theories interlinked with the comparative institutional approach. Time availability theory (Hiller 1984), demand/response capability (Coverman 1985) and the situational view (England and Farkas 1986:98; Presser 1994) refer to explanations that characterise the gender division of labour, particularly with respect to parental time, as the result of parents' other time commitments. Institutional factors influence the amount of time that parents have available to spend with their children. An individual's time is very much facilitated by their labour market situation, more specifically in terms of how flexible their work schedules are; the number of hours they are required to work and *family-friendly* company policies available to them. National governments generate varying legislation that will impact differently on the amount of time any individual can spend with their children.[8]

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8 For example, Gornick and Meyers (2001), argue that parents' ability to balance family and market responsibilities, and to allocate earning and caring equally between mothers and fathers is facilitated by a package of government policies that would include, among other things, guaranteed and remunerated parental leave for mothers and fathers, regulated working time and improved possibilities for reduced hours at work. Parental leave is used here as an umbrella term which includes the different national possibilities of maternity, paternity, parental, family and child care leave.

1.3.2 Welfare State Typologies

The role played by the state in influencing the gender division of labour at the household level has been evaluated in conflicting theories. Social policy has the potential to greatly affect paternal time either positively or negatively, and the predominant model presumed by European welfare states has historically been the male breadwinner/female carer model (Esping-Andersen 1999: 49). The state is sometimes defined as patriarchal[9] (Pateman 1988) in that it can be seen to support the more traditional and less egalitarian family setting of male breadwinner/female homemaker. At other times the state is credited with enabling greater gender equality in that it can follow a more egalitarian and active labour market policy (Hernes 1987). One institutional difference is whether children are viewed as a social or a private good, a public or private responsibility. If viewed as a public good, time spent with children is an investment from which society in general benefits, thus it is not socially just to expect individuals to cover the full costs of a benefit that everyone enjoys (Budig and England 2001). On the contrary, if viewed as a private responsibility, then it is left to individuals to make their own arrangements. To the extent that children are viewed as a public good, the state can, through social policy, greatly ease the difficulties associated with combining parenthood and work.

National social policy can be classified according to various welfare state typologies. The first welfare state typology discussed below is one of welfare regimes as proposed by Esping-Andersen (1990, 1999). Regime in this instance refers to the typical systems by which welfare production is allocated between state, market, and families. A second welfare state typology type classifies

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9 Hartmann (1976: 138) defines patriarchy as: "A set of social relations with a material base and in which there are hierarchical relations between men and solidarity among them which enable them to control women. Patriarchy is thus the system of male oppression of women." There are many criticisms of the concept, summarised by Crompton (1999: 3) in three points. First, the concept is essentialist in as much as it is premised on the inherent capacity of men to exploit women. Second, the concept is ahistorical and lacks sensitivity to the experiences of different groups (of women and men). Third, there are difficulties in conceptualising patriarchy as a single system. Blossfeld and Drobnič (2001) observe that the concept as an explanatory mechanism appears tautological, in that it assumes what it hopes to prove. See also Pollert (1996).

national social policies according to gender regime typologies (Lewis 1992, 1997). A number of such gendered models of welfare states have been proposed by researchers in attempts to better understand cross-national variations in the "work-care" balance (Haas 2005).

Of these two approaches, Esping-Andersen's is outlined first in the next section as it is partly in critical response to his typology that the alternative gender regime typologies, including that by Lewis, emanate.

1.3.2.1 Esping-Andersen's *Three Worlds of Welfare Capitalism*

Esping-Andersen's typology has three categories, as suggested by the title *Three Worlds of Welfare Capitalism* (see table 1.2). One of his central axes of welfare state variation is *decommodification*, which is the extent individuals are freed from dependence on the labour market. Whilst originally intended for the analysis of social policy, the classification is routinely stretched, into a multipurpose classification of European societies (see e.g. Blossfeld and Hakim 1997; Blossfeld and Drobnič 2001).

Table 1.2 *Summary Overview of Welfare Regime Characteristics*

	Liberal	Social Democratic	Conservative
Role of:			
Family	Marginal	Marginal	Central
Market	Central	Marginal	Marginal
State	Marginal	Central	Subsidiary
Welfare state:			
Dominant mode of solidarity	Individual	Universal	Kinship, Corporatism, Etatism
Dominant locus of solidarity	Market	State	Family
Degree of decommodification	Minimal	Maximal	High (for breadwinner)
Modal examples	USA	Sweden	Germany, Italy

Source: Esping Andersen, 1999: 85.

The first category is the liberal welfare regime. Countries clustered in this category are typically the Anglophone nations. European countries clustered in this category are typically the UK and Ireland. The liberal welfare regime reflects a political commitment to minimise the state, to individualise risks and to promote market solutions. First, it is residual in that it adopts a narrow definition of who should be eligible, favouring means or income tests so as to ascertain desert and need. Second, it adheres to a narrow conception of what risks should be considered social, and so combining work and family life is likely to remain a private responsibility. There is unlikely to be much policy provision for paternity or parental leave. Third, it encourages the market as provider of services as opposed to the state. Thus child care provision is not likely to be organised or paid for (or even regulated) by the state.

The second category is the social democratic welfare regime. This regime is virtually synonymous with Denmark, Finland, Norway and Sweden. Decades of social democratic rule have resulted in a welfare state dedicated to universalism, comprehensive risk coverage, generous benefit levels and egalitarianism. First, benefits tend to be universal, the role of needs-based assistance marginalised as far as possible. This means that parental leave and related benefits tend to be comprehensive in cover and generous, with intent towards income replacement. Thus it is easier for men to become involved in caring for children. Second, there is an explicit effort to *de-commodify* welfare, or in other words to minimise market dependency. Child care is likely to be state-provided as part of a comprehensive infrastructure aimed at catering for family needs. There is a strong accent on *de-familialization* (eliminating the individual's reliance on the family). Third, there is an emphasis on egalitarianism, both across social class and between men and women. Closely related to this is the commitment to full labour market participation through active labour market policies. It is expected that women be part of the labour market; the more traditional male breadwinner/female carer model is not supported. Social policy in the social democratic welfare regime enables men to spend more paternal time than in the other regime types.

The third category is the conservative welfare regime, so labelled in reference to the conservative and Christian democratic coalitions responsible for shaping them. Features of a conservative regime are status segmentation and familialism. Continental European countries[10] are situated within this category. First, there is an emphasis on risk pooling via compulsory social insurance. There is strong job protection, but as a result initial entry to the labour market is more difficult. Second, corporatist status divisions permeate social security systems which are status-maintaining. Third, familialism is an important attribute of conservatism. Familialism is a composite of the male breadwinner bias of social protection and the centrality of the family as care provider, ultimately responsible for its members' welfare. Since there is often legal prescription that parents (or children) be responsible for their children (or parents) in case of need, social assistance is residual in response to family failure. The standard male breadwinner model is assumed, which makes it harder for men to spend time looking after their children. Geist (2005) has found that conservative regimes, compared to liberal and social democratic regimes, inhibit gender equality in the domestic division of labour (controlling for compositional differences).

There have been persuasive arguments in favour of several "fourth" worlds: Antipodean (Castles and Mitchell 1993); Mediterranean (Ferrera 1996; Leibfried 1992) and East Asian (Jones 1993). To leave aside the Antipodean and East Asian models, the arguments for a separate Mediterranean category are based on the extremely residual nature of Southern European social assistance, the use of social benefits for the purposes of political clientelism, and on very strong familialism. Taxonomies discussed are of ideal types so no particular case would be expected to be a perfect match.

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10 Austria, Belgium, France, Germany, Greece, Italy, Luxembourg, The Netherlands, Portugal and Spain.

As Esping-Andersen himself acknowledges, a heavy dose of the criticism he has received for his work has come from feminist[11] scholars (Esping-Andersen 1999). Lewis (1992) and Sainsbury (1994, 1996) have proposed alternative typologies of policy logics, and to these I now turn.

1.3.2.2 Alternative Typologies of Policy Logics

Esping-Andersen categorises welfare regimes in terms of the policy logics that revolve around a paid worker's *decommodification*, that is to say their dependence, or independence from the labour market. A number of feminist researchers (Gornick, Meyers and Ross 1997; Lewis 1992, 1997; O'Connor 1993; Orloff 1993; Sainsbury 1994, 1996) have criticised this approach for focusing too heavily on male workers and thus ignoring the role of women in both paid and unpaid work. The fundamental argument is that more systematic attention to the family is called for. A central criticism is that as long as women, as a group, are not fully commodified (i.e. engaged in market work), decommodification is not a concept relevant to them.

Lewis (1992) has proposed an alternative typology of gendered policy logics, centred round the concept of breadwinning. This typology places countries into one of three categories; strong male breadwinner regimes; modified male breadwinner regimes and weak male breadwinner regimes. At its extreme, the male breadwinner model involves the exclusion of women from the labour market. Women would be expected to do all unpaid caring work and they would be dependent on men for access to all income. The breadwinner typology acknowledges that it is still the case everywhere that fathers are more likely to be full time workers than mothers, but that there is a lot of variation to the extent that this is the case. Strong breadwinner regimes include the UK,

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11 Feminism is a very broad term encompassing viewpoints that stand in opposition to one another. The main axis of disagreement between feminists has been along the sameness-difference debate (Barrett 1987). Crompton (1999: 4) encapsulates the argument with the question: "Should women, seek absolute equality with men (that is, to achieve some kind of androgyny), or should male/female differences (in particular in relation to childbearing) be taken into account in shaping institutions and policies relating to women?"

USA, Germany, the Netherlands and Ireland. France is representative of the modified breadwinner regime, in recognition of the state availability of child care places enabling parents (usually mothers) to combine work and family. Denmark and Finland would be examples of a weak breadwinner regime.

1.3.3 Country-Specific Employment Structures

The country-specific employment structures and the gender-specific occupational patterns shape the opportunities and constraints influencing the gender division of labour and the possibilities for paternal time. Employment within households can be organised in various ways. Crompton (1999: 205) illustrates a continuum of household employment models from traditional male breadwinner/female care arrangements to partial modification to a dual earner/dual-carer model.[12] Crompton identifies five ideal types of households. Type 1 is the male breadwinner/female carer model found particularly in Southern Europe, Austria, Germany and the Netherlands. Type 2 is the male full time earner/female part time earner part time carer model, which has emerged strongly in Northern Europe, particularly in Britain and the Netherlands. Type 3 is the dual earner/state carer model that might be used to describe Denmark, Finland and Sweden. Type 4 is the dual earner/marketised carer model that would be used to describe certain household employment patterns in the UK (and the USA). Type 5 is the dual earner/dual carer model, which has been encouraged in the Scandinavian countries. I make the assumption, which I later explore empirically, that different proportions of these household employment models predominate in particular national contexts. For the purposes of the thesis, *national employment structure* refers to the patterns (differing proportions of the various models) observed for that country.

National employment structures, in other words the compositional patterns of household models observed for a particular country, are in part shaped by the

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[12] As noted by Gornick and Meyers (2001: 11), different variations of this model have been described by Ellingsaeter (1999); Fraser (1994); Lister (1997); Pfau-Effinger (1999) and Sainsbury (1994).

degree of historical occupational sex segregation. Different sectors of employment historically experience varying proportions of sex segregation. Crouch (1999: 105) uses the following six sector model first suggested by Singelmann (1978):

- Sector 0 Unpaid domestic labour
- Sector 1 Agriculture and mining
- Sector 2 Goods production
- Sector 3 Distribution and communications
- Sector 4 Business services
- Sector 5 Community and social services
- Sector 6 Personal services

Sectors 1 to 3 are typically more male-dominated than sectors 4 to 6. Workplaces historically dominated by one gender or the other are likely to reflect a traditionally perceived division of household work (Holt 1994: 54). According to Holt (1994), an historically male-dominated workplace culture will give priority to the need for economic provision because men are/have been expected to be full time providers. In practice this could mean that overtime could be easily arranged, but flexitime is a more troublesome request. An historically female-dominated workplace culture will give priority to the family's practical and emotional needs because the woman was/is expected to be the carer. The culture is more likely to be flexible to allow the employee to fulfil household responsibilities. If the proportions of the different sectors are such that those historically female-dominated are particularly prevalent in a country then more men will be employed in them. In this case, it is easier for more men to become care providers (also for women). Conversely, if those sectors that are historically male-dominated are particularly prevalent in a country then men will be less likely to become care providers, and women will be less likely to work part time.

The public sector is most likely to implement EU and/or national legislation to a fuller extent beyond the statutory minimum than the private sector. First, this is because the state is responsible for drawing up legislation and so it would

be strange if it did not implement it in its own institutions. Second, work/life balance measures are likely to be used as wage compensation given that the public sector pays lower salaries than the private sector. Third, the public sector is a major employer of women and so the work place is more likely to be female dominated and so more family friendly.

1.3.4 Social Stratification and the Gender Division of Labour

The various theories of the effect of social stratification on the gender division of labour (largely focusing on the effect this has on mothers rather than fathers) are in contradiction to one another. Further research is necessary to test which hypothesis fits, but whatever the relationship, it is probable that factors such as education level, social class and possibly ethnicity will have the same direction of relationship across countries, other institutional contexts dictating the actual level of caring.

The term *social class* is widely used as a general label to describe structures of inequality in modern societies, both within the discipline of sociology and beyond (Crompton 1998: 24). The term is not without controversy within the discipline (for further discussion see Breen and Rottman 1995; Goldthorpe 1996; Lee and Turner 1996; Marshall and Swift 1993, 1996; Pakulski and Waters 1996; Saunders 1995). I use the term here in the Goldthorpe class category sense, which, put crudely, allocates people to social classes on the basis of their occupational category and employment relations.

Found in the literature is the hypothesis that lower social class correlates with a more traditional division of labour. Proponents of the "doing gender" theory argue that given that lower class women are more likely to have to work, and lower class men are more likely to be unemployed, traditional gender roles are more likely to be played out (Zavella 1987). Another argument in favour of this hypothesis is that lower social class indicates lower levels of education, which leads to less egalitarian ideologies and so a more traditional division of labour (Barnett and Baruch 1987; Coltrane 1996; Deutsch, Lussier and Servis 1993; Ishii-Kuntz and Coltrane 1992; Kaufman and Uhlenberg 2000). Others argue

in completely the opposite direction, that lower social class correlates with a less traditional division of labour (e.g. Thoits 1987; Thompson and Walker 1989). This is because, in lower social classes, women are more likely to have to work out of economic necessity. According to resource bargaining models (see previous section) this should lead to a more equal division of household work as women contribute a larger proportion of household income.

Also found in the literature is the contradictory hypothesis that higher social class correlates with a more traditional division of labour. Two arguments lead towards this conclusion. The first is the argument that women of a higher social class are less likely to have to work for economic reasons and so more likely to stay at home after child bearing, assuming this is their preference (Thoits 1987: 21). Even if they do work, they will be better able to organise a more flexible work/life balance due to reduced monitoring at work. In contradiction to this hypothesis however, is the argument that higher social class will be positively correlated with higher levels of education. Higher levels of education should lead to better jobs which come with a higher opportunity cost of dropping out of the labour market. Again, according to resource bargaining models this should lead to a more equal division of household work as women contribute a larger proportion of household income. Also higher education leads to less traditional attitudes to the gender division of labour (Bernasco, de Graff and Ultee 1998). Research shows that highly educated fathers are more likely than are less educated fathers to believe that they should be spending more time looking after their children (Coltrane 1996; Daly 2001). Thus, higher levels of education might predict a smaller gender gap in child care time.

This then concludes a broad review of theories pertaining to the gender division of labour. Table 1.3 summarises the position of the various theories discussed, whether they are economic or cultural, and whether they are at the micro or macro level.

Table 1.3 *Theorising the Gender Division of Labour*

	Economic	Cultural
Micro level	Economic theory of the family Decreased role differentiation Resource bargaining	Doing gender
Macro level	Time availability Employment structure Social stratification Welfare state regime	Gender regime

1.4 Theoretical Framework

Theories from both sides of the structure and agency debate have been reviewed, often appearing in the literature as antinomies. Rather than seeing these two theoretical streams as producing contrasting hypotheses, their arguments can be considered as predicting different and simultaneous processes (Bernasco, de Graff and Ultee 1998; Cooke 2006). This is a particularly relevant approach when the topic of interest is gender-related:

> Gendered structures both describe and impose order on individuals, but are nevertheless developed and interpreted by these individuals - the order they impose is not universal [...] Gender relations are structured in contexts - employment, families, and state institutions - that play a major part in reproducing the gender order (or gender system). However, these structures are negotiated and interpreted by changing and flexible gendered subjects. (Crompton 1999: 7)

In this thesis, the aim in part, is to establish how rational actors would be expected to respond, given the incentives and constraints that the policies set up and the norms which establish the framework within which household allocations of resources with regard to paternal time are taken. Thus, the dependent variable is actors' behaviour (paternal time). It is assumed that structures both enable and constrain actors. This approach is consistent with the trend in general social theory which stresses the "mutual dependency" (Giddens 1979: 69) or the "analytical dualism" (Archer 1995: chapter 6) of structure and agency, or Sen's "capabilities" framework (Sen 1999, 1995, 1980).

Breen (2003) notes that in both *The Three Worlds of Welfare Capitalism* and *Social Foundations of Postindustrial Economies*, Esping-Andersen's own analyses are almost entirely carried out on aggregate (national-level) data. At this macro level, distinctions of regime type seem to work well. But if the aim is to model micro-level behaviour there is no substitute for a detailed analysis of specific policies and the development of hypotheses about how rational actors would be expected to respond, given the incentives and constraints that the policies set up and the norms which establish the framework within which decisions are taken. Walby (1997: 25) asserts that:

> Women make choices, but not under conditions of their own making. Women choose the best option that they can see, but only within the range of options open to them. Choices cannot be understood outside of an understanding of the institutions and structures which construct those options.

A central assumption of the thesis is that this is also true for men. There is less lifestyle choice available to men with regards to combining work and care therefore they will be less able to spend more parental time than will their (female) partners. A number of surveys (Atkinson 2000; OECD 2001: 135) have sought to measure the preferences of families for different employment patterns (as opposed to actual patterns) and have shown that actual behaviour does not match the way in which families would most like to arrange their work/family balance in their ideal world.

1.5 Summary

The central aim of this chapter is to review the relevant theories which have been put forward in explanation of the gender division of labour, and more specifically the gender division of parenting. Theories are divided into economic and cultural considerations at the micro or macro level. Micro-economic theories include the economic theory of the family, Oppenheimer's argument of the optimality of decreased role differentiation, and resource bargaining. The only micro-cultural theory discussed here is "doing gender". Macro theories are of a comparative-institutional nature. Macro-economic theories introduced are that of time availability, welfare state regime, theories related to employment structures, and social class. The macro-cultural theories considered are concerned with gender regime policy logics.

In the following chapter, an analytical framework specifically for looking at paternal time is developed which draws on this broader review of theories of the gender division of labour.

Chapter 2

Analytical Framework: Enablers and Constrainers of Paternal Time

Is it that men are more constrained than women with respect to spending time looking after their children? In order to try and explain the persistence of the gender division of labour, various theories have been put forward. Yet in general these theories, which have been reviewed in the previous chapter, do not specifically provide a framework for the analysis of paternal time. Thus, in this chapter, I derive my own theoretical framework, from which to look at paternal time and its correlates.

When looking at paternal time, the terms *father*, *fathering* and *fatherhood* are of central importance, but must at the same time be used with care, as they have multiple meanings, both in academic discourse and in wider everyday usage. It is therefore necessary to make the meanings used here explicit to the reader. This is particularly the case for *social fathers*, specifically *resident fathers*, who are the central subjects of this study. All these terms are explored in this chapter. Equally, various models of fatherhood are discussed, and distinctions are drawn between groups of fathers as presented in the literature.

In order to focus on those fathers who are spending time looking after their children, a fitting theoretical approach is chosen. With this approach comes the introduction of two central terms into the thesis, namely those of *enabler* and

constrainer. I explain why it is necessary to use these terms and introduce the contexts in which they are applied.

Next, the empirical literature which focuses on fathers (or frequently on married men who have been treated synonymously with fathers) is reviewed. In light of this literature review, four hypotheses are then formed, to be further discussed and tested in the subsequent chapters. Also, I discuss why the European Union, as it stood between 1994-2001, provides a fitting arena in which these hypotheses can be put to the test.

But firstly, I begin the chapter with a review of the ways that the terms *father* and *fatherhood* have been used in sociological literature.

2.1 Fathers and Fatherhood

2.1.1 The Terms: Father, Fathering and Fatherhood

In most societies and cultures, including in the European context, whether or not a man is established as a childs' father carries with it huge legal and cultural implications. The father is the man through whom ties of filiation as well as property rights are traced (Marshall 1998). Equally, being a father typically implies financial obligations towards a child. But being a father is not simply a question of being, rather it amounts to one of definition. The term *father* can be used to describe a man who is simply the biological parent (the genitor) of a child. He may play no role in the child's life other than his part in the conception. Conversely, *father* can also be used to describe a man who raises or nurtures a child (its pater), regardless of any biological relationship.[13] In this sense, it is a term used in acknowledgment of a man accepting responsibility or duty towards a child. To capture this latter description, Hobson and Morgan (2002) coin the term *social father*. Often, but by no means always, the social father and the biological father of a child will be one and the same.

The distinction between social fathers and biological fathers also extends to our understanding of the term *fathering*. It can be used to either express fathering in a social sense; the process of being a father by raising or nurturing a child. Or, it can be used to express fathering in a biological sense; the act of becoming a father by begetting a child. Social fathering practices extend to all aspects pertaining to the maintenance and care of a child, and as such they do not always occur in the presence of the child (Hobson and Morgan 2002).

Whether social or biological, fathering practices are very much affected by the dominant culture of fatherhood in a particular time and place. The term *fatherhood* can be used to refer to the state or condition of being a father, but its most frequent use in the literature is as a collective term to describe the state of being a father in a particular group or society at a particular point in time.

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[13] The definitions of the term father presented here are not intended to be exhaustive.

Social historians of fatherhood demonstrate that the duties, responsibilites and rights associated with fatherhood have not been static over time, and thus conclude that fatherhood is a social construct (e.g. LaRossa 1997; Pollock 1983; Pleck 1987). Those scholars who have focused on the meaning and changing nature of the symbolic representations, ideologies, and cultural images of fatherhood include Furstenberg (1988); Gerson (1993); Hanson and Bozett (1983); and Segal (1997).

There has been an increasing number of studies, beginning in the 1970s, which talk about a new fatherhood ideal (Coltrane 1998; Fein 1978; Furstenberg 1988; LaRossa 1988). In her chapter entitled "The Good Father: Reconstructing Fatherhood", Segal (1997) cites many adjectives found in the literature that are used to describe the new fathers, such as: good, new, nurturing, modern, full time, older, lone, and loving. In short, the new fatherhood refers to the ideal of a nurturing, hands-on father who will perform many of the tasks formerly ascribed to the mother, and who engages in far more intimate emotional relations with his children than previous generations of fathers supposedly have. The new fatherhood ideal stands in stark contrast to the early twentieth century father as portrayed by De Beauvoir:

> The life of the father has a mysterious prestige... it is through him that the family communicates with the rest of the world: he incarnates that immense, difficult and marvellous world of adventure; he personifies transcendence, he is God. (Simone de Beauvoir cited in Segal 1997: 27))

Much of the sociological literature on fatherhood is from North America, there being various reviews of the historical trends and social forces affecting American family life and in particular fathering (see e.g. Collins and Coltrane 1995; Griswold 1993; Lewis and Salt 1986; Pleck 1987). Often the sociological literature on fatherhood is situated within the sub-discipline of men's studies (see e.g. Kimmel 1987; Kimmel, Hearn and Connell 2005). For an overview of (North American) work up to and including the early 1990s see Marsiglio (1993, 1995).

Marsiglio (1995) classifies what he describes as the burgeoning literature germane to fatherhood issues into three groups: that which focuses on cultural images of fatherhood; that which concentrates on the social psychology of

fatherhood; and that which explores paternal conduct, relationship quality and child outcomes. Literature which focuses on the adult outcomes with associated paternal conduct is less prevalent. One such (early) contribution comes from Russell (1983)[14], who attempts to answer the question: what the likely consequences are for fathers (as well as for mothers and children) when fathers become more involved in child care. This focus on fathers makes Russell's contribution an unusual one, as previous literature had typically focused on mothers when child rearing has been considered in relation to adult outcomes. It is also a study which asks many of the same questions that I do. What are the current patterns of participation by fathers in child care? Why do some fathers become more involved in the care of their children and others do not?

2.1.2 Current Models of Social Fatherhood

This thesis is a study of a particular group of fathers rather than of the state of fatherhood in general. I focus on resident social fathers, that is to say men who are living in a household with dependent children for whom they care.[15] Resident fathers, in the context of much social policy discourse, are considered to be good fathers, by the merit of them being present in the household.[16] Such a simplified classification becomes problematic where these fathers happen to be violent or abusive. Given the optimistic stance taken in this thesis with respect to the preferences and intentions of fathers, this darker aspect of family relations, which is far more prevalent in European societies than is commonly recognised (Gracia 2004), is neglected.

In sociological literature, social fathers (both resident and non-resident) are frequently conceptualised in terms of a dichotomy e.g.:

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14 Russell's research is based on findings from a total of 309 two-parent families. This is typical of the literature, which has been dominated by small-scale sample studies.

15 A non-resident father may continue to uphold his role as a social father after he ceases to live with his children, following divorce or separation from the mother, and in the case that she retains custody of the children. However, as this thesis draws on household panel data, these fathers cannot be covered.

16 An example for this is Furstenberg (1988) who coins the "good dad-bad dad" dichotomy: a present father is a good dad, and an absent father is a bad dad.

- traditional versus non-traditional (Russell 1983)
- father-breadwinner versus the new father (Pleck 1987)
- traditional versus dual-career fathers (Jump and Haas 1987)
- financial providing versus nurturance (Hood 1993)
- the economic dimension versus the nurturant dimension (Cohen 1993)
- breadwinning versus involved (Gerson 1993)
- good provider versus involved father (Kaufman and Uhlenberg 2000)
- providers of cash versus providers of care (Hobson and Morgan 2002; Lewis 2002)

These dichotomies reflect the duties associated not only with fathering but with parenting more generally and have been hitherto heavily gendered. In so far as parents can be thought of as members of a parenting team, the roles they perform can be broadly divided into two categories.

The first parental role is that of provider or breadwinner. In current European societies, it is parents who are primarily responsible for providing financially for the family and ensuring that the children have sufficient access to nutrition, clothes, education and any other aspect of maintenance requiring financial transactions. The state can play a greater or lesser part in dictating which elements of child maintenance must involve financial transaction. The amount of financial substitution enacted by the state will impact on the extent to which parents have to fulfil the role of provider. During the twentieth century in Western Europe and North America, this role has typically been associated with the father.

The second parental role is that of carer or nurturer. As well as material goods, children require care, which will typically be provided by a family member (mother, father or other relative), but it can be outsourced to either a state-run or private service provider. This role has typically been associated with the mother.

As we have seen, fatherhood meant different things at different times. The above gendered dichotomies have not always been in the same form. For instan-

ce, before the development of the wage labour economy in the 19th century, fathers were supposed to serve as moral teachers and be morally responsible for their families (Coltrane 1998; Pollock 1983; Pleck 1987). Only during the 19th century were men seen as fulfilling their family duty no longer primarily by teaching and spending time with their children but by being good providers. Research has shown however, that this ideal was actually only achievable by a narrow strata of society and that mothers were mostly also contributing to the household either directly through wages or indirectly through goods and services produced for exchange value:

> Thus, even though the Husband-as-Economic-Provider ideal has been firmly implanted in our culture for nearly 150 years (from c. 1840 to the present), until 1960 that ideal was unattainable for all but the upper and upper-middle classes and an elite minority of the working class. (Hood 1986: 350)

The point to take from this, is that, as men are cast as being providers or otherwise, mothers frequently are also, and have long been, essential providers as well as carers, and this can be somewhat masked.

Considering only those fathers who are consistently involved with their children, Kaufman and Uhlenberg (2000) suggest two competing models of fatherhood, which will result in opposite effects on the labour market activity of fathers. Their good provider model predicts that fathers will work more than non-fathers, while their involved father model predicts that fatherhood might encourage working fewer hours in the labour market. The good provider is a father who focuses his commitment on the labour market rather than on the family in order to maximise his ability to provide financially. The involved father is a father who tries to combine his commitment to family and work at the expense of a commitment to the labour market. Using data from 1992-1993, their findings indicate evidence for both models in the United States.

Marsiglio (1993) points to two factors frequently associated with these dichotomies, those of race and social class. Griswold (1993) observes that the new father image is very much that of a middle class man:

> The new fatherhood thus becomes part of a middle-class strategy of survival in which men accommodate to the realities of their wives' careers and the decline of their breadwinning capabilities. For these men, pushing a pram becomes less the sign of a wimp than a public symbol of their commitment to a more refined, progressive set of values than those held by working-class men still imprisoned by outdated ideas of masculinity. (Griswold 1993: 254)

In summary, there are two polarisations of groups of men described above. The first is between groups of fathers who are involved in some consistent way with their children, and those who have abandoned their parental responsibilities (Furstenberg 1988). The second takes this former group of involved fathers and further polarises them into old and new, modern and traditional, economic and caring fathers.

There is a logic to the argument that a man must either be more committed to work or more committed to his family in terms of the number of hours in the day. Yet, dichotomies, by their very nature, oversimplify; and I would like to consider the possibility of a positive correlation between a fathers' success as a financial provider and the time he spends looking after his children. Perhaps, those fathers who spend the most time with their children also experience better labour market outcomes. As Marsiglio points out (1995), being committed to the provider role does not necessarily preclude a similar commitment to the non-provider aspects of fathering. The couching of this argument in terms of commitment also implies the ability of a father to implement his preferences, which may not be the case. In the absence of state provision of child maintenance, a father may be obliged to work longer hours in the labour market and thus spend fewer hours with his children than he would like.

Resources devoted to children can be understood as financial resources or as care resources. Financial resources are easily measured in monetary terms, but care resources are more difficult to take to account. One way to assess the parents' commitment to caring is to consider the quantity of time that they spend looking after their children. Time spent by parents, both fathers and mothers, with their children is generally considered to have a positive impact on children's development (Büchel and Duncan 1998; Cooksey and Fondell 1996; Furstenberg, Morgan and Allison 1987). Paternal time measurement, however,

provides sociological insight beyond child outcomes. It is also a starting point for explaining socio-economic differences between the adults involved. According to Craig's (2002) findings that much paternal time is not solo time, it is likely that a father who is spending more time looking after his children is also spending more time with his spouse. Paternal time can be used as a measure of contribution to the domestic sphere. It may not say much about the quality or success of the contribution, but it can be taken as an indicator of the increased likelihood of both.

The ability of a father to implement a preference to spend more paternal time will be enabled or constrained by a combination of various structural factors within the household, the labour market and the state. It is to a discussion of these enablers and constrainers that I now turn.

2.2 *Enablers* and *Constrainers*

If a father expected to take a month's paternity leave following the birth of his child, and if such a leave were to be paid at a sufficient level, so as to render it economically viable for his household: this father could then be said to have been enabled to spend more time caring for his child. If another father would equally like to take a month's paternity leave following the birth of his child but could not do so, as the leave was unpaid, thus rendering such an action economically unviable for his household: this father could be said to have been constrained from spending time caring for his child. Similarly, if the leave was paid, but there was little social support for taking it, so that take up of the leave would result at best in ridicule and at worst in subsequent employment discrimination: the father could again be said to have been constrained from spending paternal time.

> [...] it is important to view fathers' commitment to various identities and their paternal involvement as being both socially patterned and individualistic in nature. Large-scale social processes often shape the opportunities and constraints that fathers experience as they attempt to embrace specific fatherhood roles [...]. These processes, although powerful, are by no means determinant. Individual fathers, in conjunction with other family members, can and do sometimes challenge the typical patterns that occur as a result of these sorting processes. (Furstenberg cited in Marsiglio 1995: 12)

That there needs to be some element of coercion involved in order to "make" men into social fathers is the premise of much of the literature in this area. I do not dispute that this more pessimistic view of men and fathers can be a valid framework for better understanding and explaining inequality between men and women. However, I choose to pursue my investigation into the persistence of the gender division of labour in particular relation to parenting from a different perspective. My starting assumption is that fathers, or at least a sizeable number of fathers, would like to be able to spend more time looking after their

children.[17] Rather than thinking in terms of how to coerce and compel fathers into spending more time with their children, I work instead from the supposition that fathers are instead faced with a number of constraints with respect to spending more paternal time. From this point of view, fathers would like to be enabled to spend more time looking after their children. This assumption contrasts then with the viewpoint that fathers do not spend time looking after their children because this is not their preference, (but that they could if they did want too).

It is perhaps important at this point to say something about what is meant when referring to fathers spending *more* time looking after their children. I do not mean to imply that fathers, on average, would like to become house-husbands; that they want to undergo a complete role-reversal in which the mother goes out to work full time whilst the father stays at home and looks after the household and the children as his main activity. Rather, I mean that social fathers, on average, would like to be able to play a greater role, not only as an economic provider for the household, but also as a carer. Practically, this would be a similar level of care as provided by a mother who was equally as active in the labour market as the father. As a normative ideal, this would be the level of care a parent could reasonably provide within the context of working a reduced hours working week, with the partner doing the same, whilst they are having access to affordable high quality child care.

Central to my theoretical framework is the argument that fathers do not currently have equal access, as compared to mothers, to legislative arrangements that would make it possible for them to combine participation in the labour market with caring for their children. They also have little freedom not to

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17 Bergman and Hobson (2002) and Knijn and Selten (2002) provide evidence of men's collectivities which advocate shared parenting. Moss and Brannen (1987) report that two-thirds of their sample of 75 fathers would have liked to spend more time with their infant children. Russell (1987) also reports that 80% of young men from a sample of first-year university students in Australia were interested in having the option of full-time parenting.

engage in paid work (Orloff and Monson 2002). As such, they are not generally able to spend as much time looking after their children as are mothers.[18]

Legislative arrangements are but one of many factors that enable or constrain men to spend as much time looking after their children as they would like. As identifying and describing these factors is central to the argument of my thesis, I introduce two new terms, which allow me to precisely classify these factors. These terms are: *constrainer;* and *enabler.*[19]

I define a *constrainer* as a state of being or exogenous factor, which prevents the subject from carrying out an action which would otherwise occur. In this case, a father is prevented from caring for his children as much as he would in the absence of the *constrainer.*

I define an *enabler* in opposition to a *constrainer.* An *enabler* is a state of being or exogenous factor, which creates the possibility for the subject to carry out an action that he would otherwise be unable to do. In this case, the father is enabled to carry out more caring for his children than he would otherwise be able to.

Employing these terms, we can now identify and take a closer look at the constrainers that prevent men from spending as much time looking after their children as they would otherwise, and at the enablers that are associated with those men who spend more time than others with their children. Drawing on the review of theories of the gender division of labour in the last chapter, I find two distinct, although interrelated, sites, within which specific sets of enablers and constrainers on paternal time are located.

The first such site is the *household-labour market nexus.* Here, I consider enablers and constrainers of paternal time, which operate within the household in relation to the extent to which that household needs or wants to engage with the labour market. By household, I refer to a social mother and social father team, whether working together in harmony (common preference models) or working

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18 However, as many studies continue to demonstrate, this structural arrangement has certain benefits for men and is correlated with more successful labour market outcomes as compared to women (e.g. Budig and England 2001; Waldfogel 1997).

19 To the author's knowledge these terms have been used in other contexts (e.g. Stevenson and Greenberg 2000), but not in an analysis of this kind.

from a position of conflict towards an equilibrium (bargaining models) in order to provide and care for their resident dependent children.

The second site is the *state-labour market nexus*. Here, I consider the enablers and constrainers of paternal time, which are imposed by the state with respect to the labour market.

Both sites are widely covered by the literature. Thus the discussion which follows aims to be a comprehensive literature review of research focused, firstly, on men in the context of the household and their labour market outcomes; and, secondly, on fathers and the way the state conceptualises their position as fathers. This review is then used as a backbone for forming the central hypotheses of the thesis.

2.3 Literature Review: Fathers, the Labour Market and the State

2.3.1 Parental Household Employment and Paternal Labour Market Outcomes

The household is the location of most paternal care. The way in which child care is shared between parents and thus the amount of paternal time that a father can spend in the household will be subject to the enablers or constrainers imposed as a consequence of the attachment that each of the parents has to the labour market. In the previous section, two aspects of parenting and fathering were discussed, namely financial and caring. How a couple, otherwise thought of as a parental team, distribute both the financial and the caring aspects of parenting between them will have a considerable impact on paternal time. According to mothers' participation in the labour market, fathers will have more or less demand upon them to be providers, and more or less cultural support with respect to spending time with their children. Maternal labour market participation which leads to mothers being able to play a greater role as providers as well as carers can be thought of as an enabler of paternal time. The burden of providing can be shared (assuming paternal labour market participation), and at the same time mothers' labour market participation is a strong argument for their not being responsible for the majority of child care. Mothers not participating as providers but rather claiming the sole role as carers can be thought of as constrainers of paternal time for the reverse reasons.[20]

The financial provider role will be carried out in the labour market. The labour market takes time away from the domestic sphere in return for financial reward. How much time it takes away and for how much reward is captured by the economic notion of *labour supply*. Labour supply refers to the total number of hours that labour (in this case the parent) is willing and able to supply at a given

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[20] See also Allen and Hawkins (1999) maternal gatekeeping thesis that mothers' beliefs and behaviours may inhibit greater father involvement in family work.

wage rate (Ehrenberg and Smith 2003). Labour market outcomes are thus measured in subsequent chapters in terms of both the number of hours worked and the hourly wage rate.

The association between fatherhood and labour market outcomes can be considered in two directions: first, the effect of labour market outcomes on (the onset of) fatherhood; and second, the effect of (the onset of) fatherhood on labour market outcomes and their correlation with levels of paternal time. I focus predominantly on the second of these directions, although the first is also explored in chapters 6 and 7.

Previous work has rarely focused explicitly on fatherhood and labour supply. However, there are several areas of research that can certainly inform inquiry. There is a large economic literature on (predominantly female) fertility and labour supply. The central tenets of this literature are that a parent's labour supply may be expected to change after the birth of a child as parenthood is associated with increased household costs as well as the extra work effort of caring for the child. The question this literature asks is: what is the effect of fertility on labour market behaviour? As children consume part of the household income, more income may be needed and the parent may respond by increasing his or her labour supply. The child will need to be cared for, which might have an income effect, the parents will need to work more to meet the costs of child care, or a substitution effect, a parent works less and cares for the child him/herself. If there are two parents, a mother and a father, contributing to the household work effort, there are various strategies that can be employed to meet the increased income and work effort demands following the onset of parenthood. The most commonly observed strategy has been one of specialisation as previously discussed: men either maintain or increase their labour supply (e.g. Angrist and Evans 1998; Pencavel 1986) whilst women decrease their labour supply (for a review of studies see Browning 1992).

2.3.1.1 The Marriage Wage Premium

Although there is very little literature focusing on labour market supply and male fertility,[21] there is a branch of mostly economic literature documenting and proffering explanations for the existence of a marriage wage premium for men, marriage being associated with higher wages for men than if they never married (e.g. Bardasi and Taylor 2005; Chun and Lee 2001; Korenman and Neumark 1991; Loh 1996; Schoeni 1995). Within many of these studies there is the assumption that most married men will have children, and fertility or fatherhood is not often specifically addressed (e.g. Korenman and Neumark 1991), although some use the number of children in the household as a measure of the household division of labour (e.g. Bardasi and Taylor 2005; Blackaby, Carlin and Murphy forthcoming).

Two potential explanations for the marriage wage premium emerging from the literature are:

1. An internal characteristic of the nature of a marriage (support from a non-working wife) positively affects male productivity (e.g. Bardasi and Taylor 2005; Korenman and Neumark 1991; Loh 1996)
2. More involved men self select into marriage (Chun and Lee 2001; Ginther and Zavodny 2001; Gray 1997)

These explanations can be usefully adapted to questions of fatherhood and earnings and enablers and constrainers of paternal time. The first typically considers the division of work in a partnership according to gender roles. This specialisation hypothesis, drawing on Becker's theory of comparative advantage, argues that there is negative assortative mating on wage rates. The specialisation by gender roles enables the increased productivity of men whose household responsibilities have been reduced by having a wife (Chun and Lee 2001; Bar-

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21 An exception would be Nock (1998).

dasi and Taylor 2005). Although recent studies still find that married men earn more than comparable unmarried men, Gray (1997) reports that the differential in the US declined by more than 40% over the 1980s. He suggests that this is a result of changing roles and that men are devoting more time to home production as women are devoting more time to the labour market.

Given the high costs of parenthood, it could be expected that a more efficient strategy would be for men to partner up with women who can also contribute to the household budget, at least before the onset of parenthood, if not after (Jacobsen and Rayack 1996). Recent work has shown that a wage penalty for men with working wives found in earlier research for British men has been replaced with a wage premium (Blackaby, Carlin and Murphy forthcoming), but there is little work on positive assortative mating according to pay.

A second explanation of the male wage premium argues that there is self-selection of more productive men into marriage (Gray 1997). There is also a demographic literature largely motivated by interest in declining marriage rates, examining how a man's financial situation affects entry into marriage and cohabitation (Oppenheimer 1988). Such empirical studies generally find that for men, a lack of financial resource, whether as a result of unemployment, low earnings or career immaturity, lead to delays in marrying (Kalmijn and Luijkx 2005: 211). Again, this literature largely assumes fertility as endogenous with marriage.

The male-breadwinner hypothesis postulates that setting up a household incurs a certain financial cost and so men who are unable to fulfil the role of breadwinner will not be attractive marriage partners (Kalmijn and Luijkx 2005). This stimulates the question as to whether more productive men select into fatherhood as well. A traditional division of gender roles is assumed for this theory. If women's economic resources also become important in marriage and financial responsibility is shared, one outcome would be that the financial resources of the male marriage partner would be less important.

A small literature considers the effect of child gender on working hours and earnings of married fathers. Choi, Joesch and Lundberg (2005) find that a first son increases fathers' work hours by 100 hours per year relative to a first daugh-

ter. Questions which have been of interest to economists include whether the number and age of children affects the father's labour supply (Angrist and Evans 1998; Pencavel 1986).

In the demographic and sociological literature, marriage is most often associated with a more traditional division of gender roles within a partnership (South and Spitze 1994). Therefore, it would be reasonable to expect that a man's inability to provide economically would be less of a problem for cohabitation than for marriage (Kalmijn and Luijkx 2005). However, the meaning of cohabitation outside of marriage depends on the social context in which it occurs (Seltzer 2000). Cohabitation in the various European Union member states carries differing social significance, which is perhaps reflected by the varying effects of premarital cohabitation on marital stability (Kiernan 2004).

2.3.1.2. Mens' Labour Supply in Relation to that of their Female Partners'

There is a relative lack of empirical economic literature which considers mens' labour supply in relation to their female partners' labour market hours and fertility, exceptions include Lundberg (1988) and Gray (1997). Lundberg in particular (1988: 224) has been a pioneer in addressing this:

> There appears to be no consensus among economists as to an appropriate paradigm of family behavior. Theoretical discussion has been dominated by the joint utility model, in which family members act collectively to maximize a single utility function. However, most empirical studies examine the labor supply of married men and women independently, treating the earnings or work hours of the spouse as exogenous to the behavior of interest.

Common preference (or joint utility) models of the family are useful in my framework in as much as they consider the household in a more optimistic outlook as a team which is pooling resources and working together in order to achieve an optimal outcome. However, the specialisation version of the common preference model (e.g. Becker) is not particularly helpful in an analysis of paternal time as it is not envisaged that fathers will spend time looking after their children regardless of the behaviour of their team partner. It is tacitly accepted that

social change will be asymmetric, that is to say, women will become earners to a greater extent than men become carers. Where mothers or potential mothers have become earners, rather than envisage that men will adapt and become carers, this theory predicts that mothers will either have the double burden of work and care, or simply not have children. There are strong arguments that this is indeed an apt description of the situation of many couples. This notwithstanding, it is not a useful theory with regards to building a framework for an analysis which will facilitate greater understanding of the enablers and constrainers of paternal time for those fathers who do actually care or who would like to spend more time caring.

To the contrary, although still a common preference model, Oppenheimer's theory of the optimality of a non-specialised household predicts that as women become more involved in the labour market, men will become more involved in caring as a result of decreased role differentiation. This theory of non-specialisation would predict that, as parents become more similar in their tasks, the less specialised they are in the labour market, the less specialised they will also be with regards to care. Thus, in households where the mother is participating in the labour market as much as the father, the father would be expected to participate as much as the mother in domestic care.

Resource bargaining theories such as those developed by Lundberg (1988) do not make the presumption of common preference. They allow for there to be a bargaining process between the mother and the father, making the assumption that as the mother participates more in the labour market, she will have greater negotiating power in dictating that the father must also fulfil a greater share of the child care. The resource bargining theory implies a certain level of conflict between partners which does not sit so well with my parental team perspective, but leads to similar predictions about paternal time in relation to mothers' labour market participation.

A further area of inquiry in the literature, which can inform the questions asked in this thesis, is the research on the gap between the hourly earnings of those women with and those women without children, defined by Waldfogel (1998: 137) as the family gap. There have been many analyses of the negative

pay effects of children for women (Andersen, Binder and Krause 2003; Avellar and Smock 2003; Budig and England 2001; Harkness and Waldfogel 1999; Joshi 1991; Neumark and Korenman 1994; Waldfogel 1997; Waldfogel 1998). Such studies are virtually non-existent for men. Where men have been considered, no such father penalty has been reported (Waldfogel 1998). If anything, a family gap for men with and without children is the inverse of a family gap for women. A common finding from studies of earnings at a specific time is the presence of a wage premium for fathers in comparison with employees without dependent children (Harkness and Waldfogel 1999; Whitehouse 2002).

With the onset of parenthood, there will be observable changes in a father's labour supply as well as less easily observable changes in the effort and time devoted to domestic work. As mentioned in the previous section, two competing strategies of fatherhood, the good provider and the involved father models (as by Kaufman and Uhlenberg 2000), are considered as models in this thesis. A father's labour market behaviour is expected to differ from that of a non-father. He might be more inclined to work longer hours and be more ambitious as part of an effort to better provide financially for his family, thus offsetting the increased costs after the arrival of the first child. Conversely, he might reduce his working hours as part of an effort to spend more time caring for his family. The good provider model of fatherhood argues that fathers are likely to be the most productive group of men, as they need to earn more than non-fathers to meet their increased financial responsibilities. This will be even more the case for couples where there is a greater degree of gender role specialisation.

An alternative to the good provider model of fatherhood is the involved carer model: if men are increasingly involved in actively caring for their children, there will be competing demands on their time. It is unlikely that a carer will be able to maintain his labour supply at the same level as either a non-father or a father in a more specialised gender role couple. I assume that a father is only likely to become a carer in the case that his female partner is also contributing to the household income as an active labour market participant.

What non-specialisation theories, be they common preference or otherwise (e.g. Oppenheimer (1997) or Lundberg and Pollak (1994) respectively) share is

that they both predict that paternal time will be affected by the working hours of the mother.

In the next section I now turn to concentrate specifically on theories relating to the impact that the state can have on paternal time via various, predominantly legislative, enablers and constrainers.

2.3.2 The State: Father-Friendly Legislation

To the extent that children are a public good, the state can greatly ease the difficulties associated with combining parenthood and work. My hypothesis is that how it does so can greatly affect paternal time. The state can influence paternal time in a variety of ways, the most transparent way being via legislation which has the direct aim of enabling fathers to spend more time looking after their children. I call this *father-friendly legislation*, a concept which I go on to develop and measure in chapter 5.

I define father-friendly legislation broadly as that which could potentially reduce work-family conflict, thus acting as an enabler of paternal time. Government regulated child care provisions can be classified into three distinct categories (Ditch, Bradshaw and Eardley 1996): first, cash transfers (via fiscal policies, family allowances and other forms of social assistance); secondly, provision of services (e.g. the public provision of child care), and third, leave from the labour market. I focus on the third category, namely statutory leave provisions, as theoretically I would expect these to be associated with the time fathers spend looking after their children. Cash transfers and state provision of child care may actually reduce rather than enable paternal involvement. Across the member states of the European Union there are various terms for the different variations of leave provision available to fathers including: paternity leave, parental leave, child care leave, career breaks, family leave, sick child leave, calamity leave, and so on (Gornick and Meyers 2003). For the purposes of this thesis, paternal leave

is used as a broad umbrella term for all types of leave to which fathers have access.[22]

The state also affects gender relations and therefore paternal time, in ways not captured by the notion of father-friendly legislation. These include, inter alia, the macro-regulation of labour markets, as well as the provision of public child care, taxes and cash benefits, and the impact this combination of factors has on the balance between women's paid and unpaid work (Walby 1997). I argue that the father-friendly legislation available in a particular country will be correlated with the extent to which mothers are employed in that country. Starting with the assumption from a time availability perspective (Blood and Wolfe 1960; Coverman 1985), that fathers will care more when they have the time to and mothers have less time as a result of demands in the labour market; factors shaping time availability such as the possibilities for flexible working and the character of the labour market with regard to working hours cultures are enablers or constrainers of paternal time.

The concept of the gendered welfare state regime has been used to theorise the cross-national variation between patterns of gender differences (Hobson 1994; Lewis 1992; Orloff 1993; Ostner and Lewis 1995; Sainsbury 1994, 1996). It has been demonstrated that the state is gendered. Such work often focuses on specific types of welfare policies such as: the provision of care, especially child care, and second, that of tax and benefit policies (Lewis 1993). This is set within a common analytic framework composed of three main elements: family/carework, employment, and welfare state. The continuity of gendered welfare patterns is seen as especially grounded in the cultural traditions of the family (Ostner and Lewis 1995). This is then reflected and further sedimented in the form of the welfare state (Sainsbury 1994, 1996). This literature sees only the elements of employment and the welfare state as relevant to men, whereas the elements of employment, the welfare state *and* family or carework, are seen as relevant to women (Walby 2001). Gender as a term refers not only to women

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22 Paternal leave is the generic term; specific terms (e.g. paternity or parental leave) are also used in chapter 5 in discussions of particular legislation.

but also to men. There is however, a lack of focus on men in the gender regime literature (Kulawik 2005). In response to this, I apply all these elements of family/carework, employment and the welfare state to the analysis of fathers and their paternal time.

Different welfare state systems inevitably lead to variation in the manner and extent of father-friendly legislation. Inquiry into the effect of legislation on paternal time will benefit from a multi-country comparison, which I discuss more fully later in this chapter. The welfare state typology proposed by Esping-Andersen (1990, 1999) as reviewed in the previous chapter provides a useful set of theoretical groupings into which I expect countries to fall. Lewis (1992) has proposed an alternative typology of gendered policy logics, also reviewed in the previous chapter, centred on the concept of breadwinning and the extent to which there is a male breadwinner model. This typology has been much refined in the ensuing debate, and there are slight variations in her later publications (Lewis 1993, 1997; Ostner and Lewis 1995). This typology places countries into one of three categories: strong male breadwinner regimes (the Netherlands and Ireland), modified male breadwinner regimes (France) and weak breadwinner regimes (Denmark or Sweden).

Gornick and Meyers (2003: 4) identify how important it is to develop an "end vision" which honours the importance of both earning and caring, both child well-being and gender equality. Rosemary Crompton (1999) has conceptualised one such society, a dual-earner-dual-carer society. As Gornick and Meyers note:

> This is a society that recognises the rights and obligations of women and men to engage in both market and care work and one that values children's need for intensive care and nurturance during their earliest years. (Gornick and Meyers (2003: 12)

Europe is still far from such a dual-earner-dual-carer vision. Despite increasing European harmonisation, considerable variation remains across countries with regard to the extent of father-friendly legislation, as will be documented in chapter 5. Comparing father-friendly provision with the amount of paternal time spent across countries and looking for any correlation between the two is a first step in answering the question: does policy matter? I propose that the

degree of father-friendly legislation in a country is positively correlated with paternal time, though the direction of this causal relationship is impossible to determine with cross-sectional data or short term longitudinal data. Probably there are causal mechanisms in both directions. Policy packages reflect what people want to a certain degree but legislation can also shape behaviour and create an environment in which involved fathering becomes easier (or more difficult).

The diverse literature reviewed does not focus on enablers and constrainers of paternal time specifically, but rather on the sites of potential enablers and constrainers, be they within the household, aspects of the labour market, or imposed by the state. The review sets the context and informs the development of a number of hypotheses, which are to be tested in the subsequent chapters.

2.4 Hypotheses

Drawing on the discussion above, two major and two minor hypotheses are proposed for testing. Previously, two sites, in which specific sets of enablers and constrainers on paternal time are found, have been identified. Correspondingly, one major hypothesis is developed for each site.

The first site is the household-labour market nexus. Non-specialisation theories predict that paternal time will be positively affected by the working hours of the mother. Thus, drawing in particular on the ideas of Oppenheimer (1988, 1997) and of Lundberg and Pollak (1996), the first major hypothesis for the thesis to be tested in further chapters is:

H1: Fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market.

The second site of enablers and constrainers of paternal time is the state-labour market nexus. I am interested in the part that the state can play, via father-friendly legislation, as an enabler of paternal time. Drawing in part on the welfare state literature, in particular on writers such as Esping-Andersen and Lewis, the second major hypothesis for the thesis is:

H2: Fathers spend more paternal time in countries with more father-friendly legislation.

Two further minor hypotheses are also proposed, relating predominantly to the first site of the household-labour market nexus. Drawing on the economic literature on the marriage wage premium and on fertility and labour supply, I would like to also test the following hypotheses:

H3: Fathers earn more and work longer hours than non-fathers.

H4: Fathers who spend more paternal time work fewer hours and earn less than fathers spending less paternal time.

The four hypotheses are derived with the aim of explaining the varied gender division of labour between parents with respect to parental time. They provide a framework from which to look at paternal time and its correlates. The fathers referred to in the hypotheses are social resident fathers. The hypotheses are set against the theoretical backdrop of the two terms "enabler" and "constrainer", used in relation to fathers and paternal time.

In the discussion of the current models of social fatherhood, the dichotomies by which social fathers are frequently conceptualised have been introduced. These dichotomies reflect the hitherto heavily gendered duties associated with parenting: providing and caring. These dichotomous gendered parenting roles are mostly presented as *either* a parent taking on the financial role, *or* a parent taking on a caring role. Perhaps, however, there is a positive correlation between a father's success as a financial provider and the time he spends looking after his children, at least for certain groups of men. Hypotheses H1 and H4 explicitly allow the testing of this assumption. To the extent that time spent providing for a child is at the expense of time spent caring for a child, the state can intervene and allow for a father to spend time away from the workplace with the child via father-friendly policy. This is tested in H2. That financial provision is a particular characteristic of fatherhood is tested by H3. That social class might be an intervening variable in all four hypotheses is taken into account in the multivariate models.

It is proposed that fathers would like to be enabled to spend more time looking after their children, but are constrained from doing so by the demands on them for financial provision, at the cost of caring. This can be ameliorated by either the other parenting partner's contribution to providing or by state help. These ideas are formalised in H1 and H2. It is also reflected by H3, that the increased financial burden of children might lead fathers to work longer hours and to earn more.

The economic notion of labour supply is infrequently discussed explicitly in relation to fatherhood. This thesis addresses this gap in the literature. This is particularly expressed by H3, and H4. Also, parental household employment will be correlated with paternal labour market outcomes and so with paternal time. Maternal labour market participation will also affect the labour supply of the father, which in turn will affect paternal time as expressed in H1. The marriage wage premium literature informs H3. This literature rarely focuses explicitly on fatherhood and so H3 looks to address this gap.

Having thus introduced the terms, reviewed the relevant theoretical and empirical literature and set out the hypotheses of the thesis, the only task remaining before moving on to the core of this inquiry is to explain why I have chosen to focus on the Western European member states of the EU as of 1996, minus Sweden.[23]

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[23] The data for Sweden is not in the same format as the data for other countries.

2.5 Rationale for Case Selection of the EU-14

The European Union, as a unique political body, sees itself as the pacesetter for social justice and social progress in a supra-national environment (Špidla 2006). The EU is based on treaties between its member countries. EC law provides standards up to which national law must match (Hervey and Shaw 1998). Furthermore, EC laws can also give separate and justiciable rights to individuals within member states as European citizens. These rights can be enforced in national courts, "in accordance with the principles of national procedural law, but which take precendence over any contradictory national provisions." (Moore 1996; O'Keefe 1996 cited in Hervey and Shaw 1998: 46).

I am interested in the extent to which a *social Europe* has played a part in enabling fathers to spend time looking after their children. What variation might be expected across the member states of the European Union in paternal time? The European Union of the 1990s, provides an excellent forum for comparison in that countries are similar enough to compare (they have signed up to the same social standards and share a broad legal framework), whilst at the same time exhibiting enough (historical, cultural and institutional) difference as to allow variation.

There has been some considerable debate on whether there has been a European welfare state convergence or divergence (see Castles 2004: chapter 4), and there is a burgeoning literature on the more recent emergence of the European social model (see Esping-Andersen, Gallie, Hemerijck and Myles 2002; Falkner 1998; Ferrera, Hermerijck, and Rhodes 2001; Grahl and Teague 1997; Leibfried 1992; Leibfried and Pierson 1995). The Commission's 1994 White Paper on social policy (COM (94) 333) described a European social model in terms of values that included democracy and individual rights, free collective bargaining, the market economy, equality of opportunity for all, and social welfare and solidarity. The basic premise of a European social model is that the EU institutions are able to harmonise social policy in Europe so as to provide social protection

in a distinct fashion from that found elsewhere in the developed world (Castles 2004: 73).[24]

With regards to gender equality, the issue has been firmly on the agenda of the European Community since the 1980s. There are also many examples of ways in which a legal commitment to equality can be traced even further back to the early years of the European Economic Community (Hantrais 2000: chapter 6). It was not until the 1990s, however, that measures with respect to parents, thereby including fathers as well as mothers, were adopted at the European Union level. There are strong arguments that the European Union has promoted gender equality in countries which otherwise would not have had the issue on their domestic agendas. One such example is the parental leave directive (Falkner, Harlapp, Leiber and Treib 2002).

The EU directive on parental leave came into force in 1996 and was the first piece of European-wide legally enforceable legislation with a direct impact on fathers. A proposal for the directive, which addressed the question of parental leave, was originally issued in 1983. It was not until after the creation of the Social Chapter that it was raised again.

The Social Chapter was adopted at the European Council in December 1989 by all member states except the UK (*European File* No. 6 1990: 2[25]) and included the statement that "measures should also be developed enabling men and women to reconcile their occupational and family obligations" (CEC, 1989: 15 cited in Neilson 1998: 72).

In December 1991, at Maastricht, the member states (with the exception of the UK) agreed to implement the Social Chapter by means of the Protocol on Social Policy and the Agreement on Social Policy, which was annexed to the Treaty on European Union (European Communities 1992: 196-201 cited in

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24 Grahl and Teague (1997) argue that the emergent European social model does not include the Southern European (Greece, Italy, Portugal or Spain) or the English speaking countries of Europe (Ireland and the UK).

25 *European File* is a European Union periodical, a number of which are published each year by the Commission of the European Communities, Brussels.

Neilson 1998)[26], thus writing father-friendly policy concerns firmly into the agendas of the member states.

A council recommendation in 1992 (92/241/EEC) was passed, in which member states are encouraged

> to take and/or progressively encourage initiatives to enable women and men to reconcile their occupational, family and upbringing responsibilities arising from the care of children. (Article 1)

A recommendation such as this is an example of *soft law*, meaning that, unlike *hard law*, there are no sanctions on non-compliance. In contrast, the parental leave directive brought in 1996 is a considerably stronger piece of legislation. Generally speaking, directives are a form of legal measure enacted by the EU institutions.[27]

The European Union provides an ideal opportunity for comparative work. Whilst the member states share a common institutional framework, there is also internal diversity in terms of the welfare states, the governing institutions, traditions and cultures, which allows for variation in the explanatory variables.

To sum up, the 1990s are the period when equality as an issue for men as well as for women was first brought forward in EU legislation. European member states in the 1990s are thus very worthy objects of inquiry when it comes to trying to establish the impact of policy on the time fathers spend with children. Additionally, there is also a practical rationale behind focusing on the EU-14 for the testing of the above hypotheses: The data situation is optimal as Eurostat provides extensive data in the form of the ECHP, allowing for comparisons across the region during the time period in question.

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26 The UK has since changed its commitment towards honouring the Social Chapter with the change of government in 1997 to Labour.

27 Article 249 EC provides: "A Directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods."

2.6 Summary

In this chapter, I set out the theoretical framework for the analysis of paternal time and its correlates across the EU-14. The EU is a particularly interesting forum in which to consider paternal time, following recent European wide legislation with the aim to enable fathers (as well as mothers) to combine family and working life.

From a discussion of the meaning of *father*, *fathering* and *fatherhood*, the kind of father, which is the prime object of investigation in this study, is defined: the resident social father. A social father is a man who has accepted responsibility or duty of care and maintenance towards a child, regardless of any biological relationship. A resident father is a social father currently living with his dependent children. Social resident fathers are typically cast in terms of a dichotomy. They either emphasise their commitment to the labour market over the family in order to be better providers; or, alternatively, they emphasise their commitment to the family by making arrangements to spend more time with their children, possibly at the expense of time spent in the labour market. I am interested in exploring this dichotomy, with the suspicion that it is oversimplifying to the point of obfuscation.

In order to analyse those fathers who do spend more paternal time than others, it is necessary to employ a more optimistic model of men than typically found in gender-related research. My starting assumption is that fathers, or at least a sizeable number of fathers, would like to be able to spend more time looking after their children. Yet certain factors, defined here as *enablers* and *constrainers*, will impact on a father's ability to spend as much time looking after his children as he would like. These enablers and constrainers are expected to differ fundamentally from those faced by women trying to combine motherhood and participation in the labour market.

The emphasis of much of the father-focused literature lies on the correlation between labour market outcomes and marriage, rather than on the correlation between labour market outcomes and paternal time. Similarly, the literature which considers the impact of fertility on labour supply predominantly focuses

on mothers rather than on fathers. Unsurprisingly then, the gendered nature of the state and its subsequent effect on fertility and child rearing has been mostly assessed in relation to mothers, with a few notable exceptions (e.g. Lewis 2002; Orloff and Monson 2002). Nevertheless, an overall very diverse literature points to various enablers and constrainers of paternal time; and from its discussion arise a number of formalised hypotheses relating to the two sites of the household-labour market nexus and the state-labour market nexus:

- H1: Fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market.
- H2: Fathers spend more paternal time in countries with more father-friendly legislation.
- H3: Fathers earn more and work longer hours than non-fathers.
- H4: Fathers who spend more paternal time work fewer hours and earn less than fathers spending less paternal time.

In order to test these hypotheses, a suitable measure of paternal time needs to be developed. And it is to a discussion of such a measurement that I now turn in chapter 3.

Chapter 3

Measuring Paternal Time

> Time is the most valuable thing a man can spend. (Theophrastus)

Measuring the time that fathers spend looking after their children is a central concern of this thesis. Paternal time is the central dependent variable. The development of measures of time use, and of paternal time in particular renders the assessment of trends in the gender division of parenting responsibilities possible. There are theoretical and technical considerations which must be taken into account during the development of a measure of paternal time, and these considerations are the principal focus of this chapter.

The study of how we spend our time is a rapidly expanding and politically influential area of research. Sociologists typically understand time as clock time, and the way we incorporate it into our theories is rarely considered problematic. In this chapter, I briefly introduce the reader to alternative conceptualisations of time and their implications for the social world. An exploration into the sociological concept of time leads to an understanding of the problems inherent in its measurement. Before presenting existing estimates of paternal time, I discuss the technical challenges inherent in the collection of time use data.

Time is a commodity in short supply. Or at least, this is the impression given by expressions such as "time bind", "time crunch", "time poor", "time squeeze" and "time famine" which are frequently found in both the media and in acade-

mic work (Bunting 2000; Daly 2000; Gershuny 2000; Hochschild 1997). It might then, be a reasonable assumption that parents are devoting less time to their children, as compared to previous generations. Evidence based on time use data for various industrialised countries suggests, however, the opposite (Gauthier, Smeeding and Furstenberg 2004). The literature suggests, that despite the time pressures with which today's families are confronted, parents (fathers and mothers) appear to be devoting more time to children than before (Bianchi 2000; Sandberg and Hofferth 2001; Fisher, McCulloch and Gershuny 1999). All the above research finds that mothers, on average, spend more time looking after their children than do fathers. In order to better understand why so many fathers spend so little paternal time, measurement specific to fathers and paternal time is required.

Moving on from others' work, I begin to develop my own measure of paternal time. For this I use the European Community Household Panel (the ECHP). The ECHP is used throughout the thesis. The second half of this chapter introduces the dataset and gives an overview of the information it contains. The measures of paternal time which I derive from the ECHP are not ideal and I discuss the shortcomings of using these measures as well as their advantages. I also describe the creation of the sub-sample of resident fathers, concluding with descriptive statistics for the average European father.

3.1 The Sociology of Time

> In the process of industrialisation the cycles of work and relaxation, which formerly accompanied the nature and task-bound rhythms, attain their own metric dynamic and gradually become indifferent towards traditional contexts of meaning and significance. (H. -W. Hohn [translated by Adam 1990])

Time is one of the central organising features of social life. Time is understood in many different ways across the disciplines but clock time is one aspect that all scientists utilise, employed across the board as a measure of the events and processes under investigation. Measuring according to clock time can be a very useful tool, but such measurement should not be thought of as unproblematic.

Problems start with some basic assumptions about how time can be recorded and measured. Time use studies focus on an activity and its duration. By their very nature, time use studies assume that time unfolds in linear form, that it can be measured in abstract form by the clock and that it is possible, at least in principle, to quantify how long people spend in particular activities, as well as when they carry them out. However, more theoretical work on the socially constructed and culturally specific nature of time suggests that the notion that time can be measured in such an abstract, standardised way is a modern, western idea, rather than a universal one (see Adam 1990; Macnaghton and Urry 1998; Thompson 1967).

If physical time is determined by biology and the environment, such as phases of the moon, the ebb and flow of tides, the birth and death of bodies, then social time is concerned with the nature, construction and consequences of human activities organised around giving meaning to time (Marshall 1998). The character of social time in modern industrial societies is an artificial, but strict temporal order. In industrial societies, time has become a measure of work, rather than work as a measure of time. Organisation is within a time-grid of calendars and clocks, which facilitates precision and potentially eliminates the reliance on interpretation. (Adam 1990: 112).

A distinction, widely employed in industrial sociology is that of task orientation to work versus time-orientation to work. In the narrow sense, task orientated workers relate the measurement of time to naturally occurring phenomena

and cycles, such as the time between sunrise and sunset, the seasons of the year, or simply the time taken to complete a given task. The important point is that there is a complete disregard for the artificial units (such as minutes or hours) of clock-time. The invention of clocks, or rather their utilisation by employers as a means of measuring labour-inputs generated (after well-documented initial resistance among workers) a labour discipline in which time is the principal currency (Hohn 1984; Thompson 1967). Effort is now bought and sold by the hour; time is spent rather than passed; and the "time-effort bargain" can be budgeted like any other commodity (Adam 1990). The activity of child care however does not easily lend itself to being broken down and accounted for in hourly units.

The relationships between time and employment on the one hand and time and unpaid child care on the other, can be thought of as being polar examples of task versus time orientation to work. Daily time structuring via schedules and timetables, argue Delamont and Galton (1986), is one of the characteristics by which employment and institutional life generally, may be separated from the daily routine of those not in employment, including unpaid carers. Employment is productivity in time. Child care is on the other hand, task orientated.

There are however, many occupations which are more task than time-orientated. Occupations regulated by a service relationship are more likely to be task orientated while those regulated by a labour contract are more likely to be time orientated (e.g. Erikson and Goldthorpe 1992). Some writers have argued that clock time is male time, or that it is primarily applicable to activities conventionally associated with men, while caring responsibilities are by nature often cyclical. Such "women's work" is also often highly fragmented, and may feel more like a jumble of simultaneous and overlapping experiences or a state of mind than a series of discrete and identifiable activities or events (Bittman, Fast, Fisher and Thomson 2004; Budig and Folbre 2004; Craig 2002; Davies 1990).

At the extreme ends of the spectrum, the two systems of task-orientation (e.g of child care) versus the time-orientation of particular kinds of employment are incompatible. There is often a lack of synchronisation between employment time requirements at the workplace and domestic child care time requirements.

Employment and family life coordination can be extremely difficult if the two worlds conflict. Because of this exclusion of natural rhythms in such professional social situations as are timed by the clock, Hohn (1984: 159) proposes that the participants have to be protected by normative breaks and a reduction in working hours.

Until relatively recently, sociologists studied women as paid employees outside the home, or as wives and mothers, but did not consider unpaid domestic labour, including child care, as a job analogous to any other kind of work. It was not until the 1970s that systematic research was undertaken which applied to domestic labour the analytical tools of the sociology of industry and economic life (Lopata 1970; Oakley 1974). Domestic labour is economically uncounted, allowing the time and work it requires to be obscured (Bittman and Pixley 1997; Folbre 1994; Hochschild 1989). Child care is reflected in life cycle terms as a long term investment. It is not remunerated in an immediately obvious fashion. Due to this lack of more immediate remuneration, investigation into domestic labour including child care relies heavily on time use data.

Whilst time use studies are currently considered the best way of finding out about unpaid work, some have been criticised as providing a superficial and shallow picture of daily life (Gershuny and Sullivan 1998). In attempting to count what has been previously overlooked, time use data has often measured what is easiest to measure: the overall time spent in each task.

Although very useful in quantifying unpaid labour, it has been suggested that this perpetuation of the "time is money" equation obscures differences in the way time is experienced by each sex (Sullivan 1997). That is to say that men and women spend different proportions of time doing various activities and so their experience of time, which is linked to what they do, on average differs. Time use in hours per week does not provide an insight into the social context of activities, the duration of episodes of activity or the combinations of different activities. Focusing only on time use obscures the issue of time sovereignty, that is to say the extent to which we can decide for ourselves how to organise our time, something which is often lacking for those with caring responsibilities

(among other groups). Also, studies often only record the main task being performed, which conceals the density of activity.

Time-use studies are directly political in that knowledge about patterns of time use can contribute to policy making in virtually every area of the domestic political agenda, with particularly clear implications for transport, education, health, employment and leisure (Bryson 2005). Child care time is liable to be held hostage to the fortune of many competing actors in the political sphere. The study of how we spend our time is not a straightforward matter of recording objective facts, but may be mediated by power relationships and conflicting political assumptions, interests and values (Bryson 2005).

It has thus been shown, that the theoretical concept of time is not unproblematic, and that there are several ways in which to conceptualise time. This notwithstanding, clock time is the dominant way in which industrial and post-industrial societies conceptualise time, and it is in these units, of minutes, hours, days, weeks, etc., that the empirical literature produces estimates of time use. The following section moves on to give a review of existing estimates of paternal time. It begins with a discussion of the technical difficulties inherent in producing measures of time use, particularly with respect to measuring the time spent looking after children.

3.2 Literature Review of Paternal Time Estimates

3.2.1 The Technical Difficulties of Measuring Time Use

One of the characteristics of data on the allocation of time, is that valid measurements are both difficult and costly to obtain. Most time use data have to be based, as is the case with most survey work, on self reported estimates. Self reported measures are prone to bias. There is always the possibility that a respondent answers with what they consider to be an appropriate answer rather than with a true account. All self reported measures generally are prone to bias.

> Cultural norms as well as social expectations affect the ways people perceive their own activities. (Budig and Folbre, 2004: 52)

As shown by Hiller (1984), for example, both husbands and wives see themselves as participating more in domestic work than their spouses report that they do. Husbands were especially likely to see tasks as shared, while wives saw themselves with the major responsibility for housework. Differences in perceptions were larger for child care than for housework. Males may overstate the amount of time spent caring (Kamo 2000; Lee 2005). I make the assumption that in the case of biased perception, what is considered an appropriate answer will not vary within similar socio-economic groups within countries. Then, as long as the direction of the bias is known, it can be corrected for. A study into the nature of under or over reporting of paternal time use would be an interesting extension to this project, in order to provide information about the direction of bias.

The most accurate way to record the activities which parents engage in with children and how much time they spend on each activity would be observation. However, such a method is costly, intrusive, and limited in the amount of any

particular day that can be covered.[28] Direct observation would also be likely to affect respondents' behaviour. Information on time use is typically collected in one of three ways: by time sampling (also referred to as a random discrete-time log); with continuous time diaries; or with retrospective survey questions. Time sampling can be an efficient way to collect time use estimates (see e.g. Gershuny 2004). Respondents typically write down the activity they are engaged in whenever a beeper sounds, or some other sampling device is triggered. However, this methodology is still too costly and prohibitively intrusive to be used for representative samples. The most extensive and detailed data on time allocation have been obtained using the time diary method, administered to a sample of individuals in a population and organised in such a way as to provide a probability sample of all types of days and of the different seasons of the year. Time diaries are usually retrospective, asking respondents for a detailed chronology of the previous twenty-four hours, with responses coded according to a standard list of activities (Juster and Stafford 1991).

The most simple and widely used method in survey research is to ask parents directly how much time they spend in certain activities. Retrospective survey questions about typical time use (for ordinary household tasks such as child care, travel, entertainment, socialising, TV viewing, reading, etc.) over some past period of time have been criticised for producing biased estimates of actual time use (Juster and Stafford 1991; Robinson and Godbey 1997). The major difference in bias when not using time diaries appears to be over-estimation as respondents appear to recollect days when the activity asked about was especially prominent, and treat that as an average day. In this respect, validity and reliability of data collected in time-diary form is generally superior. However, there are many strong arguments for using retrospective survey questions. Often, these questions are part of a nationally representative, possibly longitudinal, annual household survey, rich in other socio-economic information about

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28 An unusual example of this technique is the research being carried out by Associate Professor Deb Roy at MIT, who is monitoring his baby by a network of microphones and video cameras for 14 hours a day, 365 days a year, in an effort to unravel the process by which children acquire language (Biever 2006).

the respondents. These studies are often well funded, staffed by experienced research teams and well documented.

The various measurements found in different pieces of research are rarely directly comparable due to the lack of a consistent definition of parental time across studies. In much empirical research, parental time has been barely differentiated as a separate component of domestic work (Ross 1987; Shelton and John 1996). Empirical work treating them as separate activities has shown that they have different determinants and exhibit different trends over time (Barnett and Baruch 1987; Coverman and Sheley 1986; Deutsch, Lussier and Servis 1993; Ishii-Kuntz and Coltrane 1992; Robinson and Godbey 1997: chapter 6).

Child care can be classified into various categories of activity. Child care can be classified as *active* (also referred to as *primary*) or *passive* (also referred to as *secondary*). Active child care estimates capture only the time that parents report being solely involved in caring for children. Passive child care estimates include time that the parent spends with children whilst engaged simultaneously in other activities. Some measures focus only on child care in the home environment and others include all activities where children are present, wherever they take place. Bianchi (2000), for instance, reports three measures of time with children: time when the main (or primary) activity was a child care activity, time when child care was mentioned as a secondary use of time (e.g. cooking dinner but also helping a child with homework), and time in which a parent reported any activity (child care or other) with children present. The measures of Hallberg and Klevmarken (2003) on the other hand include both active and passive child care in any environment. Time use diary data are most likely to have detailed information.

The Multinational Time Use Study (MTUS) is a project which has sought to harmonise surveys most often based on time diaries, already carried out at various points in time and geographical space, into a common set of demographic and time use variables. These surveys are not longitudinal in nature, nor necessarily collected on an annual basis. They are a set of surveys, which can provide an insight into general trends. Despite efforts to make them more comparable, there are differences across the surveys bringing this comparability into

question. These surveys suffer from different response rates (with some having particularly low response rates), they vary in the extent of coverage of the full twelve months of the year, and their sampling frames vary in their representativity (Gauthier, Smeeding and Furstenberg 2004). A further restriction with the MTUS surveys is that the sum of all activities is equal to twenty-four hours. That is to say that the analysis is restricted to primary activities only. Estimates of parental time based only on primary activities may underestimate the total time devoted by parents to children as many child care activities are carried out simultaneously with other activities (Bryant and Zick 1996). Child care recorded as a secondary activity and the inclusion of passive care yields different estimates in gender differences (Bianchi 2000).

Child care time measures can be either absolute or relative to the mother. If measures are relative, attention must be paid to the units of comparison. Are full time employed parents compared, or are full time employed fathers and non-employed mothers compared? Are single parents being contrasted with cohabiting parents? Are cohabiting parents considered as distinct from married parents? The definition of a parental household can also vary according to the age of the child. Some studies look only at households containing children under a certain age (for example under five), whilst others consider all children under the age of sixteen.

The units in which time is measured differ across studies. Jenkins and O'Leary (1995) have drawn attention to the inconsistency of variable specification in regression models of the length of time that people spend doing unpaid domestic work. Estimates are generally reported in terms of hours per week or hours per day. There is rarely a distinction made between weekday and weekend time (Yeung, Sandberg et al. 2001). If estimates are reported in terms of hours per day then it could be that certain days of the week are left without representation in the time sample.

The samples from which estimates are drawn differ in terms of how representative or statistically robust they might be. It is unusual, for a sample to be drawn from a nationally representative survey (with notable exceptions such as Sandberg and Hofferth's (2001) work which draws on a sub-sample from the

panel for the Study of Income Dynamics (PSID). Many studies of the gender gap in child care or housework time suffer from limitations in sample size or in the possible selectivity of samples (Aldous, Mulligan and Bjarnason 1998; Coverman 1985; Deutsch, Lussier and Servis 1993; Stober and Chan 1998).

3.2.2 Review of Existing Paternal Time Estimates

There is a growing body of literature dealing with trends in parental time. Despite frequent reports of the "time squeeze", it would appear that both men and women are in fact spending more time with their children than in the past. There has been a very substantial increase in the amounts of time devoted directly to child care in Britain. It has nearly quadrupled[29] over the period 1960-2000, and fathers' time spent with children has increased more than twice as fast as mothers' (Fisher, McCulloch and Gershuny 1999). Sandberg and Hofferth (2005) and Sayer, Bianchi and Robinson (2004) also find that (married) fathers in the US are spending significantly more child care time than in the past. Gauthier, Smeeding and Fustenberg (2004) find similar results for Canada (and also for the other fifteen industrialised countries considered in their study). Despite differences and difficulties in the measurement of paternal time (time spent caring for children by fathers) across studies, as well as the diverse national contexts, a certain degree of consistency comes to light. Estimates of active paternal time per day (in the late 1990s for married employed fathers) are just under one and a half hours in Canada (Gauthier, Smeeding and Furstenberg 2004) and just under an hour in the US (Sayer, Bianchi and Robinson 2004) and two hours for the UK (Fisher, McCulloch and Gershuny 1999). On average, estimates of caring time by fathers are always lower than estimates of time spent caring by mothers. For active measures, paternal time across Europe has been found to be between a quarter and a third of maternal time (Eurostat

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29 This sounds extraordinary and warrants further investigation. Potential reasons for the increase might include: selection into parenthood by certain types of adults; it not being deemed as safe for children to play independently away from the house; the rise of housebound activity such as watching DVDs, TV and computer based activity.

2004). It is important to be aware that the definition of child care time varies across studies which does pose problems for comparability.

Such estimates almost certainly obscure different behaviours between families. According to Joshi (1998), half the couples in a survey of British thirty-three year olds in 1991 (the 1958 Birth Cohort National Child Development Study) report equal sharing of parenting. Only reporting figures on married or cohabiting families may exaggerate the increase in the amount of child care carried out by all men as an increasing proportion of children are in single-parent families headed by women (Dex 1999: 15 in reference to the UK). There is a distinction between men's overall share of child care and resident fathers' overall share of child care. Men's overall share in child care is a lot smaller than resident fathers' relative to women's and resident mothers'.

A review of the literature reveals that despite the media attention around the time pressures with which today's families are confronted, parents are in fact devoting more time to child care than ever before. The general consensus in the literature is that whilst mothers still spend more time caring, the gender gap has been reduced, at least within marriage. Paternal time is on the increase at a greater rate than maternal time. (Bianchi 2000; Fisher, McCulloch and Gershuny 1999; Gauthier, Smeeding and Furstenberg 2004; Knijn and Selten 2002: 178; OECD 2001: 139; Presser 1994).

Despite the differing parameters of the various studies conducted into paternal time, estimates from the existing research are, perhaps surprisingly, consistent and so are useful yardsticks for my subsequent analysis. Until very recently it had not been possible to conduct a comparison of paternal time across Europe using a harmonised dataset. The European Community Household Panel (ECHP) provides the possibility to compare paternal time across Europe.[30] In the next section I will introduce the ECHP which is the central dataset of the thesis, before going on to derive my measure of paternal time from the ECHP.

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[30] Only in September 2000 did Eurostat issue *Guidelines on Harmonised European Time Use Surveys* so that time use survey results collected at the national level would be comparable.

3.3 Introducing the ECHP

The European Community Household Panel (ECHP) is a harmonised cross-national longitudinal survey focusing on household income and living conditions. It also includes items on health, education, housing, migration, demographics and employment characteristics. It was organised and funded by the European Union (via Eurostat) in order to gather micro-data that are comparable across member countries. The ECHP is a particularly valuable and unique resource in terms of the multidimensional character of the topics covered, in terms of the cross-national comparability of the data and in terms of the longitudinal dimension.

The survey ran from 1994 to 2001. In the first survey year[31] (1994) a sample of over 60,000 households (128,000 individuals) were interviewed across 12 member states (Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain and the United-Kingdom). Most national samples used a two-stage sample design. In the first stage a sample area was selected, and then, within this area, household units would be selected (by random sampling in urban areas and by proportionate stratified sampling around census tracts in rural areas). Each of the adults in the sample were re-interviewed where possible in each subsequent year, thus making it a panel survey with which to study the changes affecting the same individuals and families from year to year.

In certain countries, data from existing household panel surveys were transcribed into a common ECHP format so that they could be analysed in parallel with the new surveys. Austria joined the panel in 1995 and Finland joined in 1996. From 1997 Sweden provides cross-sectional data derived from its National Survey on Living conditions. In the cases of Germany, Luxembourg and the United Kingdom there are two versions of the ECHP data. The original ECHP surveys are used in chapters 4 and 5, not the ECHP based on the

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31 An alternative term for survey year is the term wave, so given that the first year of the survey is 1994, this is wave one, wave two refers to survey year predominantly referring to 1995 and so on and so forth.

respective national surveys. This means that data are only available for these countries for waves 1 to 3 (1994 to 1996).

A user guide, available at: <http://epunet.essex.ac.uk/echp_userguide_toc.php>, gives an overview of the ECHP, setting out where to find key documentation, the structure of the ECHP User Database (UDB) and how the weights are constructed. The ECHP is not freely available beyond the national data collection units. The copy of the ECHP used here is that bought by Nuffield College Data Library from Eurostat.[32]

The ECHP provides information on time spent looking after children through retrospective survey questions. Each household member aged sixteen years and above is asked whether their normal daily activities, apart from any job or business, include looking after children without pay and the weekly amount of time spent doing so. I make the assumption that this time, spent by couples with children under the age of sixteen present in the household, is parental time (regardless of whether the child is the biological or non-biological child of the parent). This is detailed further in the next chapter.[33]

The ECHP does not allow detailed estimates by type of child care activities. There is no distinction made between active and passive child care. It is not specified whether or not the unpaid child care time spent is whilst looking after the respondent's children or other children. In addition the ECHP does not collect information on the amount of time spent per child although there is information on how many children are living in the household and their relationship to the adults. The assumption is made that parents with children in their household are reporting child care time in relation to their own children. Children are defined as being under the age of sixteen (0-15 years). I define small children as being under six years old (0-5 years). There is no distinction in the data between weekend and week time.

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32 Thanks go to the data librarian at Nuffield, Jane Roberts, who is responsible for the ECHP and among other tasks, the stat transfer of the data from csv file format to STATA.dta files. The version of the data used in the thesis was released in December 2003 (issue 1), with corrections made in April 2004 (issue 2).

33 The exact wording of the questions is discussed in Chapter 4, section 1.

Thus, a measure of parental time derived from ECHP is not optimal. In recognition of these problems other projects using datasets such as the Multinational Time Use Study (MTUS) have been referred to in order to assess the validity and reliability of the ECHP variable on child care time. This is not always possible for every member state and certainly not possible for every year between 1994-2001. The ECHP is the only harmonised data source with comparable time use information coupled with such rich micro-data based on nationally representative samples and this is why it is the primary data set of the thesis.[34]

The ECHP does not suffer from having too small a sample size. The national samples are drawn so as to be nationally representative. As with any longitudinal survey, the ECHP suffers from attrition. That is to say, people are prone to drop out of the survey as time goes on. Weights are supplied with the data in order to correct bias due to attrition and also to non-response where it is deemed appropriate in analysis. Table 3.1 shows the attrition (and the increase in sample fathers) between subsequent waves in the ECHP for the sample of resident fathers. The first column gives the number of observations in the two waves combined. The second column gives the percentage of the sample of fathers in the prior wave, but not in the subsequent wave. The third column gives the percentage of the sample of fathers in the subsequent wave but not in the prior wave, and the final column gives the percentage for those respondents that are in both waves. There is a lot of variation across countries in the extent of attrition.[35]

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34 The ECHP does not include measures of gender ideology, for this the European Social Survey, the ISSP, the European Values Survey or Eurobarometer would be needed.

35 More information available from the author on request. For information on attrition regarding the whole sample, the reader is also referred to Gallie and Jacobs (2000).

Table 3.1 *Attrition Across Subsequent Waves of the ECHP (Sample of Resident Fathers)*

Waves (N of combined waves)	% in prior wave only (N)	% in next wave only (N)	% in both (N)
1-2	8.81	11.37	79.81
(19910)	(1755)	(2264)	(15891)
2-3	14.09	11.05	74.86
(22383)	(3154)	(2473)	(16756)
3-4	29.55	7.15	63.30
(24107)	(7123)	(1724)	(15260)
4-5	34.65	4.26	61.09
(25180)	(8724)	(1073)	(15383)
5-6	40.60	3.40	56.00
(26065)	(10583)	(885)	(14597)
6-7	51.11	3.31	45.58
(26957)	(13778)	(892)	(12287)
7-8	53.08	2.75	44.17
(27720)	(14713)	(763)	(12244)

Source: Author's own calculations using the ECHP.

A problem that may affect a survey is the under or over-representation of some groups of persons in the population. The ECHP computes weights to take account of different sampling probabilities, and of the household and unit non response (Eurostat 2003a). It takes account of unit and item non-response for income variables using imputation procedures (Eurostat 2003b). The cross sectional weights are used for the cross tabulations looking at parental time (e.g. Chapter 4). Using weights hardly affects the means and standard deviations of the variable used to measure parental time (*pr007a*) in the various countries. Where there is an effect, sample mean statistics and standard deviations are slightly underestimated (mostly within one unit change).

Having introduced the ECHP, I will now go on, in the next section, to explain how it can be used to measure paternal time.

3.4 Using the ECHP to Estimate Paternal Time

This section is divided into two parts. I begin with a discussion of the ECHP's measure of time spent looking after children, followed by a description of the sample and sub-samples which will be used to estimate paternal time.

3.4.1 The ECHP's Child Care Measure: Variable *pr007(a)*

Information on child care time comes in two forms in the ECHP. First, for all countries from wave one (1994) onwards, the number of hours that parents spend caring per week is recorded as a grouped variable with the following categories: cares more than twenty-eight hours per week; cares between fifteen to twenty-eight hours per week; cares between one to fourteen hours per week; not applicable; and missing. Second, for most countries from wave two onwards (1995), the number of hours that parents spend caring for children per week is recorded as a continuous variable (up to ninety-six hours in most cases). This continuous variable is used to obtain measures of average parental time in the next chapter (see figures 4.1 and 4.2). In all other analyses the grouped variable's highest category serves as the measure of substantial parental time.

Looking at the frequency distribution it is clear that respondents do not reply in a genuinely continuous manner.[36] For example, it is unlikely that someone replies "I spend 13 hours on child care a week", in fact, they are more likely to answer in multiples of 5, 7 or 10. This lends justification to using the grouped variable for measuring the level of substantial time. Because of the inherent unreliability of the lower end of the child care measure and the loss of wave 1 observations, I predominantly rely on the highest category of the grouped variable (more than 28 hours per week).[37]

A seemingly erroneous proportion of parents are reporting not spending any time with children under 16 years as part of their normal activities. These

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36 Available from the author on request.
37 Models run with the continuous variable yield similar results.

respondents do not report zero child care hours, but rather that this question is not applicable to them. Variables *pr007* (grouped) and *pr007a* (detailed) report the number of hours per week spent by individuals looking after children (unpaid). A simple tabulation (see table 3.2) of the variable *pr007* reveals that 59% of the ECHP pooled sample (1994-2001) of fathers living as a couple report not spending any time looking after their children. The situation improves for those households with a small child (under six years). 55% of sample households have small children in them and of these 47% of fathers report not spending any paternal time.

Table 3.2 *Distribution of Variable pr007 (Hours per Week Spent Looking After Children): Pooled Sample Column Percentages*

	Fathers of children aged		Mothers of children aged	
pr007	<16	<6	<16	<6
28+ hours	10	15	56	71
14-28 hours	17	22	14	11
<14 hours	13	15	4	3
Not caring	59	47	13	11
Missing	1	1	3	4

Source: Author's own calculations using the ECHP.
Column totals may not equal 100% precisely due to rounding.

Joesch and Spiess (1996) also find that a high percentage of mothers have reported not spending any time with their children. They note that the ECHP is not the first European survey to find such a result, which might add weight to the argument that some parents do spend very little time with their children, especially when the children are older.[38]

[38] Joesch and Spiess (1996) consider maternal time of mothers with children up to sixteen years of age.

Other studies have also found that it is the nature of parental time use data, to have a non-negligible proportion of parents reporting spending zero minutes on child care activities, more so among fathers than among mothers (Gustafsson and Kjulin 1994; Sousa-Poza, Schmid and Widner 2001). However, it should be noted that this problem is usually found when a diary is used to collect information on time spent on child care. In contrast, when a stylised question is used, such as the one in the ECHP, very few parents typically report spending no time with their children. The high number of "zeros" in time use data has implications for analysis. For this reason limited dependent variable models have been mainly used in the recent time use literature. More specifically, the ordinary least-squares regression model would produce inconsistent estimates (Long and Freese 2001). Typically, tobit models are recommended for the analysis of such data (Gustafsson and Kjulin 1994; Sousa-Poza, Schmid and Widner 2001; Gauthier, Gershuny and Fisher 2006: chapter 5).

Regarding the ECHP data, Joesch and Spiess (1996) contend that the ECHP time-use questions were not equivalent, in particular in Belgium, Finland, France and Portugal, where maternal non-reporting of child care was particularly high. These countries have particularly high levels of maternal labour market participation (OECD 2001: 134) perhaps reflecting that mothers are assuming this question is not relevant to them. Paternal non-reporting of child care also varies across countries from 15% for the Netherlands to 86% in Portugal for fathers of children under sixteen years and from 8% in the Netherlands to 77% in Portugal for fathers of small children (see table 3.3).

That a high percentage of fathers do not report spending any time with their children could be an accurate reflection that some fathers do indeed spend very little or no time with their children. Another explanation could be linked to the interpretation given to the question wording in different countries, as suggested by Joesch and Spiess (1996). However, paternal non-reporting is not uniquely high in the four countries highlighted as problematic for maternal under-reporting in the paper by Joesch and Spiess (1996).

The assumption is made that those parents, in particular the fathers, who answer that the child care question is not relevant or not applicable to them

(coded "-8"), are in fact doing small amounts of child care, but that they have interpreted the question as being: how many hours a week do you spend looking after children rather than working in the labour market? This question is close to the actual question wording (see section 4.1).

Table 3.3 *Percentage of Pooled Sample Not Looking After Their Children: By Country*

	Fathers of children aged		Mothers of children aged	
Country	>16	>6	>16	>6
Germany	46	41	7	2
Denmark	30	11	24	6
Netherlands	15	8	1	0.5
Belgium	58	49	25	15
Luxembourg	54	45	19	11
France	70	59	47	29
UK	44	36	12	10
Ireland	61	45	17	6
Italy	54	45	11	6
Greece	73	64	14	3
Spain	68	54	24	3
Portugal	86	77	40	20
Austria	65	52	25	17
Finland	49	26	38	15

Source: Author's own calculations using the ECHP.

A first step in exploring this assumption is to carry out an analysis in order to identify the characteristics of fathers who reported spending no time with their children. If they are distinct from those fathers reporting child care time, then these respondents might be taken at their word and their "non-applicable" answers can be recoded as missing data or as zero child care hours. A logit model using cross-national data for 1996 (survey year 3) is used to identify the characteristics of resident fathers who reported spending no time with their children. 1996 is chosen as this is the year containing observations for most countries. Such fathers are found to be distinct from fathers who do report spending time looking after children in terms of their age (although not in a

linear fashion), education level and their employment status. Resident fathers who report spending time with their children are more likely to be at the extremes of the age distribution, to have a higher level of education, and to be working less than 35 hours per week. The results of this analysis can be found in the chapter appendix in table 3.A1.

A second logit model is run, where the lowest category of reported hours is treated the same as not reporting spending child care time, in order to explore whether those coded as "-8" share similar characteristics to those reporting 14 hours or less child care. The models shown in table 3.A1 are not identical, although results are of the same sign (with the exception of unfinished education) and similar magnitude. The implications of these results (comparing model 1 and model 2) are that there is some justification for treating those reporting child care as being "non-applicable" to them as being similar to those reporting low levels of child care.

Rather than treating those fathers not reporting any child care time as a distinct group, taking them at their word and treating them as missing[39], I instead assume that they are doing small amounts of child care. and recode them as spending "low" levels of child care, along with those resident fathers who report spending less than 14 hours per week with their children.

Drawing on the assumption that the "non-applicables" are working parents who have assumed that the question is not relevant to them although they do in fact spend small amounts of time caring for their children, I made the decision to impute a value for the amount of child care at 10 hours per week. This is the average amount of child care undertaken by those in the lower category (less than 14 hours). Thus, in analysis using the grouped child care variable, those coded as "-8" (not spending any child care time) will be treated the same as those coded "1" (the lowest category, spending less than 14 hours child care per week. The implications of such an imputation procedure are that the "large number of zeros" problem common to much time-use data analysis can be

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39 A further alternative approach would be to recode the "non-applicable" responses as zero child care hours.

avoided to some degree, although general linear regression is still unlikely to be possible without violating some of the key assumptions basic to it. One disadvantage of this imputation approach is that heterogeneity between the two groups ("non-applicables" and "low") will not be identified. As can be seen by table 3.4, the imputation procedure produces distinct estimates of paternal time, systematically reducing average estimates by an average of 7 hours (between 1 to 12 hours across the countries).[40] The standard errors of the estimates with imputation are also systematically smaller. The argument stands, that excluding the "non-applicables" by non-imputation would lead to over-estimates of average paternal time across the population of resident fathers.

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40 Table 3A.2 in the chapter appendix compares estimates of maternal time with and without imputation.

Table 3.4 *Average Paternal Time Across Europe (Hours per Week): Estimates Produced With and Without Imputation*

	Paternal Time Without Imputation			Paternal Time with Imputation		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3237	32	23	4695	25	21
UK	1082	28	22	2100	19	18
Finland	3350	25	19	6820	18	15
Germany	1248	24	17	2376	17	14
Netherlands	8171	18	13	9631	17	13
Belgium	2250	25	24	5782	16	16
Ireland	2744	25	17	7035	16	13
Spain	3972	27	17	13363	15	12
Austria	2293	20	14	6528	14	10
Italy	7109	19	12	15778	14	10
Luxembourg	309	19	13	648	14	10
France	3796	21	18	12597	13	11
Greece	2735	18	10	10404	12	6
Portugal	1605	21	15	1124	12	8

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data ("-9") has been deleted for child care variable *pr007*.
All households contain a couple with dependent children.
Imputed results: "non-applicable" are given the value of 10.
Non-imputed: "non-applicable" answers deleted.

Given the problems with the lower end of the distribution of the child care variable, coupled with my interest in fathers who are spending more rather than less paternal time, much of the subsequent analysis rests on those parents reporting the highest category in the grouped variable of twenty-eight hours or more per week. This amount is referred to as *substantial parental time*. Whether a father spends substantial paternal time or not is measured by a dummy variable coded "1", if a father responds that he spends more than twenty-eight hours per week looking after his children. In the case that substantial parental time is considered, imputing 10 hours for those responding that the child care variable is not

applicable to them is simply equivalent to assuming that they have a value less than 28 hours.

3.4.2 Sample Sizes

In order to obtain estimates of average paternal time, I make use of every year of ECHP data available for every country except Sweden. The original ECHP survey (available for 1994 to 1996) is used for Germany, Luxembourg and the UK, (i.e. not the later surveys based on the national surveys). In total, the entire sample size of the ECHP from which these measurements will be derived consists of 405,537 households in fourteen countries over a period of up to eight years (table 3.5).

I pool all the years available for each country in order to gain the maximum amount of information from the data. Thus a household may appear more than once in the sample, but is treated as a distinct observation. Where appropriate, in analysis, where individuals have been in the survey the previous year, I use panel corrected standard errors to control for correlation between observation x_{it} and $x_{i(t-1)}$ (Beck, Katz and Tucker 1998). The alternative for cross-sectional analysis would be to choose one particular year between 1994 and 2001. From a data perspective, 1996 would probably be the year of choice as it has the highest number of observations of all years in my sample. Sample sizes vary between countries and so country weights are created in order that each country may be represented in due proportion to its population where appropriate in analysis. The weights were originally calculated to gross up to national populations; they were then scaled down to be relative weights, with an average of one. The weights are constructed using population data and sample sizes in 1996.

Table 3.5 *ECHP Pooled Sample Characteristics (1994-2001)*

Country	All households	2-parent households	Household analysis weight
Austria (from 1995)	20777	6533	0.96
Belgium	23627	7018	1.28
Denmark	21868	5476	0.80
Finland (from 1996)	22206	7020	0.56
France	49008	14617	3.55
Germany (1994-1996)	14249	3644	7.97
Greece	36285	12095	0.78
Ireland	22568	8573	0.37
Italy	52687	18102	2.99
Luxembourg	2906	992	-
Netherlands	40370	11062	1.27
Portugal	38094	12783	0.68
Spain	46790	15792	1.95
UK (1994-1994)	14102	3426	6.23
Total	405537	127133	-

Source: Author's own calculations using the ECHP.

The sample is then further reduced to those 127,133 households that are comprised of a couple (not necessarily married) with children under the age of sixteen. There are 130,132 households containing resident fathers (including single fathers). When referring to fathers, I am referring to those men who are resident in the same household as their children (whether natural, step, fostered or adopted). The decision to consider only resident fathers is fuelled by both theoretical and practical considerations. The theoretical considerations have been discussed in the previous chapter. The practical considerations include it not being possible to look at non-resident fathers with the ECHP. Whilst I can identify those men who are spending time looking after a child outside their household, it is not possible to define the relationship that they have with the child they are caring for. This is also the case for resident fathers, but it is a safer and stronger assumption that fathers living with children in the household reporting spending time looking after their children, are looking after the children in the household.

Single fathers are also excluded from much of the analysis, as a central aim is to look at the dynamics of division of labour within couples.

The pooled sample of waves two to eight (1995-2001) where available is used to generate estimates for the average parental time, split into maternal and paternal time, by country. The sample consists of all couple households (except when explicitly looking at single fathers) with children under sixteen, for all waves available. Unless otherwise mentioned, the sample statistics produced in this chapter are weighted so as to provide estimates that are representative of the national populations. My emphasis is on producing estimates for paternal time although I also report estimates for maternal time as a means of comparison.

The decision to pool samples of waves two to eight precludes any analysis of the trends in paternal time during this period (1995-2001). It should be noted that some recent papers suggest a rapid increase in paternal time (Gauthier, Furstenberg and Smeeding 2004; Sayer, Bianchi and Robinson 2004; Smith 2004). However, given the relatively short lifespan of the panel, the ECHP is not an ideal data set with which to explore trends in paternal time. In particular there would be confounding panel effects of both attrition and self-selection issues relating to respondents still remaining in the sample in later waves.

In the next chapter for the description of average paternal time across Europe, fathers are divided into various categories according to their family type. Having drawn together all those resident fathers in the ECHP sample, along with details of their children and spouse (where appropriate), I am now in a position to look at how much paternal time fathers spend across different households and family types, as well as across different countries. Before I go on to do this in the next chapter, I conclude with a brief description of the average European father according to the ECHP data.

3.4.3 Descriptive Statistics: The Average European Father

The ECHP sample shows that the average age of the European father in this sample was 41.03 years (table 3.6). He had one to two (1.79 is the mean statistic) children under the age of sixteen living in his household, perhaps one of whom was under the age of six (0.87 is the mean statistic). Put another way, fifty-five percent of resident father households had small children in them. He was slightly more likely to have boys than girls in his family. The analysis of fathers in Europe and the time they spend looking after their children continues in the next chapter.

Table 3.6. *Descriptive Statistics of the Sample Average European Resident Father*

Variable	Mean	S.D.	Min.	Max.
Age	41.03	8.31	17	84
No. of children	1.79	0.88	1	12
No. of infants	0.80	0.87	0	8
No. of boys	0.92	0.81	0	7
No. of girls	0.87	0.80	0	9

N = 130,132 households.
Source: Author's own calculations using the ECHP.

3.5 Summary

Measuring paternal time is not a straightforward affair. There are many different theoretical, methodological and technical aspects to this activity. All the current methods of collecting time use data face practical difficulties. Observation and time sampling is too costly and instrusive and thus not feasible for a representative sample. The general reliability of self reported measures and retrospective reports must always be questioned. I introduce these different aspects to the reader as well as introducing the concept of paternal time as a measurement of the involvement and commitment of fathers. I am yet to test any of the hypotheses developed in the previous chapter. Rather the aim of this chapter is to build up the measure of paternal time ready for further use.

A theoretically led discussion of the sociology of time introduces the problems inherent in its measurement. Whilst clock time is very useful tool in measurement, it cannot be taken as a neutral fact. The basic assumption that time can be measured in an abstract, standardised form is shown to be problematic. In industrial societies, time has become a measure of work, rather than work a measure of time. The distinction between the concepts of task versus time orientation to work, taken from industrial sociology and their application to describing child care and employment respectively, highlights incompatibilities between the two activities.

Employment, being time orientated is more likely (though there are many examples where this is less the case, often in relation to social class) to be remunerated according to clock time. Domestic labour however, is economically uncounted, perhaps in part due to it being more difficult to remunerate given its task orientated character. NGOs and governments are starting to recognise the importance of including such unpaid work in government statistics and this has fuelled the increased interest and development of time use measurement.

The European Community Household Panel (ECHP) is introduced as the central dataset used in this thesis. The ECHP provides a pooled sample of 130,132 resident father households over a period of up to eight years, spanning

1994-2001, for up to fourteen EU countries. It provides information on time spent by respondents looking after children, as well as rich socio-economic contextual information.

The characteristics of the average resident European father are revealed. He is on average 41 years old. He has one or two children (1.79 is the mean statistic) under the age of sixteen living in his household, one of whom perhaps (0.87 is the mean statistic) is under six years. Thought of another way, 55% of resident father households contain small children. These children are slightly more likely to be boys than girls.

I go on now to Chapter 4 where I conduct the first empirical description and analyses of the thesis. First, estimates of average paternal time are presented, and then estimates of the number of fathers spending substantial paternal time and the gender differences in substantial parental time. Estimates of how much of the average parental time is spent by fathers relative to mothers are presented in comparison with similar estimates from other data sources. Finally I develop the notion of parental household employment types and explore their correlation with levels of substantial paternal time across countries.

3.A Appendix

Table 3.A1 *Logit Model Coefficients*

Outcome Variable: Resident Father Reports Spending Time With Children

	Model 1 Outcome Variable = 1 if Father Reports Spending Any Child Care Time[a] N = 18454	Model 2 Outcome Variable = 1 if Father Reports Spending More Than 14 Hours Per Week Child Care Time[b] N = 18454
Explanatory Variable	Model 1 (-8 = 0) N = 18454	Model 2 (-8 + 1 = 0) N = 18454
Age	0.03	0.02
	(0.02)	(0.02)
Age squared	**-0.11**	**-0.11**
	(0.02)	(0.02)
High education level	**1.03**	**0.84**
	(0.04)	(0.05)
Medium education level	**0.74**	**0.63**
	(0.04)	(0.04)
Education unfinished	**0.41**	**-0.02**
	(0.16)	(0.19)
(Low education level reference category)		
Working 35 hours or more per week	**-0.49**	**-0.70**
	(0.05)	(0.05)

Figures in bold are statistically significant $p > 0.01$.

[a] Outcome variable = 0 if the father does not report spending any child care time.

[b] Outcome variable = 0 if the father reports spending 14 hours or less child care time, including reporting spending no time.

Table 3.A2 *Average Maternal Time Across Europe (Hours per Week)*

	Maternal Time Without Imputation			Maternal Time with Imputation		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3496	50	26	4689	39	29
UK	1707	61	26	2090	51	31
Finland	3607	47	28	6306	32	28
Germany	2089	51	25	2280	48	27
Netherlands	8978	48	24	9111	47	24
Belgium	3695	51	29	5237	39	31
Ireland	5556	63	25	6901	54	31
Spain	9651	55	24	13195	43	28
Austria	4826	49	25	6446	39	27
Italy	13407	40	19	15199	36	20
Luxembourg	444	45	23	593	36	25
France	6649	46	25	12490	30	25
Greece	8714	37	18	10323	33	19
Portugal	6521	35	21	11166	25	21

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data ("-9") has been deleted for child care variable *pr007*.
All households contain a couple with dependent children.

Chapter 4

Who Cares? Paternal time in the EU-14

How much time do fathers spend looking after their children across Europe? How does paternal time differ across countries and what are the gender differences in parental time between countries? The European Community Household Panel provides the first comparative information on child care time within the European Union. Estimates of the levels of average paternal and maternal time, and estimates for levels of substantial paternal and maternal time for each country[41] are constructed in this chapter.

In an initial exploration of what might be driving variation in levels of paternal time within and between countries, different groups of resident fathers and their average levels of paternal time are compared in order to describe a range of paternal participation in child care. The different groups have been chosen in response to theoretical suggestions in the literature and existing empirical research. Specifically, variations in paternal time are presented by: level of education, social class (as defined by occupational status), self-employment and public or private sector employment. Furthermore, all resident fathers' paternal time is compared with that of fathers of younger children, fathers with a greater

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[41] Austria, Belgium, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain and the UK.

or lesser number of children, single fathers, households containing grandparents and households containing step-children. Fathers of girls are also compared with fathers of boys.

Whilst this chapter is largely descriptive, it adds value in that it presents a comparative overview of paternal time in Europe drawn from a single harmonised dataset. Such an overview of paternal time has been a long time coming in part due to the difficulties inherent in collecting comparative time use information as discussed in the previous chapter. This chapter plays a central role in developing empirical estimates of paternal time, the central dependent variable in the thesis, for use in subsequent analyses.

The correlates of paternal time are of central interest in the thesis, and so it is logical to concentrate on those fathers who are spending substantial time looking after children. It is also partly in response to the technical flaws of the ECHP child care variable that the hypotheses tested in the thesis mainly draw not on the measures of average paternal time as presented in section 4.2, but rather on the measure of substantial paternal time developed in section 4.3. The measures of substantial paternal time are presented in two formats. The first is an estimate of the percentage of fathers in a country who are spending substantial paternal time. Whilst this is an abstract measure of child care time, in that it does not provide much information about the every day life of the individual respondents, it is a useful tool for comparing countries and the levels of paternal time at the macro level. The second measure reports the share of substantial parental time spent in a country by fathers as opposed to mothers. This provides an indicator of the gender differences in child care time.

The role that parental household employment plays as an enabler or constrainer of paternal time has been discussed in chapter 2. A typology of parental household employment types is developed using data from the ECHP. It is then possible to explore using both the index of assocation and a logistic regression analysis, the correlation between the various parental household employment patterns and levels of paternal time across Europe. Hypothesis 1 (as derived in chapter 2) states: Fathers spend more paternal time if the mother is participa-

ting to a greater or equal extent in the labour market. This is found to be the case.

Before moving on to my analyses, the following section first describes the methods used to derive estimates of average paternal time.

4.1 Sample and Methods for Deriving Estimates of Average Paternal Time

The ECHP collects information on time spent looking after children through retrospective survey questions. Each adult household member is asked the following question[42]:

> Apart from any job or business, normal activities may include other tasks such as looking after children or other persons. I would like to ask a few questions on such activities.
>
> Do your present daily activities include looking after children, whether your own or other, without pay?
>
> Responses:
>
> - Yes
> - No
> - Missing

If they answer yes to looking after children, then they are also asked the weekly number of hours spent doing so.

> Roughly how many hours per week do you spend looking after children?
>
> Responses:
>
> - Hours per week (1-96)
> - Missing

The ECHP does not detail this time further, for example by distinguishing between active and passive caring activities.

Estimates in this chapter are derived from a sample of resident mothers and fathers living as a couple with dependent children under sixteen. The exception is the sample used to derive the estimates for single fathers. This sample consists of resident fathers not living as part of a couple, but still with dependent children under sixteen. I total the hours reported by the couple and refer to this time as parental time (regardless of whether the child is the biological or non-biologi-

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42 Taken from DATAECHPdocsW5pan097-98VarList.pdf (ECHP variable list 1998).

cal child of the parent). Paternal time is the reported time spent caring by the male respondent in the couple, maternal time the reported time spent caring by the female respondent in the couple.

It has already been noted in chapter 3 that the measure used here has some weaknesses. First, it is a self-reported measure, which might be subject to some gender-based bias (Hiller and Philliber 1986). In particular, males may overstate the amount of time spent caring (Kamo 2000; Lee 2005). Furthermore, there could be cross-national differences in the extent of the gender bias. Secondly, the definition of caring is not precise and might also vary across countries (or cultures). As previously noted, it does not differentiate between active and passive caring. Third, not being based on a time-use survey or diary, it is subject to greater errors in recall, and may overestimate hours spent on an activity, in this case child care (Marini and Shelton 1993).

Estimates are derived in various ways by way of sensitivity analyses, and their comparability with the estimates of other studies is assessed in section 4.4. Assessing the validity and reliability of the ECHP child care measure is dependent on there being a fully harmonised European time use study. Eurostat has issued guidelines on the collection of time use data with the goal of creating harmonised time use data, and with regards to this thesis, such harmonised time-use data are available for some of the EU-14. These data are taken as the central point of reference for validation, alongside data from the Multinational Time Use Study (MTUS).

The panel is used in this chapter both as a pooled cross section and by taking survey year three as a stand alone cross-section. This is not the purpose for which a panel is intended, and the data are set to longitudinal purpose in chapters 6 and 7. The advantages of pooling the data and using the subsequent dataset as a cross-section lie centrally with the full exploitation of the number of observations available. The disadvantage is that the same individuals are treated as independent in different years, when of course, they are not. This may introduce bias, if a respondent's duration in the study is correlated with the child care measure. It may also have a smoothing effect in that the estimates of any one individual's child care time will average out, which will reduce the impact

of measurement error assuming child care time is more or less constant over time. Information will be lost, however, with respect to the variation in child care time according to the age of the child, if child care time is not constant over time. I do find that fathers of younger children spend on average more paternal time, but the amount of variation for any one individual over the eight year period would depend on which period of his children's lives is measured. For example, if a respondent is captured for the first eight years of his childs' life, his child care time might be more constant year to year than a respondent captured with a child aged between 6 to 14 over the life of the panel.

Estimates of average parental time are obtained using the continuous measure of child care time in the ECHP for those parents living together with dependent children. A pooled sample of resident cohabiting parents using observations from survey years two to eight (1995-2001) is used.[43] As previously mentioned, estimates were derived using different estimation methods by way of a sensitivity analysis (the alternative tables are reported in the chapter appendix 4A). The estimates presented here in the main text are derived using the pooled sample for the survey years two to eight, where these data are available. The length of time over which the ECHP was carried out varies between countries, as does the length of time over which the child care variable was collected. If it were the case that attrition rates selected out severely busy fathers, this could give a misleading picture of the relative position of countries in which the survey was carried out for shorter periods. A simple test is to repeat the analysis for all countries for just the two survey years for which data are available (survey year two and survey year three). Doing this does not change the relative position of countries or the estimates with the slight exception of Denmark, which retains its position at the top of the table but reduces its lead by 3 hours a week (see table A4.1 in the chapter appendix in comparison with table 4.1).

The estimates presented in the main text include imputed data (for a full discussion of this procedure see the previous chapter). Alternative estimates were

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43 The continuous version of the child care variable used for the average parental time measures is not available for survey year one (1994).

also produced using only the data as reported, thus dropping the missing data. In other words, when a respondent reported that the child care variable was not applicable to him or her, despite their having children in the household, they are taken at their word as not doing any child care and dropped from the sample. They are dropped from the sample, as if included they would be coded as zero, thus dramatically affecting the average. Not using the imputed data does produce a different set of estimates. The rank ordering of countries according to paternal time changes (although Denmark remains on top). The range of estimates across the countries nearly remains constant (14 hours rather than 13 hours per week), but estimates increase by about 5 to 7 hours per week (see table A4.2).

The personal cross-sectional weights (*pg002*) are used so as to be able to say that the estimates are representative of the general population of co-resident parents. As can be seen by comparing tables A4.2 and A4.3, weighting makes not more than an hour difference to the estimates.

Many choices and assumptions have been made on the way to producing the following estimates of average paternal time and of substantial paternal time and so the results have to be treated with caution. Care has been taken to reflect on the reliability and validity of the measure, but there are no simple routes to add testament to their accuracy. The only other comparative time use study (Eurostat 2004) also suffers from many of the same issues of validity and reliability. The following estimates are, to the author's knowledge, the best attempt at a comparable measure of child care time for the EU-14, but further studies are certainly required to obtain higher levels of reliability and validity.

For some of the countries in the study, these represent the earliest estimates of child care time. Although the average time spent per week is an abstract measure and does not describe concrete everyday life at the individual level, it is an indicator of time use at the aggregate level and allows comparisons between countries and population groups.

4.2 Resident Fathers' Average Paternal Time

This section presents the earliest European overview of the average number of hours per week that fathers reported spending looking after their children, in the 1990s. This time spent is referred to as paternal time. Estimates of paternal time are presented for different groups of resident fathers and also, where appropriate, the estimates for mothers (referred to as maternal time) by way of comparison. Paternal time according to mothers' employment status is presented as a first step towards testing Hypothesis 1 (Fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market). Variations in paternal time are presented by the key theoretical variables: level of education, social class (as defined by occupational status), self-employment and public or private sector employment. Furthermore, also presented are the variations in paternal time by the age of the child, the age (cohort) or the father, the marital status of the father, the presence of live-in grandparents, the family status of the father (step or biological), and the number and sex of children. These further descriptive results are presented to provide further contextual information with regard to potential predictors of paternal time even though they are not key to the theoretical framework of the thesis.

First of all, estimates are presented for the whole sample of resident fathers.

4.2.1 Average Paternal Time: All Fathers

The average paternal time spent per week differs across Europe as shown by the estimates presented in table 4.1. These estimates refer to the average paternal time of all cohabiting resident fathers of children under sixteen. They have been weighted so as to be representative of the national populations. Fathers in all countries are spending considerably less time than mothers on child care.

Countries are ranked according to the amount of paternal time, which does not produce the same result as ranking them according to maternal time. Danish fathers report spending most paternal time. On average, they spend 25 hours per week. Portuguese and Greek fathers report spending least paternal

time with an average of 12 hours per week. The average across Europe is 16 hours per week. European mothers report spending on average 39 hours per week, with the highest figure of 54 hours per week in Ireland and the lowest figure of 25 hours per week in Portugal. Thus, the lowest figure for maternal time is equal to the highest figure for paternal time. On average across the EU-14, fathers report spending 41% of the time that mothers spend on child care. Looking at the standard deviations for the mean estimates of paternal time shows that there is, in general, greater deviation from the mean within those paternal populations exhibiting higher than average levels of paternal time. In other words, the countries reporting a higher level of paternal time also report a greater variation in their reports of paternal time. The standard deviations are higher for maternal times. There is more variation in the average maternal time between countries than in the average paternal time. With the exceptions of Denmark, Finland and Ireland, it appears that paternal time and maternal time for children under sixteen are positively related. In countries where fathers spend more paternal time, mothers are also spending more maternal time. This positive correlation is puzzling (if the allocation of time is driven by traditional gender ideology as then a negative correlation should instead be expected). This may suggest a systematic bias to under-report parental time in these countries, perhaps reflecting cultural attitudes to care or as a result of measurement error. Joesch and Spiess (1996) argue that there were problems with four countries in particular: Belgium, France, Portugal and Finland. Table 4.1 shows that Portugal appears at the bottom of the country ranking for both paternal and maternal time. Given that Portugal has unusually (from a West-European perspective) high female labour market participation rates, this may or may not reflect a problem with the data. Belgium, France and Finland also share the characteristic of having high female labour market participation rates (OECD 2001: 134-135) which may explain the increased rate of non-reporting of child care time in these countries.

Figures 4.1 and 4.2 display a histogram showing the complete distribution of respondents' reported paternal and maternal time respectively.

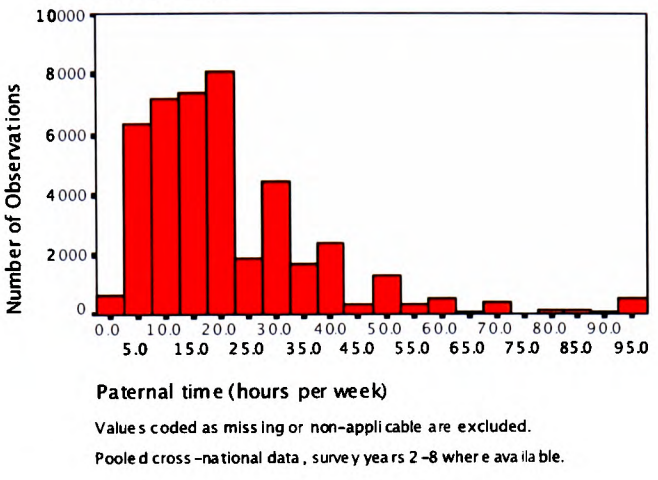
Table 4.1 *Average Parental Time Across Europe (Hours per Week)*

	Paternal Time			Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	4695	25	21	4689	39	29
UK	2100	19	18	2090	51	31
Finland	6820	18	15	6306	32	28
Germany	2376	17	14	2280	48	27
Netherlands	9631	17	13	9111	47	24
Belgium	5782	16	16	5237	39	31
Ireland	7035	16	13	6901	54	31
Spain	13363	15	12	13195	43	28
Austria	6528	14	10	6446	39	27
Italy	15778	14	10	15199	36	20
Luxembourg	648	14	10	593	36	25
France	12597	13	11	12490	30	25
Greece	10404	12	6	10323	33	19
Portugal	11244	12	8	11166	25	21

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.

Figure 4.1 Distribution of Reported Paternal Time

Variable PR007a

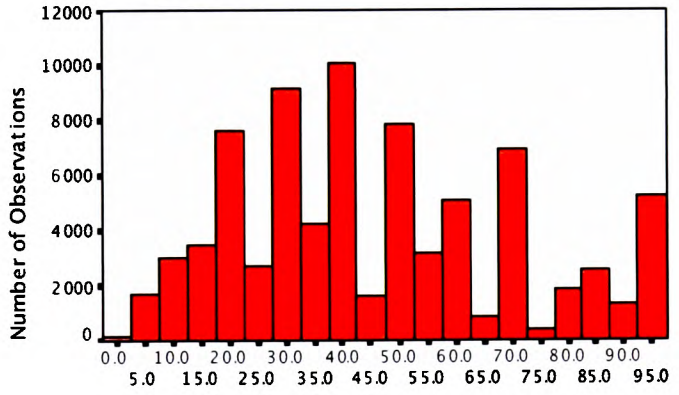


Values coded as missing or non-applicable are excluded.

Pooled cross-national data, survey years 2-8 where available.

Figure 4.2 Distribution of Reported Maternal Time

Variable PR007a



Values coded as missing or non-applicable are excluded.

Pooled cross-national data, survey years 2-8 where available.

4.2.2 Average Paternal Time by Maternal Employment

As a first step towards exploring Hypothesis 1, average paternal time is presented according to whether or not the mother is working more than 15 hours per week or not in the labour market. The first category of the variable *ILO Main Activity Status (pe003)* provides information on whether the mother is "normally working 15+ hours per week". For all countries, apart from Finland, the average paternal time for those fathers who have a working spouse is higher than for those fathers who have a non-working spouse (see table 4.2). This finding lends support to the argument that paternal time is a function of maternal employment, although further multivariate analysis is required.

Table 4.2 *Average Paternal Time Across Europe by Maternal Employment (Hours per Week)*

	Working Spouse			Non-working Spouse		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3822	**25**	21	872	**24**	20
UK	1209	**20**	19	891	**18**	17
Finland	5281	**17**	15	1539	**19**	17
Germany	1240	**18**	14	1134	**16**	13
Netherlands	4510	**19**	15	5119	**15**	10
Belgium	4038	**17**	17	1737	**14**	13
Ireland	2975	**19**	15	4060	**14**	12
Spain	4683	**17**	14	8680	**14**	10
Austria	3991	**14**	11	2532	**13**	8
Italy	7092	**16**	11	8683	**13**	8
Luxembourg	301	**16**	11	347	**13**	8
France	7745	**14**	12	4849	**12**	9
Greece	4812	**13**	8	5992	**12**	5
Portugal	7215	**12**	9	4027	**11**	6

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available). Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
Variable *pe003* provides information on whether or not a fathers' spouse is normally working for more than fifteen hours per week.
There is statistical significance across the two groups of means at $p = 0.05$.

4.2.3 Average Paternal Time by Education Level

The literature suggests that parental time is positively correlated with level of education (e.g. Sayer, Gauthier and Furstenberg 2004). According to a simple summary of the paternal time variable (*pr007a*) by education level, there would appear to be a positive relationship across Europe between education level and average paternal time (see table 4.3). However, the differences across the means are not statistically significant when all countries are included.

The average paternal time across Europe decreases by up to four hours a week, from those respondents with the highest level of education to those with the lowest level of education. In the UK, Ireland and France, education appears to have little or no effect, and in the Netherlands, those with the highest level of education spend on average two hours less per week on paternal time than other fathers.

The level of education is measured in the ECHP by a harmonised education variable corresponding to the International Standard of Education (ISCED) classification. The harmonised data set has four collapsed categories of highest attained level of education: the first corresponding to the education a child usually has up to sixteen years, the second corresponding to secondary education, and the third corresponding to post-secondary education. The fourth category is for those still in education. These latter two lower categories have been collapsed into a single category in table 4.3.

Average maternal time follows a similar pattern (see table 4.4). In eleven countries, the average maternal time of the most educated was between 1 to 9 hours per week higher than of the least educated. The reverse holds true for Germany, the Netherlands and Italy. However, in seven countries (UK, Belgium, Ireland, Spain, Italy, Luxembourg and Greece), it was actually those with a medium level of education who report the highest average maternal time.

Table 4.3 *Average Paternal Time Across Europe by Education Level (Hours per Week)*

	Education Level								
	High			Medium			Low		
Country	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
Denmark	1701	**26**	22	2238	**24**	21	745	**23**	20
UK	605	**20**	20	805	**18**	17	689	**20**	18
Finland	2246	**19**	15	3036	**18**	16	1520	**15**	14
Germany	810	**17**	13	1155	**18**	15	410	**16**	13
Netherlands	1271	**15**	11	2488	**17**	13	5839	**17**	13
Belgium	2204	**16**	16	1928	**16**	16	1592	**15**	16
Ireland	1190	**16**	12	2470	**16**	12	3360	**16**	14
Spain	2808	**17**	13	2390	**17**	13	8165	**13**	10
Austria	613	**16**	13	5013	**13**	10	864	**13**	9
Italy	1671	**15**	10	5707	**15**	10	8290	**13**	9
Luxembourg	138	**16**	11	190	**14**	11	320	**13**	9
France	2956	**13**	10	3943	**13**	11	5504	**13**	11
Greece	2385	**13**	7	3274	**13**	7	4723	**11**	5
Portugal	703	**15**	12	1091	**15**	12	9411	**11**	6

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
Education level taken from variable *pt022*. The low category also contains those still at school.
The differences across the groups of means are not statistically significant.

Table 4.4 *Average Maternal Time Across Europe by Education Level (Hours per Week)*

	Education Level								
	High			Medium			Low		
Country	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
Denmark	1754	**41**	29	2144	**39**	29	777	**35**	28
UK	506	**50**	30	794	**54**	31	788	**48**	30
Finland	2749	**34**	28	2503	**33**	29	1042	**25**	25
Germany	396	**43**	26	1296	**48**	28	582	**50**	27
Netherlands	966	**44**	24	2586	**51**	25	5526	**46**	24
Belgium	2195	**38**	30	1679	**41**	31	1350	**38**	31
Ireland	977	**53**	30	3016	**55**	30	2884	**52**	32
Spain	2507	**44**	26	2277	**47**	28	8411	**42**	29
Austria	525	**40**	28	4177	**40**	27	1691	**37**	27
Italy	1377	**34**	18	5940	**37**	20	7803	**36**	21
Luxembourg	73	**38**	24	162	**39**	24	358	**34**	26
France	3302	**30**	25	3601	**29**	25	5399	**28**	25
Greece	1994	**34**	18	3519	**35**	19	4810	**30**	19
Portugal	882	**29**	21	1156	**27**	21	8968	**24**	20

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
Education level taken from variable *pt022*. The low category also contains those still at school. The differences across the groups of means are not statistically significant.

4.2.4 Average Paternal Time by Occupational Characteristics

One aim of the thesis is to investigate how paternal labour market characteristics are related to paternal time, as discussed in previous chapters. As a first step in analysis, descriptive results are presented for average paternal time by occupational status, by whether fathers are self-employed or employed, and by whether they work in the public or the private sector.

Occupational status is measured by a harmonised variable *occupation in current job (pe006c)*, collapsed from nine to three categories: high, medium and low. The first category *high* consists of legislators, senior officials, managers and other pro-

fessionals. The *medium* category refers to technicians, associate professionals and clerks. The *low* category refers to service workers, shop and market sales workers, skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers and elementary occupations. Table 4.5 shows that in ten out of the fourteen countries, the average paternal time is highest for those of medium occupational status. However, only the difference between the means for high and low occupational status is statistically significant at p = 0.045.

Table 4.5 *Average Paternal Time Across Europe by Occupational Status (Hours per Week)*

	Occupational Status								
	High			Medium			Low		
Country	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
Denmark	1313	**23**	19	856	**26**	22	1748	**25**	22
UK	626	**18**	17	311	**21**	18	878	**17**	15
Finland	1887	**18**	14	913	**19**	17	3075	**16**	13
Germany	651	**16**	12	496	**13**	12	1049	**17**	13
Netherlands	3461	**14**	10	2099	**17**	12	3045	**17**	12
Belgium	1112	**15**	15	1200	**17**	18	1631	**15**	15
Ireland	1552	**15**	10	835	**17**	14	3652	**15**	11
Spain	2324	**16**	12	1731	**17**	14	7354	**13**	10
Austria	893	**13**	10	1441	**15**	11	3654	**13**	8
Italy	1683	**14**	9	3567	**15**	10	8324	**14**	9
Luxembourg	136	**16**	12	134	**14**	9	336	**13**	8
France	2300	**12**	8	2632	**14**	11	6037	**13**	11
Greece	2521	**12**	6	1247	**13**	8	5601	**12**	6
Portugal	1340	**13**	10	1317	**14**	10	7567	**12**	7

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
Occupational status is measured by a harmonised variable *occupation in current job (pe006c)*, collapsed from nine to three categories: high, medium and low.
Only the difference between the means for high and low occupational status is statistically significant at p = 0.045.

Looking at variation in average paternal time according to self-employment (as opposed to employment), for the top ten ranking countries, it can be seen that the employed spend between 2 to 7 hours more per week paternal time than the self-employed (see table 4.6). This is in keeping with findings by Williams (2004) and Hildebrand and Williams (2004) that child care activities negatively effect the duration of self-employment. In Luxembourg, France, Greece and Portugal the reverse is true. Information on self-employment comes from the variable status in employment *pe004*.[44] The difference across the means is not statistically significant when all countries are included.

Table 4.6 *Average Paternal Time Across Europe by Self-Employment (Hours per Week)*

	Self-Employed			Employed		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	435	**18**	16	3997	**25**	21
UK	362	**14**	12	1481	**19**	18
Finland	1556	**14**	11	4624	**18**	14
Germany	242	**12**	8	2025	**17**	13
Netherlands	792	**14**	11	8385	**16**	11
Belgium	806	**12**	11	4572	**16**	16
Ireland	1899	**13**	10	4234	**16**	12
Spain	2790	**13**	9	8805	**15**	11
Austria	1045	**12**	7	4995	**14**	10
Italy	4085	**12**	7	10189	**15**	10
Luxembourg	62	**11**	5	550	**4**	10
France	1564	**11**	8	9978	**13**	10
Greece	4275	**11**	5	5341	**13**	7
Portugal	2794	**11**	6	7674	**13**	8

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
Variable *pe004* provides the information on self-employment.
The difference across the two groups is not statistically significant.

44 Information on the unemployed and the non-employed is not available with this variable.

Looking at variation in average paternal time according to whether or not a fathers' employment is in the private or public sector, in eleven of fourteen countries, the paternal time of those working in the public sector is between 5 and 1 hours per week higher than those working in the private sector (see table 4.7). For the other three countries, the sector of employment appears to make no difference to average paternal time. *Sector of employment* is measured (using variable *private or public sector (pe009).*

Table 4.7 *Average Paternal Time Across Europe by Public or Private Sector (Hours per Week)*

	Public			Private		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	1127	**26**	22	3224	**23**	20
UK	408	**22**	21	1295	**17**	15
Finland	1452	**17**	14	4672	**17**	14
Germany	611	**18**	13	1605	**16**	12
Netherlands	1938	**17**	12	7089	**15**	11
Belgium	1117	**19**	20	2811	**15**	15
Ireland	1638	**16**	12	4434	**15**	11
Spain	2071	**17**	13	9299	**14**	10
Austria	1463	**14**	11	4533	**13**	9
Italy	3908	**15**	10	9880	**14**	9
Luxembourg	160	**14**	12	448	**14**	9
France	2885	**13**	11	7381	**13**	10
Greece	2373	**14**	8	7067	**12**	6
Portugal	1876	**14**	10	8425	**12**	7

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007.*
All households contain a couple with dependent children.
Variable *pe009* provides information on public or private sector status.
The difference across the two groups is not statistically significant.

4.2.5 Average Paternal Time in Households with Small Children

Generally in the literature, it appears that both fathers and mothers spend more time with younger children than with older ones (Barnett and Baruch 1987; Duvander and Sundström 2000; Fisher, McCulloch and Gershuny 1999; Hallberg and Klevmarken 2003; Silver 2000). This is by far the most frequent finding although some studies do find that the age of a child has no effect on paternal time (Aldous, Mulligan and Bjarnason 1998).

Looking at the estimates for those households with small children, I find that both fathers and mothers spend more time with small children (under six years old) compared to the sample of all children (compare tables 4.1 and 4.8), a similar finding to that by Eurostat (2004). As might be expected, fathers with small children in the family spend on average more paternal time than is shown by the sample of all fathers with children under sixteen (see table 4.8). Countries are ranked again according to the amount of average paternal time. This rank order according to the average paternal time of those with small children is very similar to the rank order for the average paternal time of households with children under the age of sixteen.

Danish fathers of small children report spending the most paternal time with an average of 31 hours per week. Portuguese and Greek fathers of small children report spending least paternal time with an average of 13 hours per week. The average across Europe is 18 hours per week.

Table 4.8 *Average Parental Time for Households with Small Children (Hours per Week)*

	Paternal Time			Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3160	31	22	3156	51	27
Finland	3933	22	18	3444	46	29
UK	1168	21	15	1158	59	31
Germany	1161	20	14	1094	63	24
Netherlands	5738	19	13	5262	57	23
Ireland	3901	18	16	3826	64	27
Belgium	3631	17	13	3275	46	30
Spain	7306	17	12	7179	57	24
Italy	8729	16	10	8319	42	20
Luxembourg	385	16	10	334	46	26
Austria	3762	15	10	3706	48	27
France	7792	15	11	7708	38	27
Greece	5503	13	6	5429	40	18
Portugal	6105	13	8	6053	33	23

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available). Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children under six years.

European mothers of small children report spending on average 49 hours per week, with the highest figure of 64 hours per week in Ireland and the lowest figure of 33 hours per week in Portugal. On average, fathers report spending 37% of the time that mothers spend looking after small children. The relationship between all maternal time and the maternal time spent by those mothers with small children is not the same as that between all paternal time and the paternal time spent by those fathers with small children. Mothers with small children spend proportionately more hours per week compared to all mothers than do fathers with small children compared to all fathers.

Looking at the standard deviations for the mean estimates of paternal time with respect to small children shows that there is, in general, a greater deviation from the mean within the paternal populations exhibiting higher average levels of paternal time for small children. There is more variation in the average maternal time for small children between countries than in the average paternal

time for small chidren. There is less variation in the average maternal time for small children than the average maternal time of all mothers.

To find that fathers spend more time with younger children is not what might be expected from the literature. Further investigation reveals a small cohort effect among younger fathers. A brief European overview of average paternal time spent by fathers with small children, broken down in four age categories: less than 30 years, 30 - 39 years, 40 - 49 years and more than 50 years old, reveals that subsequent younger cohorts are spending increasing amounts of time with younger children (table 4.9). There is 4 hours per week on average difference between the youngest and the oldest cohort of fathers with small children. This is an area for further research.

Table 4.9 *EU-14 Average Paternal Time for Fathers with Small Children By Cohort (Hours per Week)*

Cohort (Age)	N	Mean	S. D.
17-29	7647	18.9	16.1
30-39	34191	17.6	14.5
40-49	17996	15.8	12.7
51+	2439	15.0	12.7
All	62273	17.1	14.6

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children under six years.

4.2.6 Single Fathers' Paternal Time

The focus of the thesis is on resident social fathers within heterosexual couples, but there are resident social fathers in other types of households, namely, single or lone father households and same-sex couples with children. The number of single fathers is very small compared to the number of single mothers and com-

prises around 10% of single parents (Marsh et al. 2001).[45] Historically, single fathers have been dependent on the services of a house-keeper/child-carer, although recent trends (in the UK) indicate that increasing numbers of single fathers are in part time employment and/or drawing benefit (Lewis 1997a). There are a much greater number of non-resident fathers than resident single fathers, as it is still the norm across the EU for mothers to keep custody of children in the event of a relationship breakdown between the couple. Groups such as *Fathers 4 Justice* have recently brought this situation into the public eye in the UK.

More gay men are becoming parents and care for children, either within same-sex couples or as non-resident fathers (Stonewall 2003). The Adoption and Children Bill 2001 in the UK allows gay couples to adopt if this is in the best interest of the child, and fostering guidelines make it clear that sexuality is not a bar to fostering. Each EU country has opted for a national model of civil partnerships with varied implications for adoption and same-sex parenting (Curry-Sumner 2005; Dethloff 2005).

Studies examining the division of household labour among same-sex couples suggest that although the division of household labour is unequal among both lesbian and gay couples, more of these couples have an equal division of household labour than is the case for heterosexual couples (Blumstein and Schwartz 1983; Kurdek 1993). In a study involving 100 gay divorced fathers, Dunne (2001) found that they had a particularly high engagement with social parenting compared to heterosexual divorced fathers. Unfortunately, there are no openly same-sex couples in the ECHP sample of resident parents so I am unable to investigate this further with the present data.

The number of single fathers (defined as fathers not living as part of a couple but still with resident children in their household) is less than 2% of the sample in every country for every survey year. 1.57% (2,037 of a total 130,132 households) in the total pooled sample are single father households. Single resident

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[45] An interesting direction for further research would be to compare single father's with single mother's parental time. In both cases, these parents have greater time constraints with respect to combining labour market participation and care.

fathers spend more paternal time than cohabiting resident fathers on average, with the exception of Finland (see table 4.10). British single fathers spend most paternal time reporting 37 hours per week, Portuguese the least with 13 hours per week (table 4.10). The European average is 23 hours per week as compared to 16 hours per week paternal time for those fathers living in a (heterosexual) couple. There is more variation within the sample (the standard deviations are generally higher than for the sample of all fathers).

Table 4.10 *Average Paternal Time of Single Resident Fathers (Hours per Week)*

	Single Fathers		
Country	N	Mean	S.D.
UK	51	37	27
Ireland	65	28	21
Denmark	170	27	24
Belgium	68	26	27
Netherlands	331	25	19
Austria	83	18	14
Finland	179	17	17
Greece	82	17	10
Italy	152	17	10
France	268	16	14
Spain	172	16	14
Portugal	171	13	11

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.

Generally, in countries with a higher than average paternal time of single resident fathers, the standard deviation is also greater. The number of observations for single fathers is small and to be treated with caution. Luxembourg and Germany cannot be taken as representative of the population and so have been dropped from this analysis.

4.2.7 Paternal Time and Live-In Grandparents

Grandparents (predominantly, but not exclusively grandmothers) can play a very important role looking after children. They can be seen as a safer and cheaper child care solution in the case that the parents are both active in the labour market. In Portugal, there has even been the introduction of grandparents' leave (Falkner et al. 2002). Typically, but not categorically, a grandparent who is looking after a grandchild will live locally. The ECHP does not provide data about whether grandparents are living close enough to parents to take care of children. It is only possible to look at those grandparents who are resident within the household to see if this has any impact on average paternal time.

The percentage of households in the pooled sample of couple households with live-in grandparents varies by country from just 0.12% in the Netherlands to 16% in Portugal (table 4.11). It may be the case that grandparents take on more of the child care burden in the more Southern countries. For many countries there are not enough cases to be included in the analysis, and countries with less than 30 observations have been dropped.

In countries where there are a reasonable number of observations (namely Austria, Finland, Greece, Ireland, Italy, Portugal and Spain), it would appear that fathers with live-in grandparents spend less paternal time per week than the average father. A first explanation might be that grandparents play an important child care role in the replacement of paternal time. A second explanation might be that households containing grandparents are more likely to be adhering to traditional gender divisions of labour. It would be interesting to pursue the theme of the intergenerational responsibility for child care, considering to what extent grandparents and other relatives are caring for children and how this varies across Europe.

Table 4.11 *Paternal Time in Households Containing Resident Grandparents (Hours per Week)*

	Households with live in grandparents			
Country	% households	N (households)	Mean Paternal Time in household	S.D.
Belgium	1.50	50	19	4
France	1.29	78	13	10
Ireland	5.51	172	15	11
Italy	6.41	666	13	7
Greece	14.98	888	11	5
Spain	11.00	1078	14	11
Portugal	15.64	1462	11	6
Austria	14.13	564	12	8
Finland	1.45	98	10	2

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children and one or more grandparents.
Countries not ranked but presented in ECHP order.

4.2.8 Stepfathers' Paternal Time

Many fathers are members of reconstituted families, meaning that one or both of the parents may have children with previous partners, which they might or might not bring to the new household. Some studies suggest that stepfathers may not have the same level of commitment to their non-biological children as biological fathers (Burgoyne and Clark 1984; Ferri 1984; McLanahan and Sandefur 1994). In contradiction, Coltrane (1996) and Ferri and Smith (1998) found that the level of stepfather involvement in caring for and bringing up children was as great, and in some cases, greater than that of biological fathers in first families. Ferri and Smith's main finding was that despite stepfamilies being more likely to suffer economic disadvantage, they were very similar to first

families in terms of parenting behaviour. There was much less variation between stepfamilies and first families than there was within each family type.

The definition of a stepchild in the ECHP is broad and covers all those children in the household that are not the natural child of a parent (whether the spouse's child, adopted or foster). 1.68% of the total pooled ECHP sample of resident father households (N = 130,132) contain both natural and stepchildren and 1.58% contain only stepchildren. That leaves 96.74% of the sample consisting of co-residential households containing only natural children in the sample.

Stepfathers in fairy tales are not usually the nicest of figures. In the majority of countries, however, I find that on average, fathers in households containing stepchildren spend more paternal time (see table 4.12). In the UK, Germany, Ireland, Italy, Spain, Austria, France and Greece (ranked according to amount of step-paternal time) they actually spend more time. One explanation for this finding might be that in reconstituted families, the experience of a first failed marriage informs fathers as to the importance of investing in the family in terms of household labour (Ishii-Kuntz and Coltrane 1992a). In Denmark, Finland, and Belgium stepfathers spend less paternal time than other fathers which may reflect a lesser commitment to non-biological children. It is not clear which institutional or cultural differences result in inter-country variation, and this would be an interesting avenue for further research. In Portugal there was no change in average behaviour. Luxembourg and the Netherlands are dropped due to a small number of observations. Results should be treated cautiously due to the small sample sizes and the correlations between observations given the nature of the pooled sample.

Table 4.12 *Average Step-Parental Time (Hours per Week)*

	Step-Paternal Time			Step-Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	444	20	19	443	32	26
UK	260	20	21	258	46	30
Germany	110	20	17	105	47	27
Ireland	124	19	16	121	67	29
Italy	117	17	12	111	32	19
Finland	410	16	13	377	31	26
Spain	221	16	14	218	47	27
Austria	338	16	12	337	44	27
Belgium	415	15	16	373	37	27
France	894	14	12	888	32	27
Greece	104	13	8	104	27	16
Portugal	294	12	7	294	28	21

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent step-children.

4.2.9 Paternal Time and the Number and Sex of Children

The number of children, and sometimes their sex, are included as variables in most analyses of paternal time in the literature. Fathers who have more children tend to devote more time to child care (Ishii-Kuntz and Coltrane 1992), but less time to each child (Aldous, Mulligan and Bjarnason 1998). Fathers of older children seem to spend more time with sons than with daughters (Aldous, Mulligan and Bjarnason 1998; Barnett and Baruch 1987), whereas the child's sex does not seem to affect father's time with infants and toddlers (Deutsch, Lussier and Servis 1993).

When looking at whether the sex of the child has any influence on paternal time, it is not possible using the ECHP, to isolate the time that a father spends with each child. But I can however look more closely at those households con-

taining only girls or only boys and identify the differences that fathers spend in each household type. However, all in all I find very little difference for all girl and all boy households in terms of paternal time (see table 4.13).

Table 4.13 *Average Paternal Time for Girl and Boy Households (Hours per Week)*

	All boy households			All girl households		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	1450	23	21	1668	23	20
UK	626	19	18	655	19	18
Finland	2176	17	15	2059	16	14
Germany	834	17	14	803	17	14
Netherlands	2909	17	13	2898	17	13
Belgium	1699	15	16	1966	16	17
Ireland	1809	15	11	1871	15	13
Italy	5752	14	9	5887	14	10
Spain	4419	14	10	4916	15	12
Austria	2036	14	11	2213	13	10
Luxembourg	181	13	7	224	15	11
France	3883	13	10	445	13	10
Greece	3202	12	6	3702	12	6
Portugal	4019	12	8	4288	12	8

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.

42.87% of resident father households have only one child, 40.91% have two, and 12.37% have three. Only 2.86% of the population have four children, and whilst the maximum number of children counted by the ECHP within a household is 12, less than 1% of the sample have more than four children.

In most countries the number of children has a small positive effect on average paternal time (see table 4.14). Per child, fathers with more children spend less time than fathers with fewer children, which is as predicted by the logic of economies of scale.

Table 4.14 *Average Paternal Time (Hours per Week) and Number of Children*

	Number of children				
Country	1	2	3	4	5
Germany	17	17	18	24	-
Denmark	22	25	27	27	45
Netherlands	17	17	17	16	23
Belgium	15	16	16	16	16
Luxembourg	14	14	15	-	-
France	13	14	13	12	12
UK	18	20	20	28	-
Ireland	15	17	16	16	17
Italy	14	15	14	16	-
Greece	12	13	13	12	-
Spain	14	15	15	17	21
Portugal	12	13	12	12	11
Austria	13	14	13	15	15
Finland	16	18	20	20	18

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.
- indicates too few observations to include.
Countries not ranked but presented in ECHP data order.

4.2.10 Summary of Average Paternal Time Estimates

There are considerable differences between countries in the amount of average paternal time as well as varying gender differences in average parental time across different countries. Broadly speaking, there is a North-South pattern in place: the further South, the less average paternal time is spent. However, some observations are largely consistent across countries. The direction of relationships between the different social situations (being a single father, being a step-father etc.) and paternal time are found to be the same in most of the EU-14. Average paternal time is higher in those households containing small children. Fathers with more children do spend more paternal time, but not

enough to compensate the amount of paternal time per child. Single fathers, on average across Europe, spend more time in comparison with all fathers. Families with resident grandparents see less paternal time than average. Families containing non-biological children often see more paternal time than average. Finally, it has been shown that the child's sex has no impact on the estimates of average paternal time.

Variations in paternal time by key theoretical variables are also described. Paternal time would appear to be correlated with a higher educational level, being employed rather than self-employed and working in the public sector rather than the private sector. Descriptive results by occupational status are less uniform.

The first exploratary descriptive analysis into H1 shows that the average paternal time is higher for those fathers in households where the mother works more than fifteen hours per week. However, multivariate analysis is needed as a follow up to this descriptive analysis in order to better test H1, controlling for the other correlates of paternal time.

One approach for describing the time spent on child care is to compare the average reported hours spent caring across countries. A different approach is to instead measure the proportion of fathers spending *substantial* parental time. This is a measure which compares the levels of fathers spending time at the upper end of the distribution of the child care time variable.

Similarly, multivariate analysis can be carried out using either the average paternal time measure or by using a measure of substantial parental time. For reasons discussed in chapter 3, section 3.4, multivariate analysis will draw on this second measure of substantial time, to which we now turn.

4.3 Substantial Paternal Time

For the purposes of this thesis, *substantial* parental time is defined as more than twenty-eight hours of child care per week. The choice of this hours cut-off is based, in part, on an examination of the distribution of hours of caring among fathers. Parents often repsondend in multiples of seven.Taking the number of hours, which translate into four hours per day, literally, should be done cautiously, and in consultation with other parental time measures (see chapter 3 and also the next section). Rather, the value of this measure of child care time, lies with its relative position as highest category in the distribution of child care time. In other words, an alternative definition of substantial parental time is that it is a measure of the top end of the distribution of time spent on child care.

The 28 hours cut off is also data led. The continuous variable is neither available for survey year one, nor for the complement of countries in subsequent years. By contrast, the grouped variable is consistently available, the upper category being fixed at twenty-eight hours. By using the grouped variable, I thus have access to a greater number of observations.

About one-tenth (11%) of the sample of co-resident fathers spends substantial paternal time by this definition.[46] It is on this one-tenth of the sample of resident fathers that the subsequent analysis focuses on.[47] Focusing on this small section of fathers who are managing to spend substantial time looking after their children, in comparison to those fathers who are not, may shed light on the enablers and constrainers of paternal time.

Differences in substantial paternal time between countries are examined in two formats. The first looks at the percentage of the national samples spending substantial paternal time. The second measure looks at the percentage of substantial child care time that is shared by fathers relative to mothers. It has been noted in the literature that proportional measures appear most accurate as they

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46 In calculating the percentage of fathers spending substantial paternal time (11%), the denominator includes the imputed and missing values. Excluding the non-imputed values from the denominator, the percentage of fathers spending substantial paternal time is 26%.

47 Or one-fifth of the sample of resident fathers with small children.

tend to eliminate the various hourly reporting biases (Coltrane 2000). The observations are weighted so as to be nationally representative.

Although the ECHP dataset is a longitudinal panel, it is used here cross-sectionally. Estimates are derived from data taken from the 1996 survey cross-sectional year and also from the pooled cross section sample constructed by pooling survey years one to eight (1994-2001). The estimates reported here are for the matched sample of co-resident parents. If one or both of the parents reports missing data (-9) for the child care variable, their spouse's observation is also dropped from the sample. If one or both of the parents reports that the variable is not applicable, they are kept in the sample.

As already mentioned, the length of time over which the ECHP was carried out varies between the participating countries. I focus on 1996 as it is the only year that data are available for the full complement of countries.[48] Also, problems associated with attrition are fewer at such an early stage in the panel. Data are available for 1996 for fourteen EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and UK.[49] The initial sample for 1996 consisted of approximately 131,000 individuals, interviewed in 61,000 households.[50] Weights are used, but estimates derived without using a weighting procedure only vary by a few percentage points (compare tables 4.15 and A4.4 and tables 4.16 and A4.5). Estimates are provided for the whole sample of co-resident fathers of children under sixteen and also for those co-resident fathers with small children (under the age of six).

The results for each of these measures are compiled in tables 4.15 and 4.16, reporting by country for 1996 and for the pooled sample comprising survey years one to eight. As we can see, the percentage of fathers spending substantial paternal time is highest in Denmark and lowest in Greece and Portugal. In

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48 The time spent caring variable is not available for the UK, Germany, or Luxembourg after 1996.

49 Sweden is excluded from the analysis due to data limitations. Norway is not a member of the EU and so is not included in the ECHP.

50 Two sets of data are available for Luxembourg, the UK and Germany. The original ECHP samples are used here.

Denmark, the pooled sample estimates are that 31% of fathers are spending substantial paternal time and 35% of all substantial parental time is spent by fathers (as opposed to mothers).[51] In Greece, only 5% of fathers report spending substantial paternal time, and of all substantial time reported, only 7% is done by fathers. The EU-14 average estimates are that 12.5% of fathers spend substantial paternal time, and that of all substantial parental time only 17% is carried out by fathers. Comparing the pooled sample and the 1996 only sample, estimates do not vary by more than a few percentage points (see table 4.15).

Turning to look at the substantial paternal time of fathers with small children (under the age of six years), we find that the Scandinavian countries stand out again with men being most likely to spend significant paternal time (43 percent in Denmark in 1996) and also taking on the most egalitarian share of substantial parental time. In Denmark in 1996, for example, fathers represented 34 percent of parents spending substantial parental time. Greece and Portugal, on the other hand, exhibit very low values for both the percentage of fathers spending substantial parental time (just under 10%) and the percentage of total substantial parental time that is provided by fathers (8 to 12 percent). These cross-national differences appear to be consistent over the time period observed.

The analysis confirms that there are considerable and consistent differences in both the proportions of parents spending substantial parental time aross Europe and the gender differences in parental time. The two Scandinavian cases available for analysis here, Denmark and Finland, are the clear leaders in terms of the number of fathers spending substantial paternal time and sharing substantial parental time with mothers. There is very much a North-South pattern in place (with exceptions): the further South, the less paternal time is spent and the greater the gender gap in parental time.

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51 In calculating the percentage of substantial parental time spent by fathers (as opposed to mothers) the denominator is the number of all parents (both mothers and fathers) in a country who report spending substantial time and the numerator is the number of these parents who are fathers.

Table 4.15 *Substantial Paternal Time Across Western Europe*

Country	% of fathers spending substantial paternal time		% of substantial parental time spent by fathers (as opposed to mothers)	
	Pooled Sample	1996	Pooled Sample	1996
Denmark	31	30	35	32
Finland	17	18	29	28
UK	22	21	21	21
Germany	14	17	16	19
Ireland	14	14	15	14
Spain	11	12	15	15
Belgium	14	15	19	21
Italy	9	9	12	13
Austria	8	9	13	12
Netherlands	9	8	12	11
Luxembourg	9	9	12	14
France	7	7	15	14
Greece	5	6	7	9
Portugal	5	4	11	10

Source: Author's own calculations using the ECHP pooled weighted sample (waves 1-8 where available).
All households contain a couple with dependent children.

Table 4.16 *Substantial Paternal Time of Fathers of Small Children Across Western Europe*

Country	% of fathers spending substantial paternal time		% of substantial parental time spent by fathers (as opposed to mothers)	
	Pooled	1996	Pooled	1996
Denmark	45	43	36	34
Finland	29	30	30	30
UK	25	24	22	21
Germany	19	23	17	19
Ireland	19	20	18	17
Spain	17	18	16	17
Belgium	17	20	20	23
Italy	13	14	15	16
Austria	12	13	14	13
Netherlands	13	12	13	12
Luxembourg	11	13	13	14
France	10	11	15	15
Greece	7	9	8	10
Portugal	8	8	12	12

Source: Author's own calculations using the ECHP pooled weighted sample (waves 1-8 where available).
All households contain a couple with dependent children under six years.

4.4 Validating the ECHP Child Care Measures

Despite the methodological and technical difficulties of time use measurement, as described in chapter 3, estimates in the literature in terms of the amount of paternal time relative to the mother are, perhaps surprisingly, consistent (see table 4.17). It is rather less surprising, however, that on average, estimates of paternal time are always lower than estimates of maternal time.

Table 4.17 *Comparing Estimates of Fathers' Share of Child Care Time*

	Child care measure/for children under		
Country	ECHP*/6 years	Eurostat/9 years	National Time Use Studies/15 years
UK	26	32	25 (week); 33 (weekend)**
Belgium	27	34	-
Denmark	37	30	-
France	28	23	-
Finland	32	32	-
Italy	28	-	28***
Germany	26	-	33***

* Calculated from table 4.8 as *average paternal time/(average paternal + average maternal time).*
** UK Time Use Survey EOC Briefing 2005:
< http://www.eoc.org.uk/PDF/time_use_and_childcare.pdf>.
*** MTUS from calculations by Pacholok and Gauthier (2004: 212).

It is necessary to explore possible ways of validating the ECHP time use measurements against external sources, but any such endeavour is complicated by the lack of a European comparative time use instrument, despite recent moves to remedy the situation. Although Eurostat has co-ordinated the development of Harmonised European Time Use Study data collection guidelines, only the countries in table 4.17 are ready for direct comparison with the EU-14 (Eurostat 2004).[52] Unfortunately, Eurostat's measures of child care time are not

[52] Ten European countries complied with these guildelines so as to produce comparable information: Belgium, Germany, Estonia, France, Hungary, Slovenia, Finland, Sweden, the UK and Norway.

constructed in the same way as the measures in this chapter. However, reports for the share of total child care spent by men reveal results broadly consistent (within a margin of error) with the ECHP measures (see table 4.17). The third column in table 4.17 comes from further sources. The figures from the UK come from the EOC (2005) briefing, drawing on data from the UK Time Use Survey carried out by the Office for National Statistics in 2000/2001. The figures for Italy and Germany come from Pacholok and Gauthier's (2004) calculations from the Multinational Time Use Study.

There is a some lack of correspondence between the cited evidence on the relativities of maternal and paternal child care time and the figures produced from the ECHP analysis of average parental time, but it is impossible to know which source is more accurate.[53] Comparison is further confounded by the numerous approaches to measurement. What is confirmed, by all measures however, is that mothers are still responsible for the majority of child care and that all comparative sources find variation between countries.

The measures for substantial time are not comparable as they represent such a small sample of the population (10% of resident fathers), and to the author's knowledge no such similar measurement has been undertaken. However, there is no reason to believe that the measures at this end of the distribution of paternal time should be any less accurate than the ECHP measure of average paternal time.

Paternal time is a central concept in this thesis. Another central concept is that of parental household employment. The ECHP provides data that can be used for developing a typology of parental household employment and measuring the proportions of parental households in the different categories across countries. In the last section of this chapter, I look at measures of paternal time in conjunction with the measures of parental household employment to test the

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53 This issue is explored using Canadian time use data, which finds that the type of child care measure found in the ECHP is not more or less valid than other measures, just different. (Fedick, Pacholok and Gauthier 2005).

first hypothesis of the thesis: that fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market.

4.5 Parental Household Employment

In order to test whether there is a relationship between paternal time and parental household employment type, I need to look at the paternal time spent in different types of households, these types being categorised according to the number of working hours of the parents within. If paternal time is a function of the hours available to a father: the more hours available the more time he can spend looking after his children. Paternal time is also a function of the hours available to his spouse: the more hours she has available, the less time he will spend.

The varying proportions of parental household employment types within a country explain, in part, national differences in paternal time. I refer to this notion of the different composition of parental household employment types as the national parental household employment pattern. I am only looking at those households consisting of a couple with dependent children, and so consider only parental household employment and not household employment more generally.[54]

The ECHP shows that differences in paternal time cannot be explained as a result of any sizeable proportion of men becoming house-husbands. Across the pooled ECHP sample, only 0.34% of resident fathers report doing housework or looking after their children or other persons as being their main activity. This contrasts with 36% of mothers reporting domestic work or caring as being their main activity.[55] Similarly across the pooled ECHP sample, many more fathers are in employment than are mothers. Some 90% of fathers are working more than 15 hours a week, in contrast to only 53% of mothers.[56]

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54 Of all households in the ECHP, 31% of the total number of couple households have dependent children.

55 This information comes from my calculations using ECHP UDB variable "main activity status" (*pe001*). I consider only those mothers living as part of a couple.

56 This information comes from my own calculations using ECHP UDB variable "ILO main activity status at time of interview" (*pe003*).

The ECHP provides information on the total number of working hours per week (on main and additional jobs).[57] Drawing on this, I further classify working time into five categories:[58]

- Very low: Working between 0 to 14 hours per week
- Part time: Working between 15 to 29 hours per week
- Normal full time: Working between 30 to 44 hours per week
- Long full time: Working between 45 to 59 hours per week
- Very long full time: Working more than 60 hours per week

I then cross-tabulate, according to the above categories, the working hours of the father by working hours of his spouse. There are, according to this schema, 25 combinational possibilities when looking at how couples manage household employment hours. For the sake of parsimony, I condense this to just four types of household: work poor, breadwinner, full-time-part-time (FTPT) and work rich (see table 4.18).

Table 4.18 *Household Employment Schema According to the Number of Hours Worked by Each Partner*

	Female				
Male	Very Low	Part Time	Full Time	Long	Very Long
Very Low	Work Poor	Work Poor	Breadwinner	Breadwinner	Breadwinner
Part Time	Work Poor	Work Poor	FTPT	FTPT	FTPT
Full Time	Breadwinner	FTPT	Work Rich	Work Rich	Work Rich
Long	Breadwinner	FTPT	Work Rich	Work Rich	Work Rich
Very Long	Breadwinner	FTPT	Work Rich	Work Rich	Work Rich

FTPT = one full time worker, one part time worker.

57 This information comes from my own calculations using ECHP UDB variable "total number of working hours per week (on main and additional jobs)" (*pe005*).

58 I use three full time categories, as there are theoretical grounds to assume that there may be differences between these categories in the number of fathers spending substantial paternal time.

Work poor or low employment households are defined as those where both parents work less than 30 hours per week combined. Low employment households cover the range of households from the economically inactive to the dual earner part time. Theoretically these could present quite different paternal time behaviours. Unemployed couples might not exhibit the same parental behaviour as couples who have both chosen to work part time in order to enhance their work-life balance. Across Europe, 8% of households are work poor households, with a standard deviation of 4 percentage points (see table 4.19). The vast majority of countries fall within one standard deviation of the European average. Denmark, Portugal and Luxembourg fall one standard deviation below (all at 4%). The UK and Spain fall more than one standard deviation and Ireland more than two standard deviations above the European average.

Single breadwinner households are defined as those where one parent works full time and the other works less than 15 hours per week or not at all. Single breadwinner households are the post WWII stereotype, with the father acting as the breadwinner and provider and the mother acting as the stay-at-home child-carer and housekeeper. Across Europe, only 3% of households are female single breadwinner families. 38% of households are male breadwinner, with a standard deviation of 13 percentage points. Again, the vast majority of countries fall within one standard deviation of the European average (Ireland, Italy, Greece and Austria above and Belgium, France, the UK and Portugal below). Germany (51%), Luxembourg (51%), the Netherlands (52%) and Spain (45%) fall between one and two standard deviations above the average. Denmark (15%) and Finland (20%) fall between one and two standard deviations below the average. (See table 4.19).

Full-time-part-time (FTPT) households, where one parent (normally the mother) is working part time and the other full time (normally the father) are very common in certain countries across the EU, in particular the UK and the Netherlands, among others. In this sample, 0.7% of households are female full time, male part time. In contrast 14% of households are male full time and

female part time. The standard deviation for the latter is 8 percentage points. Seven countries lie beyond one standard deviation of the European average. The Netherlands (29%) and the UK (24%) are between one and two standard deviations above, and Greece (6%), Spain (5%), Portugal (5%), and Finland (4%) are between one and two standard deviations below.

Work rich households are defined as those with two full time earners (both parties working 30 or more hours per week). 37% of households in this sample are dual full time earners (work rich), only 1% less than the number of single breadwinner households.[59]. The standard deviation is 17 percentage points. Four countries are beyond one standard deviation of the average. The Netherlands (10%) and Ireland (18%) fall more than one standard deviation below the average. Portugal (61%) and Finland (63%) fall more than one standard deviation above the average. Within this group, it is most common for both partners to work between 30 to 45 hours per week (52%). The next most common working hours combination is for the woman to work between 30 to 45 hours a week and the man to work between either 45 to 59 (20%) or more than 60 hours per week (10%). All the other combinations of full time working hours come in at less than 5%.

The proportions of these different household types found within a country can be described as the national household employment patterns. By this I am referring to the different proportions of the various parental household economic arrangements found in a country (see table 4.19).

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59 Within this work rich household type category no differentiation is made between a breadwinner working 30 hours or 60 hours per week.

Table 4.19 *Distribution of Parental Household Employment Type*

	Percentage of households					
	Work poor	Breadwinner		FTPT		Work rich
Country		Male	Female	Male	Female	
Germany	5	51	2	19	0.4	23
Denmark	4	15	3	11	0.4	66
Netherlands	6	52	2	29	1	10
Belgium	7	28	2	20	0.7	43
Luxembourg	4	51	2	16	0.3	27
France	8	33	4	11	1	43
UK	12	32	2	24	0.7	29
Ireland	19	45	1	15	0.8	18
Italy	10	46	3	10	0.8	31
Greece	8	47	2	6	1	35
Spain	12	54	4	5	0.4	25
Portugal	4	27	3	5	0.4	61
Austria	5	34	3	22	0.3	37
Finland	6	20	6	4	1	63
Europe Avrg	8	38	3	14	0.7	37
(Europe Avrg S. D.)	(4)	(13)	(1.2)	(8)	(0.3)	(17)

Row percentages may not add up to precisely 100% due to rounding.
Source: Author's own calculations using the ECHP.

It has been established that there are various parental household employment types (table 4.18). There is also cross-national variation in the frequency of the various parental household types (table 4.19). The majority household type is either male breadwinner or work rich (table 4.20). In countries where the dominant household type was work rich, the second most common household employment type is male breadwinner (Denmark (15%); Belgium (28%); France (33%); Portugal (27%); Austria (34%); Finland (20%)). For all but Finland, male full time female part time is the tertiary trait of a majority work rich country (Denmark (11%); Belgium (20%); France (11%); Portugal (5%); Austria (22%)). Finland is an unusual tertiary case with 6% of households being female breadwinner and 6% being work poor. The secondary household employment

type of countries where the dominant household type is male breadwinner, is work rich, for all countries but the Netherlands and Ireland (Germany (23%); Luxembourg (27%); UK (29%); Italy (31%); Greece (35%); Spain (25%)). In the Netherlands, the secondary trait was male full time part time (29%) and in Ireland it was work poor (19%). The tertiary traits were more divided (see table 4.20). Classifying countries according to their primary, secondary and tertiary household employment types does not lead to the distinct country groupings that might have been predicted by Espng-Andersen, Lewis or Crompton.

Table 4.20 *Primary, Secondary and Tertiary Household Employment Types*

	Household employment type		
Country	Primary	Secondary	Tertiary
Denmark	Work rich (66%)	Male breadwinner	FTPT
Finland	Work rich (63%)	Male breadwinner	Female breadwinner/Work poor
Portugal	Work rich (61%)	Male breadwinner	FTPT
Belgium	Work rich (43%)	Male breadwinner	FTPT
France	Work rich (43%)	Male breadwinner	FTPT
Austria	Work rich (37%)	Male breadwinner	FTPT
Spain	Male breadwinner (54%)	Work rich	Work poor
Netherlands	Male breadwinner (52%)	FTPT	Work rich
Germany	Male breadwinner (51%)	Work rich	FTPT
Luxembourg	Male breadwinner (51%)	Work rich	FTPT
Greece	Male breadwinner (47%)	Work rich	Work poor
Italy	Male breadwinner (46%)	Work rich	FTPT/Work poor
Ireland	Male breadwinner (45%)	Work rich	Work rich
UK	Male breadwinner (32%)	Work rich	FTPT

Source: Author's own calculations using the ECHP.
FTPT = one full time worker, one part time worker.

Time availability theories and bargaining theories would predict that fathers would spend more paternal time if a) they are not working or b) their spouse is also working full time. So fathers in work poor, female breadwinner, or work rich households would be expected to do more paternal time than their counterparts in breadwinner or FTPT households. Looking at the European average, 43% of households where fathers spend substantial paternal time are work rich

households, 23% are male breadwinner households, 13% are work poor and a further 13% are male full time female part time households. 7% of households where fathers spend substantial paternal time are female breadwinner households, and 2% are female full time male part time households. (For a breakdown by country please see table A4.6 in the chapter appendix)

How much of the distribution of substantial paternal time by household type is a function of the composition of national parental household employment patterns? If the two were distributed in similar proportions then I would conclude that there is no relationship between household type and substantial paternal time. In order to describe the extent to which the distribution of substantial paternal time across household employment types matches the composition of the national household employment pattern, I divide one by the other. Table 4.21, divides the percentage of households where fathers spend substantial paternal time per household employment type (see table A4.6), by the percentage of households in that employment type in that country (table 4.19). If the resulting score is equal to 1.00 the national distribution of household type matches the distribution of households where father do substantial care and there is no relationship between household employment type and substantial paternal time. If the score is greater than 1.00, there is a positive relationship between that household type and substantial paternal time. If the score is lower than 1.00, there is a negative relationship between that household type and substantial paternal time.

Table 4.21 *Strength of Relationship Between Household Type and Substantial Paternal Time*

	Household types					
		Breadwinner		FTPT		
Country	Work poor	Male	Female	Male	Female	Work rich
Germany	2.40	0.71	3.50	0.63	2.50	1.35
Denmark	1.50	0.93	2.00	0.82	0.88	0.98
Netherlands	2.50	0.38	7.00	1.10	6.00	1.30
Belgium	1.14	0.43	1.50	0.90	1.43	1.33
Luxembourg	1.25	0.67	2.00	0.82	3.00	1.12
France	2.75	0.39	2.50	1.19	3.33	1.59
UK	1.92	0.63	2.50	0.83	2.86	1.00
Ireland	1.21	0.43	5.00	1.13	2.50	1.89
Italy	1.30	0.57	2.00	1.10	2.50	1.35
Greece	1.38	0.68	3.00	1.17	4.00	1.14
Spain	1.17	0.59	2.25	1.20	2.50	1.52
Portugal	1.75	0.59	2.00	0.40	5.00	1.11
Austria	2.40	0.65	2.33	0.91	3.33	1.03
Finland	1.50	0.85	1.50	1.00	1.00	0.94
Europe Avrg	1.63	0.61	2.33	0.93	2.86	1.16

Source: Author's own calculations using the ECHP.

Across Europe, the household type does have an impact on whether or not a father spends substantial paternal time, controlling for the national composition of household employment types. Fathers in work poor households in every country were more likely to be doing substantial paternal time, than would be predicted if there was no relationship. Similarly, fathers in female breadwinner households (this was true for every country) and fathers in female full time, male part time households (true for every country apart from Finland and Denmark) were much more likely to spend substantial time than would be predicted if there was no relationship. This lends weight to the hypothesis that fathers are more likely to spend substanstial paternal time when they more time available because they are working less. It also supports the hypothesis that fathers are more likely to spend substantial paternal time in the case that their spouse is also working longer hours.

Fathers in male breadwinner or male FTPT households were less likely to be spending substantial paternal time than would be predicted if there were no relationship between paternal time and household employment. This was true for all countries in the case of male breadwinner households. The relationship was true, where the father worked full time and the mother part time on average across Europe, but there were exceptions.

Fathers in work rich households were slightly more likely to spend substantial paternal time than would be predicted if there was no relationship between paternal time and household employment. In Denmark, the UK, Austria and Finland, there was no relationship between paternal time and the work rich employment type. One theory to explain this is that work rich households are now the norm in these countries and have set the standard for other household types.

As there is a link between paternal time and the household employment pattern, national differences in paternal time could be explained as a function of the different compositions of household employment patterns. I have found that paternal time varies according to household employment type and that it is a function of both fathers' and mothers' working hours.

4.5.1 Logistic Regression Analysis of Household Employment Type by Substantial Paternal Time

The measure used in table 4.21 is the index of association (with its well-known attendant problems e.g Billewicz 1955). Thus, further multivariate analysis is desirable in order to better test H1. To this end, logistic regression analysis using as the dependent variable whether the individual spent substantial parental time is used to further explore the relationship between household employment and substantial paternal time.

Given that the dependent variable, substantial paternal time, is dichotomous, logit regression equations with standard errors adjusted for clustering of individuals (or panel-corrected standard errors e.g. Beck, Katz and Tucker 1998) are used for this. Data is pooled from all countries, using country dummies.

Whether fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market is investigated using the household types developed in the previous section (table 4.18). Dummy variables are constructed to represent household type: work poor, male breadwinner, female breadwinner, male full-time-part-time, female full-time-part-time, work rich. Further explanatory variables included in the model are education level, age and country. As the relationship between paternal time and occupational characteristics will be captured in later chapters, and order to avoid multicollinearity with the household type variables, further employment-related variables are omitted from this initial analysis. Further variables, which the previous section's descriptive results suggest are associated with paternal time are whether or not a household has small children (under six years) in the family, whether the father is step- or biological and the number of children under 16 in the household.

Table 4.22 presents the logistic regression coefficients relating substantial paternal time to household employment type and the other explanatory and control variables discussed above.

Table 4.22 *Summary of Logistic Regression Analysis for Variables Predicting Increased Substantial Paternal Time, Controlling for Country Pooled Sample (Wave 1 - Wave 8)*

Outcome Variable: Reports Substantial Paternal Care	Coefficients b	Robust Std. Err.	e^b
Work Poor	0.48	0.05	1.61
Breadwinner (male)	-0.9**	0.03	0.41
Breadwinner (female)	1.31**	0.06	3.69
Full-time-part-time (male)	-0.34**	0.04	0.71
Full-time-part-time (female)	1.19**	0.11	3.29
Medium level education	-0.09*	0.04	0.92
Low level education	-0.36**	0.04	0.70
Unfinished Education	-0.34	0.18	0.71
No. Children in Household < 16	0.07**	0.02	1.07
Stepfather	0.07	0.08	1.07
Small child in household (under 6)	1.00**	0.04	2.72
Age	-0.007	0.016	0.99
Age squared	-0.05*	0.02	0.95
Denmark (reference category)			
UK	-0.29**	0.07	0.75
Germany	-0.63**	0.08	0.53
Ireland	-0.80**	0.07	0.45
Spain	-0.82**	0.06	0.44
Finland	-0.87**	0.07	0.42
Netherlands	-0.96**	0.07	0.38
Belgium	-1.04**	0.07	0.35
Italy	-1.12**	0.06	0.33
Luxembourg	-1.20**	0.14	0.30
Austria	-1.54**	0.09	0.21
France	-1.71**	0.07	0.18
Greece	-2.00**	0.08	0.14
Portugal	-2.38**	0.10	0.09
Constant	-.38		

N = 123250
Chi2 = 5492.95 (26)
Prob > chi2 = 0.0000
Pseudo R2 = 0.1505
Std. Err. Adjusted for 24439 clusters in personal identification number.
* $p < 0.05$
** $p < 0.001$
Work Rich = household type reference category.
High level of education = reference category.

The logistic regression analysis provides further evidence that, controlling for other factors, household employment type is a strong predictor of substantial paternal time. Households within which the female partner spends less time in the labour market (male breadwinner (b = -0.90) and male full-time female part-time households (b = -0.34)) are negatively associated with substantial paternal time, relative to work rich households, where both partners are working full-time. Work poor households (b = 0.48) are positively correlated with substantial paternal time, more so than work rich households. Households within which the female partner is working more than the male partner (female breadwinner (b = 1.31) and female full-time-part-time (b = 1.19)) are strongly positively correlated with substantial paternal time, much more so than work rich households. Thus the first hypothesis, that fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market, has been tested and not disproved.

The number of children a father has living with him in the household (b = 0.07) and having a small child (under 6 years) in the household (b = 1.00) have a positive impact on substantial time. These results are in line with the descriptive results earlier this chapter. However, the coefficient for the impact of being a step-father, rather than a biological father, whilst positive, was not statistically significant.

Having a medium (-0.09) or low level (b = -0.36). of education, as compared to a high level of education has a negative impact on substantial paternal time The coefficient for unfinished education was of a similar magnitude to he coefficient for low level of education, but is not statistically significant.

The country level controls confirm the very lower and upper ends of the descriptive tables (4.1) for substantial time, but reveal quite a different ranking for other countries, when controlling for compositional differences regarding the other explanatory variables in the model. Further research is need to deepen understanding of the country-level differences.

4.6 Summary

My primary interest in this chapter is to identify differences and similarities in paternal behaviour, both within and between countries. Whilst largely descriptive, this chapter adds value in that it presents a European overview of paternal time, drawn from a single harmonised dataset. For many countries it delivers some of the earliest estimates for average paternal time. A limitation of this chapter, is that the child care provided by a third party (whether it be non-residential grandparents or other relatives, state or privately provided child care) is not known and so the relative time contribution to care from fathers cannot be set in context.

Two measures of paternal time are presented. The first is a measure of average time spent per week looking after children by fathers, as well as by mothers. There are indeed differences in the average paternal time across Europe, ranging from an average of 25 hours per week in Denmark to an average of 12 hours per week in Greece and Portugal. Both fathers and mothers spend more time with younger children, with the average paternal time for those fathers with small children ranging in a similar rank order from an average of 31 hours per week in Denmark to 13 hours per week in Greece and Portugal. An initial glance suggests that paternal time is higher in the more northern countries in Europe. On average, resident European fathers spend 41% of the time that mothers spend on child care. Mothers are still responsible for the majority of child care across Europe. Again, there is geographical variation to the extent to which this is the case, although, generally speaking, paternal time and maternal time are positively related.

Various groups of resident fathers exhibit different average paternal times quite consistently across countries. For all countries, with the exception of Finland, fathers' average paternal time is higher if the mother works more than 15 hours per week in the labour market. In ten out of fourteen countries, those-fathers with a higher level of education spent more paternal time. Being employed rather than self-employed and working in the public sector rather

than the private sector are also positively associated with a higher average paternal time.

Single fathers exhibit a higher average paternal time than cohabiting ones. The European average for single fathers is 23 hours per week as compared to 16 hours per week for those fathers living as part of a couple. Those fathers within households with resident grandparents exhibit lower paternal time than the average. Fathers who are members of reconstituted families generally spend more paternal time than the average father. Finally, I find that whether a father is part of an all boy or all girl household makes very little difference to his paternal time.

The second measure of paternal time is that of substantial paternal time. The substantial time measures are developed so that a comparison of those fathers who are spending more time looking after children, with those spending not quite so much time becomes possible. About one-tenth of the sample of resident fathers fall into this category. Measures of substantial time show that there are also considerable differences in both the proportions of parents spending substantial parental time across Europe and in the gender differences in parental time. The range of experiences in different countries is wide. Whilst the retrospective and self-reported measure of child care time in the ECHP would seem less than ideal, a comparison of my estimates of the fathers' share of child care time with estimates of fathers' share of child care time derived from other datasets, reveals that the ECHP-derived measure is reasonably reliable and valid.

One way of exploring why these differences exist across countries is to look at parental household employment types. Four household types are considered: work poor, breadwinner, full-time-part-time and work rich. There is considerable cross-national variation in the distribution of the various parental household employment types.

Coming from this observation, H1, namely that fathers spend more paternal time if the mother is participating to a greater or equal extent in the labour market was put to the test. I found that, using a logistic regression analysis, that across Europe, the respective parental household employment type is correlated with whether a father spends substantial paternal time. Fathers in households

where mothers are participating to a greater or equal extent in the labour market are found to be more likely to spend substantial paternal time than would be predicted if there were no relationship between the two variables.

Another finding is that being a father in a work poor household is positively correlated with spending substantial paternal time. This lends some support to theories, which explain parental time as a function of the time available to parents.

This chapter has begun to discuss the first site of enablers and constrainers of paternal time: that of the household-labour market nexus. The other site, briefly discussed in chapter 2 was that of the state-labour market nexus. Correspondingly, the next chapter is now going to put the estimates of substantial paternal time in the context of father-friendly legislation.

4.A Appendix

Table 4.A1 *Average Parental Time Across Europe (Hours per Week): Two Survey Years (1995 and 1996 Pooled)*

	Paternal Time			Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	1474	22	18	1468	37	27
UK	2100	19	18	2090	51	31
Finland	1359	18	16	1339	38	33
Germany	2376	17	14	2280	48	27
Netherlands	2721	17	13	2720	54	26
Belgium	1829	16	18	1626	40	31
Ireland	2521	16	13	2459	51	30
Spain	4255	15	12	4205	46	28
Austria	2024	14	10	1985	48	29
Italy	4706	14	10	4562	37	22
Luxembourg	648	14	10	593	36	25
France	3862	13	10	3759	29	25
Greece	3292	12	7	3270	35	19
Portugal	3135	12	7	3089	24	19

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-3 only).
Missing data has been imputed.
All households contain a couple with dependent children.

Table 4.A2 *Average Parental Time Across Europe (Hours per Week): Missing Data Deleted and Not Imputed*

	Paternal Time			Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3237	32	23	3496	50	26
UK	1082	28	22	1707	61	26
Finland	3350	25	19	3607	47	28
Germany	1248	24	17	2089	51	25
Netherlands	8171	18	13	8978	48	24
Belgium	2250	25	24	3695	51	29
Ireland	2744	25	17	5556	63	25
Spain	3972	27	17	9651	55	24
Austria	2293	20	14	4826	49	25
Italy	7109	19	12	13407	40	19
Luxembourg	309	19	13	444	45	23
France	3796	21	18	6649	46	25
Greece	2735	18	10	8714	37	18
Portugal	1605	21	15	6521	35	21

Source: Author's own calculations using the ECHP pooled weighted sample (waves 2-8 where available).
Missing data has been deleted for child care variable *pr007*.
All households contain a couple with dependent children.

Table 4.A3 *Average Parental Time Across Europe (Hours per Week): Not Weighted, Missing Data Deleted and Not Imputed.*

	Paternal Time			Maternal Time		
Country	N	Mean	S.D.	N	Mean	S.D.
Denmark	3237	31	23	3496	50	26
UK	1082	28	23	1707	60	26
Finland	3350	24	18	3607	46	28
Germany	1248	23	17	2089	50	25
Netherlands	8171	18	14	8978	47	24
Belgium	2250	25	23	3695	48	28
Ireland	2744	24	17	5556	62	25
Spain	3972	27	17	9651	55	24
Austria	2293	19	14	4826	47	24
Italy	7109	19	12	13407	40	19
Luxembourg	309	19	13	444	46	23
France	3796	21	17	6649	46	25
Greece	2735	18	10	8714	36	18
Portugal	1605	22	20	6521	34	22

Source: Author's own calculations using the ECHP pooled non-weighted sample (waves 2-8 where available).
Missing data has been deleted for child care variable *pr007*.
All households contain a couple with dependent children.

Table 4.A4 *Substantial Paternal Time Across Western Europe (Fathers of Children Under Sixteen): Not Weighted*

	% of fathers spending substantial paternal time		% of substantial parental time spent by fathers (as opposed to mothers)	
Country	Pooled	1996	Pooled	1996
Denmark	32	30	35	33
Finland	15	16	28	28
UK	22	22	21	22
Germany	14	16	16	18
Ireland	13	13	14	13
Spain	12	11	15	14
Belgium	14	15	20	22
Italy	9	9	12	13
Austria	8	9	12	11
Netherlands	10	10	12	12
Luxembourg	9	10	12	15
France	7	7	15	14
Greece	4	5	7	8
Portugal	3	2	9	6

Source: Author's own calculations using the ECHP pooled non-weighted sample (waves 1-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children.

Table 4.A5 *Substantial Paternal Time For Small Children Across Western Europe: 1996 and 2001: Not Weighted*

	% of fathers spending substantial paternal time		% of substantial parental time spent by fathers (as opposed to mothers)	
Country	1996	2001	1996	2001
Denmark	43	47	33	37
Finland	29	27	30	36
UK	24	-	21	-
Germany	22	-	20	-
Ireland	19	20	17	19
Spain	18	14	17	15
Belgium	16	12	24	18
Italy	14	12	16	15
Austria	13	9	13	12
Netherlands	12	13	12	16
Luxembourg	12	-	16	-
France	11	11	15	17
Greece	9	5	11	6
Portugal	8	8	12	13

This table is used in Chapter 5.
Source: Author's own calculations using the ECHP pooled non-weighted sample (waves 1-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children under six years.

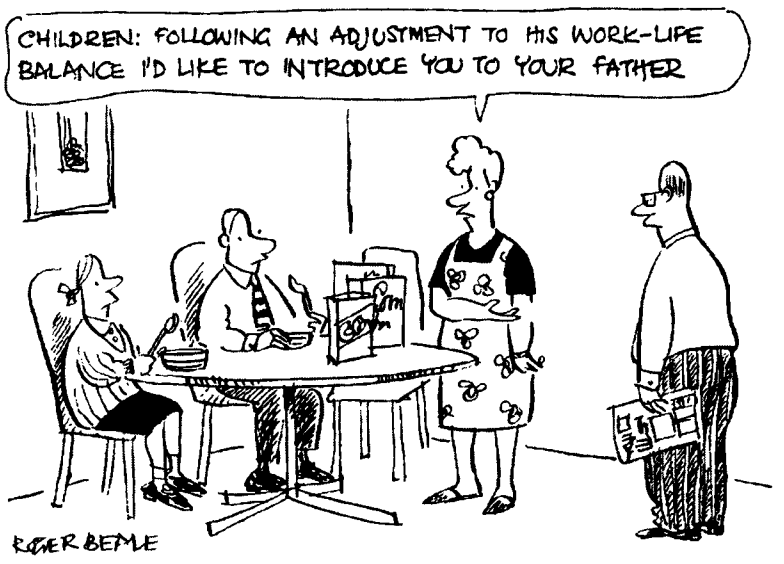
Table 4.A6 *The Distribution of Fathers Spending Substantial Paternal Time According to Household Type*

	Household types					
		Breadwinner		FTPT		
Country	Work poor	Male	Female	Male	Female	Work rich
Germany	12	36	7	12	1	31
Denmark	6	14	6	9	0.4	65
Netherlands	15	20	14	32	6	13
Belgium	8	12	3	18	1	57
Luxembourg	11	20	5	19	1	43
France	10	22	8	9	3	48
UK	23	20	5	20	2	29
Ireland	23	19	5	17	2	34
Italy	13	26	6	11	2	42
Greece	11	32	6	7	4	40
Spain	14	32	9	6	1	38
Portugal	7	16	6	2	2	68
Austria	12	22	7	20	1	38
Finland	9	17	9	4	1	59
Europe Avrg	13	23	7	13	2	43

Source: Author's own calculations using the ECHP.

Chapter 5[60]

Father-Friendly Legislation Across Western Europe in the 1990s



(Roger Beale, Financial Times Cartoonist)

Can father-friendly legislation promote equal sharing by men and women of both paid employment and child care, and if so, which types of arrangements? This is the broad question examined in this chapter. I look at the government

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60 The author would like to acknowledge and thank Professor Don Williams of Kent State University College of Business Administration for his comments on the early drafts of this chapter and with whom this chapter has subsequently been developed further into a forthcoming paper in the Journal of Comparative Policy Analysis.

leave provisions that were available to fathers in sixteen[61] Western European countries for the period 1996-1997 and compare them with the amount of time that fathers spent looking after their children during this period.

Many women now participate in the labour market (Crouch 1999) and fathers increasingly participate in household work and child care (Gershuny 2000). Women, however, are still responsible for the majority of child care across Europe (Eurostat 2004; see also Chapter 4). It can be said that these social changes, observed in Western European households, have been asymmetric: women have, in general, become earners to a greater extent than men have become carers. Nonetheless, *father-friendly* legislation has been enacted in many countries, with an eye toward increasing the role that fathers play in child rearing.

Father-friendly legislation is defined as that which, in particular, acts as an enabler with regard to fathers combining their caring rights and responsibilities with earning. I focus in particular on statutory leave provisions, as theoretically I would expect these to be associated with the time fathers spend looking after their children. Across the member states of the European Union there are various terms for the different variations of leave provision available to fathers, including; paternity leave, parental leave, child care leave, career breaks, family leave, sick child leave, calamity leave, and so on. For the purposes of this thesis, paternal leave is used as a broad umbrella term for all types of leave to which fathers have access.

I look at the access that European fathers had to statutory leave to care for small children in the mid-1990s. Throughout the 1990s, across Western Europe, fathers were increasingly enabled to spend more time caring for small children following changes in legislation regarding access to paternal leave. A particular example of legislation change was the European Union directive on parental leave (96/34/EC), which came into force in June 1996 (although parental leave arrangements were already in place in some member states). There were several aims behind the directive, but a primary consideration was

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61 The fifteen European Union member states as of 1996/7 and Norway.

to achieve a balanced participation of women and men in family and working life (European Network 1998, EU Council 2000/C 218/02). The question of whether the directive is realising its aims remains unanswered. There has been little policy impact analysis into the practical significance of this legislation with respect to its increasing the amount of time that men spend with their children (Haas 2003; Moss and Deven 1999).[62]

I explore in this chapter the correlations between paternal time and paternal leave legislation at the national level, the inquiry being whether father-friendly legislation in its capacity to reduce work-family conflict, acts as an enabler of paternal time. Of course, national government legislation might not be relevant in some employment situations. In countries where collective agreements play an important role in social protection, there can be much variation in both the scope of extra-statutory provisions as well as the implementation and uptake of provisions (both statutory and extra-statutory) across companies and occupations, the public and the private sector (Bruning and Plantenga 1999; Haas, Allard and Hwang 2002; OECD 2001: 147). However, in this chapter, I concentrate on national level legislation alone.[63]

As noted in previous chapters, a systematic cross-national comparison of time spent caring for children by fathers, based on a common data source, has not previously been possible. The European Community Household Panel survey (ECHP), however, provides a self-reported measure of the time parents spend per week looking after children for most of the countries in Western Europe. [64] I used this data to construct measures of the time spent caring for children by fathers within each country in the previous chapter. Here I examine correlations between these measures and the indices of father-friendly legislation.

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62 A new report published in the final weeks of writing the thesis contributes to addressing this deficit (Moss and O'Brien 2006).

63 The exclusion of non-state provisions from the index allows the comparative analysis of the baseline leave provision in Western Europe. Thus the total amount of leave available to fathers in Europe will be under-estimated. This should not affect the results of the correlation analysis, unless the presence of such agreements is related to the presence (or absence) of statutory provisions. If there is a positive (negative) relationship, then the correlation analysis may overstate (understate) the effect of statutory provisions. This is an important topic for further research.

64 Except for Sweden and Norway as the data are not available.

I must note that the cross sectional approach that I use in this chapter cannot determine whether there is a causal effect of father-friendly policy on paternal time. It is plausible that countries with considerable numbers of fathers spending substantial paternal time are more likely to enact father-friendly legislation. Underlying cross-national cultural differences serve to affect both caring behaviour and policy. I can only talk of correlation between the two. There is evidence in the literature, however, to suggest that father-friendly policy is a forerunner to increased paternal time (Brandth and Kvande 2001). I conceptualise the relationship between paternal time and father-friendly legislation to be one of mutual reinforcement. Increases in paternal time will increase demand for more extensive father-friendly legislation and more extensive father-friendly legislation will make it easier for fathers to spend more time with their children.

The chapter is organised as follows: first, I review the literature specifically regarding policy provision and briefly present the theory and reiterate the hypothesis generated in chapter 2 regarding the roles that policy can have in affecting paternal child caring time. I then describe the construction of the father-friendly policy indices in consultation with the relevant empirical literature, and present the results for the relationships between these indices and paternal time. I thus construct a typology of the extent of provision in each country. The chapter concludes with discussion of the results and topics for further research.

5.1 Empirical Literature Review of Policy Provision

There has been much research into the role that state arrangements can play to help mothers combine both domestic and employment responsibilities (e.g. Dex and Joshi 1999; Gornick, Meyers and Ross 1997; Saurel-Cubizolles et al. 1999). However, there is little systematic knowledge of the practical significance of the paternal leave arrangements in Europe, particularly with respect to them increasing the amount of time that fathers spend with their children. The two concepts of paternal leave and paternal time rarely appear together in a publication. The literature which considers paternal time has already been discussed in chapters 3 and 4. Here, the literature regarding paternal leave is reviewed.

The European Parental Leave Directive implemented in 1996 (Council Directive 96/34/EC) requires EU member states to ensure the legal entitlement of fathers (and mothers) to a minimum of three months unpaid leave after the birth of a child.[65] The Directive provides minimum requirements for national statutory (government) parental leave legislation although many member states already had parental leave schemes in place by 1996, most of which exceeded the minimum provisions set out in the directive (NFPI 2000). There is not, at the time of writing, a European directive concerning paternity leave.

The details of the entitlements and the substance of government leave provisions have been widely and variously compiled, analysed and commented upon in documents published by the European Commission (EC 1998; European Network 1998; see also Deven and Moss 2002; Haas 2003). A valuable contribution in this area comes from Bruning and Plantenga (1999), looking at parental leave uptake in eight European countries. Despite finding considerable variance in parental leave legislation, their conclusions are that parental leave in its current format has had very little impact on equal opportunities. The data available shows that fathers' take up rates in all countries remain low (Bruning and Plantenga 1999; EC 1998; Moss and O'Brien 2006).

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65 Adoptive parents of children up to eight years old must have the same right.

A special Eurobarometer[66] was commissioned to look at men's (fathers and non-fathers) attitudes on a series of issues relating to parental leave (Eurobarometer 2004). Issues identified as important factors in encouraging fathers to take parental leave included the amount of financial compensation, awareness of parental leave, and the ability to split leave into instalments or part time work. Other papers go further in examining how certain forms of parental leave can lead to higher uptake by men than others (Harman 1999; Kelly 1999; Moss 1999; Quiney 1999; Wilkinson 1997).

Nearly all studies in this area conclude that strong financial incentives are essential for increasing fathers' involvement in caring (Brown 2004; Bruning and Plantenga 1999; Eurobarometer 2004; Haas 1992). A second important issue coming to light in the Eurobarometer survey is how aware or unaware men are of their rights to take parental leave. It was found that levels of awareness were particularly high in Sweden (97%), Luxembourg (94%) and Denmark (93%). At the other end of the scale, only 57% of Irish and Portuguese men claimed to be aware of their right to take parental leave. Greece recorded the lowest figure of 45% of men. From the point of view of the individual, it is crucial for the relevant legal provisions to be transparent and accessible (EC 1998).

Maternity leave is as a rule not transferable.[67] Nevertheless, in some countries the father is entitled to take up a certain proportion of the maternity leave (after a period of obligatory leave following confinement). Parental leave is available to both parents, either as individuals or as a family. Individual rights (as opposed to a family-based entitlement) refer to each parent having their own claim for his or her own period of leave. Sometimes a hybrid strategy is used which entails creating an individual rights period within a broader family-based entitlement. This is the case in Norway where special rights are given both to

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66 The European Commission established the standard Eurobarometer in 1973 for the purpose of public opinion analysis. Each survey consists of approximately 1000 face-to-face interviews per Member State (except Germany: 2000, Luxembourg: 600, United Kingdom: 1300 including 300 in Northern Ireland).

67 Apart from the situation in which the father benefits from the leave when the mother dies or is hospitalised.

mothers and fathers in addition to joint rights for parents. This hybrid strategy creates a sense of "use-it-or-lose-it" which increases the likelihood that fathers will make use of leave options (Brandth and Kvande 2001). A fully individualised system has been criticised as restricting parental choice, but a fully transferable system has not been shown to elicit a strong response in terms of fathers' take up in most countries: transferable parental leave is taken up by men at rates varying from 2.5% in Germany to less than 5% in Italy (Brandth and Kvande 1998; Bruning and Plantenga 1999; EC 1998; New Ways to Work 1998). The rise of the hybrid strategy witnessed in the Scandinavian countries would appear to be an effective strategy with regards to improving fathers' take up rates of leave (Ellingsaeter 1999).[68]

Comparing countries on the equivalent amount of leave weeks paid in full is useful because, in principle, this is an indicator of the degree to which each state is willing to share the burden of foregone earnings with the parents. From the point of view of gender equality as measured by female employment, long leaves and career breaks can be traps for mothers. If leaves are long and unpaid, they place twice the burden of care on female workers: because of foregone earnings during the leave and because of worse conditions on re-entry. Long, well-paid leaves avoid the first short-coming, but not the second. A better alternative is to grant both women and men in all jobs the option of working reduced hours or flexible hours on a temporary basis during the crucial years of child raising (Bettio et al. 1998a). There is evidence to show that the working hours of a father are negatively correlated with time spent caring by fathers (Smith 2004). There is a European Directive on working time (the basic directive on the organisation of working time (93/104/EC)), however, in practice it is a highly complex piece of legislation with many opt outs and exceptions. It is thus worthy of further research in its own right and too complex to be included in context of the thesis.

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68 In Norway after the introduction of the father quota, the take-up rates of men increased from 4% in 1993 to close to 80% in 1996 and this percentage seems to be rather stable (Ellingsaeter 1999: 52).

In summary, how national legislation impacts parents' ability to combine parenting and work can vary considerably from country to country. How such legislation may or may not be targeted specifically at fathers rather than mothers can also vary enormously. Generally speaking, there is still a lack of emphasis on enabling fathers to care for their children, despite the principle of both parents being involved in both family and working life being enshrined in European directives, though some countries stand out as exceptions to this rule.

5.2 Theory and Reiteration of Hypothesis

The influence that the state can have on paternal time is the focus of this chapter. To the extent that children are a public good, the state can greatly ease the difficulties associated with combining parenthood and work. My hypothesis is that how it does so can greatly affect paternal time. The hypothesis generated in Chapter 2 to be tested here is:

H2: Fathers spend more paternal time in countries with more father-friendly legislation.

I define father-friendly legislation as that which could potentially reduce work-family conflict by enabling fathers to spend more time looking after their children. Sweden was the first country to implement a parental leave scheme in 1974 and this legislation did embody the ideology of shared roles in parenting (Klinth 2002). Not all legislation has historically had this rationale however, some parental leave programmes instead reinforcing traditional gender roles. A third group of measures may be cast in gender-neutral language but are still inaccessible to fathers in practice.

In national legislation, despite the European Union position, there is on the whole a lack of emphasis on creating enablers to encourage fathers to care. For example, in a report by the European Observatory on the Social Situation, Demography and Family (2003) on the key family issues in the EU Member States, only two countries (Finland and the UK) identified issues relating specifically to fathers.

Despite increasing European harmonisation, considerable variation remains across countries with regards to the extent of father-friendly legislation. Comparing father-friendly provision and the amount of paternal time spent across countries and looking for any correlation between the two is a first step in answering the question: does policy matter? My hypothesis is that national legislation is correlated with paternal time, though the direction of this causal relationship is very difficult to determine.

Using a multi-country comparison, it is necessary to frame the hypothesis around a theoretical approach that will help to explain the potential differences between countries in the extent of their father-friendliness. Different welfare states inevitably lead to variation in the manner and the extent that the parental leave directive and other measures are implemented. The welfare state typologies identified in Chapter 1 and 2 (Esping-Andersen 1990, 1999; Lewis 1992) provide a useful set of theoretical groupings into which I expect countries to fall. A central criticism of Esping-Andersen's typology has been that he ignores gender issues. A number of models of welfare and family have been proposed by researchers in attempts to better understand cross-national variations in broader "work-care" balance (Haas 2005). However, as Gornick and Meyers (2003: 23) recognise, subsequent empirical welfare state research that has explicitly taken gender into consideration, has largely confirmed rather than refuted his classification. The welfare-state principles underpinning his typology would appear to be highly correlated with those shaping family policies. My analysis below provides further support for this relationship, finding a clear relationship between the father-friendly policy index and the welfare state typologies of Esping-Andersen.

I propose that the policy index will also be correlated with the level of paternal caring. If the relationship between the policy index and the Esping-Andersen typology holds, then men will be expected to care most in the social democratic regime type, where father-friendly legislation is most comprehensive, and least in the liberal regime types, where there is the least father-friendly legislation. In the following section, the various dimensions of variation between the national father-friendly provisions are developed into a father-friendly policy index.

5.3 Constructing the Father-Friendly Policy Index

Gauthier (1999) has examined the sources of data and methodological approaches used in comparative family policy research. She distinguishes six methodological categories of comparative studies: institutional comparison; government expenditure; indicator based/average family; family type; scenario based; component based analysis.

The idea of the indicator-based forms of analysis, according to Gauthier (1999: 42) is "to summarise, for an average family, the level of support provided by the government for one specific category of benefits". The advantage of this method is that it provides an easy-to-compute, easy-to-compare index, although it can be lacking in detail, thus ignoring potentially important characteristics. A component based analysis constructs an index, for example of family policy based on various indicators. Gauthier (1999: 46) cites a good example of such an approach as being the study of Gornick, Meyers and Ross (1997), which develops three indices of family policy (for children of differing age groups), on the basis of 18 indicators, for 14 countries. A methodological strength of this approach is that more than one type of benefit can be taken into account, and it still results in an easily interpretable index. The limitation lies in the computation of the index. I take an approach which lies somewhere between the indicator-based/average family and the component based forms of analysis.

The next section goes on to discuss the computation of the father-friendly policy index. It is computed in various ways by way of a sensitivity test, but its limitation lies on the foundations on which the index is built which reflect the author's subjective assumptions.

Paternal leave provisions differ across countries. There are various dimensions of variation between them. The aim is to categorise countries in terms of the content of their paternal leave provisions with respect to these variations. This is done by first creating an index of how father-friendly minimum national paternal leave provisions were across Western European countries in the

mid-1990s.[69] The index is constructed from elements measuring each dimension of variation.

The different elements of the index are: [70]

1. Whether parental leave was available as an individual or family right
2. Whether parental leave was paid and at what level
3. Whether it was possible to take parental leave part time
4. Whether eligibility to parental leave was universal
5. Paternity leave provision
6. Possibilities for emergency/sick child leave
7. Government promotion of awareness of father-friendly measures

Values are assigned to each element for every country, using data from a variety of sources (namely Wilkinson 1997, European Commission 1998, European Network 1998). The scoring system is on a scale between "1" and "10". Higher values are assigned when the policy in the country facilitates male parenting. This particular scale has been chosen as it provides a comparable score of equal weighting for each element. Ten points are considered a sufficient number to reflect the variation found within elements. Other indices in the literature have used alternative scales. A six-point scale is used by Gornick and Meyers (2003: 138) in their index of gender equality in family leave policy design. An alternative would have been to construct an index with a scale ranging from "0" to "100" as found in the paper by Gornick, Meyers and Ross (1997) which explores support for the employment of mothers. An alternative approach would have been to calculate *z*-scores for each element. The *z*-score method involves using a common scale whose upper and lower limits are defined by all the countries in the group (e.g. OECD 2001:152, Unicef 2007). As Gornick,

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69 The information used to construct the indices refers mostly to the legislation in place as of 1997. As previously noted, most countries with such legislation had it in place prior to that time. Some (such as the UK), did not enact legislation in response to the EU directive until much later. The information is collected for the then 15 member states of the EU, plus Norway.

70 The commentary that follows neglects certain aspects, chiefly differential provisions for single parents and parents of disabled children.

Meyers and Ross (1997) note in their paper, the values given for a country for any particular element and for indices as a whole are very sensitive to the selection of elements, to the scoring system and to the manner of construction of the index from the scores.

Using such a scoring system givens an equal weighting to each element that makes up the index. In the absence of a compelling reason to apply different weightings to different elements, equal weighting is the standard approach (Unicef 2007:5). This is not to imply, however, that all elements necessarily convey equal significance with regard to father-friendliness. The sensitivity of the scoring system is a different issue than the ways in which the index has been constructed from the scores.[71]

A description of the different elements of the index and the scoring rationale for each element follows. For a summary, see table 5.1.

5.3.1 Parental Leave: Individual or Family Right

With the exception of Ireland, Luxembourg and the UK,[72] parental leave was an implemented right of workers in all EU countries by 1997. Parental leave can be organised on a family or individual basis. If the right is a family right, then parents must choose who will make use of the parental leave allocated to the family. In contrast, if both parents have an individual, non-transferable entitlement to parental leave, then both can claim a period of leave. If one parent does not take advantage of this entitlement, then the right expires. Whether or not leave is a family right or an individual right is considered highly influential for male parenting. A lowest score of "1" is given to those countries with no leave at all. A score of "5" is given to those countries with only a family right, and a score of "10" to those countries with all of the leave being an indivi-

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71 Table 5.2 provides information on the sensitivity of the results to the ways in which the index of father-friendliness is constructed but not on the sensitivity of results to the scoring system.

72 The EU parental leave directive was to take effect at a later date in Ireland, Luxembourg and the UK.

dual right. Those countries with a combination of individual and family schemes are awarded "7" points. (See table A5.1 in chapter appendix).

5.3.2 Level of Paid Parental Leave

Whether or not parental leave is paid, and by how much, are very important factors in whether men take leave. Where wage compensation is 60% of wages or higher, a score of "10" is awarded.[73] Where a percentage figure is not available but wage compensation was known to have been low, a score of "5" is awarded. France is assigned a score of "3" as paid parental leave was only provided for the second child. A score of "2" is given to those countries with unpaid leave and "1" to those countries with no leave at all. (See table A5.2 in chapter appendix).

5.3.3 Part versus Full Time Parental Leave

In some programmes, parental leave can be taken part time or full time. The assumption is that the more flexible leave is, the better. A score of "10" is awarded if part time leave was an unconditional legal right, a score of "6" if it was only allowed on the employer's consent, a score of "2" if fathers were permitted "rest" periods to feed their child during the working day and a score of "1" if there was no provision for a reduction of working hours for fathers of young children. Rather than part time parental leave, in Spain and Portugal parents had instead the right to reduced hours at work (unpaid), and this is scored as part time leave. In the Netherlands, parental leave could only be taken on a part time basis. (See table A5.3 in chapter appendix).

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73 The choice of 60 percent is an arbitrary one, somewhat in the mid-range of countries with paid leave. The highest values are found in the Scandinavian countries at about 80 percent.

5.3.4 Universality of Parental Leave

Where there are eligibility conditions, they are generally attached to the period of service in employment.[74] The assumption is that the more universal eligibility, the better. Countries are awarded a "10" if there were no conditions attached to leave, "8" if there were minimal conditions (such as 4 weeks of service in Germany), "6" if a period of 6 months or more employment was required, "4" if there was a period of 12 months employment required, and "2" if the period was greater than 12 months. Where there was no leave at all a score of "1" is given. Two points are deducted if a father's eligibility was conditional on the mother being in employment. (See table A5.4 in chapter appendix).

5.3.5 Paternity Leave Provision

Paternity leave is defined as leave running at the same time as maternity leave after the birth of a child.[75] Those countries where paternity leave was available for a period of two weeks or more with high wage compensation are awarded "10". Those countries with minimal paternity provision (in terms of duration and wage compensation) are awarded "5". In many countries short leave for personal reasons or holiday leave serves as a kind of short (paid or unpaid) leave provision. This is not included here as paternity leave, but included later in the index under the separate entry of emergency leave. These countries are awarded "1" for paternity leave provision along with all other countries without any provision for paternity leave. (See table A5.5 in chapter appendix).

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74 Certain groups are also sometimes excluded from leave. For example, small companies in Greece could object to the leave when 8% or more of the workers in the company take parental leave in a year.

75 Parental leave is additional to any paternity leave entitlement. Paternity leave is primarily designed to allow fathers time away from work in the immediate period following the birth of a child.

5.3.6 Emergency/Sick Child Leave

In many countries there is the possibility for employees to take short-term leave of absence to care for sick children. This can either be paid or unpaid. This emergency or family leave is often used where paternity provision is not available and so is not necessarily father-friendly. In other cases, the legal provision for employees to have extra time for visits to school or to care for sick children can greatly reduce work-family conflict and enable fathers to be more involved. "10" points are awarded to countries with paid special leave available for more than a week per year. "6" points are awarded to countries with paid special leave available for less than a week per year. "3" points are awarded to countries with unpaid special leave. "1" point is awarded to those countries without special leave. (See table A5.6 in chapter appendix).

5.3.7 Degree of Awareness

There is much variation between countries with respect to whether men are aware of any father-friendly legislation available to them (Eurobarometer 2004). In the Scandinavian countries there have been public awareness programmes to encourage men to spend time at home on parental leave (European Network 1998; Haas 1992; Wilkinson 1997). It may be that the only way to realise an increase in male parenting is to have it as one of the central motivations behind a leave programme. The maximum score of "10" is awarded to countries that had run publicity campaigns, and the minimum score of "1" to those countries that had not. (See table A5.7 in chapter appendix).

Table 5.1 *Summary of Father-Friendly Index Components*

Component	Score
Family right or individual right	
Individual	10
Combination	7
Family	5
No leave	1
Paid or unpaid leave	
High level wage compensation	10
Low level wage compensation	5
Unpaid	2
No leave	1
Part time leave allowed	
Unconditional leave allowed	10
Employer's consent	6
Rest allowed	2
No provision	1
Universality of leave	
No conditions	10
Minimal conditions	8
6 months minumum employment	6
12 months minumum employment	4
> 12 months minumum employment	2
No leave	1
Paternity leave	
High paternity provision	10
Low paternity provision	5
No paternity provision	1
Emergency leave	
Paid special leave – more than a week	10
Paid special leave – less than a week	6
Unpaid special leave – less than a week	3
No known special leave	1
Governement encouragement through awareness programmes?	
Yes	10
No	1

5.3.8 Constructing the Indices

Using data from a variety of sources (European Commission 1998; European Network 1998; Wilkinson 1997), I have assigned values for each of these seven components for each country. These values are presented in the chapter appendix, table A5.8.

I then construct several composite father-friendly indices for each country.[76] The simplest of these measures is the additive scale, in which I simply sum the values of the seven components. A second method is multiplicative (taking the product of the scores and then taking the n^{th} root) to allow for non-linear effects. I also conducted a principle components analysis (PCA).[77] This method computes weights for the various components of the index, which can be used to compute a value of the father-friendly index for each country. The PCA indices are constructed so as to have mean 0 and standard deviation of 1. I also constructed the indices with only five components (instead of seven) for comparison purposes, excluding components 3 and 6. I found that there were negative correlations between these components of the index and others. In particular, component 6 is negatively correlated with two of the other components, and component 3 is negatively correlated with one of the others. All sets of indices are reported, by country, in table 5.2.[78] The various indices are highly correlated, with a correlation coefficient of at least 0.91.

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76 I have not attempted to check the sensitivity of the results to changes in the assignment of these values, which would be proposed in future work.

77 PCA is similar to factor analysis in that both attempt to produce a smaller number of linear combinations of the original variables in a way that captures most of the variability in the patterns of correlations. A factor score is reported here. The sample size is smaller than would typically be recommended for PCA but the Kaiser Meyer-Okin Measure of Sampling Adequacy (KMO) value is above 0.6 so the data are deemed suitable for PCA (Pallant 2001).

78 The index values for Norway and Sweden have been excluded from the table, since these countries are excluded from the subsequent analyses. It should be noted, however, that Norway and Sweden have the highest values of the indices.

Table 5.2. *Indices of Father-Friendliness: By Country*

	Sum Score		Product Score		PCA based on	
Country	7 elements	5 elements	7^{th} root	5^{th} root	7 elements	5 elements
Finland	58	47	6.8	9.3	2.23	2.20
Denmark	54	47	6.4	9.3	2.05	2.20
Netherlands	34	22	3.9	3.3	0.15	0.11
Belgium	30	21	3.2	2.9	0.04	0.13
Austria	32	16	3.5	2.5	0.05	0.00
Germany	32	20	3.6	2.9	-0.06	-0.17
Portugal	33	17	2.8	2.9	-0.27	-0.22
France	30	19	2.8	2.6	-0.15	-0.22
Greece	29	18	2.6	2.4	-0.30	-0.28
Italy	21	16	2.5	2.5	-0.16	-0.24
Spain	24	13	2.4	2.1	-0.40	-0.52
Ireland	9	5	1.2	1.0	-1.06	-0.96
Luxembourg	7	5	1.0	1.0	-1.06	-0.96
UK	7	5	1.0	1.0	-1.06	-0.96

As can be seen in the table, the values of the father-friendliness indices vary considerably across the countries studied. Interestingly, table 5.2 also shows that there are three categories of father-friendliness that cluster regionally according to Esping-Andersen's three categories. Using the multiplicative score with 5 components, for example, the average index values are 1.00 in the liberal, 9.30 in the social democratic, and 2.68 in the conservative regimes. The average index value for the southern European ("Mediteranean") countries is 2.48, only slightly below the 2.68 value for the conservative regime. This difference is not enough to theoretically distinguish this group of countries as distinct in terms of father-friendly legislation. As noted above, this confirms the view that the underlying welfare-state principles as laid out by Esping-Andersen are highly correlated with family policy.

Within the conservative welfare regime clusters, there are, however, some surprises in the results. The Netherlands is ranked very highly despite it not

having a particularly strong record for gender equality with regard to parenting roles. This said, the Netherlands is often considered to resemble the social democratic Nordic countries with respect to work-life reconciliation legislation and quality of life measures (see for example OECD 2001, Visser 2002, Unicef 2007, Young and Grundy 2007). The Netherlands' scores for each element are relatively high with the exception of wage compensation for parental leave and government encouragement. France is perhaps ranked surprisingly low given the high level of labour market participation of mothers. One explanation might be that the employment of mothers in France has rather been supported by extensive and affordable child care provision, rather than by an emphasis on gender equality and this is reflected by the father-friendly index. It is precisely this distinction between legislation that supports mothers' employment and legislation that supports fathers' caring that the index is intended to illuminate.

It is relatively rare to find family policy indices (as opposed to typologies) in the literature. Other family policy indices developed in the literature include a six-point index of gender equality in family leave policy design (Gornick and Meyers 2003: 138). This index reflects only three features of policy design: paid paternity leave, non-transferable parental leave rights and wage-replacement provisions and has the slightly later baseline date of 2000. For those countries common to the two indices, the highest scoring countries in this index correlate with those in my index, but there is some disagreement with regards to the continental European countries primarily as a function of the introduction of paid paternity leave by 2000. Another set of indices developed by Gornick, Meyers and Ross (1997) regarding policies for mothers with pre-school age children correlates highly with my index, with the exception of the placing of France. A further composite index of work/family reconcilation policies and relevant flexible work arrangements can be found in OECD Employment 2001: 152. Again this is highly skewed towards capturing legislation and arrangements which are supporting mothers' employment rather than fathers' caring.

Some words of caution are in order. Such clustering as I have obtained may not be highly "robust" because it is based on a limited, if important, set of indicators. Nevertheless it helps to focus on some important aspects. It should also

be noted that in many countries employees rely heavily on collective agreements to supplement statutory provisions. Indeed in most countries this is true to some extent, since provisions are generally bettered by collective agreements for public service employees, and differences between the public and private sector are often important (OECD 2001). I do not know whether these non-statutory provisions are correlated with the father-friendly index. Two surveys carried out by the European Foundation for the Improvement of Living and Working Conditions provide information with regard to firms' contribution to the reconciliation between work and family life in the European Union (OECD 2001: 148). In this publication, indicators of family-friendly and relevant flexible working arrangements in enterprises for the period 1995-1996 are reported. It should be noted however, that these indicators are highly skewed towards indicators which support the employment of women rather than fathers' caring. The correlation coefficient between the percentage of women employees with a child under 15 in the household reporting extra-statutory arrangements for parental leave (see OECD 2001: 149 table 4.8) and the father-friendliness index, using the sum score with 5 elements, is only -0.39. It is negative as might be expected. If national statutory provision is generous, there will be no need for extra-statutory provision. The relatively low correlation coefficient perhaps reflects that the information summarised by the OECD (2001) is not concentrated on provision which supports fathers' caring.[79]

Unfortunately these collective agreements are difficult to incorporate in cross-national comparisons and consequently are ignored here. In reference to primary parental household employment type as discussed in the latter section of the last chapter, those countries which primarily consist of work rich households are clustered at the top end of the indices, with the exceptions of the Netherlands and Germany.

In the following section I present the data used to measure paternal time, which is used in the correlation analysis with the policy indices.

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[79] Indeed, the chapter is titled "Helping Parents into Paid Employment".

5.4 The Father-Friendly Index and Substantial Paternal Time

In order to test the hypothesis that fathers spend more paternal time in countries with more father-friendly legislation, correlation coefficients between the father-friendly indices and substantial paternal time measures are reported. The European Community Household Panel survey (ECHP) is the source of data for the estimates of paternal time as documented in chapter 4. Although the ECHP dataset is longitudinal, I use it here as a cross-sectional data set. I use the data taken from the 1996 and 2001 survey years. I focus on 1996 partly because it was the year of the European Parental Leave Directive, and partly as there are the maximum number of countries available for analysis in 1996.[80] Also, problems associated with attrition are fewer earlier in the panel. Data from 2001 is also used for comparison purposes. Data are available for 1996 for fourteen EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and UK.[81] The initial sample for 1996 was of approximately 131,000 individuals interviewed, in 61,000 households[82]. I have limited the analysis to a sample of 9,746 households comprised of (heterosexual) couples living together with small children (under six years). I limit the analysis to such couples because the majority of father-friendly legislation applies to fathers with children in this age group.

One approach for conducting the analysis of interest in this chapter would be to compare the average reported hours spent caring across countries, and examine the relationship between the average hours and the policy indices. I take a different approach and instead measure the proportion of fathers spending *substantial* parental time (defined as more than twenty-eight hours of child care per week). The results for each of these measures are reported in table 5.3, by

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80 The ECHP child care variable *(pr007)* is not available for the UK, Germany, or Luxembourg after 1996.

81 Sweden is excluded from the analysis due to data limitations. Norway is not a member of the EU and so is not included in the ECHP.

82 Two sets of data are available for Luxembourg, the UK and Germany. The original ECHP samples are used here.

country and for both 1996 and 2001. The Scandinavian countries stand out with men being most likely to spend significant paternal time (43 percent in Denmark in 1996) and also taking on the most egalitarian share of substantial parental time. In Denmark in 1996, for example, fathers represented 33 percent of parents with substantial parental time. Greece and Portugal, on the other hand, exhibit very low values for both the percent of fathers spending substantial parental time (from 5 to 9 percent), and the percentage of total substantial parental time that is provided by fathers (6 to 13 percent). These cross-national differences appear to be consistent over the time period observed.

Table 5.3. *Paternal Time for Small Children Across Western Europe: 1996 and 2001*

	% of fathers spending substantial paternal time		% of substantial parental time spent by fathers (as opposed to mothers)	
Country	1996	2001	1996	2001
Denmark	43	47	33	37
Finland	29	27	30	36
UK	24	-	21	-
Germany	22	-	20	-
Ireland	19	20	17	19
Spain	18	14	17	15
Belgium	16	12	24	18
Italy	14	12	16	15
Austria	13	9	13	12
Netherlands	12	13	12	16
Luxembourg	12	-	16	-
France	11	11	15	17
Greece	9	5	11	6
Portugal	8	8	12	13

Source: Author's own calculations using the ECHP pooled non-weighted sample (waves 1-8 where available).
Missing data has been imputed for child care variable *pr007*.
All households contain a couple with dependent children under six years.

Previous analyses have shown a trend of increasing paternal time (Smith 2004).[83] From table 5.3 I see that the trends are not consistent across nations. The percentage of fathers spending substantial paternal time has increased between 1996 and 2001 in Denmark, the Netherlands and Ireland. It has stayed the same in France and Portugal, and has decreased in Finland, Belgium, Austria, Greece, Italy and Spain. When looking at the share of substantial parental time, men contribute proportionally more by 2001 in Finland, Denmark, the Netherlands, Portugal, France, Ireland, and less in Belgium, Austria, Greece, Italy and Spain.

The next step is to use the substantial time measures to examine the relationship between paternal time and the indices. The correlation coefficients between the different father-friendliness indices and the two measures of paternal time are presented in table 5.4. Referring first to the percentage of fathers spending substantial time caring, I find fairly high and significant cross-country correlations for all indices. The correlations are higher when the five-component indices are used for all the sources. The correlation coefficient for the five-component product index with the percentage of fathers spending substantial paternal time is 0.73. For the PCA score based on five components, the correlation coefficient and the percentage of fathers spending paternal time measure is 0.65. Similar correlations are found between the father-friendliness indices and the proportion of total time spent caring that is spent by fathers. These results suggest, therefore, that in general, fathers in the countries with higher values of the father-friendliness index are more likely to spend substantial time caring for children, and engage in a greater share of child care time, than those in countries with lower indices. However, it should be noted that the high correlations are more likely to occur given the small N, and that there are some exceptions to this general conclusion (e.g. the UK).

The relationships between the father-friendliness index and the caring measures can be seen in Figures 5.1 and 5.2 (using the five-element additive

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[83] When comparing 1996 and 2001, the panel effects of attrition and self-selection issues relating to still being in the sample by wave 8 should be considered.

index). It is apparent that the relationships are non-linear, with strong positive effects of Denmark and Finland contributing greatly to the overall positive correlation. Indeed, when these two countries are excluded from the analysis, the estimated relationships become negative (although not significant).

Table 5.4 *Correlation Coefficients with the Different Indices*

	Sum Score		Product Score		PCA based on	
Variable	7 elements	5 elements	7^{th} root	5^{th} root	7 elements	5 elements
% of fathers spending substantial paternal time	0.47 (0.09)	0.64 (0.01)	0.60 (0.02)	0.73 (0.00)	0.61 (0.02)	0.65 (0.02)
% of substantial care carried out by fathers	0.53 (0.05)	0.70 (0.01)	0.64 (0.01)	0.76 (0.00)	0.58 (0.04)	0.63 (0.02)

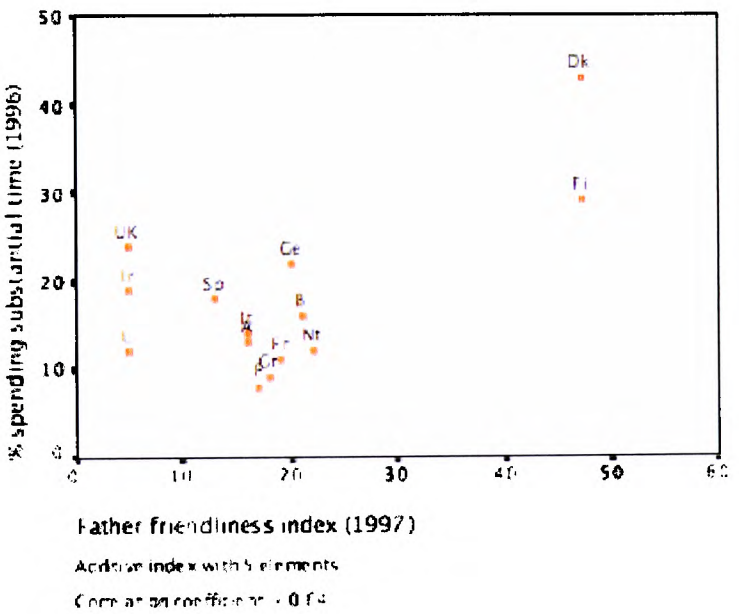
Pearson correlation coefficients: p-values (two-tailed) presented in parentheses.

The relationships between the father-friendliness index and the caring measures can be seen in Figures 5.1 and 5.2 (using the five-element additive index). It is apparent that the relationships are non-linear, with strong positive effects of Denmark and Finland contributing greatly to the overall positive correlation. Indeed, when these two countries are excluded from the analysis, the estimated relationships become negative (although not significant).

I must again note that the cross-sectional approach can tell us nothing about the causal effect of father-friendly policy on paternal time. It is plausible that countries with significant time spent caring by fathers are more likely to enact father-friendly legislation. Underlying cross-national cultural differences serve to affect both caring behaviour and policy. I can only talk of correlation between the two. There is evidence in the literature, however, to suggest that father-friendly policy is a forerunner to increased paternal time (Brandth and

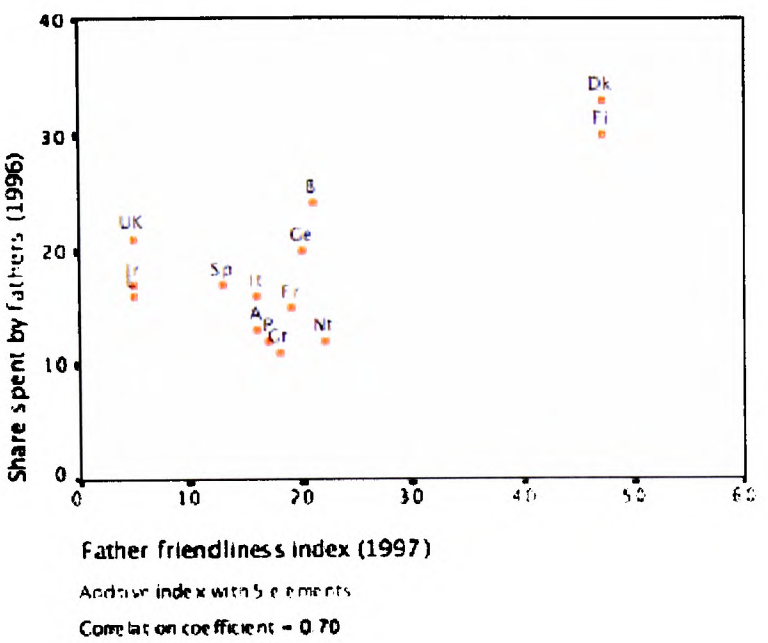
Kvande 2001). As a simple attempt to examine the causal relationships, I have examined the correlation between changes in paternal caring behaviour over the 1996-2001 period and the father-friendliness indices for 1996. Unfortunately data for Luxembourg, Germany and the UK are not available for both years. The analysis suggests weak positive, but insignificant ($p > .10$) correlations between the indices and changes in the proportion of total substantial caring for children done by fathers as well as the proportion of fathers engaged in substantial time spent caring (perhaps due to the small sample size).[84]

Figure 5.1: *Levels of Substantial Paternal Time (1996) and Father Friendly Legislation (by 1997) across Europe*



84 These results are available from the author on request.

Figure 5.2: *Share of Substantial Parental Time Attributed to Fathers (1996) and Father Friendly Legislation (by 1997) across Europe*



5.5 Summary

I begin the chapter by asking whether father-friendly legislation could promote equal sharing by men and women of both paid employment and child care, and if so which type of arrangement. Whilst in this chapter I am not able to talk about causality, I do find a positive association between the father-friendliness of national legislation and paternal time. This result is sensitve to the inclusion of certain countries in the analysis, however.

One unambiguous finding is that national legislation in Western Europe falls clearly into three categories of father-friendliness that cluster regionally according to Esping-Andersen's typology. Paternal time spent caring for children, however, is more difficult to describe in terms of welfare regime. In Scandinavia the more extensive father-friendly provision appears to be correlated with the highest paternal time in Europe. However, paternal time is also relatively high in the liberal category (the UK and Ireland), where there was virtually no father-friendly provision.

There are many directions for further research. Father-friendly legislation is not the only factor that will affect time spent caring for children by fathers. Variations in the patterns of mothers' and fathers' working hours are likely to be important factors. The effect that father-friendly legislation has on work hours should be explored in other work. Another topic for further research is to estimate the impact that the father-friendly indices have on estimates at the individual level; for example, to estimate logistic regressions for whether the father spends substantial parental time, with a set of common explanatory variables and also the index. Further, it would be interesting to construct more recent values of the index to see whether there has been an increase in father-friendly provision across time and to consider the effect this has had on paternal time.[85] Finally, research is needed into the impact of collective bargaining agreements on father-friendly provisions and time spent caring for children.

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85 A further refinement of the father friendly policy index might be the addition of information about the length of time over which policies have been in existence. (Confirmation of Status report recommendation).

Does policy matter? Yes, but it is not the only important factor. On average, father-friendly provision of the "leave" category is found to be highly correlated with paternal time. However, the father-friendly policy index highlights that paternal behaviour is not solely linked to policy. According to the index, Portugal has the same level of provision as Belgium and Germany, but this is not reflected in parenting hours or share of the parenting hours. The UK and Ireland have little to no provision but still score relatively high on paternal hours. Perhaps, in the complete absence of policy, families are coming up with their own "work-family" reconciliation strategies.

I have started to investigate the impact of different father-friendly policies on paternal time. I find that father-friendly legislation varies quite considerably from country to country, and that there are dimensions of variation between the national paternal leave packages. There are specific policy tools which governments can employ, if their aim is to increase male parenting. Recommendations for father-friendly paternal leave policy are:

- Leave should be an individual right
- There must be high wage compensation
- Flexibility should be possible in the way leave can be taken and universal eligibility
- Leave should be targeted at men through government awareness programmes.

5.A Appendix

Table 5.A1 *Family Right or Individual Right*

Individual: Score = 10	Combination: Score = 7	Family: Score = 5	No leave: Score = 1
Belgium	Denmark	Austria	Ireland
France	Finland	Germany	Luxembourg
Greece	Norway	Italy	UK
Netherlands	Sweden	Portugal	
		Spain	

Sources: European Commission (1998); Wilkinson (1997: 67, 74, 78).

Table 5.A2 *Paid or Unpaid Leave*

High level: Score = 10	Low level: Score = 5	Unpaid: Score = 2	No leave: Score = 1
Denmark	Austria	Greece	Ireland
Finland	Belgium	Netherlands	Luxembourg
Norway	Germany	Portugal	UK
Sweden	Italy	Spain	
		France – only for second child and thereafter. Score = 3	

Sources: European Commission (1998); Wilkinson (1997: 67, 74, 78).

Table 5.A3 *Part Time Leave Allowed*

Unconditional: Score = 10	Employer's Consent: Score = 6	Rest Allowed: Score = 2	No Provision: Score = 1
Finland	Austria	Italy	Denmark
France	Belgium		Greece
Norway	Germany		Ireland
Spain	Netherlands		Luxembourg
Sweden	Portugal		UK

Sources: European Commission (1998); Wilkinson (1997: 67, 74, 78).

Table 5.A4 *Conditions of Eligibility*

Conditions		Minimum Employment Conditions			
None: Score = 10	Minimal: Score = 8	6 months: Score = 6	12 months: Score = 4	> 12 months: Score = 2	No Leave: Score = 1
Denmark	Germany		Austria		UK
Finland		-	Belgium	-	Luxemb.
Norway			France		Ireland
Sweden			Greece		
			Italy		
			Netherl.		
			Portugal		
			Spain		

Sources: European Commission (1998); Wilkinson (1997: 67, 74, 78).

Table 5.A5 *Paternity Leave Provision*

Good: Score = 10	Low: Score = 5	None: Score = 1
Denmark	Netherlands	Austria
Finland	Portugal	Belgium
Sweden		France
Norway		Germany
		Greece
		Ireland
		Italy
		Luxembourg
		Spain
		UK

Source: EC 1998.

Table 5.A6 *Emergency Leave*

Paid > 1 week: Score = 10	Paid < 1 week: Score = 6	Unpaid < 1 week: Score = 3	None known: Score = 1
Austria	Denmark	Belgium	Finland
Greece	Germany	Ireland	France
Norway	Netherlands	Italy	Luxembourg
Portugal			Spain
Sweden			UK

Source: EC 1998.

Table 5.A7 *Government Encouragement*

Yes: Score = 10	No: Score = 1
Denmark	Austria
Finland	Belgium
Norway	France
Sweden	Germany
	Greece
	Italy
	Ireland
	Luxembourg
	Netherlands
	Portugal
	Spain
	UK

Source: European Network 1998 (NB Not all questions were answered by all participants, for those countries research is authors' own).

Table 5.A8 *Indices of Father-Friendliness, By Country*

Country	Components							Sum Score
	Family/ Individual Right	Paid/ Unpaid Leave	Part-Time Leave	Eligibility Conditions	Paternity Leave	Emergency Leave	Government Encouragement	
Finland	7	10	10	10	10	1	10	58
Denmark	7	10	1	10	10	6	10	54
Netherlands	10	2	6	4	5	6	1	34
Belgium	10	5	6	4	1	3	1	30
Austria	5	5	6	4	1	10	1	32
Germany	5	5	6	8	1	6	1	32
Portugal	5	2	6	4	5	10	1	33
France	10	3*	10	4	1	1	1	30
Greece	10	2	1	4	1	10	1	29
Italy	5	5	2	4	1	3	1	21
Spain	5	2	10	4	1	1	1	24
Ireland	1	1	1	1	1	3	1	9
Luxemb.	1	1	1	1	1	1	1	7
UK	1	1	1	1	1	1	1	7

* only for second child and thereafter.

Chapter 6

Pre-fatherhood, Fatherhood and Earnings: The Price of Parenthood

In the previous chapter, I considered the *household-state nexus* as a site of enablers and constrainers of paternal time. Here, I turn to the *household-labour market nexus,* and in its context, strategies of parenthood are investigated: how are parental households combining financial provision for their children with care? Rather than focusing on paternal time explicitly, I focus on parental and pre-parental labour market outcomes and their relationship to fatherhood. I do this by comparing parental households with non-parental households.

A second question is whether there are identifiable strategies of pre-fatherhood: are men saving for children? In this chapter, I introduce a new line of inquiry to the thesis. Whether or not pre-parental households are also distinct from both parental households and non-parental households is considered. Heterogeneity within the group of non-fathers is allowed for by considering those who go on to have children within the period of study as distinct from those who do not.

Is the perceived price of parenthood too high for some prospective fathers? Little is known about male fertility and why some men become fathers whilst others remain childless. More is known about the mechanisms of partnership, but fertility is largely treated as synonymous with marriage or cohabitation in

the literature. By comparing similar men in stable cohabiting unions, I am able to unpick the labour market characteristics associated with pre-fatherhood, fatherhood and remaining childless.

This chapter differs from the the rest of the thesis in that it only presents findings for three countries: France, West Germany and the UK. The primary aim of this comparison is to test the generality of country-specific findings about fatherhood and earnings rather than to fully assess the impact of broader societal contexts influencing the onset of fatherhood. I use the longitudinal character of the European Community Household Panel (ECHP) to examine the relationship between fatherhood and labour market outcomes for cohabiting men and women in the three countries.

Different groupings and typologies relate and divide France, Germany and the UK. In particular, France and Germany both belong to Esping-Andersen's (1990, 1999) conservative welfare regime, and they both have similar father-friendly scores in the index developed in the previous chapter. However, Lewis' (1992) gender regimes differentiate France from Germany, but argue that Germany and the UK fall into the same category. Despite the welfare regime literature failing to distinguish consistently between these three countries, the theoretical justification for doing so here is drawn from the typology of parental household employment developed in chapter 4.

Labour market outcomes are measured in terms of hourly wage and the number of hours worked per week. My focus is on the correlations between wages and hours worked and the periods before and after the birth of the first child. Using random effects models, I am able to distinguish parents from non-parents, both before and after the birth of a first child. I also use fixed effects models, which yield consistent estimates of the changes in parental wages and hours caused by the birth of the first child, without assuming that the individual effect in the outcome equation is uncorrelated with the regressors.

In this chapter, fathers and non-fathers are compared, and in order to control for further heterogeneity between men, I focus on one specific group of men: those in long-term cohabiting relationships. Households are further divided in the analysis: as the vast majority of men work full time in the labour market, I

categorise households according to the female partner's labour market behaviour. Two types of households are considered: *traditional*, where the woman does not participate continuously in the labour market, and *dual-earner*, where she does.

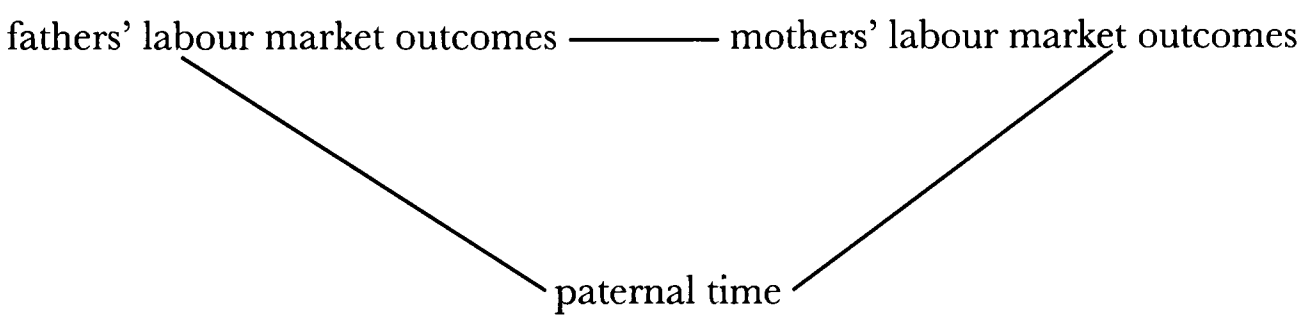
The relevant literature (both European and North American) regarding the relationship between fatherhood and earnings has been reviewed in chapter 2 and so is only summarised in the following. The next section briefly presents the theory and hypothesis to be tested. After this, the samples and the models used for the analysis are discussed. Then, the random effects and the fixed effects estimates of the impact of the birth of a child on earnings and hours worked are presented, followed by a concluding discussion.

6.1 Theory

In the following, I consider two central questions. The first asks whether there are identifiable strategies of parenthood: in which ways are parents, in particular fathers, adapting their labour market outcomes after the birth of the first child? The second question asks whether there are identifiable strategies of pre-parenthood: is it that pre-parents adapt their labour market outcomes in preparation for the onset of parenthood?

In this thesis, a central line of inquiry is the impact that mothers' participation in the labour market can have on fathers' behaviour in terms of his paternal time (see hypothesis 1 as stated in chapter 2). It is probable that this impact on paternal time is mediated via the fathers' participation in the labour market. Thus, I am also interested in the labour market outcomes of different groups of fathers and of different groups of non-fathers with respect to the association that these labour market outcomes have with paternal time (see hypotheses 3 and 4 in chapter 2). The interplay between fathers' and mothers' labour market outcomes and paternal time can be thought of as a theoretical triangle (see figure 6.1).

Figure 6.1 *Theoretical Interplay Between Mothers' and Fathers' Labour Market Outcomes and Paternal Time*



The association between fatherhood and labour market outcomes is considered in two directions: firstly, the effect of the onset of fatherhood on labour market outcomes; and secondly, the effect of labour market outcomes on the onset of fatherhood. I do not make the comparison between all men, whether cohabiting or single, but rather only between fathers and non-fathers in long-term cohabi-

ting unions.[86] I consider this particular group of men so as to be able to take into account the interplay with their female partners' labour market outcomes.

I investigate the differences between three groups of long-term cohabiting men: non-fathers, pre-fathers and fathers. To clarify terms: the definition of *father* used here is that of a man living in a household with dependent children, whether biological, step or adopted. The term *non-father* refers to a man, who will not go on to have children within the observation window.[87] The term *pre-father* refers to a man, who does not have children, but who will become a father within the period of observation.[88]

6.1.1 Strategies of Parenthood: Combining Work and Care

With the onset of parenthood, we can expect observable changes in a father's labour supply as well as less easily observable changes in the effort and time devoted to domestic work. Two competing strategies of fatherhood, the *good provider* and the *active father* models (Kaufman and Uhlenberg 2000), are considered.[89] A father's labour market outcomes are expected to differ from both those of a non-father and a pre-father. He might be more inclined to work longer hours and be more ambitious as part of an effort to better provide financially for his family, thus offsetting the increased costs after the birth of the first child. Conversely, he might reduce his working hours as part of an effort to spend more time caring for his family.

The *good provider* model of fatherhood argues that fathers are likely to be the most productive group of men, as they need to earn more than non-fathers to

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86 Cohabitation is typically associated with shorter relationships than marriage in all three countries (Kiernan 2004). Given the long term nature of the relationships considered in this paper, as well as relatively small sample sizes, the distinction between marriage and cohabitation is not made, though it might be that cohabiting couples hold less traditional gender views.

87 As some of the non-fathers will go on to have children beyond the period of observation, the data will suffer from right-censoring.

88 For a detailed discussion of these terms and their respective definitions, see chapter 2.

89 For a further discussion please see chapter 2. These models of fatherhood might not be static, but rather dynamic, changing as the child grows older and this is an area for further investigation. For the purposes of this chapter, I focus only on fathers with young children (aged under 7 years).

meet their increased financial responsibilities. This will be even more the case in couples where there is a greater degree of gender role specialisation. In this chapter, such couples would be labelled *traditional* as opposed to *dual-earner* couples. These ideas are captured by the third hypothesis developed in chapter 2.

Hypothesis 3: Fathers earn more and work longer hours than non-fathers.

An alternative to the *good provider* model of fatherhood is the *active carer* model: if men are increasingly involved in actively caring for their children, there will be competing demands on their time. There is the question whether an active carer will be able to maintain his labour supply at the same level as either a non-father or a father in a traditional couple, where the mother is not in paid work and so is assumed to be caring. Making the assumption that a father is more likely to become an active carer when his female partner is also contributing to the household income as an active labour market participant, I compare the working hours and earnings of fathers in both traditional and dual earner couples.

It should be noted, that to talk of the effect of fertility on labour market behaviour is to neglect pre-existing preferences and characteristics of the parents. Such an argument disregards the eventuality that parents may plan for the onset of parenthood and that those choosing to become parents have different preferences than those not choosing to become parents.[90] This eventuality is considered in the next sub-section.

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90 Some economists have used instrumental variables to check for the endogeneity of fertility variables and explore whether there is a true effect of fertility on labour supply (Angrist and Evans 1998 (US); Iacovou 2001 (UK)) and they find that not correcting for endogeneity leads to overestimates of the negative effect of children on female labour supply. However, their emphasis remains on the question of effect of fertility on labour market behaviour. There is far more work on the effects of children on female labour supply than on male labour supply and this is noted in many studies (e.g. Angrist and Evans 1998; Lundberg and Rose 2000).

6.1.2 Strategies of Pre-Fatherhood

When thinking about the strategies that men might adopt as pre-fathers, there are a number of possibilities that lend themselves to being tested against the data. For instance, is it that men perceive that they should attain a certain financial position before they become fathers? This would assume that the costs of children are well recognised by prospective fathers. It also assumes that whilst some babies will be born as the result of a "happy accident", the vast majority of births within a stable cohabiting union are the result of an active decision on the part of both parents. When looking at fathers' labour market outcomes in comparison to non-fathers, I also allow for comparison between two sub-groups of non-fathers: pre-fathers and non-fathers. This allows exploration into the association between the onset of parenthood and parents' labour market outcomes before as well as after birth.

The explicit notion that a couple, prior to becoming parents, might be planning together with a view to preparation for parenthood, as expressed by their household employment type, is largely absent from the empirical literature. With the aim to address this gap in the literature, I compare the labour market outcomes of pre-fathers in both traditional and dual-earner couples in order to allow for heterogeneity between couples. Is it that the household employment type of the cohabiting couple affects a pre-father's labour market outcome?

It is likely that differences between labour market conditions in different countries will cause different planning behaviour in those who wish to become parents. In illustration, three countries are considered in the subsequent analyses.

6.1.3 Cross-National Differences in Parenthood and Pre-Parenthood Strategies

The relationship between fatherhood and labour market outcomes at various stages of the lifecycle is investigated in this chapter. I focus on the micro-level

dynamics of an individual man's labour market outcomes within the context of his household. However, as discussed in chapter 2, the broader societal context, with respect to gender role norms, labour market structures, and national father-friendly legislation, will also have a huge impact on individual strategies of pre-fatherhood and fatherhood.

Three countries are included in the analysis: France, West Germany,[91] and the UK.[92] By comparing results for the three countries, I am able to test the generality of the country-specific findings. It is not my intention to attempt to assess the broader impact of the societal contexts influencing fatherhood and the onset of fatherhood in this chapter. Rather, two potential explanations are put forward as to why I expect the labour market outcomes of fathers and non-fathers to vary across countries.

One important macro-institutional effect on parental behaviour can be national legislation. Father-friendly legislation, defined as that which enables fathers to better combine work and care, has been developed as a concept and measured in the previous chapter. Different welfare states inevitably lead to variation in the manner and extent to which national legislation helps parents both with the practical aspects of combining work and family life as well as providing services and contributing to the costs of childbearing. In the index of father-friendly legislation in Western Europe during the 1990s,[93] Germany was ranked just above France, and the UK disappeared at the bottom of the rankings. From this index, German fathers would appear to be the most able to combine work and family, closely followed by French fathers. However, UK fathers could be expected to have a much harder time combining work and active care for their families.

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91 I only look at those Laender from the former West (Bundesrepublik), as the East German states are particularly distinct in terms of gender norms and macro-economic aspects. The historical legacy of the former socialist regime in the GDR still has quite pronounced effects on the availability of formal child care and general attitudes towards extra-familial child care (Naumann 2006).

92 The decision to focus on these three countries was in part data-led, as these were among the few countries to have sufficiently large sample sizes.

93 The index referred to is the one developed in chapter 5.

A second approach is to consider gender regime and welfare state regime typologies. As previously discussed, a number of models of welfare and family have been proposed by researchers in attempts to better understand cross-national variations in the work-care balance (Haas 2005). Drawing on Esping-Andersen's three worlds of welfare capitalism (1990, 1999), the UK is placed apart from France and Germany, as in the UK state intervention is typified by the regulation of markets rather than the provision of social welfare. Combining work and family life is thus likely to remain a private responsibility, and child care provision is not likely to be organised or paid for by the state.

Lewis (1992) contests this grouping in her typology of gendered policy logics, centred around the concept of breadwinning, arguing that the UK and Germany are similar, both being strong breadwinner regimes which are highly dependent on the family's (almost always the mother's) centrality as care provider. The standard male breadwinner model being assumed, it is harder for fathers to be active-fathers as opposed to good-providers. Lewis places France into another category, namely that of the modified breadwinner regime, in recognition of the state availability of child care places enabling parents (usually mothers) to combine work and family.

Looking at the distribution of parental household employment highlights differences between France, Germany and the UK (tables 4.19 and 4.20). The primary parental household employment type in France is work rich (43%), followed by the male breadwinner model (33%), followed by the male full-time-part-time model (11%). In Germany, the primary household model is male breadwinner (51%), followed by work rich (23%), and then full-time-part-time (19%). The UK also has male breadwinner (32%) as the primary parental household employment model, but only just, the secondary household employment model being work rich (29%) and then full-time-part-time (24%).

Following from these findings, in France, it is observed that mothers are polarised into those working full-time and those not working at all. It can be argued that France is an unusual historical case in that women are expected to be working full-time and so have been provided with affordable and widely

available child care provision (Fagnani 2002). In Germany, the majority of mothers are not working, and those who are working mothers are split between full-time and part-time work. It can be argued that is still very unusual in Germany for mothers, particularly of young children, to be combining work and care and so child care provision is not always available (Fagnani 2002; Sundström 2003). In the UK, although more mothers fall into the male breadwinner category than any other category, this percentage is actually less than that in France. Overall, virtually the same numbers of mothers are working in the two countries, although many more of them are in part-time work in the UK. Given the lack of child care provision and state financial help, part-time work is a important strategy for parents to combine care and financial responsibilities in the UK (Viitanen 2005). The theoretical justification for the choice of these three countries is thus that they exhibit varying parental household employment patterns as a result of differing attitudes to mothers' employment and child care provision.

The empirical literature about strategies and the price of fatherhood is reviewed in chapter 2. To recap, previous empirical work has rarely focused on the increased costs of becoming a father. Fatherhood has been treated as synonymous with marriage, marriage being associated with higher wages for men than if they never married (e.g. Bardasi and Taylor 2005; Chun and Lee 2001; Korenman and Neumark 1991; Loh 1996; Schoeni 1995). Whilst there is a large economic literature on female fertility and labour supply, this is not replicated for male fertility. The central tenets of this literature are that a parent's labour supply may be expected to change after the birth of a child as parenthood is associated with increased household costs as well as the extra work effort of caring for the child.

Children are expensive, however, while this is widely acknowledged, there is no agreement as to how to calculate this expense (Craig 2004). The aim here is not to enter into the debate into how best to calculate the price of parenthood, but rather to start from the consensus that having children brings new costs both financial and in terms of time, to the household. Frequently in the empirical literature, it is found that, as children consume part of the household

income, more income is needed, and it is the father who responds to this by increasing his labour supply, also to compensate as the mother decreases hers in order to divert effort to child care (e.g. Joshi and Davies 1999; Angrist and Evans 1998; Pencavel 1986). For a review of such studies see Browning 1992. Whilst this specialisation model is the most frequently found in the literature, there is some evidence that a more even intra-household allocation of caring and earning is emerging (Gray 1997). Kaufman and Uhlenberg (2000) find evidence for both the provider and the involved-carer father models in the United States.

To summarise, various strategies of both parenthood and pre-parenthood with respect to labour market outcomes are considered. Couples are categorised into either traditional or dual-earner, and also into either mothers and fathers, pre-mothers and pre-fathers, and non-mothers and non-fathers. The correlations between wages and hours worked for these different groups are then compared. The following section describes the data used to do this and the construction of the relevant control variables and measures.

6.2 Data and Measures Construction

My analysis uses the British, French and West German data from the European Community Household Panel (ECHP),[94] collected annually between 1994 and 2001 (inclusive). As described more fully in chapter 3, panel members were re-interviewed where possible each year on a wide range of subjects, including basic demographics, household composition, employment status and characteristics, income, health and social relations, to name but a few. The use of panel data is crucial to the analysis in this chapter, as it allows me to examine how labour market outcomes of individuals change as they become parents, taking into account time-invariant unobserved individual-specific effects. This is necessary as such effects may be correlated both with the probability of becoming a parent and with labour market outcomes, therefore causing bias in the coefficients of interest.

For each country, I restrict my analysis to couples without children in 1994[95] and in which the female partner is aged under 40 years in 1994,[96] excluding couples for whom the first child (either the mother's or the father's) was born outside the union. Individual level data on cohabiting partners are matched, so that each of the *units* in my panel is a cohabitating relationship that lasted for at least the 8 years of the sample window of 1994 to 2001. The panel data set is thus balanced. The balanced nature of the panel could in itself potentially introduce bias, as I am looking at people who participate every year in the survey. A further source of bias, in terms of how generalisable results are to the national populations, is that I restrict the analysis to those who stay in the same relationship for at least eight years. The advantage of restricting the analysis in this way is that I compare like with like, in terms of relationship behaviour.

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94 The ECHP based on the national surveys, the BHPS and the SOEP is used in this chapter for Great Britain and Germany respectively.

95 All sample members were without children in survey year one. This information was taken from the household file (variables *household type* (hd006) and *number of members born* (hd010).

96 There could be an argument for excluding individuals younger than 24 (or thereabouts) in order to avoid estimating wage equations for young people still in full time education e.g. Harkness and Waldfogel 1999.

Thus, I use longitudinal data on a sample of men in stable relationships to provide a comprehensive description of the correlation between pre-fatherhood, fatherhood and labour market outcomes. Labour market outcomes are measured in terms of hourly wages and weekly hours worked. The analysis consists of two parts. First, I use random effects models and then, second, fixed effects models to estimate the effect of the birth of the first child on wages and hours worked for parents in comparison to non-parents and pre-parents. The fixed effects control for unobserved characteristics which may lead to a selection bias of certain men into parenthood. I focus on the joint response of household members to parenthood and allow responses to vary for *dual-earner* households, those in which the female partner is a continuous participant in the labour force;[97] and *traditional* households, those in which her participation is intermittent or absent.

I expect my analysis to underestimate any wage penalties of parenthood, as those who have exited the labour market altogether as a result of parenthood are excluded, and those with more intermittent labour force participation (and thus probably lower hourly wages when in employment) are thus more likely to be excluded from the analysis. Respondents were excluded from the labour market if their wage and salary earnings were equal to zero or they were coded as missing or non-applicable on the *number of hours worked* variable. Thus, the years when the fathers had either exited the labour market permanently or intermittently will be excluded from the analysis in that particular year. The dependent variable in both equations (1) and (2) is the natural log, and the natural log of zero is undefined, which is why the non-employed, with values of zero for the number of hours worked and income from work, have not been included. The implication for my results are that my analysis can be expected to underestimate any wage penalties of parenthood, as the most severe penalty, that is not working at all, will not be captured by the analysis. Further, the

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97 Women were still considered continuous participants if they took only one year off around a birth.

salary penalties associated with taking time out of the labour market will not be captured by the analysis.

Further limits of this analysis are that I am only looking at the effect of first birth on labour market outcomes (and of the effects of labour market outcomes on the onset of parenthood), ignoring any correlation between labour market outcomes and further births.

The dependent variables in the analysis are, firstly, the natural log of the real hourly wage rate[98] on the main job including overtime and, secondly, the number of hours worked per week. Those reporting zero or missing from either of the variables were dropped out of the wage variable.[99]

The key independent variables in the model specification are dummy variables, indicating years before and after the birth or the arrival of the couple's first child.[100] Other independent variables include level of education[101], entered as a series of dummy variables, age and age squared.

Observations are divided into two sub-samples based on the woman's labour market participation. The continuous participant sample consists of partners in households, in which the woman participates in each year of the panel, other than any year in which she gave birth.[102] The respondents in households, in which the woman does not participate continuously, are in the non-continuous

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98 The natural log of the hourly wage rate was calculated from the ECHP variables as natural log (normal current gross monthly earnings from main job including overtime * (12/52) / hours in main job including overtime) = ln(hourly wage rate) = ln(*pi211mg* * (12/52) / *pe005a*). No specific information is provided on overtime hours and premia. Income measures are presented in national currencies (by taking the exponent of the natural log presented in the tables 6.1a, b and c and 6.2a, b and c).

99 894 out of 2896 individual observations were excluded as a result of missing wage data from the French sample, 729 out of 3200 from the West German sample, and 906 out of 3424 from the UK sample. Many of these cases presumably represent the non-employed.

100 These measures are based on information in the ECHP relationship file.

101 Highest educational attainment is measured by a harmonised education variable corresponding to the International Standard of Education (ISCED) classification. The harmonised data set has three collapsed categories of highest attained level of education: the first is having a recognised third level education corresponding to post-secondary education (ISCED 5-7), the second is a second stage of secondary level education (ISCED 3) and the third is less than the second stage of secondary education (ISCED 0-2) corresponding to the education a child usually has up to sixteen years. Different dummy variables were created for each category, the "high educational level" being used as the reference category.

102 Including further births.

sub-sample.[103] A respondent's cohabitational status is represented with a dummy variable that takes on a value of one if the respondent is legally married and zero otherwise.

The British pooled data set consists of 3392 observations from 212 couples. The French pooled data set consists of 2896 observations from 181 couples, and the West German pooled data set consists of 3200 observations from 200 couples. First, I report in tables 6.1a, 6.1b and 6.1c the mean hourly wage rate, the mean weekly working hours and the mean age of the sample members in 1994 (survey year 1), separately for men and women. The mean characteristics are reported for the full sample and also for four sub-samples: non-parents, pre-parents, dual-earner couples and traditional couples.

In the French sample (table 6.1a) in 1994, pre-fathers earned more (56.26FF) than non-fathers (52.98FF), despite being 5 years younger and working one hour less. Men in dual-earner couples earned slightly more (57.97FF) than fathers in traditional couples (55.15FF), but are similar in age and working hours.

In the West German sample (table 6.1b) in 1994, other than in the UK and France, non-fathers earned slightly more (22.65DM) than pre-fathers (21.54DM). They also worked 41 hours a week, which is 3 hours more than pre-fathers and were 7 years older. Similarly to France but different from the UK, men in dual-earner couples (22.65DM) earned more than men in traditional couples (21.76DM).

In the UK sample (table 6.1c) in 1994, on average, pre-fathers earned slightly more (£6.69) than non-fathers (£6.55), despite being 4 years younger. Men in traditional couples earned more (£6.96) than those in dual-earner couples (£6.42). There is no difference across the sub-samples in terms of working hours (46 hours).

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[103] There were two ways to consider whether sample female spouses were continuous participants in the labour market: using variable *ILO main activity status at the time of interview* (pe003) and using a dummy variable "earnings", coded 1 = wages > 0, 0 if earnings = 0. They give slightly different pictures of spouse employment. I chose earnings.

Table 6.1a *Cohabiting Couples in France in 1994 (Survey Year 1): Means, (Standard Deviations) and [Number of Observations (N)]*

Variable	Full sample	Non-parents	Pre-parents	Dual-earner couple	Traditional couple
Men					
Mean ln(real wage rate)	4.02	3.97	4.03	4.06	4.01
--- (standard deviation)	(0.43)	(0.43)	(0.43)	(0.41)	(0.44)
--- [N]	[149]	[28]	[116]	[48]	[101]
Mean hours worked per week – employed	43	44	43	43	43
	(10)	(8)	(10)	(8)	(10)
	[161]	[31]	[124]	[51]	[110]
Mean age – men	30	34	29	30	30
	(6)	(7)	(5)	(6)	(6)
	[181]	[36]	[139]	[51]	[124]
Women					
Mean ln(real wage rate)	3.96	3.86	3.96	4.02	3.90
	(0.44)	(0.48)	(0.41)	(0.37)	(0.48)
	[121]	[24]	[92]	[51]	[64]
Mean hours worked per week – employed	36	37	36	36	36
	(9)	(8)	(9)	(7)	(9)
	[127]	[25]	[97]	[51]	[70]
Mean age – women (only < 40 in wave 1)	27	31	26	28	27
	(5)	(6)	(4)	(5)	(5)
	[181]	[36]	[139]	[51]	[124]
Number of couples	181	36	139	51	124

Source: ECHP.

Table 6.1b *Cohabiting Couples in West Germany in 1994 (Survey Year 1): Means, (Standard Deviations) and [Number of Observations (N)]*

Variable	Full sample	Non-parents	Pre-parents	Dual-earner couple	Traditional couple
Men					
Mean ln(real wage rate)	3.09	3.12	3.07	3.12	3.08
--- (standard deviation)	(0.40)	(0.39)	(0.41)	(0.40)	(0.40)
--- [N]	[166]	[55]	[106]	[54]	[112]
Mean hours worked per week – employed	44	43	44	44	43
	(9)	(8)	(10)	(8)	(9)
	[181]	[59]	[116]	[59]	[122]
Mean age – men	32	36	29	36	30
	(7)	(8)	(5)	(8)	(6)
	[200]	[66]	[124]	[59]	[134]
Women					
Mean ln(real wage rate)	2.93	2.96	2.90	3.04	2.87
	(0.38)	(0.44)	(0.34)	(0.43)	(0.34)
	[161]	[59]	[97]	[59]	[95]
Mean hours worked per week – employed	39	41	38	40	38
	(9)	(7)	(9)	(7)	(9)
	[168]	[59]	[104]	[59]	[102]
Mean age – women (only < 40 in wave 1)	29	32	27	32	27
	(5)	(6)	(4)	(6)	(5)
	[200]	[66]	[124]	[59]	[134]
Number of couples	200	66	124	59	134

Source: ECHP.

Table 6.1c *Cohabiting Couples in the UK in 1994 (Survey Year 1): Means, (Standard Deviations) and [Number of Observations (N)]*

Variable	Full sample	Non-parents	Pre-parents	Dual-earner couple	Traditional couple
Men					
Mean ln(real wage rate)	1.90	1.88	1.90	1.86	1.94
--- (standard deviation)	(0.42)	(0.46)	(0.40)	(0.42)	(0.42)
--- [N]	[171]	[69]	[101]	[91]	[80]
Mean hours worked per week – employed	46	46	46	46	46
	(9)	(10)	(11)	(10)	(11)
	[199]	[79]	[117]	[105]	[94]
Mean age – men	31	34	30	32	31
	(7)	(8)	(6)	(7)	(7)
	[212]	[86]	[123]	[105]	[104]
Women					
Mean ln(real wage rate)	1.75	1.78	1.72	1.81	1.69
	(0.42)	(0.39)	(0.44)	(0.33)	(0.49)
	[192]	[79]	[111]	[105]	[84]
Mean hours worked per week – employed	39	39	40	40	38
	(9)	(7)	(10)	(7)	(11)
	[199]	[81]	[115]	[105]	[91]
Mean age – women (only < 40 in wave 1)	29	31	28	29	28
	(5)	(6)	(4)	(5)	(5)
	[212]	[86]	[123]	[105]	[104]
Number of couples	212	86	123	105	104

Source: ECHP.

Next, I report the mean hourly wage rate, the mean weekly working hours and the mean age of the members in the pooled sample (1994-2001), separately for men and women, in tables 6.2a, 6.2b and 6.2c. The mean characteristics are reported for the full pooled sample and also for five pooled sub-samples: non-parents, pre-parents, parents, dual-earner couples and traditional couples.

In the French pooled sample (table 6.2a), on average, fathers (67.36FF) earned more than those without children (55.70FF) and were only 1 year older (34 years). Non-fathers (56.26FF) earned barely more than pre-fathers (55.15FF), despite being 8 years older. They also worked 45 rather than 42 hours per week. Men in traditional couples (59.74FF) earned less and worked longer hours (one hour more) than those in dual-earner couples (64.07FF) but were of a similar age (31 years).

In the West German pooled sample (table 6.2b), on average, the hourly wage was closer to the sample average for all sub-samples. Fathers (27.39DM) earned more than childless men (24.29DM). They worked two hours more per week (46 hours) and were two years younger. The sample of non-fathers earned slightly more (25.03DM) than pre-fathers (23.34DM). They also worked three hours less per week (43 hours) and were 7 years older. Men in a traditional couple earned slightly more (26.05DM) than men in dual-earner couples (24.53DM) and were also 4 years younger, but there was no difference in working hours.

In the UK pooled sample (table 6.2c), on average, fathers earned more (£9.58) than childless men (£7.61), although on average they were the same age (35 years). They also worked an extra hour (47 rather than 46 hours per week). Non-fathers (£7.69) earned barely more than pre-fathers (£7.39), despite being 6 years older. They also worked an hour less (46 rather than 47 hours). Men in a traditional couple (£8.94) earned more than men in a dual-earner couple (£7.69) but worked the same hours (46 hours).

Table 6.2a *Cohabiting Couples in France in the Pooled ECHP Sample (1994-2001): Means, (Standard Deviations) and [Missing Observations]*

Variable	Sample: Full	With children	Without children	Non-parents	Pre-parents	Women continuous participants	Woman not continuous participants
Men							
Mean ln(real wage rate)	4.11	4.21	4.02	4.03	4.01	4.16	4.09
--- (standard deviation)	(0.41)	(0.40)	(0.40)	(0.43)	(0.38)	(0.36)	(0.43)
--- [missing observations]	[343]	[189]	[153]	[87]	[66]	[74]	[272]
Mean hours worked per week – employed	43	43	43	45	42	42	43
	(10)	(10)	(9)	(9)	(8.5)	(7)	(11)
	[256]	[152]	[104]	[56]	[48]	[56]	[200]
Mean age	34	34	33	38	30	34	34
	(7)	(6)	(7)	(7)	(5)	(7)	(6)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1448	775	667	288	379	456	992
No. in each wave	181	From 49 at wave 2 to 145 at wave 8	From 175 at wave 1 to 36 at wave 8			57	124
Women							
Mean ln(real wage rate)	4.02	4.14	3.90	3.90	3.89	4.10	3.94
	(0.43)	(0.39)	(0.42)	(0.43)	(0.42)	(0.35)	(0.48)
	[551]	[320]	[230]	[110]	[120]	[8]	[543]
Mean hours worked per week – employed	35	34	37	37	37	36	35
	(9)	(8)	(9)	(8.13)	(9)	(7)	(10)
	[510]	[308]	[201]	[94]	[107]	[8]	[502]
Mean age (only < 40 in wave 1)	31	31	30	35	27	31	31
	(5)	(5)	(6)	(6)	(4)	(5)	(6)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1448	775	667	288	379	456	992
No. in each wave	181	From 49 at wave 2 to 145 at wave 8	From 175 at wave 1 to 36 at wave 8			57	124

Table 6.2b *Cohabiting Couples in West Germany in the Pooled ECHP Sample (1994-2001): Means, (Standard Deviations) and [Missing Observations]*

Variable	Sample: Full	With children	Without children	Non-parents	Pre-parents	Women continuous participants	Woman not continuous participants
Men							
Mean ln(real wage rate)	3.24	3.31	3.19	3.22	3.15	3.20	3.26
--- (standard deviation)	(0.41)	(0.38)	(0.42)	(0.39)	(0.44)	(0.41)	(0.40)
--- [missing observations]	[279]	[111]	[159]	[96]	[71]	[103]	[176]
Mean hours worked per week – employed	45	46	44	43	46	45	45
	(10)	(11)	(10)	(8)	(12)	(10)	(11)
	[144]	[44]	[92]	[59]	[41]	[63]	[81]
Mean age	35	34	36	39	32	38	34
	(8)	(6)	(9)	(8)	(8)	(8)	(7)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1600	672	913	528	395	528	1072
No. in each wave	200	From 43 at wave 2 to 132 at wave 8	From 188 at wave 1 to 66 at wave 8			66	134
Women							
Mean ln(real wage rate)	3.04	2.98	3.05	3.1	2.97	3.14	2.91
	(0.42)	(0.44)	(0.41)	(0.42)	(0.41)	(0.14)	(0.41)
	[627]	[486]	[136]	[63]	[74]	[10]	[617]
Mean hours worked per week – employed	37	27	39	40	39	39	34
	(12)	(14)	(9)	(8)	(10)	(9)	(14)
	[539]	[434]	[100]	[49]	[51]	[10]	[529]
Mean age (only < 40 in wave 1)	32	32	32	35	29	35	31
	(6)	(5)	(6)	(6)	(5)	(6)	(5)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1600	672	913	528	395	528	1072
No. in each wave	200	From 43 at wave 2 to 132 at wave 8	From 188 at wave 1 to 66 at wave 8			66	134

Table 6.2c *Cohabiting Couples in the UK in the Pooled ECHP Sample (1994-2001): Means, (Standard Deviations) and [Missing Observations]*

Variable	Sample: Full	With children	Without children	Non-parents	Pre-parents	Women continuous participants	Woman not continuous participants
Men							
Mean ln(real wage rate)	2.11	2.26	2.03	2.04	2.00	2.04	2.19
--- (standard deviation)	(0.45)	(0.45)	(0.44)	(0.44)	(0.44)	(0.42)	(0.47)
--- [missing observations]	[307]	[108]	[200]	[124]	[73]	[139]	[168]
Mean hours worked per week – employed	46	47	46	46	47	46	46
	(11)	(11)	(11)	(10)	(11)	(10)	(11)
	[103]	[43]	[53]	[38]	[22]	[36]	[67]
Mean age	35	35	35	37	31	36	34
	(8)	(5)	(8)	(8)	(7)	(7)	(8)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1696	620	1076	688	389	864	832
No. in each wave	212	From 33 at wave 2 to 125 at wave 8	From 209 at wave 1 to 86 at wave 8			108	104
Women							
Mean ln(real wage rate)	1.95	2.07	1.91	1.95	1.82	2.00	1.85
	(0.44)	(0.44)	(0.44)	(0.42)	(0.45)	(0.42)	(0.48)
	[422]	[275]	[150]	[97]	[49]	[9]	[413]
Mean hours worked per week – employed	37	29	40	40	40	39	33
	(12)	(13)	(9)	(8)	(10)	(9)	(14)
	[279]	[196]	[77]	[54]	[31]	[9]	[270]
Mean age (only < 40 in wave 1)	32	33	32	34	28	33	32
	(6)	(5)	(6)	(6)	(4)	(4)	(6)
	[0]	[0]	[0]	[0]	[0]	[0]	[0]
No. observations	1696	620	1076	688	389	864	832
No. in each wave	212	From 33 at wave 2 to 125 at wave 8	From 209 at wave 1 to 86 at wave 8			108	104

6.3 Models

I investigate the association between pre-parenthood, parenthood and labour market outcomes using two types of models: random effects and fixed effects models in two slighly differently specified ways. The advantage of the random effects model is that it allows me to observe parents, in relation to non-parents, both during the periods before birth and after birth. A disadvantage is that the random effects model assumes that the individual effect in the outcome equation is uncorrelated with the regressors. It also demands, unlike a fixed effects model, the use of a balanced panel.

The random effects model assumes that the unobserved individual effects are independent of all explanatory variables. This is a very strong and possibly implausible assumption in much subject matter. Given the substantive interest in this chapter, to compare those who will not have a child in the observation period with those who have not yet, but who will go on to do so, the random effects model is the only way to achieve this. The fixed effects model only facilitates the comparison between parents after birth and non-parents (not making the distinction between pre-parents and non-parents), but it does not require this assumption of independence, controlling for time constant unobserved heterogeneity. Both fixed effects and first-differencing techniques do not allow the distinction between pre-fathers and non-fathers to be drawn within the model, as being a non-father is time constant.

The random effects cannot be checked using the Hausman test in this case (it is not possible to run the fixed effects with the time constant "non-father" as the omitted variable category). It is important to note then, that any results from the random effects model are prone to inconsistency following the potential violation of this assumption. It is possible to test this assumption through the Hausmann test for equation 2 however. The test is based on the comparison of random effects and fixed effects estimates. If the differences among the coefficients are not statistically significant, that is, if the null hypothesis of the test is not rejected, this is evidence in favour of the consistency of the random effects model. If, however, the null hypothesis of the test is not rejected, this is

evidence that the fixed effects estimator should be preferred. In general, the test did fail to reject the null hypothesis, offering support that the fixed effects model was preferred for the estimation of equation (2).

First, I estimate the following equation (1) for men and for women, with random effects models, using panel data on respondents for the window of the eight years of partnership available to me:

$$Y_{it} = \beta_0 + \beta_1 Before_{it} + \beta_2 Born_{it} + \beta_3 After_{it} + \beta_4 Age_{it} + \beta_5 X_{it} + \mu_i + \eta_{it}$$

(Lundberg and Rose, 2000) (1)

Y_{it} represents the outcome of interest, either hourly wages or hours worked per week. $Before_{it}$ indicates that the parent had his or her first child within the panel window but subsequent to year t. $Born_{it}$ indicates that the parent had the first child in year t, and $After_{it}$ indicates that the parent had his or her first child prior to year t. The omitted category is no child born. Age_{it} is a continuous variable and age^2 is included to allow for non-linear effects. X_{it} contains controls for education level and being married (rather than cohabiting). Heterogeneity is captured by allowing for different intercepts of the profiles for pre-parents and non-parents through β_1, and the effect of the birth of the first child is captured by the difference between β_3 and β_1. The variable μ_i captures all unobserved, time-constant factors that affect Y_{it}. Generically, it is called an unobserved effect, or a fixed effect, in that it is fixed over time.[104] The error η_{it} is often called the idiosyncratic error or time-varying error, because it represents unobserved factors that change over time and affect Y_{it} (Wooldridge 2000:420). For each t, the expected value of the idiosyncratic error η_{it} given the explanatory variables in all time periods and the unobserved effect μ_i is zero (Wooldridge 2000:459). Under random effects assumptions, the unobserved individual effect μ_i is also required to be independent of all explanatory variables in all time periods (in contrast to the assumptions for a fixed effects model).

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[104] In the literatue, μ_i is also referred to as unobserved heterogeneity.

The estimates of equation (1), where the dependent variable is the *ln(hourly wage rate)* for men and women, are reported by country (in the top half) of tables 6.3, 6.5 and 6.7. The *p*-value associated with the test of a statistically significant difference between the *Before* and *After* coefficients for that sub-sample is reported here. The interpretation of the *p*-value in the first column is associated with the test that there is a statistically significant difference in the coefficients on *Before* and *After* for the whole sample. The *p*-value in the second column is associated with the test that there is a statistically significant difference in the coefficients on *Before* and *After* for the dual-earner sub-sample. The *p*-value in the third column is associated with the test that there is a statistically significant difference in the coefficients on *Before* and *After* for the traditional sub-sample. The coefficents for the key independent variables *Before* and *After* (those which are statistically significant are reported in bold), and only those coefficients which are statistically significant for the control variables are reported (but not in bold).

Similarly, the estimates of equation (1), where the dependent variable is *weekly working hours* are reported by country (in the top half) of tables 6.4, 6.6 and 6.8. As well as for the full sample of men and the full sample of women, equation (1) is also estimated for two sub-samples of men and women: those who were part of a dual-earner couple and those who were part of a traditional couple. Again, all the coefficents for the key independent variables *Before* and *After* (those which are statistically significant are reported in bold), and only those coefficients which are statistically significant for the control variables are reported (but not in bold). The *p*-value associated with the test of a statistically significant difference between the *Before* and *After* coefficients for that sub-sample is also reported.

Secondly, I estimate the effects of the birth of the first child on hourly wages and weekly working hours of cohabiting men and women using fixed effects on the sample of parents. The model used to generate these estimates is:

$$Y_{it} = \beta_0 + \beta_2 Born_{it} + \beta_3 After_{it} + \beta_4 Age_{it} + \beta_5 X_{it} + \mu_i + \eta_{it}$$

(Lundberg and Rose 2000) (2)

Equation (2) is similar to equation (1), but now $Before_{it}$ is the omitted category. Because *no child born* is constant for an individual, it is only possible to identify two of the three coefficients $\beta_1, \beta_2, \beta_3$ under fixed effects. β_3 is the fixed effects estimate of parenthood on Y. It is not possible to distinguish between pre-fathers and non-fathers. Again, the variable μ_i captures all unobserved, time-constant factors that affect Y_{it}. The error η_{it} represents unobserved factors that change over time and affect Y_{it}.

The results for these specifications are reported by country in (the lower half) of tables 6.3, 6.5 and 6.7 for the outcome *ln(hourly wage rate)* and in (the lower half) of tables 6.4, 6.6 and 6.8 for the outcome *weekly working hours*. In the following sections the results of the analysis are reported by country.

6.4 Results

6.4.1 France

I start with France. The random effects estimates for the *before* coefficient show that French pre-fathers earned 6% less than non-fathers, although no difference is found between the dual-earner and the traditional sub-samples. The coefficients are similar for pre-mothers but not statistically significant apart from the sub-sample of traditional pre-mothers, who earned 10% less than traditional non-mothers (see table 6.3).

The equation (1) random effects estimates for the *after* coefficient indicate that this disadvantage was maintained after birth, there being no statistically significant difference between the *before* and *after* coefficients. However, the equation (2) fixed effects estimate for the *after* coefficient is not statistically significant (see table 6.3). Thus, no wage effect of parenthood is detected for this group of cohabiting fathers in long-term relationships.

There are no statistically significant differences between pre-fathers, fathers and non-fathers in terms of the hours worked (see table 6.4). Fatherhood had no effect on the working hours of French men. This is not the case for women. The equation (1) random effects estimate for the *before* coefficient indicate that pre-mothers worked just over 3 hours more than non-mothers. This difference was strongest for traditional pre-mothers, who worked nearly 5 hours more than traditional non-mothers. The difference between pre-mothers and mothers is statistically significant. Both the equation (1) random effects and the equation (2) fixed effects estimates indicate that there is no statistically significant difference between the sample of parents and non-parents in weekly hours worked, apart from traditional mothers, who on average worked 2 hours less than traditional non-mothers.

To summarise the results of the analysis for France for this particular group of men and women in long-term cohabiting relationships, no statistically significant wage effect of fatherhood (as compared to non-fathers) is detected.

However, the equation (1) random effects estimates suggest that pre-fathers earned less than non-fathers. Neither pre-fatherhood nor fatherhood had any effect on the working hours of men. Pre-mothers worked longer hours than non-mothers, particularly those in traditional couples, they also earned less per hour. Traditional mothers also worked fewer hours than traditional non-mothers, but there was no difference between these groups of women in dual-earner couples.

Table 6.3 *France: Dependent Variable ln(hourly wage rate)*

Model Estimates	Variable	All		Dual-earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1049	862	374	444	675	418
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	**-0.06** (-2.21)	-0.07 (-1.93)	-0.06 (-1.71)	-0.04 (-1.01)	-0.07 (-1.82)	**-0.10** (-2.01)
	After	**-0.06** (-2.22)	-0.04 (-1.34)	**-0.07** (-2.29)	-0.00 (-0.09)	-0.05 (-1.35)	-0.09 (-1.78)
	$p_{(before = after)}$	0.89	0.48	0.78	0.35	0.62	0.80
	Age	0.05 (2.60)	0.07 (3.00)	-	0.10 (3.26)	0.06 (2.21)	-
	Medium Education	-0.19 (-4.39)	-0.22 (-5.69)	-	-	-0.28 (-4.91)	-0.39 (-6.34)
	Low Education	-0.13 (-2.97)	-0.21 (-4.43)	-	-	-0.21 (-3.61)	-0.47 (-6.55)
Equation (2) *Fixed Effects* *(t-statistics in parentheses)*	After	-0.03 (-1.38)	-0.01 (-0.37)	-0.04 (-1.57)	-0.06 (-0.73)	-0.02 (-0.65)	-0.05 (-1.19)
	Born	-	-	-0.08 (-2.95)	-	-	-
	Age	0.05 (3.02)	0.07 (3.11)	0.06 (2.82)	0.08 (3.05)	-	-
	Medium Education	-	-	-	0.13 (2.36)	-	-
	Low Education	-	-	-	0.26 (3.82)	-	-

Source: ECHP.

All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

Table 6.4 *France: Dependent Variable Weekly Working Hours*

Model Estimates	Variables	All		Dual-Earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1134	896	392	444	742	452
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	-0.32 (-0.47)	**3.05** (4.16)	0.84 (0.94)	1.70 (1.70)	-0.82 (-0.88)	**4.67** (4.37)
	After	-0.64 (-0.99)	0.57 (0.86)	-0.60 (-0.70)	0.92 (1.06)	-0.67 (-0.76)	0.39 (0.38)
	$p_{(before = after)}$	0.65	**0.00**	0.13	0.43	0.88	**0.00**
	Age	-	1.06 (2.03)	-	-	-	
	Medium Education	-	-	-	-	-	3.17 (2.33)
	Low Education	-		-	-4.13 (-3.02)	-	3.26 (2.05)
Equation (2) *Fixed Effects* *(t-statistics in parantheses)*	After	-0.59 (-1.02)	-0.81 (-1.33)	-0.97 (-1.25)	0.22 (0.28)	-0.48 (-0.61)	**-1.96** (-2.12)
	Age	-	-	-	-	-	-
	Medium Education	-	-	-4.44 (-2.23)		-	6.63 (2.59)
	Low Education	-3.30 (-2.12)		-4.14 (-2.05)	-5.07 (-3.11)	-	6.96 (2.48)

Source: ECHP.
All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

6.4.2 West Germany

Next, my analysis turns to West Germany. Here, the random effects estimates for the *before* coefficient show that pre-fathers earned 7% less than non-fathers, a very similar result than that of the UK and France (see table 6.5). This effect seems to be driven by the sub-sample of men in traditional relationships, who earn 10% less as pre-fathers than traditional non-fathers. This pre-birth wage penalty was not found for the sample of dual-earner men. Any disadvantage, however, is lost after birth, and the difference between the *before* and *after* coefficients is statistically significant (p-value = 0.00 for both sub-samples).

Pre-mothers earned 8% more than non-mothers, this percentage increasing to 16% in the traditional group of women. The coefficient for the dual-earner pre-mothers was lower but not statistically significant. The difference between the *before* and *after* coefficients is not statistically significant for any of the female samples. However, working mothers experienced a 12% wage premium over working non-mothers, which seems to be driven by the sub-sample of women in traditional couples, as they earned 24% more than traditional non-mothers. These coefficients were consistent with the equation (2) fixed effects estimates. For the West German sample, there is evidence of a marriage wage premium of 6% for both men and women, especially for traditional men, where the premium rises to 10%.

Again, men's working hours are largely unaffected by fatherhood (table 6.6). After birth, the interesting finding for men was that dual-earner fathers worked around 3 hours less than dual-earner non-fathers, which mirrors the behaviour of mothers in dual-earner couples. The sample of traditional fathers was not distinct from the sample of traditional non-fathers. West German pre-mothers however worked over 7 hours more than West German non-mothers. Women in traditional couples worked even more (nearly 9 hours) per week pre-birth than traditional non-mothers. Drawing on the estimates for equation (1), there is a statistically significant different between pre-mothers and mothers. The equation (2) fixed effects estimates show that mothers work three hours less than non-mothers.

To summarise the findings for West Germany, no wage effect of fatherhood, as compared to non-fathers, was detected. Pre-fathers earned less than non-fathers. Pre-mothers, however, earned more than non-mothers, particularly in traditional couples. West German pre-mothers also worked more than non-mothers, particularly if they were part of a traditional couple. Dual-earner fathers worked less than non-fathers, mirroring the working hours of dual-earner mothers. Mothers experienced a 12% wage premium over working non-mothers, more so if they were part of a traditional couple. There is evidence of a marriage wage premium of 6% for both men and women, and of 10% for traditional men.

Table 6.5 *West Germany: Dependent Variable ln(hourly wage rate)*

Model Estimates	Variables	All		Dual-Earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1308	972	425	518	883	454
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	**-0.07** (-2.92)	**0.08** (2.50)	0.06 (0.99)	-0.05 (-1.10)	**-0.10** (-3.91)	**0.16** (3.36)
	After	-0.01 (-0.43)	**0.12** (2.79)	0.05 (0.66)	0.03 (0.65)	-0.03 (-1.27)	**0.24** (2.89)
	$p_{(before = after)}$	**0.02**	0.35	0.84	0.14	**0.00**	0.35
	Married	0.06 (2.56)	0.06 (2.13)	-	-	0.10 (3.87)	-
	Age	0.07 (5.81)	0.07 (4.15)	0.12 (5.30)	0.07 (3.49)	-	0.10 (2.84)
	Age^2	0.001 (-4.56)	-0.0006 (-2.54)	-0.001 (-4.65)	-0.0006 (-2.14)	-	-0.001 (-2.08)
	Medium Education	-0.11 (-4.59)	-0.20 (-4.47)	-0.11 (-2.17)	-	-0.11 (-4.18)	-0.38 (-5.70)
	Low Education	-0.10 (-2.41)	-0.24 (-4.20)	-	-	-0.11 (-2.44)	-0.42 (-4.65)
Equation (2) *Fixed Effects* *(t-statistics in parantheses)*	After	0.02 (0.94)	**0.10** (2.30)	0.03 (0.43)	0.05 (1.13)	0.01 (0.79)	**0.20** (2.48)
	Married	0.05 (2.02)	0.08 (2.57)	-	-	0.10 (3.74)	0.09 (1.97)
	Age	0.07 (5.31)	0.07 (3.65)	0.11 (4.44)	0.08 (3.83)	-	-
	Age^2	-0.00 (-2.47)	-0.001 (-2.21)	-0.00 (-3.17)	-0.00 (-2.42)	-	
	Education 2	-0.05 (-1.99)	-0.21 (-3.76)	-	-	-0.06 (-2.27)	-0.49 (-5.62)
	Education 3	-	-0.19 (-2.82)	-	-	-	-0.41 (-3.60)

Source: ECHP. All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

Table 6.6 *West Germany: Dependent Variable Weekly Working Hours*

Model Estimates	Variables	All		Dual-Earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1427	994	464	518	963	476
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	0.12 (0.18)	**7.85** (9.07)	2.70 (1.99)	**7.56** (5.82)	-0.51 (-0.67)	**9.26** (7.30)
	After	0.49 (0.82)	-0.31 (-0.24)	-2.01 (-1.34)	-1.54 (-1.04)	0.72 (1.07)	2.21 (0.96)
	$p_{(before = after)}$	0.56	**0.00**	**0.01**	**0.00**	0.10	**0.00**
	Age	1.06 (3.03)		1.36 (2.54)	-	-	-
	Age^2	-0.01 (-2.87)	-	-0.02 (-2.46)	-	-	
Equation (2) *Fixed Effects* *(t-statistics in parantheses)*	After	0.34 (0.63)	**-3.15** (-2.43)	**-3.41** (-2.37)	**-3.68** (-2.53)	0.87 (1.46)	-2.07 (-0.88)
	Age	1.15 (3.30)	-1.95 (-3.53)	1.19 (2.07)	-1.61 (-2.60)	1.29 (2.59)	-
	Age^2	-0.01 (-2.39)	0.01 (-2.06)	-	-	-0.02 (-2.20)	
	Medium Education	-	5.31 (3.20)		-	-	8.19 (3.09)
	Low Education	-	4.54 (2.19)	-4.73 (-2.05)	-	-	10.57 (304)

Source: ECHP.
All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

6.4.3 UK

Next, I present the results for the UK. According to the random effects estimates of equation (1) for the full sample of men, pre-fathers earned 9% less than non-fathers (table 6.7). For traditional men this effect was even stronger, with traditional pre-fathers earning 15% less than traditional non-fathers. However, there was no wage premium of fatherhood. The equation (2) fixed effect estimates for the *after* coefficient on wages for this particular group of cohabiting fathers in a long-term relationship were not statistically significant (table 6.7).

The number of hours worked per week by men in the UK was not affected by their parental status, be it pre-father, father or non-father. For pre-mothers, mothers and non-mothers however, the random effects model estimating the effects on the number of hours worked per week revealed a large difference between their respective number of hours worked (table 6.8). In the full sample of women, pre-mothers worked just over 9 hours more than non-mothers. As the pre-mothers became mothers, their working hours fell. The difference between the two coefficients *before* and *after* is statistically significant. For the sample of dual-earner women, the number of extra hours they worked as pre-mothers was just under 7 hours, which fell to two hours less than non-mothers after the birth. The mothers in the traditional sample worked 13 hours more than non-mothers, which fell after birth. The equation (2) fixed effects estimates show that both dual-earner and traditional working mothers worked just about five hours less than both dual-earner and traditional non-mothers respectively (table 6.8).

To summarise my findings for the UK, no wage effect of fatherhood (as compared to non-fathers) was detected. Pre-fathers earned less than non-fathers, particularly those in traditional couples. Neither pre-fatherhood nor fatherhood has any effect on the working hours of men. Pre-mothers worked longer hours than non-mothers. Mothers also worked shorter hours than non-mothers.

Table 6.7 *UK: Dependent Variable ln(hourly wage rate)*

Model Estimates	Variables	All		Dual-Earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1373	1266	717	855	656	411
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	**-0.09** (-3.40)	-0.00 (-0.18)	-0.02 (-0.46)	-0.00 (-0.12)	**-0.15** (-3.70)	-0.05 (-0.94)
	After	-0.03 (-1.25)	0.05 (1.80)	0.02 (0.46)	0.05 (1.77)	-0.07 (-1.81)	0.03 (0.55)
	$p_{(before = after)}$	0.06	0.05	0.39	0.07	0.07	0.15
	Married	-	-	0.07 (1.99)	-	-	-
	Age	0.16 (11.31)	0.13 (7.62)	0.15 (8.50)	0.13 (7.55)	0.17 (7.24)	0.15 (3.96)
	Age^2	0.00 (-9.28)	-0.00 (-5.19)	-0.00 (-6.82)	-0.00 (-4.96)	-0.00 (-5.98)	-0.00 (-3.28)
	Medium Education	-0.10 (-3.70)	-0.07 (-2.84)	-0.09 (-2.73)	-	-	-0.16 (-2.77)
	Low Education	-0.14 (-4.12)	-0.10 (-3.52)	-0.14 (-3.45)	-0.08 (-2.87)	-	-0.14 (-2.26)
Equation (2) *Fixed Effects* *(t-statistics in parantheses)*	After	0.00 (0.14)	0.04 (1.80)	0.02 (0.66)	**0.05** (2.02)	-0.00 (-0.16)	0.03 (0.51)
	Age	0.16 (10.58)	0.14 (8.01)	0.14 (7.04)	0.14 (8.38)	0.18 (7.59)	0.15 (3.67)
	Age^2	-0.00 (-6.44)	-0.00 (-4.89)	-0.00 (-4.23)	-0.00 (-5.01)	-0.00 (-4.55)	-0.00 (-2.77)

Source: ECHP.

All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

Table 6.8 *UK: Dependent Variable Weekly Working Hours*

Model Estimates	Variables	All		Dual-Earner		Traditional	
		Men	Women	Men	Women	Men	Women
	No. of observations	1575	1339	820	855	755	484
Equation (1) *Random Effects* *(z-statistics in parentheses)*	Before	0.61 (0.83)	**9.08** (12.21)	0.23 (0.22)	**6.68** (8.20)	0.72 (0.67)	**13.06** (9.19)
	After	-0.52 (-0.66)	-0.94 (-1.13)	0.19 (0.16)	**-1.97** (-2.19)	-1.07 (-0.99)	0.97 (0.58)
	$p_{(before = after)}$	0.18	**0.00**	0.98	**0.00**	0.13	**0.00**
	Married	-	-	-	-	3.10 (2.52)	-
Equation (2) *Fixed Effects* *(t-statistics in parantheses)*	After	-0.85 (-1.16)	**-4.87** (-6.09)	0.09 (0.08)	**-4.80** (-5.63)	-1.51 (-1.51)	**-4.97** (-3.03)
	Born	-	-1.99 (-2.62)	-	-2.92 (-3.43)	-	-
	Age	-	-1.84 (-3.34)	-	-	-	-3.13 (-2.83)
	Age^2	-	-	-0.02 (-2.08)	-	-	-

Source: ECHP.

All key independent variable estimates are reported with statistically significant results are reported in **bold** (p-value ≤ 0.01). Only those control variables which were statistically significant are reported and thus they are not reported in bold.

6.5 Summary

This chapter aims to provide answers to two broad research questions. The first question asks, whether there are identifiable strategies of parenthood: for example, how are households combining work and caring? The second question asks, whether there are identifiable strategies of pre-fatherhood: for example, are men working harder in anticipation of becoming fathers? The central hypothesis of interest, as developed in chapter 2, is:

Hypothesis 3: Fathers earn more and work longer hours than non-fathers.

I investigate the effects of pre-fatherhood and fatherhood on labour market outcomes (wages and working hours) specifically among cohabiting men in stable relationships. The analysis uses the European Community Household Panel Survey (ECHP) for France, West Germany and the UK, using panel data covering 1994 to 2001. I allow for heterogeneity in responses to pre-parenthood and parenthood by distinguishing households in which the female partner participates continuously in the labour market from those in which she does not.

Whilst the pooled sample means (tables 6.2a, 6.2b and 6.2c) would suggest that there is indeed a wage premium of fatherhood (and also of motherhood in the UK and France but not in West Germany), the random and fixed effects estimates, which control for age, do not provide evidence to support this statement.

For all countries, no wage effect of fatherhood for this particular group of fathers is detected. This finding is contrary to that predicted by the majority of the literature, possibly reflecting the distinct nature of the particular sample used. This particular group of fathers is selected according to whether a) they remain in the sample for eight years and b) whether they remain within the same partnership for eight years. Further work is needed to establish how atypical these characteristics make the sample in relation to their hourly wage rate and weekly working hours. One explanation for this unusual result might be that there is a correlation between stability and how ready fathers are for the

arrival of the first child in terms of their labour supply. Those already well-established in a cohabiting partnership are perhaps less likely to need to adjust their already mature household labour market routines. Given the length of time that the couple have been together, they have already established their labour market outcomes before trying for a child. Further research is needed to establish the correlation between relationship stability, labour market outcomes and male fertility.

I find that fathers are not increasing their working hours after the birth of their first child in any of the countries. In order to explore whether this result is valid across social classes, I tested for interaction effects between the variable *after*, signifying the year after the arrival of the first child, and the variables used to test occupational status, as introduced in chapter 4. None of the interaction effects are statistically significant, perhaps due to small sub-sample sizes, for any country.

For this analysis, I use gross hourly wage measures rather than net measures. In all countries, but particularly in West Germany and France, being both married and having children can lead to the receipt of large tax breaks and benefits. Thus, whilst the gross wage advantage declines following the first birth, the net wage may actually increase. This is an area for further research.

By way of exploring whether or not there are identifiable strategies of parenthood, it is considered whether the labour supply of fathers in dual-earner partnerships is lower than that of dual-earner pre-fathers and of dual-earner non-fathers, and also than that of traditional fathers. I find that West German dual-earner fathers work fewer hours than non-fathers, reducing their work effort by a comparable amount to dual-earner mothers. This effect is not found in the UK and France.

The second question of the chapter is concerned with pre-fatherhood. Non-fathers have generally been considered as if they were a homogeneous group. The central finding of this chapter is to show that there is heterogeneity within the group of non-fathers, and that labour market outcomes differ between pre-fathers and non-fathers. Strengthening this observation, I even find evidence to suggest that these two non-father sub-groups are more different in

terms of their labour market outcomes at a given age, than non-fathers and fathers at a given age.

I am interested in exploring whether men with the preference to become fathers increase their labour supply before the onset of parenthood to pre-empt increased costs of parenthood. In all three countries, there is a negative selection into parenthood in terms of hourly wage, and there is no discernable effect in terms of hours worked per week. I have then found the opposite effect to the one I was expecting, which could be called a "nesting" effect.

It is not then the case that pre-fathers increase labour supply relative to non-fathers, but is this also the case for their female partners relative to non-mothers? My analysis finds that West German pre-mothers earn a higher hourly wage than non-mothers, particularly if they are in a traditional couple, but there is no evidence that pre-mothers' earnings differ in the UK and in France.

The uniformity of findings is striking. In all three countries, there was no wage effect of fatherhood, but pre-fathers were earning less than non-fathers. Pre-fathers in traditional couples in all countries were earning even less relative to non-fathers in traditional couples than for the general case. In all countries, there was no effect on weekly working hours with one exception. In West-Germany dual earner fathers worked shorter hours in a similar pattern to dual-earner mothers. The theoretical justifications for choosing three distinct countries are not helpful then in explaining the labour supply of this group of stable cohabiting fathers. One explanation for this might be that, in particular, the mainstream welfare state theory, and to a partial extent the gender regime literature, has been employed to a far greater extent to the question of female labour market participation in relation to motherhood than to the question of male labour market participation in relation to fatherhood.

The parental household employment type categories developed in the previous chapter, do further understanding of the determinants of paternal time, and they can also help explain the exceptional finding for West German dual-earner fathers spending less time at work. In West Germany, more than for France and the UK, it is very unusual for young mothers not to leave the

labour market. Thus in situations where they do, it could be expected that their partners will also be unusual in taking on a more even share of the intra-household allocation of child care which would possibly result in reduced working hours. Further attitudinal research would be needed to further explore this possible explanation.

My findings contribute to the emerging empirical literature, which argues that fathers should not be treated as an homogenous group in the analysis of labour supply and fertility. This chapter draws on a particular group of men, those in a stable long-term relationship. Contrary to the literature, which suggests that fathers generally increase their labour supply after the birth of a child, I do not find that these fathers are increasing their working hours nor do I find a wage effect of fatherhood. Rather, I find a negative pre-emptive wage effect of fatherhood. My findings for West Germany also add to the emerging literature, that for certain groups of fathers, intra-household allocation of time is becoming more evenly shared between the parents, providing evidence of both the provider and involved-carer father models.

I set out to explore whether or not fathers earn more and work longer hours than non-fathers (including both never-fathers and pre-fathers), and for this particular group of men I find that this was not the case, with the particular exception of dual-earner West German fathers who are working fewer hours. To not find that fathers earn more and work longer hours is an unlikely finding and most probably a product of the nature of the group of men focused upon. In the next chapter, I look to test this hypothesis again, but with a sample representative of all men and using fixed effects models so as to be able to exploit the data more fully, using an unbalanced panel.

The value added by this chapter, however, is the finding, which is only made possible by using the random effects models, that there is heterogeneity in the sample of non-fathers. Despite the difficulties associated with the small, specific nature of the sample and the bias introduced by right censoring of the data, I am able to provide preliminary evidence that pre-fathers are behaving distinctly from non-fathers (both the never-fathers and the pre-fathers).

Chapter 7

Labour Market Outcomes, Fatherhood and Paternal Time

The amount of time that a father spends looking after his children is affected by certain factors, defined in the thesis as *enablers* and *constrainers*. One site of such enablers and constrainers is the *household-labour market nexus*. So far, this inquiry has not fully investigated this site's characteristics and implications. Thus the following chapter focuses on the relationship between fathers' labour market outcomes and their paternal time. Also, the relationship between male labour market outcomes and the onset of fatherhood is explored.

As discussed earlier, resources devoted to children can be understood as financial resources or as care resources. Since the financial provider parenting role is carried out in the labour market, it takes time away from the care provider parenting role in the domestic sphere. The actual amount of time lost for care is determined according to the notion of labour supply, which refers to the total number of hours that a father (in the case of this chapter) is willing and able to supply at a given wage rate.

Given its importance, it appears remarkable that previous work in the field has rarely focused on fatherhood and labour supply, either before or after the onset of parenthood. The small body of existing literature typically depicts the financial provider role as being in opposition to the care provider role, the

dominant assumption being that an emphasis on one role will be at the expense of the other.

For the following investigation, fixed effects models are used to explore the relationships between labour market outcomes, fatherhood and paternal time. Using fixed effects models enables me to draw on a much larger and less selective unbalanced sample of respondents. Here, I compare all working men, employed and self-employed, across the EU-14. The European Community Household Panel (ECHP) is used, not as in previous chapters, to consider the differences between countries, but in this case, to consider the hypotheses after controlling for country of residence.

The relevant literature has been reviewed in chapter 2 and so is not repeated here. The next section briefly reiterates the theory and hypotheses to be tested. After this, the models used for the analysis are described. I then present the longitudinal sample and the measures used. Moving on to the results section, the fixed effects estimates of labour market outcomes as dependent on parental status are presented. Whether or not there is a marriage premium,[105] as frequently found in the literature, is also considered. Finally, the fixed effects estimates of labour market outcomes as dependent on the level of paternal time spent by a father are presented. The chapter concludes with a discussion of the findings.

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105 The marriage wage premium refers to the frequent finding that marriage is associated with higher wages for men than if they never married (see chapter 2).

7.1 Reiteration of Theory and Hypotheses

The association between fatherhood and labour market outcomes is considered here in two senses: first, the effect of the onset of fatherhood on labour market outcomes; and second, the effect of fatherhood status as categorised according to levels of paternal time on labour market outcomes. A father's labour supply may be expected to change either in anticipation of and/or in response to the actual event of the onset of fatherhood, as parenthood is associated with increased household costs as well as the extra work effort of caring for the child. If there are two parents, the most commonly observed strategy has been one of specialisation as discussed in chapters 1 and 2. Men either maintain or increase their labour supply (e.g. Angrist and Evans 1998; Pencavel 1986) whilst women decrease their labour supply. Typically, the financial provider parenting role is seen as a constrainer of paternal time.

In the following analysis, I consider two main questions. The first question asks whether fathers earn more and work longer hours than non-fathers.[106] The second question asks whether fathers who spend more paternal time work fewer hours and earn less than fathers who spend less paternal time.

With regard to the first question, as in chapter 6, heterogeneity in the group of non-fathers is allowed for by considering pre-fathers as distinct from child-free men. A *non-father* refers to a man without children at the moment of observation. For the purposes of this chapter, I identify two categories of non-father: *child-free men*, who are either not observed making the transition to fatherhood within the observation window or are at least three years prior to making such a transition;[107] and *pre-fathers* referring to men who do not have children, but who will become fathers within one or two years.[108]

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106 Working men refers to both employed and self-employed men. Unemployed men are excluded from the analysis for the duration of any survey year in which they are recorded as being unemployed at the time of interview.

107 As some of the non-fathers will go on to have children beyond the period of observation, the data will suffer from right-censoring.

108 It may be that this two year window of pre-fatherhood will underestimate a correlation between pre-fatherhood and labour market outcomes. The decision to define pre-fatherhood as the period one or two years before the onset of fatherhood is discussed in the next section.

The existing literature sometimes explores the possibility that pre-fathers might experience earnings gains even before the onset of fatherhood.[109] Theory suggests that more involved men self-select into fatherhood. This might particularly be the case for married men (e.g. Kalmijn and Luijkx 2005), if the assumption is made that fertility is endogenous with marriage.

However, beyond suggesting that men are likely to need certain sums of money in order to engage in fatherhood, the existing theories do not provide much guidance to policy makers and others as to the magnitude of such amounts. To answer such questions requires empirical work. To my knowledge, no such work has yet been undertaken.

Turning to the second question, I ask whether fathers who spend more paternal time work fewer hours and earn less than fathers spending less paternal time. Co-resident fathers are frequently conceptualised as a dichotomy. Fathers are seen as either predominantly providers or as predominantly carers. The idea that there are two competing strategies of fatherhood is captured by Kaufman and Uhlenberg's *good provider* and *active father* categories, as discussed at greater length in chapter 2.

To reiterate the hypotheses, which draw from the economic literature on the marriage wage premium and on fertility and labour supply as developed in chapter 2:

Hypothesis 3: Fathers earn more and work longer hours than non-fathers.

Hypothesis 4: Fathers who spend more paternal time work fewer hours and earn less than fathers spending less paternal time.

With respect to hypothesis 4, an alternative result might be one that differentiates the *involved father* from the *non-involved father*. A *involved father* in this case would

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109 The phrase *the onset of fatherhood* is used to refer to the time that a man first becomes a residential father. Most frequently, but not always, this pertains to the birth of his first child. The phrase *onset of fatherhood* is used rather than *first birth* in order to include a broader non-biological and social definition of fatherhood.

be a man simultaneously involved in the labour market as well as spending substantial paternal time caring for his children. An *non-involved father* in this context would be a man who is less involved in the labour market and also spends minimal paternal time caring for his children. Perhaps, in other words, those fathers that spend the most time with their children also experience more favourable labour market outcomes (a more favourable labour market outcome being taken to mean earning more, but by working fewer hours).

Having thus introduced the terms and reiterated the hypotheses and theory to be explored in this chapter, the next task, before moving on to the core of this inquiry, is to explain the statistical specifications used.

7.2 Data, Models, and Measures

Evidence to indicate that fathers, pre-fathers and child-free men are distinct groups in terms of their labour market outcomes, has been presented in the previous chapter. But there were some limitations with the models and samples used to come to these conclusions. The sample was restricted to a balanced panel of co-residential men in long term relationships (at least eight years duration), which thus created very small sub-sample numbers, not allowing for variation to occur within the models with any chance of statistical significance. A slightly different approach is now taken. Here, I compare the various groups of all working men and not only those in a co-resident and/or long term relationship. The greater explanatory power afforded by this larger sample comes at the price that it is not feasible to include such detailed spousal information as is needed to investigate intra-household couple dynamics.

The analysis in this chapter uses data collected annually between 1994 and 2001 for 14 countries from the ECHP.[110] Panel data holds several advantages over cross-sectional data. With panel data it is possible to analyse labour market outcomes over the lifecourse. In this chapter, the life-changing event observed is the onset of fatherhood. It is also possible with panel data to estimate the duration of certain events, such as unemployment, or the duration of a relationship although this feature is not exploited here. The characteristic most exploited by this chapter, however, with the fixed effects models as described above, is the possibility that panel data provides of controlling for unobserved heterogeneity due to unobservable person-characteristics which are assumed not to change across time.

I draw on a technique used by Jacobson, Lalonde and Sullivan (1993) to tackle a different substantive question, that of "Earnings Losses of Displaced Workers". I look to exploit the longitudinal aspect of the data combining information about male workers' transitions to residential fatherhood, their earnings

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110 The ECHP based on the national surveys are used in this chapter, e.g. the BHPS, the SOEP and PSELL for the United Kingdom, Germany and Luxembourg respectively.

and working hours histories, with information about their age, education level, marital status and employment situation, in order to estimate the magnitude of earnings gains or losses associated with firstly, parental status; and secondly, with levels of paternal time.

Ideally, I would have liked to take a single cross-section of men making the transition to residential fatherhood in a particular year, having already observed them for a substantial period in advance, alongside a control group of men remaining child-free in the same observation period. However, my ability to do this is hampered by the limited eight-year duration period of the panel.

Instead, I pool information for working men between 1994 and 2001 in order to obtain a detailed picture of the pattern of earnings differentials and differences in hours worked, across the groups of European male workers. A convenient way to do this is to introduce a series of dummy variables for the number of years before and after fatherhood in the first section of the analysis (see table 7.1) and for the levels of paternal time in the second section.

Table 7.1 *Construction of Parental Status Dummies*

	History of t (t signifies the onset of fatherhood)							
t in	1994	1995	1996	1997	1998	1999	2000	2001
1994	**t** or t +	t+	t+	t+	t+	t+	t+	t+
1995	t-1	**t**	t+1	t+2	t+3	t+4	t+5	t+6
1996	t-2	t-1	**t**	t+1	t+2	t+3	t+4	t+5
1997	t-3	t-2	t-1	**t**	t+1	t+2	t+3	t+4
1998	t-4	t-3	t-2	t-1	**t**	t+1	t+2	t+3
1999	t-5	t-4	t-3	t-2	t-1	**t**	t+1	t+2
2000	t-6	t-5	t-4	t-3	t-2	t-1	**t**	t+1
2001	t-7	t-6	t-5	t-4	t-3	t-2	t-1	**t**
2002	t-	t-	t-	t-	t-	t-	t-	t-

By restricting the attention to these dummy variables, the idea is formalised that a pre-father in survey year 6 (which is the year 1999), was in much the same

position as a pre-father in survey year 1 (1994) and that a father in survey year 8 (2001) was in much the same position as a father in survey year 3 (1996), and so on and so forth. In other words, all states defined as *t-2*, *t-1*, and *t* are considered equivalent states regardless of the survey year. This could introduce bias into the findings as I am not taking inflation and other macro-economic factors into account during this eight year period of observation.

7.2.1 Models

All the equations to follow describe fixed effects models. Fixed effects models deal with the problems of any potential selection bias into fatherhood because they include observations of the same men before and after they become fathers and the fixed effect captures unmeasured heterogeneity that may be correlated with whether or not they become fathers. My first statistical specification assumes that men's earnings depend on their fatherhood status, described through a set of dummy variables and on some controls for fixed and time-varying characteristics:

$$Y_{it} = \alpha_i + \beta_1 childfree_{it} + \beta_2 prefather_{it} + X_{it}\beta_n + \varepsilon_{it} \qquad (1)^{111}$$

In equation (1), Y_{it} represents either the natural log of the hourly wage rate or weekly hours worked for person i at time t. The dummy variables *father* and *prefather* jointly represent parental status with respect to the onset of fatherhood. The dummy variable *childfree* refers to a man who is at least three years away

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111 An improvement to the model might be the addition of γ_t representing coefficients of a set of dummy variables for periods (typically quarters) in the sample period that capture the general time pattern of earnings in the economy.

from the onset of fatherhood. *Prefather* refers to states *t-1* or *t-2* as shown in table 7.1.[112] The dummy variable *father* is taken as the reference category and so does not appear in the equation.

The vector X_{it} consists of the observed, time-varying characteristics of the worker, which in this chapter are limited to age, education level, marital status, occupational status and the private or public nature of the employer. The fixed effect α_i, summarizes the impact of permanent (time-constant) differences among working men in observed and unobserved characteristics, including the country the respondent lives in.[113] Finally, the error term, ε_{it}, is assumed to have constant variance and to be uncorrelated across individuals and time.

Two models are estimated according to equation (1): firstly, with respect to the hourly wage rate and secondly, with respect to the weekly number of hours worked (see models 1a and 1b in table 7.6 in the results section). Model (1a) considers all working men, including the employed and the self-employed. The second model (1b) considers only employed men, but not the self-employed. This latter group is selected as I want to include occupational status and private or public sector control variables and these are not collected for the self-employed.

In the second section of the analysis, a further, similar specification of the fixed effects model is used to consider the effect of spending paternal time on a fathers' labour market outcomes as compared to other men who are not spending paternal time. This is described below in equation (2).

$$Y_{it} = \alpha_i + \beta_1 prefather_{it} + \beta_2 fathernocare_{it} + \beta_3 fatherlowcare_{it} + \beta_4 fathermediumcare_{it} + \beta_5 fatherhighcare_{it} + X_{it}\beta_n + \varepsilon_{it} \qquad (2)$$

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[112] To identify the parameters of (1), the earnings of pre-fathers at *t-3* and at *t-4* (three and four years prior to the onset of fatherhood respectively) were observed and it was found that defining pre-fatherhood thus dramatically decreased sample size without proportionately increasing explanatory power. In the empirical work that follows, I define pre-fatherhood as 2 years prior *(t-2)* and *(t-1)* to the onset of fatherhood.

[113] If a respondent moves to another country they are lost to the ECHP sample, even if that country is covered by the ECHP. The organisation of the collection of data did not allow for respondents to be followed beyond national boundaries.

Equation (2) is very similar to equation (1), but here, rather than looking only at the onset of fatherhood and associated effects, I also consider the effect of a father spending any paternal time on his labour market outcomes (Y_{it}). This is done using a set of dummy variables to indicate levels of paternal time. Again, the dummy variable *prefather* represents the period *t-1* or *t-2* before the onset of fatherhood. The dummy variable *childfree* refers to a man who is at least three years away from the onset of fatherhood. The variable *childfree* being taken as the reference category and so does not appear in the equation. Four dummy variables are used to represent fathers: *fathernocare*, *fatherlowcare*, *fathermediumcare* and *fatherhighcare*.[114] Again, two models with respect to each outcome Y_{it} (hourly wage rate and weekly working hours) are estimated according to equation (2), again firstly, for the sample of all working men, and secondly, only for the sub-sample of employed men (see table 7.7 models 2a and 2b).

In the following sub-sections, the derivation of the variables to be used in the two sections of the analysis is described. I begin with the dummy variables used to represent parental status, followed by the dummy variables used to represent levels of paternal time.

7.2.2 Explanatory Variables

I investigate the differences between three groups of men: child-free, pre-fathers and fathers. The dummy variables used to represent parental status have been described in table 7.1. That a transition from living in a household without dependent children to being in a household with dependent children has occurred in that survey year is indicated by *t*. This is the definition of the onset of fatherhood used in this chapter. Once a father has been counted as a residential father in this way, he remains a father in the analysis even if he moves out of the

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[114] The four levels of care reflect the grouped categories of the ECHP child care time variable *(pr007)*: not applicable/no care (*nocare)*; between 0-14 hours per week (*low*); 15-28 hours per week (*medium*) and more than 28 hours per week (*high*). This measure of child care time is discussed at length in chapters 3 and 4.

household at a later date. As already mentioned, there is no way of knowing whether a household with dependent children in the first survey year (*t=1*),[115] has just made this transition or rather has been such a household for a longer period of time, as the data is left-censored. I have created the dummy *t=1* if the household comprises dependent children in the first survey year. Similarly, it is not possible to observe the periods *t-1* or *t-2* in survey year eight or the period *t-2* in survey year seven due to the right-censoring of the data and so there will be an under-representation of pre-fathers in the sample, resulting potentially in an under-estimation of any association between pre-fatherhood and labour market outcomes.

The measures of paternal time come from the variable *pr007* which has been discussed at length in previous chapters.[116] A cross-tabulation between the variable indicating the time spent looking after children on a weekly basis, and father status, reveals that less than 2% of male child care is performed by men in this sample without father status. However, there are many fathers who claim that this question is not relevant to them. Just under 30% of fathers respond that this question is applicable to them (table 7.2).[117] The problems associated with

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[115] Data for Austria and Luxembourg (in this case for household variable *hd006a*) begins in survey year two and for Finland in survey year three, so for these countries, the first observation is *(t=2)* and *(t=3)* respectively.

[116] The ECHP grouped child care variable used in this chapter is not available for Luxembourg and the UK. It is only available for survey years two and four for Germany. There is also a curious drop in the variable for Belgium in survey years six and seven indicating a problem with the data collected for this variable for Belgium in these years.

[117] This sample is defined drawing on the household file variable *hd006a* which provides information on households containing children under 12 years of age. In Chapter 3, the sample of fathers is defined drawing directly from the relationship file and is focusing on children under 6 and under 16 years of age. This explains why the percentage of fathers in the two samples reporting not spending any time on child care varies between the chapters (the corresponding percentage in Chapter 3 is 59% for children under 16). The measure of fatherhood developed in chapter 3 is considered more accurate than the household level variable. Many co-resident men living with their partners do not "officially" code themselves as part of the household whilst the relationship file codes them as having a relationship to a child in the household and the child care variable identifies that they do spend time on child care. However, the household level variable is used to advantage in this analysis in order to capture household transitions.

the ECHP child care variable, as illustrated by this high non-response rate, have been discussed in depth in chapter 3.

Table 7.2 *Distribution of the Child Care Variable by Parental Status*

Caring status	Non-father*	Father	Total
High	0.32	6.81	4.79
Medium	0.55	12.50	8.78
Low	1.14	10.19	7.37
Answered not applicable	97.92	70.02	78.69
Missing	0.08	0.49	0.36
Total N	100	100	100
	(N = 69,019)	(N = 152,977)	(N = 221,996)

* includes set of pre-fathers and child-free men.
Germany, the UK and Luxembourg are dropped from the sample.

7.2.3 Dependent Variables

The dependent variables in the analysis are, firstly, the natural log of the real hourly wage rate on the main job including overtime, and secondly, the number of hours worked per week.

Income measures, in this chapter, are adjusted by the purchasing power parity to facilitate comparison between countries. The average hourly wage is constructed using the current monthly gross wage and salary earnings variable *pi211mg*.[118] This variable *pi211mg* is then divided by the purchasing power parity for 1996 as provided in the country file of the ECHP User Data base, before being multiplied by 12/52 to convert the wage figure from monthly to weekly. This figure is then divided by the weekly number of working hours as recorded by variable *How many hours (including paid overtime) do you work in your main job or business? (pe005a)*. Finally the natural log is taken of the wage to create the variable *natural log of the hourly wage rate ln(hwage)*. The annual income variables

[118] Variable *pi211mg* is not available for Luxembourg and so this country is dropped from any analysis of income.

are collected in the ECHP in reference to the year prior to the survey. However, I use the derived measure *pi211mg* which provides current wage and salary earnings information and so do not need to used lagged income measures.

The Euro, the single currency of twelve European Union countries (Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland) was not introduced until 2001 and so income variables in the ECHP are measured in the different national currencies in place during prior to the Euro. In order to measure the income variables as if they were a common currency, a fictitious currency exchange rate, which eliminates the impact of price level differences called the purchasing power parity (PPP) is provided with the data. The purchasing power parity converts amounts in national currencies to a purchasing power standard. One purchasing power standard will buy a comparable basket of goods in each country. They are scaled at EU level, and one PPS can be thought of one Euro in real terms.

The PPP rates are available for each year and for each country. However, as the descriptive statistics for the pooled sample between 1994 and 2001 are presented, the PPP rate for 1996 for each country is used and so there is some loss of information. 1996 is the common base year for the Eurostat harmonised indices of consumer prices. In order to compare income variables across waves I would need to use the consumer price indices. However, it is not my goal to assess fluctuations in price over the eight years of the survey and rather the assumption is made for the purposes of the analysis that the period between 1994 and 2001 is relatively stable, or at least that economic fluctuations even out over the eight years, both within and between countries.

7.2.4 Control Variables

In all the equations estimated in the analysis, the vector X_{it} consists of the observed, time-varying characteristics of the worker, which are limited to age, education level, marital status, occupational status and the private or public nature of the employer.

Age is measured as a continuous variable.

Educational level Highest educational attainment is measured by a harmonised education variable corresponding to the International Standard of Education (ISCED) classification. The harmonised data set has four collapsed categories of highest attained level of education: the first corresponding to the education a child usually has up to sixteen years, the second corresponding to secondary education, and the third corresponding to post-secondary education. The fourth category is for those still in education. Different dummy variables were created for each category, the *high educational level* being used as the reference category.

Marital status is measured by a dummy variable coded *1* if a respondent is married, *0* if the respondent is cohabiting.

Occupational status is measured by a harmonised variable *occupation in current job (pe006c)*, collapsed from nine to three categories: high, medium and low. The first category *high* is used as the reference category and consists of legislators, senior officials, managers and other professionals. The *medium* category refers to technicians, associate professionals and clerks. The *low* category refers to service workers, shop and market sales workers, skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers and elementary occupations.

Sector of employment is measured (using variable *private or public sector (pe009)* as a dummy variable coded *1* if public, *0* if private.

7.2.5 Sample Selection

The use of lagged measures, and the use of fixed effects models to control for unobserved heterogeneity, requires that an individual be a respondent in consecutive survey years, but not necessarily that they be present for the whole duration of the panel. A balanced panel, as produced in the preceding chapter, is given by the sample of all people responding in every survey year of the panel study. An unbalanced panel, used in this chapter, is given by the sample of respondents whether or not they participate every year. The size of the unbalanced panel is larger and the potential selection bias smaller than for the balanced

panel. Thus, a larger sample than in the previous chapter is used, despite it being restricted to men only.

The whole sample for the EU-14 countries, including both East and West Germany is used. This sample was reduced to include only those men aged between 17 and 60 years old (approximately two standard deviations from the mean age of men in households with dependent children). This was in order to avoid any bias caused by live-in grandfathers, but is at the expense of the loss of older fathers from the sample.

The indicator of being a *father* is created not in reference to the relationship file, but rather, as a man living in a household with dependent children as defined by the ECHP UDB household type variable *(hd006a)*.[119] This variable notes whether or not households are with dependent children. Those households with dependent children are further divided into the following categories: single parents with one or more dependent children, two adults with one dependent child, two adults with two dependent children, two adults with three or more dependent children, other households with dependent children. I could have selected the sample without including the latter *other households* category, in order to ensure that I am not wrongly coding men living with dependent children as residential fathers (e.g. they could be older brothers, other relatives or tenants who might wrongly be coded as fathers). However, I include this category in the sample, only attempting to exclude grandfathers on the basis of age. This decision was based on the observation that the coefficients in the fixed effects models are very similar in magnitude (within 0.1 decimal places) regardless of whether or not this category was included in the sample, which provides some degree of confidence that the sample is little affected by the few men who will be picked up in this sample but who are not fathers. I drop those for whom the household type variable *hd006a* is missing. Finally, on the basis of this information, I create the dummy variable *hhdepkid*. This dummy variable indicates whether or not the household has dependent children within it. I then

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119 An interesting technical note with reference to the ECHP would be to compare the number of households with residential fathers estimated alternatively using the relationship file in chapter 4.

go on to create further dummy variables in reference to *hhdepkid*, to be used in the fixed effects models to represent the explanatory variables pertaining to parental status.

The percentage of fathers in the pooled sample of men varied from 55% to 75% according to country (see table 7.3). The number of pre-fathers only varied from 2 to 4%. The percentage of the pooled sample observations of child-free men varies from 22% to 42%.

Table 7.3 *Sample of Men Aged 17-60 For Whom Household Data Are Available*

Country	N (pooled sample)	% wave 1 sample size left at wave 8	N(fathers)	% Sample who are fathers	N(pre-fathers)	% Sample who are pre-fathers	N(child-free)	% Sample who are child-free
Austria*	17,121	52	10,887	64	405	2	5,829	34
Belgium	15,733	45	11,089	70	384	2	4,260	27
Denmark	13,827	49	7,664	55	528	4	5,635	41
Finland**	16,687	51	10,799	65	417	2	5,471	33
France	35,046	50	24,261	69	968	3	9,817	28
Germany	36,199	57	22,309	62	1,095	3	12,795	35
Greece	29,225	50	20,645	71	711	2	7,869	27
Ireland	20,486	26	15,171	74	388	2	4,927	24
Italy	48,840	53	34,747	71	1,364	3	12,729	26
Luxembourg*	15,041	46	8668	58	481	3	5892	39
Netherlands	25,841	47	15067	58	812	3	9962	39
Portugal	31,537	61	23,715	75	760	2	7,062	22
Spain	41,557	44	31,031	75	1,041	3	9,485	23
UK	25,142	63	14,374	57	887	4	9,881	39

* Survey years 2 - 8.
** Survey years 3 - 8.

The varying quality of the data is reflected by the range of attrition between the first and the final survey years collected in each country (see column three in table 7.3). Attrition in this subsample of men is worst in Ireland where the sample at survey year eight is reduced to 38% of its size in survey year one. In the

UK, in contrast, the sample size at survey year eight is only 5% smaller than the sample size at survey year one. On average, for the EU-14, the attrition rate is 27%.[120]

As the aim of the chapter is to consider labour market outcomes, those who do not report earning any money (zero or missing) in a given year, or who do not report working (zero hours or missing) are at this point dropped from the sample. The variable *ILO main activity status at the time of interview (pe003)* provides some information on the subsample for which household information is available. Before any respondents are dropped from the sample due to missing data or non-applicability with respect to the labour market outcome variables, table 7.4 shows the breakdown of those in employment, those unemployed and those inactive in the labour market. From this calculation, 22% of the total number of observations available are not relevant to the following analysis as they are not in the labour market at the time of interview, a statistic that varies according to country from 37% in the Belgian sample to only 13% in the Netherlands.

I expect my analysis to underestimate any wage penalties of parenthood, as those who have exited the labour market altogether, as signalled by not reporting earning any money or working any number of hours, as a result of parenthood or otherwise, are excluded. Respondents were excluded from the labour market if their wage and salary earnings were equal to zero or they were coded as missing or non-applicable on the number of hours worked variable. Thus, the years when the fathers had either exited the labour market permanently or intermittently will be excluded from the analysis in that particular year. The dependent variable in both equations (1) and (2) is the

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[120] All surveys suffer from missing data problems, but these are particularly acute for longitudinal surveys as besides the item and unit nonresponse problems shared with cross-sectional surveys, there is the added problem of people not responding in some or all of the subsequent waves of the survey. There are various potential reasons of non-participation (Nicoletti and Perrachi 2004). Respondents can become ineligible: natural demographic events may occur such as death, respondents may move beyond or into the scope of the survey e.g. they may become institutionalised or migrate to another country. Alternatively respondents may refuse to participate, or move address without leaving a forwarding contact. There may be a limited number of resources available to chase up respondents.

natural log, and the natural log of zero is undefined, which is why the non-employed, with values of zero for the number of hours worked and income from work, have not been included. The implication for my results are that my analysis can be expected to underestimate any wage penalties of parenthood, as the most severe penalty, that is not working at all, will not be captured by the analysis. Further, the salary penalties associated with taking time out of the labour market will not be captured by the analysis.

Table 7.4 *ILO Main Activity Status at the Time of Interview (pe003): % of Pooled Sample of All Available Observations 1994-2001*

Country	N	**Normally working**	Unemployed or discouraged	Inactive	Misssing/NA	total
Austria	17,298	**81.05**	2.77	16.13	0.05	100
Belgium	15,847	**78.82**	4.10	16.97	0.11	100
Denmark	13,937	**86.38**	4.60	9.01	0.01	100
Finland	16,880	**75.19**	7.46	17.32	0.02	100
France	35,372	**74.31**	6.45	19.22	0.02	100
Germany* (West)	26,774	**84.14**	4.31	11.00	0.55	100
Greece	29,460	**76.96**	5.97	17.06	0.00	100
Ireland	20,800	**76.81**	8.22	14.96	0.01	100
Italy	49,407	**71.01**	10.20	18.77	0.02	100
Luxembourg**	15,171	**85.08**	-	8.52	6.40	100
Netherlands	25,977	**86.88**	2.25	10.87	0.00	100
Portugal	31,814	**80.29**	3.30	16.40	0.01	100
Spain	42,158	**69.93**	11.38	18.69	0.00	100
UK***	25,429	**83.43**	-	16.57	0.00	100

* Discouraged included in inactive.
** Information incomplete.
*** Codes for unemployed or discouraged included in inactive.

7.2.6 Descriptive Sample Statistics

The total number of observations for the average hourly wage rate across the EU-13 (there is no income information for Luxembourg) is 213115: 142645 observations of fathers' average hourly wage rate, 6833 observations of pre-

fathers' average hourly wage rate and 63637 observations of child-free men's average hourly wage rate. The currency expressed is the purchasing power standard, approximately equivalent to the Euro, as discussed in the previous section. The mean hourly wage rate for fathers was 10.51, compared to 10.22 for child-free men. This is despite the mean age of fathers being 36 years as compared to the higher mean age of child-free men of 40 years. The average hourly wage rate for pre-fathers is 9.33, and their average age correspondingly lower at 32 years. The further descriptive statistics of the median, the 10th percentile and the 90th percentile are presented in tables 7.5 and A7.1 (the latter is in the chapter appendix) to faciliate comparison of the wage distribution across the various countries.

Table 7.5 *Descriptive Sample Statistics for the EU-14*

Workers	Observations	Mean	Standard deviation	Median	10^{th} percentile	90^{th} percentile
*A. Gross Wage**						
Fathers	142645	10.51	7.55	9.21	3.96	18.04
Pre-fathers	6833	9.33	6.18	8.44	3.68	15.44
Child-free	63637	10.22	7.27	9.07	4.09	17.07
B. Working hours						
Fathers	185774	44	11	40	36	60
Pre-fathers	8616	43	10	40	36	57
Child-free	83482	43	11	40	36	58
C. Age						
Fathers	250427	36	12			
Pre-fathers	10241	32	9			
Child-free	111614	40	13			

* Adjusted by purchasing power parity rate. No wage information for Luxembourg.

Not controlling for age or any other factor, fathers earned more than child-free men in every country (Belgium, Denmark, Finland, France Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, UK) except for Austria, where

fathers earned the same as child-free men (see chapter appendix for table A7.1). Fathers earned more than pre-fathers in all thirteen countries. Child-free men earned more than pre-fathers in Austria, Belgium, Finland, France, Germany, Greece, Italy, Netherlands, Spain and the UK, but not in Denmark, Ireland or Portugal where pre-fathers earned more than child-free men.

The total number of observations for the weekly number of hours worked across the EU-14 is 278121: 185774 observations of fathers' weekly number of hours worked, 8616 observations of pre-fathers' weekly number of hours worked and 83482 observations of child-free men's weekly number of hours worked. On average, fathers worked 44 hours per week, compared to the 43 hours per week worked by both pre-fathers and child-free men. The median was 40 hours per week for all men. (See table 7.5).

Looking at the breakdown of fathers' weekly working hours by country (see table 7A.1 in chapter appendix), the difference betwee the categories in any country is not more than 1 hour. In every country, child-free men were the oldest group, followed by the fathers, followed by the pre-fathers.

7.3 Results

7.3.1 Fatherhood Status and Hourly Wage Rate

Equation (1) is first estimated for the dependent variable Y_{it} = *ln(hwage)*. The model is initially run without any controls and with only with the key independent variables, which in equation (1) are the dummy variables representing parental status. The dummy variable indicating whether or not a man is a father was taken as the reference category. This model has a very low R^2, as would be expected (0.03). The coefficients are statistically significant: pre-fathers earning 18% less than fathers and child-free men earning 34% less.

In the next model, age is also included and the fit of the model improves (R^2 goes up to 0.21) and the (still statistically significant) coefficients on the dependent variables fall. Controlling for age, pre-fathers earn 3% less than fathers and child-free men earn 7% less than fathers. At this point I ran a random effects model for comparison including country dummies. The statistically significant coefficients in the random effects model predict that, controlling for age and country, pre-fathers earn 7% less than fathers, whereas child-free men earn 13% less. However, performing a Hausman test shows that I cannot reject the null hypothesis that the fixed effects (α_i) are correlated with some explanatory variables X_{it}. From this point on then, I continue only with the fixed effects models.

In the first full model (reported as model 1a in table 7.6) I also include control variables (X_{it}) for education level and marital status (being married or not). The R^2 is now 0.22 and the statistically significant coefficients predict that on average, pre-fathers earn 2% less than fathers and child-free men earn 5% less than fathers. In the second model, I look only at men for whom I have information about their occupational status and whether or not they work in the public or private sector. Including this information as control variables in the model barely changes the magnitude of the coefficients for the independent variables of interest. A marriage premium of between 5-6% is also detected by models 1a and 1b.

Table 7.6 *Fixed Effects Coefficients for Equation 1 (Standard Errors in Parentheses)*

	Log hourly wage rate		Working hours	
Explanatory variable	Model 1a N = 209125 R^2 = 0.22	Model 1b N = 192882 R^2 = 0.22	Model 1a N = 273005 R^2 = 0.02	Model 1b N = 203884 R^2 = 0.004
Pre-father	**-0.02**	**-0.02**	-0.02	0.01
	(0.00)	(0.00)	(0.09)	(0.09)
Child-free	**-0.05**	**-0.05**	-0.12	-0.00
	(0.01)	(0.01)	(0.13)	(0.12)
Age	**0.05**	**0.05**	**-0.10**	**-0.08**
	(0.00)	(0.00)	(0.01)	(0.01)
Medium education level	**-0.02**	**-0.02**	**-0.44**	**-0.47**
	(0.00)	(0.00)	(0.09)	(0.08)
Low education level	**-0.07**	**-0.06**	**-0.74**	**-0.76**
	(0.00)	(0.00)	(0.10)	(0.09)
Married	**0.06**	**0.05**	**0.32**	**0.27**
	(0.00)	(0.00)	(0.08)	(0.08)
Self-employed			**5.57**	-
			(0.09)	
Medium occupation status		**-0.04**		**-1.00**
		(0.00)		(0.08)
Low occupation status		**-0.07**		**-1.10**
		(0.00)		(0.09)
Public sector		**0.02**		**-1.00**
		(0.00)		(0.08)

Figures in bold are statistically significant p > 0.01.

Table 7.7 presents the fixed effects regression coefficients estimated country by country for model 1b with dependent variable log hourly wage rate. The coefficient for being a pre-father was only statistically significant in three countries, Denmark (b = -0.03), Germany (b = -0.05) and Greece (b = -0.04). However, the coefficients for being child-free were statistically significant for ten countries (Denmark (b = -0.11), UK (b = -0.07), Germany (b = -0.09), Spain (b = 0.01), Belgium, (b - 0.04), Italy (b = -0.04), Netherlands (b = -0.06), France (-0.04), Greece (b = -0.12) and Portugal (b = -0.03)) showing that non-fathers earned less than fathers in all countries other than Spain and Belgium where they

earned more. The effects for being child-free were bigger than those effects for being a pre-father for those countries presenting both coefficients.

Table 7.7 *Summary of Fixed Effects Regression Analysis by Country for Variables Predicting Hourly Wage Rate (Model 1b)*

	Fixed effects regression coefficients (ß)								
Country	Pre-Father	Child-free	Age	Medium Educ. Level	Low Educ. Level	Married	Medium Occup. Status	Low Occup. Status	Public Sector
Denmark	-0.03	-0.11	0.05	-0.04	-0.09	0.02	-0.04	-0.09	-0.04
Finland	-	-	0.05	-	-	-0.04	-0.05	-	-
UK	-	-0.07	0.06	-0.03	-0.05	0.03	-0.06	-0.11	0.07
Germany	-0.05	-0.09	0.04	-0.04	-0.35	0.06	-0.02	-0.03	-
Ireland	-	-	0.08	-	-0.08	0.09	-0.03	-0.07	0.08
Spain	-	0.01	0.06	-	-	0.07	-0.04	-0.06	-
Belgium	-	0.04	-	-	-	-	-	-0.03	-
Italy	-	-0.04	0.05	-	-	0.03	-0.04	-0.05	-
Austria	-	-	0.03	-	-0.12	-	-	-	-
Netherlands	-	-0.06	0.04	-	-	0.08	-	-0.05	0.03
France	-	-0.04	0.04	-	-	0.04	-0.10	-0.14	0.05
Greerce	-0.04	-0.12	0.08	-	-	0.07	-0.08	-0.13	0.08
Portugal	-	-0.03	0.07	-0.09	-0.11	0.08	-0.05	-0.07	0.02

All results statistically significant at p=<0.05 two tailed. – denotes ß was not significant at p=<0.05
Reference categories are father, high level of education and high occupation status.
Luxembourg dropped due to small sample size.

7.3.2 Fatherhood Status and Weekly Working Hours

Equation (1) is then estimated for the dependent variable Y_{it} = *weekly working hours*. In terms of weekly working hours there seems to be very little difference between fathers, pre-fathers and child-free men. For the basic model without any control variables, the coefficients for pre-fathers and child-free men are not

statistically significant, and this does not change when the control variables are included in model 1a (see table 7.6). The only coefficient of note in this model is that for the control dummy variable indicating whether or not a man is self-employed. A self-employed man works just over 5 and a half hours more per week than an employed man. Again in model 1b, the resounding result is that weekly working hours do not appear to be associated with parental status.

Table 7.8 presents the fixed effects regression coefficients estimated country by country for model 1b with dependent variable weekly working hours. The coefficients for pre-father were only statistically significant in Italy (b = -0.47), the Netherlands (b = 0.80) and in France (b = -0.53). There were no statistically significant coefficients for the child-free variable.

Table 7.8 *Summary of Fixed Effects Regression Analysis by Country for Variables Predicting Weekly Working Hours (Model 1b)*

	Fixed effects regression coefficients (ß)								
Country	Pre-Father	Child-free	Age	Educ. Level Medium	Educ. Level Low	Married	Occup. Status Medium	Occup. Status Low	Public Sector
Denmark	-	-	-0.07	-	-	-	-2.00	-3.51	-2.25
Finland	-	-	-	-	-	-	-1.15	-	-
UK	-	-	-0.07	-0.54	-1.23	0.65	-1.53	-1.02	-1.55
Germany	-	-	0.10	-0.99	-2.01	-	-1.89	-2.24	-1.00
Ireland	-	-	-	-	-	-	-	-	-1.39
Spain	-	-	-0.14	-0.66	-	0.90	-	-	-
Belgium	-	-	-	-	-	-	-0.80	-	-1.30
Italy	-0.47	-	-0.10	-1.77	-1.81	-	-	-	-0.48
Austria	-	-	-	-4.01	-4.24	-	-1.17	-1.24	-
Netherlands	0.80	-	-0.07	-	-	-	-0.88	-1.48	-0.84
Luxembourg	-	-	-0.12	-	-	-	-	-	-
France	-0.53	-	-0.20	-	-	-	-1.08	-1.26	-3.78
Greerce	-	-	-	-	-	-	-	1.18	-1.15
Portugal	-	-	-0.35	-1.73	-1.58	0.87	-1.16	-0.82	-1.03

All results statistically significant at p=<0.05 two tailed. – denotes ß was not significant at p=<0.05
Reference categories are father, high level of education and high occupation status.

7.3.3 Paternal Time and Hourly Wage Rate

The relationship between paternal time and the hourly wage rate is estimated according to equation (2). Firstly, the dependent variable is taken to be the natural log of the hourly wage rate $Y_{it} = ln(hwage)$ and the independent variable of interest is the level of paternal involvement (as measured by the amount of time fathers report spend looking after children).

In the models 2a and 2b corresponding to equation (2) regressing with the fixed effects, whether the hourly wage rate varies according to a man being either child-free, a pre-father, a non-active father (reporting the child care variable to be unapplicable to them) or a father spending a low, medium or a high level of paternal time, is considered. Estimates for these models, both the model of all working men and the model only looking at employed men (not including the self-employed so as to include controls for occupational status and working in the private or public sector) reveal that pre-fathers earn 3% more than child-free men (see table 7.9). Fathers spending a high level or a medium level of paternal time earn about 5% more than child-free men, whereas fathers spending a low level of paternal time or no paternal time earn 4% more than child-free men. Fathers spending a high level of paternal time earn just under 2% more than fathers spending a low level of paternal time. I also find a marriage wage premium of 5%.

Table 7.9 *Fixed Effects Coefficients for Equation 2 (Standard Errors in Parentheses)*

	Log hourly wage rate		Working hours	
Explanatory variable	Model 2a N = 166490 R^2 = 0.22	Model 2b N = 152177 R^2 = 0.22	Model 2a N = 213313 R^2 = 0.02	Model 2b N = 152177 R^2 = 0.01
Child-free (reference)				
Pre-father	**0.03**	**0.03**	0.02	0.02
	(0.01)	(0.01)	(0.15)	(0.14)
Father: no care	**0.04**	**0.04**	0.28	0.17
	(0.01)	(0.01)	(0.16)	(0.15)
Father: low care	**0.04**	**0.04**	0.32	0.19
	(0.01)	(0.01)	(0.17)	(0.15)
Father: medium care	**0.05**	**0.04**	-0.15	-0.08
	(0.01)	(0.01)	(0.16)	(0.15)
Father: high care	**0.05**	**0.05**	**-0.63**	**-0.54**
	(0.01)	(0.01)	(0.17)	(0.16)
Age	**0.06**	**0.05**	**-0.14**	**-0.12**
	(0.00)	(0.00)	(0.01)	(0.01)
Medium education level	**-0.02**	**-0.01**	**-0.25**	**-0.29**
	(0.00)	(0.00)	(0.11)	(0.10)
Low education level	**-0.06**	**-0.05**	**-0.40**	**-0.40**
	(0.00)	(0.00)	(0.12)	(0.10)
Married	**0.05**	**0.05**	**0.42**	**0.29**
	(0.00)	(0.00)	(0.10)	(0.09)
Self-employed	-	-	**5.72**	-
			(0.10)	
Medium Occupation status	-	**-0.04**		**-0.67**
		(0.00)		(0.09)
Low occupation status	-	**-0.06**	-	**-0.82**
		(0.00)		(0.10)
Public sector	-	**0.02**	-	**-0.95**
		(0.00)		(0.09)

Figures in bold are statistically significant $p > 0.01$.
Figures in bold marked with * are statistically significant at $p > 0.05$.
Luxembourg, Germany and UK excluded from this analysis.

Table 7.10 presents the fixed effects regression coefficients estimated country by country for model 2b with dependent variable hourly wage rate. There are no statistically significant coefficients for the father status variables for Finland, Ireland, Spain or Belgium. Pre-fathers, for those countries with a statistically significant coefficient, earn more in every case than non-fathers, but less or the same as fathers. This variable was statistically significant for Denmark (b = 0.08), Italy (b = 0.03), Netherlands (b = 0.04), France (b = 0.04), Greece (b - 0.07). Care can be shown to have a small (between 1% to 4%) but positive effect on earnings. Fathers exhibiting low care earn more than non-fathers, but not as much more than fathers exhibiting high care as compared with non-fathers. In Denmark the relationship is not linear however, with fathers exhibiting medium care earning 12% more than non-fathers, where as fathers exhibiting no care and high care earn 11% more than non-fathers. Fathers reporting low care earn 10% more than non-fathers. These country by country results suggest that the wage premium of fatherhood is higher in some countries than in others, although it is always a premium, never a penalty.

Table 7.10 *Summary of Fixed Effects Regression Analysis by Country for Variables Predicting Hourly Wage Rate (Model 2b)*

	Fixed effects regression coefficients (ß)											
Country	Pre-Father	Father: no care	Father: low care	Father: med. care	Father: high care	Age	Medium Educ. Level	Low Educ. Level	Married	Medium Occup. Status	Low Occup. Status	Public Sector
Denmark	0.08	0.11	0.10	0.12	0.11	0.05	-0.04	-0.09	0.02	-0.04	-0.09	-0.04
Finland	-	-	-	-	-	0.05	-	-	-	-0.03	-0.05	-
Ireland	-	-	-	-	-	0.08	-	-0.09	0.09	-0.03	-0.07	0.08
Spain	-	-	-	-	-	0.06	-	-	0.06	-0.04	-0.06	-
Belgium	-	-	-	-	-	0.04	-	-	-	-	-0.03	-
Italy	0.03	0.03	0.04	0.05	0.05	0.05	-	-	0.03	-0.04	-0.05	-
Austria	-	0.05	-	-	-	0.03	-	-0.12	-	-	-	-
Netherlands	0.04	0.05	0.06	0.06	0.07	0.04	-	-	0.08	-	-0.05	-
France	0.04	0.04	-	0.05	0.07	0.04	-	-	0.03	-0.10	-0.14	0.05
Greece	0.07	0.11	0.11	0.12	0.12	0.08	-	-	0.07	-0.08	-0.13	0.08
Portugal	-	0.03	-	-	0.07	0.07	-0.09	-0.11	0.08	-0.05	-0.07	0.02

All results statistically significant at p=<0.05 two tailed. – denotes ß was not significant at p=<0.05
Reference categories are father, high level of education and high occupation status

7.3.4 Paternal Time and Weekly Working Hours

The relationship between paternal time and the number of hours worked per week (Y_{it} = *weekly working hours*) is estimated according to equation (2). In the models 2a and 2b corresponding to equation (2), in terms of weekly working hours, there is a statistically significant result for fathers spending a high level of paternal time. Such fathers work just over half an hour less per week than child-free men, regardless of their self-employment status (table 7.9).

Table 7.11 presents the fixed effects regression coefficients estimated country by country for model 2b with dependent variable weekly working hours. There are barely any statistically significant coefficients for the father status variables. These only results are for pre-fathers in Belgium (b = 1.29) and Italy (b = -0.75). Further to this, a lone result is found for fathers spending a high level of paternal time for the Netherlands, with such fathers working just over 2 hours less than non-fathers.

Table 7.11 *Summary of Fixed Effects Regression Analysis by Country for Variables Predicting Weekly Working Hours (Model 2b)*

	Fixed effects regression coefficients (ß)											
Country	Pre-Father	Father: no care	Father: low care	Father: med. care	Father: high care	Age	Medium Educ. Level	Low Educ. Level	Married	Medium Occup. Status	Low Occup. Status	Public Sector
Denmark	-	-	-	-	-	-0.08	-	-	-	-2.00	-3.52	-2.25
Finland	-	-	-	-	-	-	-	-	-	-	-1.26	-
Ireland	-	-	-	-	-	-	-	-	-	-	-	-1.37
Spain	-	-	-	-	-	-0.14	-0.65	-	0.93	-	-	-
Belgium	1.29	-	-	-	-	-	-	-	-	-0.80	-	-1.27
Italy	-0.75	-	-	-	-	-0.10	-1.73	-1.77	-	-	-	-0.48
Austria	-	-	-	-	-	-	-4.02	-4.26	-	-1.16	-1.23	-
Netherlands	-	-	-	-	-2.25	-0.08	-	-	-	-0.83	-1.47	-0.72
France	-	-	-	-	-	-0.20	-	-	-	-1.09	-1.27	-3.79
Greece	-	-	-	-	-	-	-	-	-	-	1.16	-1.14
Portugal	-	-	-	-	-	-0.35	-1.73	-1.58	-	-1.14	-0.80	-1.03

All results statistically significant at p=<0.05 two tailed. – denotes ß was not significant at p=<0.05.
Reference categories are father, high level of education and high occupation status.

7.4 Summary

Two main questions are considered in this chapter. The first question asks whether fathers earn more and work longer hours than non-fathers. The second question asks whether fathers who spend more paternal time work fewer hours and earn less than fathers spending less paternal time.

With regard to the first question, and guided by the findings of the previous chapter, I allow for heterogeneity within the group of non-fathers by considering two sub-categories: men at least three survey years prior to the onset of fatherhood, to whom I refer as child-free men; and men within two survey years of becoming fathers, whom I call pre-fathers. I find that fathers do indeed earn more than non-fathers. On average, child-free men earn around 5% less and pre-fathers earn 2% less than fathers, *ceteris paribus*. In terms of weekly working hours, there seems to be very little difference between fathers (before breaking the group of fathers down by level of paternal time), pre-fathers and child-free men.

With regard to the second question, I employ a series of dummy variables, representing fathers according to the time they spend looking after their children. I find that there is a relationship between paternal time and labour market outcomes. Fathers who report spending a high or medium level of paternal time earn around 1% more than other fathers. This is not necessarily a consequence of longer working hours. To the contrary, I find that, all other things being equal, fathers who report spending the highest level of paternal time work slightly shorter hours than all other men.

Perhaps surprisingly, and contrary to hypothesis (4), fathers spending more paternal time also report slightly higher earnings than the latter group. This result can be used as evidence that the dichotomous categorisation of fathers as either *good providers* or *active carers* is not an apt description of modern fatherhood. Rather, a more appropriate categorisation might be one that differentiates the *involved father* from the *non-involved father*. Typically, a *involved father* is a man simultaneously involved in the labour market and as a carer. Conversely, an *non-involved father* is a man with less success in the labour market and as a carer. In other

words, those fathers who spend the most time with their children also experience the most favourable labour market outcomes.

Despite institutional differences between the member states of the European Union, there is a clearly observable and consistent sociological relationship between pay and parenthood across countries. Country by country analysis reveals relatively small differences in the magnitude of effects between countries. Further research would be required to explore the nature of these differences as current theoretical frameworks do not provide sufficient context to explain these differences. Also, for some countries, there are no statistically significant coefficients for the father status variables, possibly due to the smaller national sample sizes. For those countries with a statistically significant result, there is a fatherhood wage premium, which begins before the onset of fatherhood. This can be explained in one of two ways: A structural explanation might suggest that there is a higher probability that involved men become fathers; or, an agency based explanation might suggest that men are aware of the costs of fatherhood (and/or the costs of attracting a mate) and are planning accordingly. That pre-fathers are found to exhibit more favourable labour market outcomes than other non-fathers, all other things being equal, perhaps suggests that some men are already aware before the onset of fatherhood that achieving a certain position in the labour market will better enable them to spend more time looking after their children when they become fathers.

7.A Appendix

Table 7.A1 *Pooled Sample Characteristics for Employed and Self-Employed Men*

Sub-sample characteristics	Observations	Mean	Standard deviation	Median	10^{th} percentile	90^{th} percentile
			EU-14			
A. Gross Wage > 0 adjusted by purchasing power parity rate (no information for Luxembourg)						
Fathers	142645	10.51	7.55	9.21	3.96	18.04
Pre-fathers	6833	9.33	6.18	8.44	3.68	15.44
Child-free	63637	10.22	7.27	9.07	4.09	17.07
B. Working hours						
Fathers	185774	44	11	40	36	60
Pre-fathers	8616	43	10	40	36	57
Child-free	83482	43	11	40	36	58
C. Age						
Fathers	250427	36	12			
Pre-fathers	10241	32	9			
Child-free	111614	40	13			
			Austria			
A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	7619	9.74	4.73	8.95	4.89	15.19
Pre-fathers	327	8.38	3.66	8.00	4.44	12.66
Child-free	3810	9.74	4.92	8.74	5.81	15.19
B. Working hours						
Fathers	8866	45	11	40	38	60
Pre-fathers	374	44	11	40	38	60
Child-free	4413	44	11	40	38	60
C. Age						
Fathers	10887	35	12			
Pre-fathers	405	32	11			
Child-free	5829	41	13			

Belgium

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	7158	12.94	5.81	11.63	7.45	20.02
Pre-fathers	279	10.10	4.79	9.72	6.69	15.79
Child-free	2688	12.08	5.40	10.85	6.90	18.79
B. Working hours						
Fathers	8388	44	11	40	36	60
Pre-fathers	341	45	11	40	37	60
Child-free	3180	44	11	40	36	60
C. Age						
Fathers	11089	36	11			
Pre-fathers	384	31	7			
Child-free	4260	43	12			

Denmark

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	5831	14.51	5.68	13.43	9.06	21.61
Pre-fathers	418	13.33	5.30	12.76	8.39	18.77
Child-free	4033	13.24	5.35	12.42	7.88	19.22
B. Working hours						
Fathers	6401	41	9	37	37	50
Pre-fathers	449	40	8	37	37	50
Child-free	4413	41	9	37	37	50
C. Age						
Fathers	7664	37	10			
Pre-fathers	528	31	9			
Child-free	5635	40	13			

Finland

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	6078	13.32	7.95	11.70	7.48	20.66
Pre-fathers	256	10.91	4.96	10.11	6.57	15.96
Child-free	2937	12.58	6.64	11.17	7.07	19.67
B. Working hours						
Fathers	7929	44	12	40	36	60
Pre-fathers	327	44	13	40	35	60
Child-free	3847	43	12	40	32	60
C. Age						
Fathers	10799	37	12			
Pre-fathers	417	32	9			
Child-free	5471	42	13			

France

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	14443	10.05	6.52	8.52	4.77	16.45
Pre-fathers	706	8.31	4.26	7.28	4.63	13.15
Child-free	5567	9.23	6.25	7.58	4.54	15.47
B. Working hours						
Fathers	16239	43	10	39	35	55
Pre-fathers	758	42	9	39	36	50
Child-free	6350	42	10	39	35	58
C. Age						
Fathers	24261	36	12			
Pre-fathers	968	31	8			
Child-free	9817	41	13			

Germany

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	16014	11.12	5.64	10.54	4.84	17.65
Pre-fathers	865	10.24	5.02	9.76	3.75	16.10
Child-free	8805	10.79	5.10	10.22	5.32	16.69
B. Working hours						
Fathers	17407	44	9	42	38	58
Pre-fathers	931	44	9	41	38	56
Child-free	9572	44	9	40	37	55
C. Age						
Fathers	22309	37	11			
Pre-fathers	1095	31	9			
Child-free	12795	41	13			

Greece

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	8746	7.31	4.14	6.25	3.52	12.27
Pre-fathers	366	5.22	2.75	4.69	2.50	8.57
Child-free	3275	5.91	3.54	5.16	3.00	9.38
B. Working hours						
Fathers	15482	46	12	40	35	60
Pre-fathers	622	45	13	40	32	60
Child-free	6121	45	12	40	30	60
C. Age						
Fathers	20645	37	12			
Pre-fathers	711	32	10			
Child-free	7869	40	13			

Ireland

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	8456	11.52	7.31	9.87	4.37	20.79
Pre-fathers	267	10.49	6.71	9.07	4.03	18.11
Child-free	2796	10.25	7.19	8.45	4.37	17.28
B. Working hours						
Fathers	11125	45	13	40	35	60
Pre-fathers	339	45	12	40	35	60
Child-free	3825	45	14	40	30	65
C. Age						
Fathers	15171	35	13			
Pre-fathers	388	32	10			
Child-free	4927	39	13			

Italy

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	16848	9.66	4.75	8.65	5.61	14.45
Pre-fathers	784	8.31	3.41	7.55	5.08	12.50
Child-free	6325	8.44	3.69	7.73	5.29	11.97
B. Working hours						
Fathers	23641	42	9	40	36	53
Pre-fathers	1070	42	9	40	36	50
Child-free	8992	42	9	40	36	50
C. Age						
Fathers	34747	37	12			
Pre-fathers	1364	33	10			
Child-free	12729	39	12			

Luxembourg

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Information not available						
B. Working hours						
Fathers	6833	41	7	40	40	42
Pre-fathers	446	42	7	40	40	48
Child-free	4765	41	7	40	40	45
C. Age						
Fathers	8668	36	12			
Pre-fathers	481	31	8			
Child-free	5892	39	12			

Netherlands

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	11534	16.02	15.02	14.12	8.70	23.19
Pre-fathers	673	13.60	11.49	12.23	8.22	19.16
Child-free	7376	14.68	13.03	12.80	7.99	21.55
B. Working hours						
Fathers	12524	41	10	40	34	55
Pre-fathers	715	41	9	40	36	50
Child-free	7869	41	9	40	32	50
C. Age						
Fathers	15067	38	11			
Pre-fathers	812	32	8			
Child-free	9962	40	13			

Portugal

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	14044	5.24	4.49	3.92	2.34	9.53
Pre-fathers	575	4.49	3.01	3.60	2.18	7.91
Child-free	4183	4.39	3.35	3.52	2.14	7.29
B. Working hours						
Fathers	18534	44	9	40	36	56
Pre-fathers	670	44	8	40	36	55
Child-free	5560	44	10	40	35	60
C. Age						
Fathers	23715	36	12			
Pre-fathers	760	32	11			
Child-free	7062	40	14			

Spain

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	16213	8.99	6.02	7.28	4.02	16.05
Pre-fathers	654	7.39	4.27	6.48	3.58	11.55
Child-free	5166	7.85	4.41	6.75	3.90	13.04
B. Working hours						
Fathers	20974	45	11	40	37	60
Pre-fathers	805	45	11	40	37	60
Child-free	6685	44	11	40	35	60
C. Age						
Fathers	31031	35	12			
Pre-fathers	1041	31	10			
Child-free	9485	38	12			

UK

A. Gross Wage > 0 adjusted by purchasing power parity rate						
Fathers	9661	11.94	6.94	10.46	5.39	19.99
Pre-fathers	663	10.79	5.65	9.78	5.56	17.24
Child-free	6676	11.28	7.25	9.91	5.41	18.68
B. Working hours						
Fathers	11431	46	12	45	37	60
Pre-fathers	769	46	11	45	36	60
Child-free	7890	45	11	43	36	60
C. Age						
Fathers	14374	36	11			
Pre-fathers	887	31	9			
Child-free	9881	39	13			

Source: Author's own calculations using the ECHP.

Conclusion

And so this work comes to its conclusion. The relevant theories, which previous research has put forward in explanation of the gender division of labour, and also those few specifically looking into the gender division of parenting, have been reviewed. A theoretical framework for the analysis of paternal time and its correlates across the EU-14 has been set out. From the discussion of the framework, a number of formalised hypotheses relating specifically to the two sides of the household labour market nexus and the state labour market nexus have arisen. These hypotheses have then been linked to more extensive investigations into parental labour market outcomes and legislative frameworks concerning fathers. Suitable measures of paternal time have been discussed and developed. These steps have prepared the way for a number of empirical analyses which allowed me to test the hypotheses.

The first hypothesis stated that a father spends more paternal time if the mother is participating to a greater or equal extent in the labour market. I tested this hypothesis in chapter 4 by considering the relationship between parental household employment type and the likelihood of a father spending substantial paternal time. In order to do this, I needed to develop a fitting measure of paternal time and also a measure of parental household employment type. Parental households were categorised as either being work poor, breadwinner, full-time-part-time or as work-rich. I found that there was considerable cross-national variation in the distribution of the various parental household employ-

ment types. I also found that, across Europe, the respective parental household employment type was correlated with whether or not a father spent substantial paternal time. Fathers in households where mothers were participating to a greater or equal extent in the labour market were found to be more likely, on average, to spend substantial paternal time than would be predicted were there not a relationship between the two variables. This was particularly the case for those fathers in the small percentage of households where the mother was the breadwinner. Fathers in households where mothers were participating to a lesser exent in the labour market were found, on average, to be less likely to spend substantial paternal time than would be predicted if there was no relationship. However, in work poor households, in which neither partner worked more than 15 hours per week, I found that fathers were more likely to spend substantial paternal time than would be predicted if there was no relationship between substantial paternal time and parental employment type.

The second hypothesis stated that fathers in countries with more father-friendly legislation spend more paternal time. I tested this hypothesis in chapter 5 by developing an index of the father-friendliness of national legislation across the EU-14. I then employed this index to investigate whether there was a positive correlation between the index score and the proportion of fathers spending substantial paternal time in any of the studied countries. National legislation (in 1997) clearly fell into three categories of father-friendliness, which clustered regionally according to Esping-Andersen's typology of welfare regimes. In Scandinavia, synonomous with the social democratic regime type, the most extensive father-friendly provision was observed alongside the highest levels of paternal time in Europe. Similarly, other European countries showed corresponding levels of father-friendly legislation and paternal time, as was predicted by the hypothesis. The bivariate analysis carried out at the country-level suggested some correlation between father-friendly legislation and paternal time, but both the UK and Ireland appear as outliers in the analysis.

The third hypothesis stated that fathers earn more and work longer hours than non-fathers. I first tested this hypothesis in chapter 6, by enquiring whether there were identifiable household strategies of parenthood; and whether there

were identifiable household strategies of pre-parenthood, especially an increase of labour supply before the onset of parenthood. I first found that co-resident fathers in stable relationships (of a duration of at least eight years) were not increasing their working hours after the birth of their first child in any of the three countries considered (France, the UK and West Germany). Instead, West German dual-earner fathers worked fewer hours than non-fathers, reducing their work effort by a comparable amount to dual-earner mothers. This effect was not found in France or in the UK. Contrary to expectation, no wage effect of fatherhood for this particular group was detected. An important finding concerned pre-fatherhood. Non-fathers had generally been considered to be a homogeneous group. I found, however, evidence to suggest that within the group of non-fathers, sub-groups were more different from one another in terms of their labour market outcomes, than were non-fathers *in toto* from fathers. Having thus looked at co-resident men, I broadened the investigation in chapter 7 to include all employed men, irrespective of their relationship status. Guided by the findings of the previous chapter, I allowed for heterogeneity within the group of non-fathers. For this broader sample of all employed men across the EU-14, regardless of their relationship status, I found that fathers did indeed earn more than non-fathers, *ceteris paribus*. On average, across the EU-14, child-free men earned 5% less and pre-fathers earned 2% less than fathers. In terms of weekly working hours however, there seemed to be very little difference between fathers, pre-fathers and child-free men. Fathers did not appear to be working longer hours than non-fathers.

The fourth hypothesis stated that fathers who spend more paternal time work fewer hours per week and earn less per hour than fathers who spend less paternal time. This is explored in chapter 7. I considered all employed resident fathers in the EU-14, controlling for national differences, looking at variation both within this group and between fathers and non-fathers. Firstly, and in contradiction to the hypothesis, I found that there was a positive relationship between paternal time and earnings. Fathers who reported spending a high or medium level of paternal time earned around 1% more than other fathers. Secondly, and in confirmation of the hypothesis, I found a negative relationship

between paternal time and weekly working hours. All other things being equal, fathers who reported spending a high level of paternal time worked slightly shorter hours than all other men. Though these findings contradict the second part of the hypothesis, a new relationship became evident: fathers who spend more paternal time work fewer hours and earn more per hour than fathers who spend less paternal time.

Beyond these analytical findings, which were framed by the above hypotheses, a number of descriptive findings were gained in the course of this thesis. I found that there was cross-national variation in the average amount of weekly paternal time across Europe ranging from an average of 12 hours per week reported in Greece and Portugal to an average of 25 hours per week reported in Denmark. Within this spectrum, resident European fathers spent, on average, 41% of the time that mothers spent on child care. This finding illustrates that mothers are still responsible for the majority of child care across Europe. Measurements of substantial parental time confirmed considerable cross-national differences in the proportions of parents across Europe who reported spending substantial time looking after their children. These measurements also shed light on cross-national variation of the gender gap in parental time.

The thesis has been able to shed light on the characteristics of those fathers who are deeply involved in child care activities. Such fathers are more likely to be living within a household where the mother works as much or more than the father, or alternatively to be living within work poor households. They are likely to have more and younger children. Finally, they are likely to be more highly educated.

Much has been said in the sociological literature about the two strategies of specialisation and non-specialisation, which define the balance between the two parental roles of earner and carer. Whilst I routinely observed, in my thesis, the employment of both strategies, the key finding was that these strategies were defined not only by the mother's financial contribution, but also by the father's contribution to care. This is supported by the finding that fathers in non-specialised parental households were more likely to spend substantial time looking

after their children than fathers in specialised households. Further evidence stems from the observation that West German fathers, whose female partners remained attached to the labour market after the onset of parenthood, worked fewer hours than other West German men. Both in the literature and in my findings, specialised households were most often comprised of a male breadwinner and a female carer. However, in the minority of households with female breadwinners, the fathers were also likely to fill the carer role to a greater extent than in any other household employment type. This can be interpreted as evidence that the specialisation strategy of parenthood is not categorically linked to a parent's sex.

Whether the increased level of paternal contribution to care is the direct result of a mothers' improved bargaining power to negotiate a more even distribution of care tasks when she is earning more, as predicted by Lundberg and Pollak (1994), or rather the result of the non-specialised common preference model of teamwork as predicted by Oppenheimer (1997), would require further testing.

Another theory, which has been regularly put forward in explanation of paternal time, is that of time availability. Here, the time spent by a father looking after his children is seen as a function of the time available to him. My finding that those fathers in work poor parental households or in households with a female breadwinner participated more in child care than those fathers in household types with a greater level of paternal labour market participation adds weight to the time availability theory. Related to time availability theory, another factor which could potentially impact on levels of paternal time is the extent of father-friendly legislation in a country. The linking assumption here is that certain types of legislation can secure time for fathers to spend looking after their children (Sayer, Gauthier and Furstenberg 2004). I began chapter 5 by asking whether father-friendly legislation could promote equal sharing by men and women of both paid employment and child care, and if so, which type of arrangement? Does policy matter? From my findings, I would answer this question positively but would concede that it was not the only factor. The exceptions to the rule, the UK and Ireland, had little or no provision, but still scored

relatively high on paternal hours. Perhaps, in the near or complete absence of policy, families are coming up with their own "work-family" reconciliation strategies. Again, this is a direction for further research.

The literature suggests that fathers earn more money than non-fathers. In general, my findings confirm this suggestion. For men in long-term relationships, however, this thesis found no such wage effect of fatherhood. This unusual finding perhaps indicates that men who are a part of a stable team are distinct in their behaviour from men in general. Perhaps, men in this group were always earning more than men in less stable relationships. In that case, the wage effect of fatherhood, as reported in chapter 7 and in the literature, was in fact reflecting the interaction between fertility, stability of relationship, and labour market outcomes. Again, further work is needed to investigate whether this is indeed the case.

Another remarkable finding surrounding the fatherhood wage premium was the observation that higher earnings were also characteristic for men before the onset of parenthood. This can be explained in one of two ways: a structural explanation might suggest that there was a higher probability that involved men became fathers; or, an agency-based explanation might suggest that men were aware of the costs of fatherhood (and/or the costs of attracting a mate) and that they were planning accordingly. That pre-fathers have been found to exhibit more favourable labour market outcomes than other non-fathers, all other things being equal, perhaps suggests that some men are already aware before the onset of fatherhood that achieving a certain position in the labour market will better enable them to spend more time looking after their children when they become fathers.

As well as predicting a fatherhood wage premium, the literature also suggests that fathers work longer hours than non-fathers. My investigation proves this suggestion to be erroneous. This thesis found that fathers who spent more paternal time worked shorter hours than other fathers and non-fathers. It also found that fathers who spent more paternal time acheived a higher hourly wage rate than other groups of men. These findings can be used as evidence that the

dichotomous categorisation of resident fathers as either good providers or active carers fails to properly depict modern fatherhood. Rather, a more appropriate categorisation might be one that differentiates the involved father from the non-involved father. Typically then, a involved father is a man simultaneously involved in the labour market and as a carer. An unsuccesful father is a man with less success in the labour market and as a carer. In other words, those fathers who spend the most time with their children also experience the most favourable labour market outcomes.

This finding can be seen in conjunction with the earlier finding that fathers in non-specialised work rich households spent more paternal time than those in specialised male-breadwinner households. In this constellation, it would then appear that involved fathers were most likely to be found in non-specialised households. This new perspective has strong implications for the intergenerational transmission of social status. Given that children do better (in terms of educational attainment and social position as adults) when their parents are wealthier (e.g. Scott 2004), and that they do better when their parents invest more time in them (Büchel and Duncan 1998; Cooksey and Fondell 1996; Furstenberg, Morgan, and Allison 1987), this thesis lends strong support to Oppenheimer's theory that non-specialisation is becoming an optimal strategy of partnership. More than this, non-specialisation can be considered as becoming an optimal strategy for co-residential parenthood.

FINIS



Image of the relief above the fireplace in The Chanter's House library, Ottery St Mary, England.

Bibliography

Acker, J. 1973. "Woman and Social Stratification: A Case of Intellectual Sexism", *American Journal of Sociology*, 78: 936-940.

Adam, B. 1990. *Time and Social Theory*, Cambridge: Polity Press.

Aldous, J., Mulligan, G. M. and Bjarnason, T. 1998. "Fathering Over Time: What Makes the Difference?", *Journal of Marriage and the Family*, 60: 809-820.

Allen, S. M. and Hawkins, A. J. 1999. "Maternal Gatekeeping: Mothers' Beliefs and Behaviors That Inhibit Greater Father Involvement in Family Work", *Journal of Marriage and the Family*, 61: 199-212.

Anderson, D., Binder, M. and Krause, K. 2003. "The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort, and Work-Schedule Flexibility", *Industrial and Labor Relations Review*, 56 (2): 273-294.

Angrist, J. and Evans, W. 1998. "Children and Their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size", *The American Economic Review*, 88 (3): 450-477.

Archer, M. S. 1995. *Realist Social Theory: The Morphogenetic Approach*, Cambridge: Cambridge University Press.

Ashenfelter, O. and Heckman, J. 1974. "The Estimation of Income and Substitution Effects in a Model of Family Labor Supply", *Econometrica*, 42: 73-86.

Atkinson, J. 2000. *Employment Options and Labour Market Participation*, Loughlinstown, Co. Dublin: European Foundation for the Improvement of Living and Working Conditions.

Avellar, S. and Smock, P. 2003. "Has the Price of Motherhood Declined Over Time? A Cross-Cohort Comparison of the Motherhood Wage Penalty", *Journal of Marriage and Family*, 65 (August): 597-607.

Bardasi, E. and Taylor, M. 2005. "Marriage and Wages: A Test of the Specialisation Hypothesis", unpublished manuscript, email: <taylm@essex.ac.uk>.

Barnett, R. C. and Baruch, G. K. 1987. "Determinants of Fathers' Participation in Family Work", *Journal of Marriage and the Family*, 49 (1): 29-40.

Barrett, M. 1987. "The Concept of Difference", *Feminist Review*, 26: 29-41.

Beale, R. 2003. "Cartoon", *Financial Times*, 16 January 2003, p. 12.

Beck, N., Katz, J. N. and Tucker, R. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable", *American Journal of Political Science*, 42 (4): 1260-1288.

Becker, G. S. 1965. "A Theory of the Allocation of Time", *The Economic Journal*, 75 (299): 493-517.

--------. 1971. *The Economics of Discrimination*, Second Edition, Chicago: University of Chicago Press.

--------. 1973. "A Theory of Marriage, Part 1", *Journal of Political Economy*, 81 (July/August): 813-846.

--------. 1974. "A Theory of Marriage, Part 2", *Journal of Political Economy*, 81 (March/April): 11-26.

--------. 1981a. *A Treatise on the Family*, Cambridge, MA: Harvard University Press.

--------. 1981b. "Altruism in the Family and Selfishness in the Market Place", *Economica*, 48 (February): 1-15.

--------. 1985. "Human Capital, Effort, and the Sexual Division of Labor", *Journal of Labor Economics*, 3 (2): 33-58.

--------. 1993. *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education*, Chicago: University of Chicago Press.

--------. and Barro, R. J. 1988. "A Reformulation of the Economic Theory of Fertility", *The Quarterly Journal of Economics*, 103: 1-25.

--------., Landes, E. M. and Michael, R. T. 1977. "An Economic Analysis of Marial Instability", *The Journal of Political Economy*, 85 (6): 1141-1188.

Bergman, H. and Hobson, B. 2002. "Compulsory Fatherhood: The Coding of Fatherhood in the Swedish Welfare State", Chapter 3 in Hobson, B. (ed.), *Making Men into Fathers: Men, Masculinities and the Social Politics of Fatherhood*, Cambridge: Cambridge University Press.

Bergmann, B. R. 1995. "Becker's Theory of the Family: Preposterous Conclusions", *Feminist Economics*, 1: 141-150.

Berk, S. F. 1985. *The Gender Factory: The Apportionment of Work in American Households*, New York, NY: Plenum Press.

Bernasco, W., de Graff, P. M. and Ultee, W. C. 1998. "Coupled Careers: Effects of Spouse's Resources on Occupational Attainment in the Netherlands", *European Sociological Review*, 14: 15-31.

Bettio, F., Del Bono, E. and Smith, M. 1998. "Working Time Patterns in the European Union: Policies and Innovations", Report of the Group of Experts on 'Gender and Employment', Employment and Social Affairs, Brussels: European Commission (DGV).

Bianchi, S. M., Milkie, M. A., Sayer, L. C. and Robinson, J. P. 2000. "Is Anyone Doing the Housework? Trends in the Gender Division of Household Labor", *Social Forces*, 79 (1): 191-228.

--------. 2000. "Maternal Employment and Time With Children; Dramatic Change or Surprising Continuity", *Demography*, 37 (4): 401-414.

Biever, C. 15 May 2006. "Watch Language Grow in the 'Baby Brother' House", *NewScientist.com News Service*, <http://www.newscientisttech.com/article/dn9167-watch-language-grow-in-the-baby-brother-house.html> [accessed 15 September 2006].

Billari, F. C. and Kohler, H.-P. 2004. "Patterns of Low and Lowest-Low Fertility in Europe", *Population Studies*, 58 (2): 161-176.

Billewicz, W. Z. 1955. "Some Remarks on the Measurement of Social Mobility", *Population Studies*, 9 (1): 96-100.

Bittman, M., Fast, J., Fisher, K. and Thomson, C. 2004. "Making the Invisible Visible. The Life and Time(s) of Informal Caregivers", in N. Folbre and M. Bittman, (eds.), *Family Time: The Social Organization of Childcare*, London and New York, NY: Routledge.

--------. and Pixley, J. 1997. *The Double Life of the Family: Myth, Hope and Experience*, St. Leonards, New South Wales: Allen and Unwin.

Blackaby, D., Carlin, P. and Murphy, P. Forthcoming. "A Change in the Earnings Penalty for British Men with Working Wives: Evidence from the 1980s and 1990s", email: <d.h.blackaby@swan.ac.uk>.

Blau, F. D., Ferber, M. A. and Winkler, A. 2002. *The Economics of Women, Men, and Work*, Fourth Edition, Englewood Cliffs: Prentice Hall.

--------. and L. M. Kahn. 1992. "The Gender Earnings Gap: Learning from International Comparisons", *American Economic Review*, 82 (2): 533-538.

--------. 1999. "Women's Economic Well-being, 1970-1995: Indicators and Trends", *Focus*, 20: 4-10.

Blau, P. M. 1964. *Exchange and Power in Social Life*, New York, NY: John Wiley and Sons.

Blood, R. O. and Wolfe, D. M. 1960. *Husbands and Wives: The Dynamics of Married Living*, Gelncoe, IL: Free Press.

Blossfeld, H.-P. 1987. "Labor Market Entry and the Sexual Segregation of Careers in the Federal Republic of Germany", *American Journal of Sociology*, 93: 89-118.

--------. 1995. "Changes in the Process of Family Formation and Women's Growing Economic Independence: A Comparison of Nine Countries", pp. 3-34 in H. P. Blossfeld (ed.) *The New Role of Women: Family Formation in Modern Societies,* Boulder, Colorado: Westview Press.

--------. and Drobnič, S. 2001. "A Cross-National Comparative Approach to Couples' Careers", Chapter 1 in Blossfeld, H.-P. and Drobnič, S. (eds.),

Careers of Couples in Contemporary Societies: From Male Breadwinner to Dual Earner Families, Oxford: Oxford University Press.

--------- and Hakim, C. 1997. *Between Equalization and Marginalization: Women Working Part-Time in Europe and the United States of America*, Oxford: Oxford University Press.

---------. 1987. "Labor Market Entry and the Sexual Segregation of Careers in the Federal Republic of Germany", *American Journal of Sociology*, 93: 89-118.

Blumstein, P. and Schwartz, P. 1983. *American Couples: Money, Work, Sex*, New York, NY: Morrow.

Bradshaw, J., Stimson, C., Skinner, C. and Williams, J. 1999. *Absent Fathers*, London: Routledge.

Brandth, B. and Kvande, E. 1998. "Masculinity and Child Care: The Reconstruction of Fathering", *Sociological Review*, 46 (2): 293-313.

---------. and Kvande, E. 2001. "Flexible Work and Flexible Fathers", *Work, Employment and Society*, 15 (2): 251-267.

Breen, R and Cooke, L. P. 2005. "The Persistence of the Gendered Division of Domestic Labour", *European Sociological Review*, 21 (1): 43-57.

---------. 2003. "Book review of Blossfeld and Drobnič (eds): Careers of Couples in Contemporary Society", *European Sociological Review*, 19 (1): 113-114.

---------. and Garcia-Penalosa, C. 2002. "Bayesian Learning and Gender Segregation", *Journal of Labor Economics*, 20 (4): 899-922.

---------. and Rottman, D. 1995. *Class Stratification: A Comparative Perspective*, London: Harvester Wheatsheaf.

Brewster, K. L. and Rindfuss, R. R. 2000. "Fertility and Women's Employment in Industrialized Nations", *Annual Review of Sociology*, 26: 271-296.

Brines, J. 1993. "The Exchange Value of Housework", *Rationality and Society*, 5: 302-340.

---------. 1994. "Economic Dependency, Gender and the Division of Labour in the Home", *American Journal of Sociology*, 100 (3): 652-688.

Brown, D. 2004. "Flexible Working and Paternity Leave: The Full Rate For Fatherhood Survey Report", Technical Report, London: Chartered Institute of Personnel and Development.

Browning, M. 1992. "Children and Household Economic Behavior", *Journal of Economic Literature*, 30 (3): 1434-1474.

Bruning, G. and Plantenga, J. 1999. "Parental Leave and Equal Opportunities Experiences in Eight European Countries", *Journal of European Social Policy*, 9 (3): 195-209.

Bryant, W. K. and Zick, C. D. 1996. "An Examination of Parent-Child Shared Time", *Journal of Marriage and the Family*, February: 227-237.

Bryson, V. 2005. "Women, Men and Time-Use Studies: The Politics of Research", Unpublished manuscript <v.a.bryson@hud.ac.uk>.

Budig, M. J. and England, P. 2001. "The Wage Penalty for Motherhood", *American Sociological Review*, 66: 204-225.

---------. and Folbre, N. 2004. "Activity, Proximity or Responsibility? Measuring Parental Childcare Time", chapter 3 in Folbre, N. and Bittman, M. (eds.), *Family Time: The Social Organization of Childcare*, London and New York, NY: Routledge.

Bunting, M. 2000. "No Right To Be Idle: Working Mothers and Others Are Suffering Time Famine", *The Guardian Online*, Monday, April 17.

Burgoyne, J. and Clark, D. 1984. *Making A Go Of It: A Study of Stepfamilies in Sheffield*, London: Routledge and Kegan Paul.

Büchel, F. and Duncan, G. J. 1998. "Do Parents' Social Activities Promote Children's School Attainments? Evidence from the German Socioeconomic Panel", *Journal of Marriage and the Family*, 60 (1): 95-108.

Castles, F. G. and Mitchell, D. 1993. "Worlds of Welfare and Families of Nations", in Castles, F. (ed.), *Families of Nations*, Aldershot: Dartmouth.

---------. 2004. *The Future of the Welfare State: Crisis Myths and Crisis Realities*, Oxford: Oxford University Press.

Chesnais, J. C. 1996. "Fertility, Family, and Social Policy in Contemporary Western Europe", *Population and Development Review*, 22 (4): 729-739.

Choi, H.-J., Joesch, J. and Lundberg, S. 2005. "Work and Family: Marriage, Children, Child Gender and the Work Hours and Earnings of West German Men", *IZA Discussion Paper*, No. 1761.

Chun, H. and Lee, I. 2001. "Why Do Married Men Earn More: Productivity or Marriage Selection?", *Economic Inquiry*, 39 (2): 307-319.

Cohen, T. F. 1993. "What Do Fathers Provide? Reconsidering the Economic and Nurturant Dimensions of Men as Parents", pp. 1-22 in Hood, J. (ed.), *Men, Work, and Family*, London: Sage.

Collins, R. and Coltrane, S. 1995. *Sociology of Marriage and the Family: Gender, Love and Property*, Fourth Edition, Chicago, IL: Nelson Hall.

Coltrane, S. 1996. *Family Man: Fatherhood, Housework, and Gender Equity*, New York and Oxford: Oxford University Press.

---------. 1998. *Gender and Families*, Thousand Oaks, CA: Pine Forge Press.

Commission of the European Communities (CEC). 1989. *Community Charter of Fundamental Social Rights - Draft*, COM (89) 471 final, Brussels: CEC.

---------. 2000. "Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work", *Journal of Marriage and the Family*, 62: 1208-1233.

Cooke, L. P. 2004. "The Gendered Division of Labor and Family Outcomes in Germany", *Journal of Marriage and Family*, 66 (December): 1246-1259.

---------. 2006. "Policy, Preferences, and Patriarchy: The Division of Domestic Labor in East Germany, West Germany, and the United States", *Social Politics*, 13: 117-143.

---------. forthcoming 2007. "Policy Pathways to Gender Power: State-level Effects on the Division of Housework", *Journal of Social Policy*, 36 (2).

Cooksey, E. C. and Fondell, M. M. 1996. "Spending Time With His Kids: Effects of Family Structure on Fathers' and Childrens' Lives", *Journal of Marriage and the Family*, 58: 693-707.

Coverman, S. 1983. "Gender, Domestic Labor Time and Wage Inequality", *American Sociological Review*, 48: 623-637.

---------. 1985. "Explaining Husbands' Participation in Domestic Labor", *The Sociological Quarterly*, 26: 81-97.

---------. and Sheley, J. F. 1986. "Change in Men's Housework and Childcare Time, 1965-1975", *Journal of Marriage and the Family*, 48 (2): 431-422.

Craig, L. 2002. "The Time Costs of Parenthood: An Analysis of Daily Workload", *Social Policy Research Centre Technical Report*, Sydney: University of South Wales.

---------. 2004. *The Hidden Cost of Parenthood: The Impact of Children on Adult Time*, Doctoral Thesis submitted to the University of New South Wales.

Crompton, R. 1998. *Class and Stratification: An Introduction to Current Debates*, Second Edition, Cambridge: Polity Press.

Crompton, R. (ed.) 1999. *Restructuring Gender Relations and Employment: The Decline of the Male Breadwinner*, Oxford: Oxford University Press.

Cronbach, L. 1951. "Coefficient Alpha and the Internal Structure of Tests", *Psychometrica*, 16: 297-334.

Crouch, C. 1999. *Social Change in Western Europe*, Oxford: Oxford University Press.

Cunningham, M. 2001. "Parental Influences on the Gendered Divison of Housework", *American Sociological Review*, 66: 184-203.

Curry-Sumner, I. 2005. "Uniform Patterns Regarding Same-Sex Relationships", *International Law FORUM du Droit International*, 7 (3): 186-194.

Daly, K. J. 2000. "It Keeps Getting Faster: Changing Patterns of Time in Families", *Vanier Institute of the Family*.
URL: < http://www.vifamily.ca/library/cft/faster.html>
[accessed 15 September 2006].

---------. 2001. "Deconstructing Family Time: From Ideology to Lived Experience", *Journal of Marriage and Family*, 63: 283-294.

Davies, K. 1990. *Women and Time: Weaving the Strands of Everyday Life*, Avebury: Aldershot.

Delamont, S. and Galton, M. 1986. *Inside the Secondary Classroom*, London: Routledge and Keagan Paul.

Dermott, E. 2003. "The 'Intimate Father': Defining Paternal Involvement", *Sociological Research Online*, 8 (4).
URL: <http://www.socresonline.org.uk/8/4/dermott.html>

Dethloff, N. 2005. "Same-Sex Parents in a Comparative Perspective", *International Law FORUM du Droit International*, 7 (3): 195-205.

Deutsch, F. M., Lussier, J. B. and Servis, L. J. 1993. "Husbands at Home: Predictors of Paternal Participation in Childcare and Housework", *Journal of Personality and Social Psychology*, 65 (6): 1154-1166.

Deven, F. and Moss, P. 2002. "Leave Arrangements for Parents: Overview and Future Outlook", *Community, Work and Family*, 5 (3): 237-255.

Dex, S. 1990. "Goldthorpe on Class and Gender: The Case Against", pp. 135-152 in J. Clark, C. Modgil and S. Modgil (Eds.), *John H. Goldthorpe: Consensus and Controversy*, London: Falmer Press.

---------. (ed.). 1999. *Families and the Labour Market*, London: Family Policies Studies Centre for the Joseph Rowntree Foundation.

---------. and Joshi, H. 1999. "Careers and Motherhood: Policies for Compatibility", *Cambridge Journal of Economics*, 23: 641-659.

---------. and Scheibl, F. 2000. *Flexible and Family-Friendly Working Arrangements in SME's: Business Cases*, Cambridge: Judge Institute of Management Studies.

Dey, I. and Wasoff, F. 2000. "Duty and the Bad Dads: Reflections on 'Good Enough' Parenting by Non-Resident Fathers", Paper presented to the Social Policy Association Annual Conference, Roehampton, London, 20 July 2000.

DiPrete, T. A. and McManus, P. A. 2000. "Family Change, Employment Transitions, and the Welfare State: Household Income Dynamics in the United States and Germany", *American Sociological Review*, 65 (3): 343-370.

Ditch, J., Bradshaw, J. and Eardley, T. 1996. *Developments in National Family Policies in 1994*, York: Social Policy Research Unit.

Dowding, K. and Hindmoor, A. 1997. "The Usual Suspects: Rational Choice, Socialism and Political Theory", *New Political Economy*, 2: 451-463.

Dunne, G. A. (2001) "The Lady Vanishes? Reflections on the Experiences of Married and Divorced Gay Fathers", *Sociological Research Online*, 6 (3): 1-17. <http://www.socresonline.org.uk/6/3/dunne.html>.

Durkheim, E. [1893]1984. *The Division of Labor in Society*, New York, NY: Free Press.

Duvander, A. E. and Sundström, M. 2000. "Family Division of Childcare and the Sharing of Parental Leave Among New Parents in Sweden", in Duvander, A. E., *Couples in Sweden: Studies on Family and Work*, PhD thesis (Swedish Institute for Social Research - Dissertation Series no. 46, Stockholm University).

EC: see European Commission.

Ehrenberg, R. G. and Smith, R. S. 2003. *Modern Labor Economics: Theory and Public Policy*, Eighth Edition, New York, NY: Addison-Wesley.

Ellingsaeter, A. L. 1999. "Dual Breadwinners Between State and Market", in Crompton, R., (ed.), *Restructuring Gender Relations and Employment: The Decline of the Male Breadwinner,* Oxford: Oxford University Press.

England, P. and Farkas, G. 1986. *Households, Employment, and Gender: A Social, Economic and Demographic View*, New York, NY: Aldine de Gruyter.

---------. and Kilbourne, B. S. 1990. "Markets, Marriages, and Other Mates: The Problem of Power", pp. 163-188 in Friedland, R. and Robertson, A. F. (eds.), *Beyond the Marketplace: Rethinking Economy and Society*, New York, NY: Aldine Publishing.

Erikson, R. and Goldthorpe, J. 1992. *The Constant Flux: A Study of Class Mobility in Industrial Societies*, Oxford: Clarendon Press.

---------. and Jonsson, J. O. (Eds.). 1996. *Can Education be Equalized?*, Boulder, CO: Westview Press.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*, Princeton, NJ, Cambridge: Polity Press.

---------. 1999. *Social Foundations of Postindustrial Economies*, New York; Oxford: Oxford University Press.

---------., Gallie, D., Hemerijck, A. and Myles, J. 2002. *Why We Need a New Welfare State*, Oxford: Oxford University Press.

Eurobarometer 2004. *Europeans' Attitudes to Parental Leave*, Special Eurobarometer 189/Wave 59.1, European Opinion Research Group EEIG, Brussels: European Commission.

European Communities 1992. *Treaty on European Union*, Luxembourg: Office for Official Publications of the European Communities.

European Commission (EC) 1998. "Care in Europe", Joint Report of the "Gender and Employment" and the "Gender and Law" Groups of Experts, Brussels: European Commission.

European Network "Family and Work" 1998. *Men Within Family and Work*, Brussels: European Commission DGV.

European Observatory on the Social Situation Demography and Family 2003. *Key Family Issues in the EU Member States*, Vienna: Austrian Institute for Family Studies.

Eurostat 2002. *ECHP UDB Manual: Waves 1 to 6, Survey Years 1994 - 1999*, (Technical Report DOC. PAN 168/2002-12), Brussels: European Commission Directorate E.

---------. 2003a. *Construction of Weights in the ECHP*, (Technical Report DOC. PAN 165), Brussels: European Commission Directorate E.

---------. 2003b. *Imputation of Income in the ECHP*, (Technical Report DOC. PAN 164), Brussels: European Commission Directorate E.

---------. 2003c. *Living Conditions in Europe 1998-2002*, Luxembourg: Office for Official Publications of the European Commission.

---------. 2004. *How Europeans Spend their Time: Everyday Life of Women and Men: Data 1998-2002*, Luxembourg: Office for Official Publications of the European Commission.

Fagnani, J. 2002. "Why do French Women Have More Children Than German Women? Family Policies and Attitudes Towards Child Carer Outside the Home", *Community, Work and Family*, 5 (1): 103-119.

Falkner, G. 1998. *EU-Social Policy in the 1990s: Towards a Corporatist Policy Community*, London: Routledge.

---------., Hartlapp, M., Leiber, S. and Treib, O. 2002. "Transforming Social Policy in Europe? The EC's Parental Leave Directive and Misfit in the 15 Member States", *MPIfG Working Paper*, 02/11, <http://www.mpi-fg-koeln.mpg.de/pu/workpap/wp02-11/wp02-11.html>
[accessed 15 September 2006].

Fedick, C., Pacholok, S. and Gauthier, A. 2005. "Methodological Issues in the Estimation of Parental Time: Analysis of Measures in a Canadian Time-Use Survey", *Electronic International Journal of Time Use Research*, 2 (1): 67-87.

Fein, R. 1978. "Research on Fathering: Social Policy and an Emergent Perspective", *Journal of Social Issues*, 34: 122-135.

Fenstermaker, R., West, C. and Zimmerman, D. H. 1991. "Gender Inequality", pp. 289-307 in Blumberg, R. L. (ed.), *Gender, Family, and Economy: the Triple Overlap*, London: Sage, Newbury Park.

Ferrera, M. 1996. "The 'Southern Model' of Welfare in Social Europe", *Journal of European Social Policy*, 6 (1): 17-37.

---------., Hemerijck, A. and Rhodes, M. 2001. "The Future of the 'European Social Model' in the Global Economy", *Journal of Comparative Policy Analysis*, 3 (2): 163-90.

Ferri, E. 1984. *Stepchildren: A National Study*, Windsor: NFER/Nelson.

---------. and Smith, K. 1998. *Step-parenting in the 1990s*, London: Family Policies Studies Centre.

Fisher, K., McCulloch, A. and Gershuny, J. 1999. *British Fathers and Children: A Report for Channel 4 "Dispatches"*, Technical Report, Colchester: Institute for Social and Economic Research.

Folbre, N. 1994. *Who Pays for the Kids? Gender and the Structures of Constraint*, New York: Routledge.

Fraser, N. 1994. "After the Family Wage: Gender Equality and the Welfare State", *Political Theory*, 22 (4): 591-618.

Furstenberg, F. F., Philip Morgan, S. and Allison, P. D. 1987. "Paternal Participation and Children's Well-being after Marital Dissolution", *American Sociological Review*, 52 (5): 695-701.

---------. 1988. "Good Dads - Bad Dads: Two Faces of Fatherhood", pp. 193-218 in Cherlin, A. J. (ed.), *The Changing American Family and Public Policy*, Washington, D.C.: Urban Institute Press.

Gallie, D. and Jacobs, S. 2000. "Appendix A: ECHP", pp. 375 in Gallie, D. and Paugam, S. (eds.), *Welfare Regimes and the Experience of Unemployment in Europe*, Oxford: Oxford University Press.

Gauthier, A. H. 1996. *The State and the Family: A Comparative Analysis of Family Policies In Industrialized Countries*, Oxford: Clarendon Press.

---------. 1999. "The Sources and Methods of Comparative Family Policy Research", *Comparative Social Research*, 18: 31-56.

---------. 2001. "The Impact of Public Policies on Families and Demographic Behaviour", Paper presented at the ESF/EURESCO conference "The

second demographic transition in Europe", Bad Herrenalb, Germany 23-28 June 2001.

---------., Smeeding, T. and Furstenberg, F. 2004. "Are Parents Investing Less Time in Children? Trends in Selected Industrialized Countries", *Population and Development Review*, 30 (4): 647-671.

---------., Gershuny, J. and Fisher, K. 2006. *Multinational Time Use Study User's Guide and Documentation*, <http://www.timeuse.org/mtus/documentation/docs/cover.pdf> accessed May 8th 2007.

Geist, C. 2005. "The Welfare State and the Home: Regime Differences in the Domestic Division of Labour", *European Sociological Review*, 21 (1): 23-41.

Gershuny, J. and Sullivan, O. 1998. "Sociological Uses of Time-Use Data", *European Sociological Review*, 14 (1).

---------. 2000. *Changing Times: Work and Leisure in Postindustrial Society.* Oxford: Oxford University Press.

---------. 2004. "Costs and Benefits of Time Sampling Methodologies", *Social Indicators Research*, 67: 247-252.

Gerson, K. 1993. *No Man's Land: Men's Changing Commitments to Family and Work*, New York, NY: BasicBooks.

Giddens, A. 1979. *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, Basingstoke: Macmillan.

Ginther, D. and Zavodny, M. 2001. "Is the Male Marriage Premium Due to Selection? The Effect of Shotgun Weddings on the Return to Marriage", *Journal of Population Economics*, 14: 313-328.

Goffman, E. 1977. "The Arrangement Between the Sexes", *Theory and Society*, 4: 301-331.

Goldthorpe, J. 1996. "Problems of 'Meritocracy', in Erikson, R. and Jonsson (eds.), *Can Education Be Equalized? The Swedish Case in Comparative Perspective*, Boulder, CO: Westview Press.

Gornick, J. C., Meyers M. K. and Ross, K. E. 1997. "Supporting the Employment of Mothers: Policy Variation Across Fourteen Welfare States", *Journal of European Social Policy*, 7: 45-70.

---------. and Meyers, M. K. 2001. „Building a Dual Earner/Dual Carer Society: What Can Governments Do?", Paper presented at *The Sixth Women's Policy Research Conference*, Washington.

---------. and Meyers, M. K. 2003. *Families that Work: Policies for Reconciling Parenthood and Employment*, New York, NY: Russell Sage Foundation.

Gracia, E. 2004. "Unreported Cases of Domestic Violence Against Women: Towards an Epidemiology of Social Silence, Tolerance, and Inhibition", *Journal of Epidemial Community Health*, 58: 536-537.

Grahl, J. and Teague, P. 1997. "Is the European Social Model Fragmenting?", *New Political Economy*, 2 (3): 405-426.

Gray, J. 1997. "The Fall in Men's Return to Marriage: Declining Productivity Effects of Changing Selection", *The Journal of Human Resources*, 32 (3): 481-504.

Greenstein, T. N. 1996. "Husbands' Participation in Domestic Labor: Interactive Effects on Wives' and Husbands' Gender Ideologies", *Journal of Marriage and the Family*, 58: 585-595.

Griswold, R. 1993. *Fatherhood in America*, New York, NY: Basic.

Gustafsson, B., and Kjulin, U. 1994. "Time Use in Child Care and Housework and the Total Cost of Children", *Journal of Population Economics*, 7: 287-306.

Haas, B. 2005. "The Work-Care Balance: Is it Possible to Identify Typologies for Cross-National Comparison?", *Current Sociology*, 53 (3): 487-508.

Haas, L. 1992. *Equal Parenthood and Social Policy: A Study of Parental Leave in Sweden*, Issues in Child Care Series, Albany: State University of New York Press.

---------., Allard, K. and Hwang, P. 2002. "The Impact of Organizational Culture on Use of Parental Leave in Sweden", *Community, Work and Family*, 5: 319-342.

---------. 2003. "Parental Leave and Gender Equality: Lessons from the European Union", *Review of Policy Research*, 20 (1): 89-105.

Hakim, C. 1991. "Grateful Slaves and Self-Made Women: Fact and Fantasy in Women's Work Orientations", *European Sociological Review*, 7: 101-121.

---------. 2000. *Work-Lifestyle Choices in the 21st Century: Preference Theory*, Oxford: Oxford University Press.

Hallberg, D. and Klevmarken, A. 2003. "Time for Children: A Study of Parent's Time Allocation", *Journal of Population Economics*, 16: 205-226.

Hanson, S. and Bozett, F. 1985. *Dimensions of Fatherhood*, Beverly Hills, CA: Sage Publications.

Hantrais, L. 1994. "Comparing Family Policy in Britain, France and Germany", *Journal of Social Policy*, 23 (2): 135-160.

---------. 2000. *Social Policy in the European Union*, Second Edition, Basingstoke: Macmillan.

Harkness, S. and Waldfogel, J. 1999. "The Family Gap in Pay: Evidence from Seven Industrialised Countries", *CASEpaper*, 29 (November 1999), London: London School of Economics.

Harman, H. 1999. "The Case for a Parental Leave Tax Credit", in IPPR (ed.), *Time Off with the Children - Paying for Parental Leave*, London: Institute for Public Policy Research.

Hartmann, J. 1976. "Capitalism, Patriarchy and Job Segregation by Sex", *Signs*, 1: 137-169.

Heineman, E. D. 1999. *What Difference Does a Husband Make?*, Berkeley, CA: University of California Press.

Hernes, H. 1987. *Welfare State and Women Power*, Oslo: Norwegian University Press.

Hervey, T. and Shaw J. 1998. "Women, Work and Care: Women's Dual Role and Double Burden in EC Sex Equality Law", *Journal of European Social Policy*, 8 (1): 43-63.

Hildebrand, V. and Williams, D. R. 2003. "Self-Employment and Caring for Children: Evidence from Europe", *IRISS/C-I Working Chapter 2003-06*, Differdange, Luxembourg: CEPS/INSTEAD.

Hiller, D. V. 1984. "Power, Dependence and Division of Family Work", *Sex Roles*, 10: 1003-1019.

Hiller, D. and Philliber, W. 1986. "The Division of Labour in Contemporary Marriage: Expectations, Perceptions and Performance", *Social Problems*, 33: 191-201.

Hobson, B. 1994. "Solo Mothers, Social Policy Regimes, and the Logics of Gender", in Sainsbury, D. (ed.), *Gendering Welfare States*, London: Sage.

---------. 2002. (ed.). *Making Men Into Fathers: Men, Masculinities and the Social Politics of Fatherhood*, Cambridge: Cambridge University Press.

---------. and Morgan, J. 2002. "Introduction", pp. 1-21 in Hobson, B. (ed.), *Making Men Into Fathers: Men, Masculinities and the Social Politics of Fatherhood*, Cambridge: Cambridge University Press.

Hochschild, A., with Machung, A. 1989. *The Second Shift: Working Parents and the Revolution at Home*, London: Piatkus.

---------. 1997. *The Time Bind: When Work Becomes Home and Home Becomes Work*, New York, NY: Metropolitan.

Hohn, H.-W. 1984. *Die Zerstörung der Zeit: Wie aus einem göttlichen Gut eine Handelsware wurde*, Frankfurt am Main: Fischer.

Holt, H. 1994. "The Influence of the Workplace Culture on Family Life", pp 53-66 in Carlsen, S. and Elm Larsen, J. (eds.), *The Equality Dilemma*, Copenhagen: The Danish Equal Status Council.

Hood, J. 1986. "Meaning and Measurement of the Provider Role", *Journal of Marriage and. the Family*, 48 (2): 349-360.

--------. 1993. "Introduction", in Hood. J. (ed.), *Men, Work, and Family*, London: Sage.

Hook, J. L. 2006. "Care in Context: Men's Unpaid Work in 20 Countries, 1965-2003", *American Sociological Review*, 71: 639-660.

Huber, J. and Spitze, G. 1983. *Sex Stratification*, New York, NY: Academic Press.

---------. 1988. "A Theory of Family, Economy and Gender", *Journal of Family Issues*, 9: 9-26.

Iacovou, M. 2001. "Fertility and Female Labour Supply", *ISER Working Papers*, Number 2001-19.

Ishii-Kuntz, M. and Coltrane, S. 1992. "Predicting the Sharing of Household Labor: Are Parenting and Housework Distinct?", *Sociological Perspectives*, 35 (4): 629-647.

---------. and Coltrane, S. 1992a. "Remarriage, Stepparenting, and Household Labor", *Journal of Family Issues*, 13 (2): 215-233.

Jacobson, L. S., LaLonde, R. J. and Sullivan, D. G. 1993. "Earnings Losses of Displaced Workers", *The American Economic Review*, 83 (4): 685-709.

Jacobsen, J. and Rayack, W. 1996. "Do Men Whose Wives Work Really Earn Less?", *The American Economic Review*, 86 (2): 268-273.

Jenkins, S. P. and O'Leary, N. C. 1995. "Modelling Domestic Work Time", *Journal of Population Economics*, 8: 265-279.

Joesch, J. M. and Spiess, K. K. 2002. "European Mothers' Time Spent Looking After Children: Differences and Similarities Across 9 Countries", *EPAG Working Paper (29)*, Colchester: Institute for Social and Economic Research.

Jones, C. 1993. *New Perspectives on the Welfare State in Europe*, London: Routledge.

Joshi, H. 1991. "Sex and Motherhood as Handicaps in the Labour Market", in Groves, D. and Maclean, M. (eds.), *Women's Issues in Social Policy*, London: Routledge.

Joshi, H. 1998. "The Opportunity Costs of Childbearing: More than Mothers' Business", *Journal of Population Economics*, 11: 161-183.

Jump, T. and Haas, L. 1987. "Fathers in Transition: Dual-Career Fathers Participating in Child Care", pp. 98-114 in Kimmel, M. (ed.), *Changing Men: New Directions in Research on Men and Masculinity*, Newbury Park, CA: Sage.

Jurado Guerrero, T. and Naldini, M. 1996. "Is the South So Different? Italian and Spanish Families in Comparative Perspective", *Southern European Society Politics*, 1 (3): 42-66.

Juster, F. T. and Stafford, F. P. 1991. "The Allocation of Time: Empirical Findings, Behavioral Models and Problems of Measurement", *Journal of Economic Literature*, 29: 471-522.

Kalmijn, M. and Luijkx, R. 2005. "Has the Reciprocal Relationship between Employment and Marriage Changed for Men? An Analysis of the Life Histories of Men Born in the Netherlands between 1930 and 1970", *Population Studies*, 59 (2): 211-231.

Kalmuss, D., Davidson, A. and Cushman, L. 1992. "Parenting Expectations, Experiences, and Adjustment to Parenthood: A Test of the Violated Expectations Framework", *Journal of Marriage and the Family*, 54: 516-526.

Kamo, Y. 1991. "A Nonlinear Effect of the Number of Children on the Division of Household Labor", *Sociological Perspective*, 34: 205-218.

---------. 2000. "'He Said, She Said': Assessing Discrepancies in Husbands' and Wives' Reports on the Division of Household Labor", *Social Science Research*, 29: 459-476.

Kaufman, G. and Uhlenberg, P. 2000. "The Influence of Parenthood on the Work Effort of Married Men and Women", *Social Forces*, 78 (3): 931-949.

Keilman, N. 1987. "Recent Trends in Family and Household Composition in Europe", *European Journal of Population*, 3 (1987): 297-325.

Kelly, R. 1999. "The Case For A Universal Payment", in IPPR (ed.), *Time Off with the Children - Paying for Parental Leave*, London: Institute for Public Policy Research.

Kiernan, K. 2004. "Unmarried Cohabitation and Parenthood in Britain and Europe", *Law and Policy*, 26 (1): 33-55.

---------. (ed.) 1987. *Changing Men: New Directions in Research on Men and Masculinity*, Newbury Park, CA: Sage.

---------., Hearn, J. and Connell, R. (eds.) 2005. *Handbook of Studies on Men and Masculinities*, Thousand Oaks, CA: Sage.

Klinth, R. 2002. *Göra Pappa Med Barn. Den Svenska Pappapolitiken 1960-95*, Boréa: Umeå.

Knijn, T. and Selten, P. 2002. "Transformations of Fatherhood: The Netherlands", Chapter 6 in Hobson, B. (ed.), *Making Men into Fathers: Men, Masculinities and the Social Politics of Fatherhood*, Cambridge: Cambridge University Press.

Korenman, S. and Neumark, D. 1991. "Does Marriage Really Make Men More Productive", *The Journal of Human Resources*, 26 (2): 282-307.

Kulawik, T. 2005. "Wohlfahrtsstaaten und Geschlechterregime im internatioinalen Vergleich", http://web.fu-berlin.de/gpo/teresa_kulawik.htm [accessed on 15 September 2006.]

Kurdek, L. A. 1993. "The Allocation of Household Labor in Gay, Lesbian and Heterosexual Married Couples", *Journal of Social Issues*, 49: 127-34.

LaRossa, R. 1988. "Fatherhood and Social Change", *Family Relations*, 37: 451-457.

---------. 1997. *The Modernization of Fatherhood: A Social and Political History*, Chicago, IL: The University of Chicago Press.

Lee, G. 1987. "Comparative Perspectives", pp 59-80 in Sussman, M. and Steinmetz, S. (eds.), *Handbook of Marriage and the Family*, New York, NY: Plenum Press.

Lee, Y.-S. 2005. "Measuring the Gender Gap in Household Labor: Accurately Estimating Wives' and Husbands' Contributions", pp. 229-247 in Schneider, B. and Waite, L. J. (eds.), *Being Together, Working Apart: Dual-Career Families and the Work-Life Balance*, Cambridge: Cambridge University Press.

Lee, D. J. and Turner, B. S. (eds.) 1996. *Conflicts About Class: Debating Inequality in Late Industrialism*, London and New York: Longman.

Leibfried, S. 1992. "Towards a European Welfare State: On Integrating Poverty Regimes in the European Community", pp. 245-280 in Ferge, Z. and Kolberg, J. E. (eds.), *Social Policy in a Changing Europe*, Frankfurt: Campus Verlag.

---------. and Pierson, P. (eds.) 1995. *European Social Policy: Between Fragmentation and Integration*, Washington, DC: Brookings Institution.

Lewis, J. 1992. "Gender and the Development of Welfare Regimes", *Journal of European Social Policy*, 3: 159-173.

---------. 1993. *Women and Social Policies in Europe: Work, Family and the State*, Aldershot: Edward Elgar.

---------. 1997. "Gender and Welfare Regimes: Further Thoughts", *Social Politics*, 4: 160-177.

---------. 1997a. *Lone Mothers in European Welfare Regimes: Shifting Policy Logics*, London: J. Kingsley Publishers.

---------. 2002. "The Problem of Fathers: Policy and Behavior in Britain", Chapter 4 in Hobson, B. (ed.), *Making Men Into Fathers: Men, Masculinities and the Social Politics of Fatherhood*, Cambridge: Cambridge University Press.

Lewis, R. and Salt, R. 1986. *Men in Families*, London: Sage.

Lijphart, A. 1971. "Comparative Politics and Comparative Method", *American Political Science Review*, 65 (3): 682-93.

Lister, R. 1997. *Citizenship: Feminist Perspectives*, New York, NY: New York University Press.

Loh, E. S. 1996. "Productivity Differences and the Marriage Wage Premium for White Males", *The Journal of Human Resources*, 31 (3): 566-589.

Long, J. S. and Freese, J. 2001. *Regression Models for Categorical Dependent Variables Using Stata*, Texas: Stata Corporation.

Longstaff, E. 2000. *Fathers Figure: Fathers' Groups in Family Policy*, London: Institute for Public Policy Research.

Lopata, H. Z. 1971. *Occupation: Housewife*, New York, NY: Oxford University Press.

Lundberg, S. 1988. "Labor Supply of Husbands and Wives: A Simultaneous Equations Approach", *The Review of Economics and Statistics*, 70 (2): 224-235.

---------. and Pollak, R. A. 1994. "Noncooperative Bargaining Models of Marriage", *American Economic Review*, 84: 132-137.

---------. and Pollak, R. A. 1996. "Bargaining and Distribution in Marriage", *Journal of Economic Perspectives*, 10 (4): 139-158.

---------., Pollak, R. A. and Wales, T. J. 1997. "Do Husbands and Wives Pool Their Resources?", *Journal of Human Resources*, 32: 463-480.

---------. and Rose, E. 2000. "Parenthood and the Earnings of Married Men and Women", *Labour Economics*, 7: 689-710.

Macnaghton, P. and Urry, J. 1998. *Contested Natures*, London: Sage.

Manser, M. and Brown, M. 1980. "Marriage and Household Decision-Making: A Bargaining Analysis", *International Economic Review*, 21: 31-44.

Marini, M. M. and Shelton, B. A. 1993. "Measuring Household Work: Recent Experience in the United States", *Social Science Research*, 22: 361-382.

Marsh, A., McKay, S., Smith, A. and Stephenson, A. 2001. *Low-Income Families in Britain: Work-Welfare and Social Security in 1999*, Technical Report 138, London: DSS Research Report.

Marshall, G. and Swift, A. 1993. „Social Class and Social Justice", *British Journal of Sociology*, 44 (2): 187-211.

---------. and Swift, A. 1996. „Merit and Mobility: A Reply to Peter Saunders", *Sociology*, 30 (2): 375-86.

---------. (ed.) 1998. *A Dictionary of Sociology*, Oxford: Oxford University Press.

Marshall, T. H. 1950. *Citizenship and Social Class*, Cambridge: Cambridge University Press.

Marsiglio, W. 1993. "Contemporary Scholarship on Fatherhood: Culture, Identity, and Conduct", *Journal of Family Issues*, 14 (4): 484-509.

---------. 1995. *Fatherhood: Contemporary Theory, Research, and Social Policy*, London: Sage.

McDonald, P. 2000. "Gender Equity in Theories of Fertility Transition", *Population and Development Review*, 26 (3): 427-439.

McFarlane, S., Beaujot, R. and Haddad, T. 2000. "Time Constraints and Relative Resources as Determinants of the Sexual Division of Domestic Work", *Canadian Journal of Sociology*, 25 (1): 61-82.

McLanahan, S. and Sandefur, G. D. 1994. *Growing Up With A Single Parent: What Hurts, What Helps*, Cambridge, MA.: Harvard University Press.

McRae, S. 1986. *Cross-Class Families: A Study of Wives' Occupational Superiority*, Oxford: Clarendon Press.

Menard, S. 1991. *Longitudinal Research*, London: Sage.

Michelson, W. and Crouse, D. 2003. "Assessing Changes to Gender Impact on Behavioural Priorities and Patterns in Everyday Life", paper presented at the IATUR Conference, Brussels, September 2003.

Mincer, J. and Polachek, S. 1974. "Family Investments in Human Capital: Earnings of Women", *Journal of Political Economy*, 82 (2).

Moore, S. 1996. "Enforcement of Private Law Claims of Sex Discrimination in the Field of Employment", in Hervey, T. and O'Keeffe, D. (eds.), *Sex Equality Law in the European Union*, London: Chancery/Wiley.

Moss, P. and Brannen, J. 1987. "Fathers and Employment", in Lewis, C. and O'Brien, M. (eds.), *Reassessing Fatherhood*, London: Sage.

---------. 1999. "Learning From European Experience", in IPPR (ed.), *Time Off with the Children - Paying for Parental Leave*, London: Institute for Public Policy Research.

---------. and Deven, F. (eds.) 1999. *Parental Leave: Progress or Pitfall? Research and Policy Issues in Europe*, Brussels: CBGS Publications.

---------. and O'Brien, M. 2006. *International Review of Leave Policies and Related Research*, Employment Relations Research Series No. 57, London: DTI: <www.dti.gov.uk/employment/research-evaluation/errs/>

Naumann, I. 2005. "Child Care and Feminism in West Germany and Sweden in the 1960s and 1970s", *Journal of European Social Policy*, 15 (1): 47-63.

---------. 2006. *Childcare Politics in the West German and Swedish Welfare States from the 1950s to the 1970s*, Florence: Department of Political and Social Sciences, European University Institute Doctoral Thesis.

Neilson, J. 1998. "European Briefing: Equal Opportunities for Women in the European Union: Success or Failure", *Journal of European Social Policy*, 8 (1): 64-79.

Neumark, D. and Korenman, S. 1994. "Sources of Bias in Women's Wage Equations: Results Using Sibling Data", *Journal of Human Resources*, 29: 379-405.

NewWays 1998. "Parental Leave in European Union Countries Questionnaire", Technical Report for New Ways to Work in conjunction with the European Network "Family and Work", Brussels: European Commission DGV.

NFPI 2000. *NFPI Briefings Number 1: Parental Leave*, Technical Report, London: NFPI.

Nicoletti, C. and Peracchi, F. 2004. "Survey Response and Survey Characteristics: Micro-level Evidence from the ECHP", Economics and Statistics Discussion Papers esdp04015, University of Molise, Dept. SEGeS.

Nock, S. 1998. "The Consequences of Premarital Fatherhood", *American Sociological Reveiew*, 63 (2): 250-263.

Oakley, A. 1974. *The Sociology of Housework*, London: Robertson.

O'Brien, M. and Shemilt, I. 2003. *Working Fathers: Earning and Caring*, Norwich: University of East Anglia Equal Opportunities Commission.

O'Connor, J. 1993. "Gender, Class and Citizenship in the Comparative Analysis of Welfare State Regimes: Theoretical and Methodological Issues", *British Journal of Sociology*, 44: 501-518.

O'Keeffe, D. 1996. "Third Generation Remedies and Sex Equality Law", in Hervey, T. and O'Keeffe, D. (eds.), *Sex Equality Law in the European Union*, London: Chancery/Wiley.

OECD, 2001. "Balancing Work and Family Life: Helping Parents Into Paid Employment", fourth chapter in OECD, *Employment Outlook: 2001*, Paris: Organisation for Economic Co-operation and Development.

Oláh, L. 1998. "Do Public Policies Influence Fertility? Evidence from Sweden and Hungary from a Gender Perspective", *Stockholm Research Reports in Demography*, 5: 3-55.

----------. 2003. "Gendering Fertility: Second Births in Sweden and Hungary", *Population Research and Policy Review*, 22 (2): 171-200.

Oppenheimer, V. K. 1988. "A Theory of Marriage Timing", *American Journal of Sociology*, 94: 563-591.

---------. 1994. "Women's Rising Employment and the Future of the Family in Industrial Society", *Population and Development Review*, 20 (2): 293-335.

----------. 1997. "Women's Employment and the Gain to Marriage: The Specialization and Trading Model", *Annual Review of Sociology*, 23: 431-453.

Orloff, A. S. 1993. "Gender and the Social Rights of Citizenship: The Comparative Analysis of Gender Relations and Welfare States", *American Sociological Review*, 58: 303-328.

----------. and Monson, R. 2002. "Citizens, Workers or Fathers? Men in the History of US Social Policy", second chapter in Hobson, B. (ed.), *Making*

Men into Fathers: Men, Masculinities and the Social Politics of Fatherhood, Cambridge: Cambridge University Press.

Ostner, I. and Lewis, J. 1995. "Gender and the Evolution of European Social Policies", pp. 159-193 in Leibfried, S. and Pierson, P. (eds.), *European Social Policy: Between Fragmentation and Integration*, Washington DC: Brookings.

Pacholok, S. and Gauthier, A. 2004. "A Tale of Dual-Earner Families in Four Countries", pp. 197-223 in Folbre, N. and Bittman, M. (eds.), *Family Time: The Social Organization of Care*, London and NY: Routledge.

Pakulski, J. and Waters, M. 1996. *The Death of Class*, London et al: Sage.

Pallant, J. 2001. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows (Version 10)*, Buckingham: Open University Press.

Parsons, T. 1942. "Age and Sex in the Social Structure of the United States", *American Sociological Review*, 7: 604-616.

Parsons, T. and Bales, R. 1966. *Family, Socialization, and Interaction Process*, New York: Free Press.

Pateman, C. 1988. "The Patriarchal Welfare State", pp. 231-260 in Gutmann, A., (ed.), *Democracy and the Welfare State*, Princeton: Princeton University Press.

Pencavel, J. 1986. "Labor Supply of Men: A Survey", in Ashenfelter, O. and Layard P.R.G. (eds.), *Handbook of Labor Economics,* Vol.1, Amsterdam: North Holland.

Peracchi, F. 2002. "The European Community Household Panel: A Review", *Empirical Economics*, 27: 63-90.

Pfau-Effinger, B. 1999. "The Modernization of Family and Motherhood in Western Europe", in Crompton, R. (ed.), *Restructuring Gender Relations and Employment: The Decline of the Male Breadwinner*, Oxford: Oxford University Press.

Pleck, J. 1987. "American Fathering in Historical Perspective", pp. 83-97 in Kimmel, M. (ed.), *Changing Men: New Directions in Research on Men and Masculinity*, Newbury Park, CA: Sage.

Pollock, L. 1983. *Forgotten Children: Parent-Child Relations From 1500 to 1900*, Cambridge: Cambridge University Press.

Pollert, A. 1996. "Gender and Class Revisited: Or, The Poverty of Patriarchy", *Sociology*, 30 (4): 639-659.

Press, J. E. and Townsley, E. 1998. "Wives' and Husbands' Housework Reporting: Gender, Class and Social Desirability", *Gender and Society*, 12 (2): 188-218.

Presser, H. B. 1989. "Can I Make Time for Children? The Economy, Work Schedules, and Child Care", *Demography*, 26 (4): 523-543.

---------. 1994. "Employment Schedules Among Dual-Earner Spouses and the Division of Household Labor by Gender", *American Sociological Review*, 59: 348-364.

Quiney, M. 1999. "Individualism and Choice: Parental Accounts and Parental Vouchers", in IPPR (ed.), *Time Off with the Children - Paying for Parental Leave*, London: Institute for Public Policy Research.

Ramos, X. 2003. „Domestic Work Time and Gender Differentials In Great Britain 1992-1998: Facts, Value Judgements and Subjective Fairness Perceptions", Paper presented at the British Household Panel Survey Conference Summer 2003, Colchester.

Reskin, B. F. and Roos, P. A. 1990. *Job Queues, Gender Queues: Explaining Women's Inroads into Male Occupations*, Philadelphia, PA: Temple University Press.

Robinson, W. S. 1950. "Ecological Correlations and the Behavior of Individuals", *American Sociological Review*, 15 (June): 351-357.

Robinson, J. P. and Godbey, G. 1997. *Time For Life: The Surprising Ways Americans Use Their Time*, University Park, Pa.: Pennsylvania State University Press.

Rose, R. and Shiratori, H. 1986. *The Welfare State East and West*, Oxford: Oxford University Press.

Ross, C. E. 1987. "The Division of Labor At Home", *Social Forces*, 65 (3): 816-833.

Rubery, J. and Fagan, C. 1993. *Occupational Segregation of Women and Men in the European Community*, Technical Report, Paris: OOPEC.

Russell, G. 1983. *The Changing Role of Fathers?* Brisbane, Australia: University of Queensland Press.

---------. 1987. "Problems in Role-Reversed Families", in Lewis, C. and O'Brien, M. (eds.), *Reassessing Fatherhood*, London: Sage.

Sainsbury, D. 1994. "Women's and Men's Social Rights: Gendering Dimensions of Welfare States", pp. 150-169 in Sainsbury, D. (ed.), *Gendering Welfare States,* London: Sage.

---------. 1996. *Gender, Equality and Welfare States*, Cambridge: Cambridge University Press.

---------. 1999. *Gender and Welfare State Regimes,* Oxford: Oxford University Press.

Sandberg, J. F. and Hofferth, S. L. 2001. "Changes in Children's Time With Parents: United States, 1981–1997", *Demography*, 38: 423-36.

Sandberg, J. and Hofferth, S. 2005. "Changes in Children's Time with Parents: A Correction", *Demography*, 42(2): 391-395.

Saunders, P. 1995. "Might Britain be a Meritocracy?", *British Journal of Sociology*, 44 (2): 187-211.

Saurel-Cubizolles, M., Romito, P., Escriba-Aguir, V., Lelong, N., Mas Pons, R. and Ancel, P. 1999. "Returning to Work After Childbirth in France, Italy and Spain", *European Sociological Review*, 15 (2): 179-194.

Sayer, L. C., Bianchi, S. M. and Robinson, J. P. 2004. "Are Parents Investing Less in Children? Trends in Mothers' and Fathers' Time with Children", *American Journal of Sociology*, 110: 1-43.

---------., Gauthier, A. H. and Furstenberg, F. F. 2004. "Educational Differences in Parents' Time With Children: Cross-National Variations", *Journal of Marriage and Family*, 66 (December 2004): 1152-1169.

---------. 2005. "Gender, Time and Inequality: Trends in Women's and Men's Paid Work, Unpaid Work and Free Time", *Social Forces*, 84 (1): 285-303.

Schoeni, R. 1995. "Marital Status and Earnings in Developed Countries", *Journal of Population Economics*, 8: 351-359.

Schultz, T. W. 1974. "Marriage, Family, Human Capital, and Fertility", *Journal of Political Economy*, 82 (March-April), Supp.

Scott, J. 2004. "Family, Gender and Educational Attainment in Britain: A Longitudinal Study", *Journal of Comparative Family Studies*, 35 (4): 565-89.

Segal, L. 1997. *Slow Motion: Changing Masculinities Changing Men*, Fourth Edition, London: Virago.

Seltzer, J. 2000. "Families Formed Outside of Marriage", *Journal of Marriage and the Family*, 62 (November 2002): 1247-1268.

Sen, A. 1980. "Equality of What?", in McMurrin (ed.), *The Tanner Lectures on Human Values*, Cambridge: Cambridge University Press.

---------. 1995. "Gender Inequality and Theories of Justice", pp. 259-273 in Nussbaum, M and Glover, J. (eds.), *Women, Culture and Development: A Study of Human Capabilities*, Oxford: Clarendon Press.

---------. 1999. *Development as Freedom*, Oxford: Oxford University Press.

Shavit, Y. and Blossfeld, H.-P. (eds.). 1993. *Persistent Inequality*, Boulder, CO: Westview Press.

Shelton, B. A. and John, D. 1996. "The Division of Household Labor", *Annual Review of Sociology*, 22: 299-322.

Silver, C. 2000. *Being There: The Time Dual-Earner Couples Spend With Their Children*, Technical Report, Statistics Canada.

Simons, R. I., Whitbeck, L. B., Beaman, J. and Conger, R. D. 1994. "The Impact of Mothers' Parenting Involvement by Nonresidential Fathers, and Parental Conflict on the Adjustment of Adolescent Children", *Journal of Marriage and the Family*, 56 (May 1994): 356-374.

Simpson, I. H. and England, P. 1981. "Conjugal Work Roles and Marital Solidarity", *Journal of Family Issues*, 1: 147-171.

Singelmann, J. 1978. *From Agriculture to Services: The Transformation of Industrial Employment*, Beverly Hills, CA: Sage.

Sleebos, J. 2003. "Low Fertility Rates in OECD Countries: Facts and Policy Responses", *OECD Social, Employment and Migration Working Papers No. 13*, Paris: OECD.

Smith, A. J. 2004, "Who Cares? European Fathers and the Time They Spend Looking After Children", *University of Oxford Sociology Working Papers*, 2004-05.

Špidla, V. 2006. "Social Aspects of Turkey's Preparations for EU Accession", Speech given in capacity as Member of the European Commission responsible for Employment, Social Affairs and Equal Opportunities at "Social Dialogue as a Tool to Address the Informal Economy in Turkey" Conference, Ankara, 5 March 2006. <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/144&format=HTML&aged=0&language=EN&guiLanguage=en> [accessed on 15 September 2006].

Sorensen, A. and McLanahan, S. 1987. "Married Women's Economic Dependency, 1940-1980", *American Journal of Sociology*, 93: 659-87.

South, S. J. and Spitze, G. 1994. "Housework in Marital and Nonmarital Households", *American Sociological Review*, 59: 327-347.

Sousa-Poza, A., Schmid, H. and Widmer, R. 2001. "The Allocation and Value of Time Assigned to Housework and Child Care: An Analysis for Switzerland, *Journal of Population Economics*, 14: 599-618.

Stevenson, W. and Greenberg, D. 2000. "Agency and Social Networks: Strategies of Action in a Social Structure of Position, Opposition and Opportunity", *Administrative Science Quarterly*, 45 (4): 651-678.

Stober, M. H. and Chan, A. M. K. 1998. "Husbands, Wives, and Housework: Graduates of Stanford and Tokyo Universities", *Feminist Economics*, 4 (3): 97-127.

Stolzenberg, R. M. and Waite, L. J. 1977. "Age, Fertility Expectations and Plans for Employment", *American Sociological Review*, 42: 769-783.

Stonewall. 2003. "Parents and Children", <http://www.stonewall.org.uk/stonewall/issuebank=parentsandchildren=index.html> [accessed on 15 September 2006].

Sullivan, O. 1997. "Time Waits for No (Wo)man: An Investigation of the Gendered Experience of Domestic Time", *Sociology*, 31(2): 221-239.

Sundström, E. 2003. *Gender Regimes, Family Policies and Attitudes to Female Employment: A Comparison of Germany, Italy and Sweden*. Doctoral Dissertation in Sociology at the Faculty of Social Sciences, Umeå University.

Sundström, M. and Duvander, A.-Z. 2002. "Gender Division of Childcare and the Sharing of Parental Leave among New Parents in Sweden", *European Sociological Review*, 18 (4): 433-447.

Sweeney, M. M. 1997. "Women, Men and Changing Families. The Shifting Economic Foundation of Marriage", *Center for Demography and Ecology Working Paper*, no. 97-14, Madison: University of Wisconsin.

Thoits, P. A. 1987. "Negotiating Roles", pp. 11-22 in Crosby, F. J. (ed.), *Spouse, Parent, Worker: On Gender and Multiple Roles*, New Haven, CT: Yale University Press.

Thompson, E. P. 1967. "Time, Work-Discipline, and Industrial Capitalism", *Past and Present*, 36: 57-97.

Thompson, L. and Walker, A. 1989. "Gender in Families: Women and Men in Marriage, Work and Parenthood", *Journal of Marriage and the Family*, 51: 845-871.

Unicef 2007. "Child Poverty in Perspective: An Overview of Child Well-Being in Rich Countries" *Report Card 7*, Florence: UNICEF Innocenti Research Centre.

Van de Kaa, D. 1987. "The Second Demographic Transition", *Population Bulletin*, 42: 3-57.

Viitanen, T. K. 2005. "Cost of Childcare and Female Employment in the UK", *Labour*, 19 (s1): 149170.

Visser, J. 2002. "The First Part-time Economy in the World: A Model to be Followed?", *Journal of European Social Policy*, 12 (1): 23-42.

Walby, S. 1987. "The European Union and Equal Opportunities Policies", *European Societies*, 1(1): 59-80.

---------. 1994. "Women's and Men's Social Rights: Gendering Dimensions of Welfare States", pp. 150-169 in D. Sainsbury (ed.), *Gendering Welfare States,* London: Sage.

---------. 1997. *Gender Transformations*, London: Routledge.

---------. 2001. "From Gendered Welfare State to Gender Regimes: National Differences, Convergence or Re-structuring?", in *Gender and Society Group Meeting*, Stockholm: Stockholm University.

---------. 2004. "The European Union and Gender Equality: Emergent Varieties of Gender Regime", *Social Politics*, 11 (1): 4-29.

Waldfogel, J. 1997. "The Wage Effects of Children", *American Sociological Review*, 63 (April): 209-217.

---------. 1998. "Understanding the 'Family Gap' in Pay for Women with Children", *Journal of Economic Perspectives*, 12 (1): 137-156.

Wasoff, F. and Morrison, A. 2005. "Family Formation and Dissolution in Europe: Scotland in a European Context", *CRFR Research Findings*, No. 56/2005.

Weber, M. [1922] 1972. *Wirtschaft und Gesellschaft*, Tübingen: Mohr.

West, C. and Zimmerman, D. H. 1987. "Doing Gender", *Gender and Society*, 1 (2): 125-151.

Whitehouse, G. 2002. "Parenthood and Pay in Australia and the UK: Evidence from Workplace Surveys", *Journal of Sociology*, 38 (4): 381-397.

Wilkinson, H. 1997. *Time Out: the Costs and Benefits of Paid Parental Leave*, Demos: London.

Williams, D. R. 2004. "Effects of Childcare Activities on the Duration of Self-Employment in Europe", *Entrepreneuership: Theory and Practice*, 28 (5): 467-485.

Wooldridge, J. M. 2000. *Introductory Econometrics: A Modern Approach*, Michigan State University: South-Western College Publishing.

Young, H. and Grundy, E. 2007. "Living Arrangements, Health and Well-Being: A European Perspective", paper presented at UPTAP conference, Leeds, March 2007. Please email <Harriet.Young@lshtm.ac.uk> for latest version of paper.

Yeung, W. J., Sandberg, J. F., Davies-Kean, P. E. and Hofferth, S. L. 2001. "Children's Time with Fathers in Intact Families", *Journal of Marriage and the Family*, 63(1): 136-154.

Zavella, P. 1987. *Women's Work and Chicano Families*, Ithaca, NY: Cornell University Press.