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# **Off-scheduling within dual-earner couples: an unequal and negative externality for family time**

Laurent Lesnard

Using couple time diary data from two French time-use surveys (1986 and 1999) this article explores the extent to which off-scheduling within dual-earner couples is an unequal and negative externality for family time. An empirical typology of family workdays is built using a variant of Optimal Matching and three kinds of family time are taken into account: conjugal time, father- and mother-child time, and parents-child time. The results indicate that off-scheduling is an unintentional by-product of employers' economic interests and that since it reduces conjugal and parents-child time but fails to foster temporal complementarity between parents it is a negative factor for family solidarity.

The widespread participation of women in the paid labor force is recognized as one of the greatest social changes of the second part of the 20<sup>th</sup> century, no doubt because at the same time it led to the outnumbering of male-breadwinner families by dual-earner families (Nock and Kingston 1984; Presser 1987). In 2000, 53.5% of all American married couples and 57.7% of American married couples with pre-school children (under age six) were dual-earners (Presser 2003). The generalization of dual-earner couples is not limited to the US but is a trait shared by every economically advanced country. For instance in France, in 2002, 62.4% of couples were double earners (Insee).

The advent of dual-earner couples has radically transformed the organization of everyday family life. Indeed, when both partners participate in the labor force, the “family work day” becomes more complex as work schedules do not necessarily overlap, or, in other words, may be desynchronized (Nock and Kingston 1984). Everyday family life is different when work schedules are desynchronized as couples tend to spend less time together but to share domestic and parental work more equally (Kingston and Nock 1985; Nock and Kingston 1988; Presser 1994). Despite the substantial effects of off-scheduling on family time, the question of whether couples choose desynchronized work schedules so as to divide childcare more evenly (Presser 1988) or prefer synchronized workdays in order to spend time together (Hamermesh 2002) remains unanswered. Although these two possible explanations conflict with each other, they are both based on two strong hypotheses. Firstly, that couples can freely choose how paid work is scheduled. Secondly, that the structure of family time is simply a question of personal preferences which can be played about with at will.

Yet, economic history tells a very different story, that of the increasing control of employers over the timing of work. Weber (1930) considered that the industrial revolution was fostered by the transposition of the Benedictines’ strict organization of time into everyday secular life. Throughout Europe, during the 18<sup>th</sup> and 19<sup>th</sup> centuries, time constraints

were imposed on factory workers, sometimes using physical violence, to put an end to the system of long weekends (Saint-Monday and Saint-Tuesday) and the resulting concentration of work into a few weekdays (Thompson 1967). This was also designed to increase productivity (Clark 1994). The control of workers' time went farther with Taylorism and Fordism which prescribed how time within the day should be organized in order to sustain mass production (Starkey 1988). The new productive paradigm, called "flexible specialization" after Piore and Sabel (1984), adds the notion of flexibility to the equation as it requires that employees constantly adapt both the content and timing of their work to ensure that production remains in line with the slightest variation in demand. The timing of work is a crucial economic issue for private sector companies (Moore 1963), which casts doubt on the notion that couples have power over their work schedules.

The history of the family is also at variance with the contention that family time is simply a matter of individual preferences. Indeed, pre-industrial families were small economic units which were both the unit of production and consumption and the locus of labor (Tilly and Scott 1978). The industrial revolutions in Europe and America brought about changes in couples and parents-child relationships. First, the transition from home-based to industrial work externalized a great amount of work and weakened the economic dimension of the family. Although at first entire families entered the factory (Hareven 1982), women and children were progressively excluded from wage-earning, reducing their economic contribution and as a result the economic interdependency between women and men. Although very asymmetrical given the economic power fathers had as main breadwinners, families, and especially women, specialized in nurture and socialization, shifting domestic solidarity towards interpersonal relationships (Hareven 1982; Rotundo 1985). Second, compulsory schooling and tighter labor regulations gradually turned children into dependent persons requiring care (Ariès 1962). The importance of interpersonal relationships went

farther as married women increasingly entered the labor market during the mid-20<sup>th</sup> century and lessened the economic power of men, paving the way for less gendered family relationships which were more centered on interpersonal bonds (Rotundo 1985). Drawing on Durkheim's article on the consequences of social change for families (1921), Berger and Kellner (1964) argue that in contemporary societies, solidarity within couples mainly relies on discussion which creates and sustains a shared principle of vision and division of the world they call domestic *nomos*. Put simply, even if the division of household labor is still highly gendered, the main source of solidarity for contemporary families is time spent together<sup>1</sup>. However, this does not mean that the time family members spend together is necessarily positive as family time is also made up of tensions, arguments, or even physical violence which means that, under extreme circumstances, being with the family can be something to be avoided (Hochschild 1997; Daly 2001).

Taken together, these two bodies of literature offer new theoretical perspectives on the question of dual-earner couples' off-scheduling. As the timing of work is crucial for employers, off-scheduling could be an indirect result of work time policies within the company rather than the direct effect of couples trading time together for parental efficiency. Furthermore, as off-scheduling reduces the amount of time families spend together, it could affect the main source of solidarity of the contemporary family. This article investigates this issue using couple time-use data from two French surveys conducted in 1986 (1,463 dual-earner couples) and 1999 (1,111 dual-earner couples). Couple time-use data makes it possible to see how their work schedules are correlated with family time. This paper uses an innovative descriptive technique (a variant of Optimal Matching called Dynamic Hamming

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<sup>1</sup> Daniel Hamermesh (2002) puts forward a highly similar hypothesis.

Matching) to explore the question of the role played by employers in dual-earners' off-scheduling and the effects of this lack of synchronicity on family time.

## BACKGROUND

Previous studies on dual-earner couples' work schedules

Currently, no full description of the way work is combined on a daily basis within dual-earner couples can be found in existing literature. Family work days are usually analyzed through diverging measurement of the amount of off-scheduling and data making it impossible to review these studies without presenting their methodological details. Indeed, first of all, data with information on the work schedule of each partner is needed but in actuality few surveys provide this kind of information. Moreover, the description of family work days requires more than just counting the number of minutes couples are not working simultaneously (off-scheduling) as information on the moment of the day each partner works as well as on the scheduling of off-scheduling is necessary. Once the extent of off-scheduling has been presented, I review the explanations put forward to account for dual-earner couples' synchronicity, or lack thereof.

### Off-scheduling: extent and measures

Most descriptions of family workdays and off-scheduling are based on surveys where work schedules were measured through two questions relative to *usual* start and finish work times. Using the 1977 Quality of Employment Survey, Graham Staines and Joseph Pleck (1983) found that only 54% of dual-earner couples both have a standard family workday and 12% of them have shifted schedules (one has a standard workday, the other a non-day shift). Standard work days are defined as the "shift in which the worker begins work each day between 3:30 a.m. and 11:59 a.m." and are opposed to afternoon shifts, "beginning [...] between noon and 7:59 p.m.", night shifts "beginning [...] between 8 p.m. and 3:29 p.m.",

rotating shifts and “other irregular patterns of hours (variable hours)”. A typology of family work days is derived from this individual typology by cross-tabulation<sup>2</sup>. This definition is problematic however as part-time workers are not distinguished from full-time workers and can end up classified in non-standard work schedules even if they only worked for a few hours in the afternoon (Presser 1984). With the same data, but with different measures, Steven Nock and Paul Kingston (1984) found that 20% of American dual-earner couples experienced off-scheduling of over 8 hours per day while only 8.5% of dual-earners are perfectly synchronized. Three numerical indicators were used to summarize what they called the *family work day*<sup>3</sup>: “total family work time” (i.e. the sum of each partner’s work time), the “length of the family work day” (i.e. the number of hours when at least one partner is working) and the “amount of off-scheduling” (i.e. the number of hours when only one partner is working).

Using the work supplement of the May 1980 Current Population Survey, Harriet Presser (1984) also demonstrated that in only 66% of full-time dual-earner couples neither partner does shift work. The cross-tabulation of partners’ work schedules—standard vs. non-standard<sup>4</sup>—defines four kinds of family workdays: husband only on shift, wife only on shift, both spouses on shift, neither spouse on shift. Using the 1997 supplement, Presser (2003) showed that only 46% of dual-earner couples have “traditional” work schedules (both partners working standard hours and weekdays). Analyzing the series of CPS May work

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<sup>2</sup> See p. 93 for more details.

<sup>3</sup> This notion was coined by Steven Nock and Paul Kingston. As words represent the stock of knowledge of a society (Elias 1991), it was indeed crucial that changes occurring within families be reflected in the vocabulary. English readers might be interested to know that the English language is more advanced in this respect than other languages, French in particular. It is only very recently that words were tentatively used and proposed to denominate dual-earner couples (*couples bi-actif*). The scientific community has an important part to play here and to a certain extent this linguistic slowness is also a *scientific delay* to acknowledge the situation experienced by 6.2 million French couples in 2002.

<sup>4</sup> Presser used the 1979 Bureau of Labor Statistics definition of shift work. “Day shift: full-time schedule (35 hours or more per week) in which at least half the hours fall between 8 a.m. and 4 p.m.; Evening shift: full-time schedule in which at least half the hours fall between 4 p.m. and midnight; Night shift: full-time schedule in which at least half the hours fall between midnight and 8 a.m.; Miscellaneous shift: full-time schedule of less than 6 or more than 12 hours per day.” Non-day shifts are grouped together to form a simple dichotomic variable opposing standard to non standard work schedules.

supplements (1973, 1978, 1985, 1991 and 1997), Daniel Hamermesh (2002) showed that the lack of synchronicity within American dual-earner couples—synchronicity being measured by a series of dichotomic variables indicating whether each hour of the day is jointly worked by couples or not—increased considerably between the 1970s and 1990s.

Using the workweek grid of the French 1999 time-use survey, Chenu and Robinson (2002) showed that 45% of French dual-earner couples experience a level of desynchronization greater than 60%. To do so, they used a more elaborate version of Nock and Kingston's off-scheduling index which takes into account what they called "structural desynchronization", namely the share of off-scheduling which stems from unequal work durations. They argue that a perfectly synchronized full-time and a part-time afternoon shift would be mistakenly classified as a highly desynchronized day only because of the differences in duration

The evidence provided by these studies suggests that off-scheduling is quite common among dual-earner couples and on the rise. However, most of these results can be questioned on the grounds that partners' *usual* work schedules are not equal to *actual* family workdays. Serious analysis involving time cannot be undertaken without time-use data (Robinson 1985). In time-use surveys, respondents are asked to describe their activities on a particular day with their own words using a diary. This information is subsequently coded using international conventions established by Szalai and colleagues (Szalai 1972). Contrary to time-use 'stylized' questions about usual start and finish work hours or time spent on specified activities such as watching TV or reading to children, information on time collected through diaries is less subject to approximations (one might wonder what usual working hours are for rotating workers), and biases linked to social desirability (Hofferth 2006). Furthermore, stylized time-use data provide virtually no information about the sequences of daily activities. Finally, analyzing off-scheduling among dual-earner couples using stylized questions increases these individual approximations even more.



Another limitation is that more usual statistical methods cannot deal appropriately with sequences as they require time to be reduced either to durations or to categorical indicators based on arbitrary definitions. This is certainly why most studies on the synchronicity of dual-earner couples presented here tend to skip the descriptive phase and focus on modeling. However, an empirical typology of family workdays using the 1986 and 1999 French time-use surveys was successfully built using applying Optimal Matching Analysis (Lesnard 2004). This typology is adopted in this paper and will therefore be presented in more detail later.

#### Factors explaining off-scheduling

It has been argued that dual-earner couples might choose to work shifts in order to take turns at caring for their children (Presser 1988). It has also been suggested that dual-earner couples have a preference for spending time together and opt for synchronized work schedules (Hamermesh 2002). Even if families with children appear to be slightly more desynchronized than families without (Nock and Kingston 1984; Chenu and Robinson 2002) or that well-off families have more synchronized work schedules (Chenu and Robinson 2002; Hamermesh 2002), these theories could unfortunately not be formally tested as none of them used information on partners' degree of command over the scheduling of their work hours<sup>5</sup>.

The economic factors that shape individual and family workdays are on the contrary quite well documented. At the individual level, Presser (1987) demonstrated that only 10% of managers have non-standard work time, a figure which jumps to 30% for service workers. Atypical work schedules are more common in some occupations and employment sectors but are also correlated with earnings. Daniel Hamermesh (2002) showed that lower-wage workers have a higher probability of working morning and evening shifts than those with high earnings and that the increase in wage inequalities between 1973 and 1997 accounts for

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<sup>5</sup> Surprisingly, this information is available in the work supplements of the CPS ("Do you have flexible work hours that allow you to vary or make changes in the time you begin and end work?") as revealed by Golden (2001).

the growth of off-scheduling. In 1997, only 27% of full-time wage and salary American workers had flexible work hours that allowed them to vary or make changes in the time they begin and end work (Golden 2001). Moreover, if 20% of managers have flexible work schedules, only 2.2% of laborers are in a position to change their working hours. And quite logically, most of the time, non-standard work hours result from job constraints and not from a preference to better arrange childcare in particular because most (71%) of those working non-standard hours do not have children under the age of fourteen (Presser 2003).

The evidence at hand suggests that work schedules are tightly linked to job and employment sectors and decided on most of the time by employers, with few exceptions, most of them located on the highest steps of the social ladder. How do these individual constraints combine at the couple level? Even fewer studies address this issue but they all point to similar economic constraints. Full-time dual-earner couples' work schedules also depend on occupation and employment sector (Presser 1984), and overall, the higher the education and socio-economic position is, the more dual-earner couples are synchronized (Staines and Pleck 1983). Taken in cumulation, these results suggest that the position occupied in the economic field<sup>6</sup> is highly correlated to both individual and conjugal work schedules.

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<sup>6</sup> On the economic field, see Bourdieu (2005). On the use of the concept of field in the social sciences, see Martin (2003). According to Pierre Bourdieu, the economic field is the historical product of the differentiation of economic activities from the rest of society. It is characterized as a social space where interactions are based on rational principles. Economic fields are still organized on a national basis even though globalization tends to connect and unify national economic fields. Position in the economic field is twofold. Firstly, individuals are located within companies, depending on their skills, educational attainment, gender, wages, power, etc. Secondly companies are themselves located in the broader economic organization according to the product and services they provide, the competition they are facing, their size, the degree to which they are vertically or horizontally integrated, etc. Hence, position in the economic field refers to the double position of agents within firms and of firms within the national and international economies.

## Previous studies on family time

As for family workdays, it is not possible to review the few studies which have been dedicated to family time without commenting on the definitions used. First, I consider the research that has been conducted on family time and on changes over time. Then I look into the analyses that have been conducted on the effects of off-scheduling on family time.

### Family time: content and trends

Family time is not a natural category for analysis in the traditional framework of time-budgets (Budig and Folbre 2004) and has been often reduced to the main activities performed with children. Consequently, most studies on family time have focused on parental time, undoubtedly because of the academic success of the concept of human capital in which measuring parental time is crucial (Bianchi 2000). However, diaries have been designed to collect far more information than main activities, and in particular with whom the activities in question are carried out. Philip Stone (1972) is the first social scientist to use this additional information to provide insights on parental time for the twelve countries who participated in the project coordinated by Alexander Szalai (1972). Unfortunately, no details on the nature of family activities are given. John Robinson (1977) also used the ‘with whom’ information but mainly as an illustration of the usefulness of the time-use data in a book not focused on family time.

With the co-presence variable of time-use diaries it is possible to distinguish two major types of family times: the time partners spend together, or conjugal time, and the time parents are with their children, or parental time. In 1981 (1981 Study of Time Use), the time American partners spent together was composed mainly of TV (44 minutes on an average day; wives’ account of conjugal time), meals (33 minutes) and other leisure (28 minutes) (Kingston and Nock 1987). There were some discrepancies in the time men and women reported being in the presence of one another which can be attributed to diverging gendered

views on what spending time together is. Parental time is unsurprisingly highly gendered and especially in single-earner families where the time women spend with their children is twice as much as men (Nock and Kingston 1988). The definition used is problematic however as the time both parents spend with their children is counted twice, once in the father-child time and again in the mother-child time. The only solution would have been to define three kinds of parental time: both parents with children (parents-child time), only the father and his children (father-child time), and only the mother with her children (mother-child time). More interesting is the kind of activities performed in the presence of children: unpaid work is the main activity carried out by women with their children whereas TV is the principal parental activity for men. Similar results have been found by Keith Bryant and Cathleen Zick (1996) using the Eleven State Time-Use Survey (1977-78), one of the rare US surveys with information from both partners.

These findings suggest that mother-child time is more connected to unpaid work and care than to interpersonal time. However, as no definition of parental time is given—for instance it is impossible to know if partners took part in parental time jointly or individually—these results are difficult to interpret. This interpretation is supported by a study done by Silver (2000) using the 1998 Canadian time-use survey which shows that father-child and parents-child times decreases with the age of the children whereas parents-child time, i.e. the whole family together, remains stable. This means that the time parents spend with children individually is more related to daily care, which disappears as children become self-sufficient. But self-sufficiency does not suppress all family sociability: family time is reduced but becomes more balanced between parents and children thus turning into real together time—contributing to domestic solidarity—and less care time.

The time American parents spent in the presence of their children increased between 1981 and 1997. Comparing the 1997 Child Development Supplement of the Panel Study of Income

Dynamics<sup>7</sup> to the 1981 Study of Time Use and with the help of a technique to disentangle structural and behavioral change, Sandberg and Hofferth (2001) show that even though the higher proportion of women in the labor force tends to decrease the time parents spend with their children, these structural factors are outweighed by behavioral change. This upward trend has been corroborated by Sayer, Bianchi and Robinson (2004) who analyzed the change in parents' child care time observed in the 1965, 1975, 1985 and 1998 American time-use surveys. The more advanced and original method used by the authors to unravel structural and behavioral factors in explaining the change in parental time allowed them to neatly demonstrate that not only has parental time increased in the US since 1965 but it has increased *despite* negative structural factors linked to family changes. In other words, and contrary to what is commonly believed, American parents have never spent so much time with their children, in spite of the increasing complexity of their daily lives (Bianchi, Robinson and Milkie 2006). Such a trend is also found in Canada, France, the Netherlands, and the UK (Bianchi, Robinson and Milkie 2006).

Previous studies have shown that leisure is the fabric of everyday family life and, although limited to parental time, that time together is increasingly valued. The increase of family time might be related to the expansion of leisure time. It is indeed interactive child care (time spent helping or teaching children, talking or reading to them, and indoor or outdoor playtime) that increased the most between 1965 and 2000, for both mothers and fathers, while routine child care (baby or child care, medical care of children, other child care and travel associated with child care activities) did not change much for mothers and only slightly increased for fathers (Bianchi, Robinson and Milkie 2006). Contrary to what Dumazedier had

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<sup>7</sup> This survey features a diary for one or two children, ages 3-12, per family and filled in by the main caregiver.

imagined (Dumazedier 1967), the growing weight of leisure time is not at the expense of the family but it is on the contrary the family that may be the locus of the development of leisure.

#### Off-scheduling and family time

Few studies document the impact of the scheduling of work within dual-earner couples on family time. Not surprisingly, the total amount of off-scheduling appears negatively correlated with partners' time together (Kingston and Nock 1987). Rather than introducing the total amount of off-scheduling<sup>8</sup>, the effect of desynchronization on parental time was measured through a series of variables indicating the number of work hours of each parent<sup>9</sup> over four time periods. Fathers appear to spend more time with children (watching TV) only when their partners are working late in the afternoon/evening. Consequently, it is only when mothers are working during after-school hours that fathers increase their contribution to parental work. These results have been corroborated by Brayfield (1995). Using the National Child Care Survey 1990 which features employment and child care time-diaries, she found greater paternal involvement in child care when mothers work in the evening or on night shifts or when they work on weekends. Slightly higher levels of child care time (primary activity) among fathers with desynchronized schedules have been also found for France (Chenu and Robinson 2002). In Great Britain, fathers who spend time with their children when the majority of other men are engaged in paid work (atypical care) are those with low level occupations in services and sales sectors, and with employer-led flexibility (shift work) (Oliver 2007).

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<sup>8</sup> The authors took the comments of Sarah Fenstermaker Berk (1985) into account. She argued that the scheduling of off-scheduling is of paramount importance for childcare. A quite similar argument can be found in Bianchi (2000): parents do not need to be present all of the time during week days when children go to school.

<sup>9</sup> The main drawback of this approach is that it deals with the family work day as completely disconnected individual work spells.

Three conclusions can be drawn from these previous studies. Firstly, evidence suggests that conjugal time and parents-child time consists of daily activities not linked to paid or unpaid work: eating and leisure. This would accord with the hypothesis that interpersonal relationships are the core of contemporary family solidarity. The second major conclusion is that even though father- and mother-child time are related both to unpaid work and leisure, the bulk of the increase in child care time observed between 1965 and 2000 can be attributed to recreative child care, that is, to leisure activities. Although only child care has been studied over a long period, again, this supports the contention that being together is increasingly important for contemporary families. Thirdly, previous studies have shown that even if desynchronization is indeed correlated with less conjugal time and more mother- and father-child time, the timing of desynchronization must be taken into account to capture and understand these effects.

Previous studies were unable to provide insights into this question, for two main reasons. The first one is statistical. Quality time-use data with information from both partners is almost non-existent in the US, the only country in which studies have investigated the effects of off-scheduling<sup>10</sup>. Furthermore, numeric or *a priori* categorical indicators have proved inadequate to tackle the methodological challenge of describing family work days and measuring off-scheduling. This calls for new tools capable of taking the sequential dimension of daily life into account (Presser 2003). The second reason explaining the limitations of previous studies is conceptual. Family time used to be restricted to direct childcare activities, preventing previous analyses from taking a broader view on how the different components of family time have changed over time and were influenced by off-scheduling. Both of these

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<sup>10</sup> Time use surveys have been conducted in the US since the beginning of the 20<sup>th</sup> century, but, aside from the 1981 Study of Time Use and the Eleven State Time-Use Survey (1977-78), none of them features diary information for couples.

limitations seem to be related to the fact that the use of time has traditionally been studied within the time-budget framework<sup>11</sup> where only work duration and direct childcare can be taken into account. With time-budgets, a night shift and a 9 to 5 workday are the same because they are of the same duration, and the time a family spends watching TV is not recorded as family time but as individual spells of TV activity. Not only does the time-budget filter individualize daily life, it also eradicates timing.

#### Everyday life and cross-national comparisons

Quality time-use data from both partners are needed to carry this study to a successful conclusion. Using data from France may limit the degree to which the results found apply to other countries, and in the first place to the US. Given that this debate has been initiated by American sociologists with American data, US data, in an ideal world, would have been used. However, these data unfortunately do not exist and therefore data from France, one of the few countries with couple data available in two surveys, will be used. Even if the underlying hypotheses of this study are not proper to the US or France but concern all economically advanced countries (for more details on the degree of similarity between those countries, see Gershuny 2000), this may present certain limitations related to public policies and particularly the state provision of inexpensive and quality childcare in France<sup>12</sup>.

In the now classical welfare regime scheme proposed by Esping-Anderson (1990), France is usually considered as a good example, along with Germany, of a conservative welfare regime in which corporatist public policies foster traditional gender roles. Despite its usefulness for international comparisons, the limits of the Esping-Anderson framework are

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<sup>11</sup> Time-use surveys are still often mistakenly called “time-budget” surveys, a name in total contradiction with the way information on time is collected.

<sup>12</sup> Even if childcare is provided by the State in France, it is not a 24/7 amenity: opening hours are rigid in comparison with private childcare.



well-known, in particular in terms of family-work balance (Lewis 1992; Gornick, Meyers and Ross Phillips 1997) where the boundaries are less clear-cut. Indeed, with regard to policies that support employment for mothers, policies in France are not very different from those in the Scandinavian countries which are regarded as the best examples of social democratic regimes in the Esping-Anderson typology. One of France's peculiarities is that public policies aim to encourage both female employment *and* child-bearing. However, the other side of the coin is that the opening hours of these publicly funded childcare facilities are rigid and narrow, compelling many French couples to resort to other arrangements. No major changes in these policies can be reported between 1986 and 1999

And in fact, previous research on the possible connections between daily lifestyles and public policy regimes remain largely inconclusive (Gershuny and Sullivan 2003; Pacholok and Gauthier 2004). If welfare regimes do redistribute discretionary time, i.e. the amount of time above the temporal poverty line<sup>13</sup> (Rice, Goodin and Parpo 2006), the convergence of the actual content of daily life in different public policy regimes is very well documented as cross-national comparisons have been a long-standing tradition in the time-use field since the international project headed by Szalai (1972). Using data from the Multinational Time Use Study, Gershuny analyzed 20 countries (40,000 individuals aged between 20 and 60), many of them at multiple time points, and found converging patterns in the time spent at everyday activities (leisure, paid and unpaid work).

However, the welfare state framework, like any typology, “may conflate national characteristics and policies” and as a result may obscure more than cast light on the effects of national contexts (Hook 2006). In her study of men's unpaid work in 20 countries, spanning

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<sup>13</sup> The authors define discretionary time as the time available once basic needs are satisfied (paid and unpaid work, and personal care). This measure of temporal autonomy is very different from spare time and the authors argue that it is a better measure of welfare than money, in particular because time is easier to compare across space and time than money. For more details on the concept of discretionary time, see also Goodin *et al.* (2005).

1965 to 2003, Jennifer Hook used multilevel models to demonstrate that the most prominent factor explaining cross-national differences is married women's employment, and also to a lesser extent, the length of parental leave: the more women are employed (full-time) and the shorter the parental leave, the more fathers do unpaid work. The proportion of women engaged in the labor market was also found to have an impact on the division of household labor in Germany and Israel (Lewin-Epstein, Stier and Braun 2006). However, the availability of publicly-funded childcare was not statistically significant in Hook's study. Not only does the unpacking of welfare state regimes into specific policies explain cross-national variation in men's unpaid work, it also accounts for change across time when the national-level of women's participation in the labor force is included in the model. In other words, it means that the upward trend in men's unpaid work is above all related to the increase in women's participation in the labor market and the spread of dual-earner families.

These results suggest that the comparability of the conclusions found for France are likely to depend on two factors: the proportion of women participating in the labor market and to a lesser extent, the length of parental leave. Whereas there is no national parental leave scheme in the US or Australia, French women are entitled to 16 weeks of paid leave (14 before 1979) (Gauthier 1996). If over the 1986-1999 period, no policy change can be reported, the relative position of France in matters of parental leave has nonetheless considerably changed since at the beginning of the 1970s France was one of the countries with the longest parental leave whereas it is now closer to countries with a liberal welfare state than to social-democratic welfare regimes (Gauthier 2002).

The proportion of French women aged 25 to 54 in paid employment went up from 70% to 78% between 1986 and 1999 (OECD), albeit many of them through part-time jobs. The labor force participation rate of American women of the same age range was of 71% in 1986 and 77% in 1999 (OECD). Though the figures are similar, the greatest source of concern in

comparing France to the US is perhaps the difference in the proportion of part-time workers: 29.9% of French employees worked part-time in 2003 (INSEE) while 17.4% of employees worked part-time in the US in 2002 (BLS). The proportion of part-time work in France was close to 15% in the 1980s but soared to almost 30% in the 1990s after the introduction of tax deductions to foster the creation of part-time jobs or the transformation of full-time jobs into part-time ones. One may question the validity of the results on the grounds that some women may choose their job according to work schedules. However, this is unlikely to be the case as half of the employees who worked part-time in 1999 did not choose to do so and also because taking care of children was put forward as a reason for doing so by only 35% of French women (Lesnard 2006a). Most of them are civil servants and as such have more control over the scheduling of their work hours than most employees in the private sector (Chenu 1990). When chosen, part-time work often consists of full and partially worked standard workdays. When imposed, part-time work often means work schedules outside the boundaries of the standard workday or staggered. Most of the time, when women work part-time they are not entitled to preferential work schedules. The higher proportion of women working part-time in France compared to the US is more related to tax incentives available to employers than to a choice by women to cut down on their work hours in order to achieve a better family-work balance.

This issue will however be investigated in two ways. First, I will consider the amount of off-scheduling attributable to the partner with the shortest workday. Since most part-time jobs are held by women, this means that I will look at the extent to which desynchronization has arisen because women are working and not their partners. Secondly, I will use the net dissimilarity index proposed by Chenu and Robinson (2002) which is simply women's share of desynchronization divided by the proportion of time partners would be working simultaneously if both schedules were fixed at random.

## Research question and analysis plan

The literature on couples' workdays suggests that work schedules depend on occupation, employment sector, and earnings, thus giving some empirical credit to the speculation that personal preferences are only one part of the story explaining off-scheduling. Previous studies on family time also support the contention that time spent with all members of the family together is an important factor in building solidarity in contemporary families. All in all, these two bodies of empirical literature give rise to the speculation that off-scheduling among dual-earner couples might not be a choice but the unintentional consequences of employers' economically motivated behavior. If so, the effects this has on family time would not be the result of dual-earner couples trading-off togetherness for efficiency. As togetherness is theoretically a crucial source of solidarity in the contemporary family, the decrease in time together brought about by off-scheduling would also be unintentional and as such potentially negative for family solidarity.

The aim of this paper is to examine the extent to which off-scheduling within dual-earner couples is an unequal and negative externality for family time. There is externality when one person's actions impose costs or benefits on another. Here it is suggested that dual-earner couples' off-scheduling can be attributed to a large extent to employers who generally have authority over employees' work schedules and set them in accordance with their own economic interests. Existing evidence also suggests that desynchronization does not affect couples randomly but above all those located low down the social ladder, hence that off-scheduling is an unequal externality. Furthermore, considering the theoretical importance of time together within contemporary families and in view of previous studies on the effects of

off-scheduling on family time, this externality can be also described as ‘negative’ for domestic solidarity<sup>14</sup>.

This paper provides a picture of how off-scheduling impacts on three kinds of family time and explores the extent to which it can be considered as a negative and unequal externality. Firstly, I build an empirical typology of workdays among dual-earner couples by applying a variant of Optimal Matching (Dynamic Hamming Matching) to the 1986 and 1999 French time-use surveys. As these different types of couple workdays also represent different kinds of off-scheduling, this typology is then related to the position of the couple in the economic field and whether or not partners have power over the scheduling of their work hours. Once the reality of off-scheduling is established, I then turn to its effects on family time. Three kinds of family time are defined: conjugal time (partners without any children), parents-child time (partners and at least one child), and father- and mother-child time (only one partner with at least one child). Although the first two types of family time are clearly related to the development of interpersonal relationships in contemporary families, the third is also partly the result of a desire to optimize parental time. I describe trends from 1986 to 1999 in these three kinds of family time in order to see if conjugal and parents-child time have increased<sup>15</sup>, and hence can be considered as ‘positive’ for contemporary families. Finally, workdays and off-scheduling among couples is related to these three kinds of family time and the extent to which off-scheduling reduces conjugal and parents-child time is also examined.

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<sup>14</sup> No personal opinion is expressed here as to whether or not partners should spend time together, existing theories and empirical evidence are used to put forward the assumption that spending time together is the main source of solidarity for contemporary families.

<sup>15</sup> Family time is measured for all types of family and days.

## DATA AND METHOD

The last two French time-use surveys (1986 and 1999) present an incomparable advantage for this study by featuring couple time-use information. The two surveys were carried out in person by the French Institute of Statistics (INSEE) over a period of one year<sup>16</sup> and had high response rates (65% and 80%). In the 1986 survey, one respondent was selected among household members aged 15 and over using the Kish method. When the respondent had a partner, he or she was also interviewed. In the 1999 survey, all household members aged 15 and over were interviewed. In both surveys, respondents were asked to describe their activities over the course of one day selected by interviewers so that all the days of the week were represented equally<sup>17</sup>. One-day diaries were collected with 5- and 10-minute time slots. Comparability can be an issue but an unpublished methodological study<sup>18</sup> suggests that problems are likely to be minor and limited to very specific sequences of activities (‘clearing the table’ is contained in ‘having a meal’ for instance). Work and family time, for which measurements are presented below, should not be too biased by this methodological difference. Note that in order to make the comparison of family work day typologies between 1986 and 1999 easier, the analysis was performed on the two merged datasets: 50% of the former’s time slots were dropped<sup>19</sup>. In the following analysis, weights are not used since the statistical technique used here to analyze family work days sequentially was completely new and had to be programmed using SAS<sup>20</sup>.

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<sup>16</sup> With the exception of summer and Christmas holidays.

<sup>17</sup> Respondents of the same household were asked to describe the same day.

<sup>18</sup> Alain Chenu, personal communication.

<sup>19</sup> This is not to say that 50% of the information has been dropped since 5-minute activities represent less than 5% of the activities reported in diaries. Pooled data sets have been used only to construct the empirical typology of family work days. All the other analyses include all information available in the surveys.

<sup>20</sup> Weights are now supported and in addition a Stata plugin implementing weights has been developed since the first version of this article was written. The impact of weights on the results presented in this article has been investigated and no

In addition to completing time diaries, wage-earning respondents were also asked questions about who determines their work schedules, choosing from among five items: 1. the company determines work schedules with no change possible, 2. choice between fixed work schedules offered by the company, 3. work schedules can be changed from one day to the next in an *à la carte* system, 4. work schedules are determined by employees, 5. other rhythm<sup>21</sup>. The command of wage-earner couples over the scheduling of their workday is derived from the cross-tabulation of each partner's answer to this question. Four possibilities were considered: imposed on both partners (both partners answered 1 or 2), imposed on one partner (one partner answered 1 or 2 and the other 3 or 4), decided by both partners (3 or 4 for both partners) and other (at least one partner answered 5).

#### Work schedules as sequences: a new method to classify family work days

In order to describe the everyday work experience of dual-earner couples, it is necessary to take work hours and their scheduling into account for both partners simultaneously. As we saw, Nock and Kingston (1984) tried to break up the family workday into three indexes which will be used to measure off-scheduling (number of hours only one partner is working) and to derive work synchronicity percentages as the ratio of the number of hours of simultaneous work over the number of hours at least one spouse works (what Nock and Kingston calls the "length of the family work day"). However, the problem with this numerical approach is that it is subsequently difficult to obtain a meaningful overview of family work days.

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significant change is to be reported, undoubtedly because of the high quality of the French data. The SAS macro and the Stata plugin are freeware available for windows and Mac OS.

<sup>21</sup> The question posed was about individual work schedules and the conjugal degree of freedom to decide their schedules on their own is the result of the cross-tabulation of each partner's the answer. On an individual basis, 21% of French employees have flexible schedules, i.e. they can adapt their work schedules. A very similar figure (27%) is found for the US by Golden (2001).

The best way to describe family workdays is through an empirical typology, but the difficulty is then to find a suitable distance measure to gather similar work schedules and separate dissimilar ones. Such measures should use all the information present in the diaries of the time-use surveys but should also respect the timing of events: an 8-hour workday from 9 to 5 is very different from an 8-hour night shift. Lesnard (2004; 2006b) proposes the use of a special case of Optimal Matching Analysis, called Dynamic Hamming Matching, with no insertion-deletion (indel) operations but with substitution costs derived from the transition matrices between the different states of the process considered.

Optimal Matching Analysis, or Optimal Matching (OM) was introduced into the social sciences by Andrew Abbott and other authors (Abbott 1995; Abbott and Forrest 1986; for a review see Abbott and Tsay 2000). This family of methods can be seen as a way to measure the dissimilarity between pairs of sequences by assessing the complexity of matching them using three basic operations: insertion, deletion, and substitution. As a consequence, OM only generates dissimilarity matrices and additional statistical analysis dealing with dissimilarity objects, such as clustering, are needed.

Contrary to substitution operations, insertion and deletion of events loosen the connection of processes with their temporal scale. In the case of work schedules, insertion and deletion operations alter the connections between work schedules and their locations during the day. As the purpose of applying OM is precisely to jointly analyze the number of work hours and their scheduling, these temporal distortions should be avoided, hence insertion and deletion operations should not be used. Consequently, it has been suggested to use substitution operations only and to derive their costs from the series of transition matrices between the different states defined, a method coined Dynamic Hamming Matching (Lesnard 2004). Indeed, a high transition rate between two states on a given date indicates that these two states are close since the probability of switching states is high while a low transition rate



suggests that the two states are, on that particular date, quite distinct, in other words that they belong to different rhythms.

For instance, if individual schedules are studied and two states are defined, work and non work, then since 9 am is quite a usual time to start work, it is impossible to say that these two states are very dissimilar. On the contrary, working at 9 pm is less common and a schedule with work at that time would be considered as very different from another with no work spell. This dissimilarity measure is consequently endogenous and dynamic, reflecting the fact that time is socially structured (working at 9 am is different from working at 9 pm) and that this social structuration is mirrored by collective rhythm (the sociological name for the transition matrices)<sup>22</sup>.

#### **Table 1 about here**

This method is applied to the pooled French time-use surveys in order to make the comparisons between 1986 and 1999 easier<sup>23</sup>. All days with at least 10 minutes of paid work for both partners have been considered for the analysis. Rather than deciding arbitrarily from which minimum duration family days were to be considered as jointly worked, I adopted the widest definition possible thus allowing the comparison method and the clustering algorithm to identify family work days with few work hours. Only 6.5% of these days jointly worked by dual-earner couples are weekends. The combined sample size is considerable (see Table 1). Partners' individual diaries are simplified and combined to describe family workdays with the help of four elementary states, or in other words, family workdays are described as processes evolving in a 4-state universe:

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<sup>22</sup> See Durkheim (1912) and Zerubavel (1981) for more details on the link between time and collective rhythm.

<sup>23</sup> Results are unchanged whether the two datasets are pooled or not. It is simply in order to make comparisons easier that only the pooled results are presented here.

- No partner works
- Only partner 1 works
- Only partner 2 works
- Both partners work

Thus, the proximity between any two family workdays at  $t$  is provided by the intensity of the average transition rates for the whole sample between  $(t-1)$  and  $t$  and  $t$  and  $(t+1)$ . The dissimilarity matrix obtained by applying this rule is then submitted to a standard clustering algorithm<sup>24</sup>.

An extensive definition of family time

In order to measure family time as defined, I use the ‘with whom’ information collected in the diaries and reduce the variety of activities described by couples to a meaningful subset of categories. I use here a slightly refined version<sup>25</sup> of the coding scheme proposed by Kingston and Nock (1987). Based on this nomenclature, three family time categories are defined using couples’ description of whom they are with:

- Conjugal time: each partner declares s/he is with the other<sup>26</sup>
- Parents-child time: each partner says s/he is with the other and with at least one child

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<sup>24</sup> The beta-flexible algorithm, or flexible WPGMA (Weighted Pair Group using arithMetic Averages), has been used here. See Milligan (1980; 1989) for a review of the advantages of this method. Flexible WPGMA is better than Ward, especially when noise and outliers are present.

<sup>25</sup> The different activities are: paid work, unpaid work (routine domestic chores), travel, meals (outside the workplace), conversations, leisure, TV, care, semi-leisure (gardening, knitting, etc.).

<sup>26</sup> More precisely, conjugal time, as well as parents-child time, encompasses every activity carried out in the presence of the other partner also declared as such by the other partner. Partners’ conflicting statements are not considered here. In 1999, conditionally to the activity nomenclature used, 76% of partners (couples without children) have converging statements about being together. Conflicting statements can be attributed to a large extent to partners who do not get up at the same time but say they do in the diary (13%). The rest of the statements really diverge about being together. Whether such discrepancies are mistakes or reveal diverging gendered views on being together is an interesting avenue of research.

- Parent-child time, which consists of father- and mother-child time: each partner claims to be alone with at least one child

Unfortunately, it is not possible to apply this definition for the 1999 survey: children were not distinguished from partners in the diaries' "with whom" item. However, with the additional hypothesis that parent-child time does not happen simultaneously, i.e. that both spouses never spend time alone with a child simultaneously, it is possible to measure it. Since in 1986 simultaneous parent-child time is nil, this hypothesis will be assumed in the remainder of this article. Another consequence of this flaw in the design of the 1999 French survey is that father- and mother-child time are likely to be overestimated as it is not possible to distinguish conflicting couple statements (one partner claims s/he is with the partner, who says s/he is alone or with someone else) from true father- and mother-time.

## FINDINGS

### Family Work Days and Off-Scheduling

The variety of family workdays can be optimally summarized in eight different types<sup>27</sup>. The most frequent work days for dual-earner couples are the combination of two 8-hour standard work days. This category represents 49% of family work days in 1986 (see Table 2). If this sort of workday is considered as the reference (double standard workdays), then other forms of family workdays can be characterized as atypical.

### **Table 2 about here**

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<sup>27</sup> There is no general rule to determine how many groups should be kept. Considering the flexible WPGMA height for the last steps in the grouping process can give some guiding elements as a jump reveals that two dissimilar clusters have just been joined (elbow criterion). The first big jump occurs when the number of classes changes from eight to seven, suggesting that a typology with less than eight classes is too synthetic (figure not reproduced). As this typology proved to be interpretable and that no significant information was recovered from more detailed typologies, the eight-class solution has been adopted.

Atypical family workdays deviate from this reference in four main ways. The family workday with long work hours is characterized by at least one workday of more than 10 hours. The shifted family workday is composed of shifted individual workdays: shifts can be scheduled in the morning, in the afternoon, in the evening, or at night. Another source of atypicality stems from women who worked only partially on the day observed<sup>28</sup>. Finally, a less clear cut group incorporates family work days with short or irregular work hours for at least one partner.

In 1999, standard family work days represented only 44% of total family work days. About 70% of the work time of these couples is simultaneous<sup>29</sup> (synchronous). The standard family work day potentially allows for time together, but of course whether or not this time is indeed spent together remains to be shown—this is precisely the aim of this article. Logically, when at least one spouse works more than 10 hours, synchronicity is lower, by twelve points. This situation of potentially reduced sociability affects one dual-earner out of ten. The most dramatic increase in off-scheduling is nonetheless not due to overwork but to couples' shifted work schedules. The average synchronicity rate for these couples is a low 23%, a figure that can almost reach zero for totally shifted couples (3% of family work days). Most of the time, family workdays are shifted in the morning for husbands and in the afternoon for wives. This configuration is theoretically appealing for it means that fathers are at home (or can be available) when children come back from school, or, in other words, that interpersonal time can be traded in for a more equal division of parental labor.

Not surprisingly, when women worked partially on the day observed, the synchronicity of work schedules' was rather low (37% in 1999). However, even if off-scheduling is largely the

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<sup>28</sup> This type is not only made up of part-time workers; and part-time workers are not to be found exclusively in this category.

<sup>29</sup> Synchronicity percentages are calculated as the ratio of the number of hours of simultaneous work over the number of hours at least one spouse works (what Nock and Kinston, 1984, calls the "length of the family work day").

result of unequal work durations between partners', it is also due to the significant amount of shift work in these reduced schedules; in other words, part-time work is also quite often shifted work. In 1986, 69.8% of women who worked part-time in the morning began to work before 9am. On average, these women started to work 93.5 minutes before 9am (i.e. at 7:27am) and almost half of this time was desynchronized (42 min.). 70.6% of women who worked part-time in the afternoon ended work after 5pm. On average, these women stopped working 132.6 minutes after 5pm (i.e. on average at 7:12 pm) and 57.9% of this time was desynchronized (76.8 min.). In short, about 7 out of 10 women who worked part-time did so outside the boundaries of the standard 9-to-5 workday, and a significant proportion of this time was desynchronized, i.e. their partners were not at work. All in all, the share of off-scheduling that can be attributed to women (i.e. women at work and not their partners) was on average 17.0% for women who worked part-time in the morning and 15.8% for those who work in the afternoon.

Overall, off-scheduling increased<sup>30</sup> by 11.4%, from 4 hours and 43 minutes in 1986 to 5 hours and 15 minutes in 1999. Relatively to the length of the family workday, it increased from 47.6% to 49.5%. Using the empirical typology described above, it is possible to explore the causes of this increase in greater detail. Off-scheduling can increase or decrease either because the number of desynchronized hours within family workdays or the proportion of desynchronized family workdays has gone up or down. Firstly, it appears that significantly the most synchronized family workdays were slightly<sup>31</sup> less synchronized in 1999 than in

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<sup>30</sup> The p-value of the two-tailed Student significance test is  $p < 0.0001$ . The size of differences observed are assessed in this article using Bayesian tests. For more details, see Rouanet *et al.* (2000).  $d = 32$  min. (difference)  $s = 203.255$  (standard error),  $d/s = 0.159$  (calibrated effect). When the calibrated effect is less than 0.4 in absolute terms, the effect is considered as small. When the calibrated effect is greater than 0.6 in absolute terms, the effect is considered as large. When the calibrated effect is somewhere between 0.4 and 0.6, it is neither small nor large. Bayesian tests using non-informative prior distribution can be used to see if this descriptive result can be extended to the whole population. Here as  $p(d/s < 0.4) = 1$ , the off-scheduling increase is thus statistically significant but small (standard error),  $d/s = 0.159$  (calibrated effect).

<sup>31</sup> P-value of the t-test = 0.00014; calibrated effect = 0.318,  $p(d/s < 0.4) = 1$ . The difference is statistically significant but small.

1986. Secondly, the relative size of this type of family workday slightly decreased. However, the greatest change is certainly the increase in the number of family workdays with part-time hours. In order to make sure that the overall slight increase in off-scheduling is not a statistical artifact arising from the increasing number of family workdays with unequal work durations, Chenu and Robinson's net dissimilarity index (NDI) is considered firstly. The average NDI also went up<sup>32</sup> slightly between 1986 and 1999 (not shown), suggesting that the upward trend in off-scheduling holds when checked for unequal work durations. The share of off-scheduling attributable to women rose from 17.0% in 1986 to 21.4% in 1999 for part-time morning family workdays and from 15.8% to 19.4% for afternoon part-time shifts. The slight increase in the number of desynchronized work hours is therefore not a statistical artifact due to the rise in the number of women working part-time.

Two conclusions can be drawn from this empirical typology of family workdays. Firstly, as expected, standard family workdays appear to be in a minority in France and have lost ground since the mid-1980s, which is another way of saying that off-scheduling is widespread and growing. Secondly, the different kinds of family workdays identified make it possible to locate off-scheduling at specific times during the day and to accurately relate this to work schedules, paving the way for an analysis of links with employment sector and occupation.

#### Off-scheduling and the question of choice for couples

Now that the reality of off-scheduling is established, I investigate the degree to which couples have control over the timing of their work hours. Table 3 shows that work schedules are generally fixed by employers. Only 10% of the couples claimed to have some freedom in

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<sup>32</sup> P-value of the t-test = 0.003; calibrated effect  $d=0.112$ ,  $p(d/s < 0.4) = 1$ . The difference is statistically significant but small.

choosing their schedules. As can also be seen in Table 3, the vast majority of couples who can choose their work schedules have synchronized workdays. Of course, we do not know yet if this synchronicity is indeed used by couples to spend time together. On the contrary, couples whose work schedules are imposed on them have little chance of having a standard family work day. As a result, off-scheduling appears mostly to be the choice of employers, albeit indirectly, rather than couples.

### **Table 3 about here**

I will focus on providing the main outlines of the correlation between the scheduling of work, the employee's position in the organization s/he works for and the organization's economic positions. Family workdays are not randomly distributed among dual-earner couples. Off-scheduling depends to a large extent on spouses' social position<sup>33</sup> (see Table 4). When husbands are management level, two family workdays out of three are standard whereas for factory worker families the odds are 1 to 3. As a general rule, the higher the couple's social position, the greater the synchronicity. This result has been confirmed by a series of negative binomial regressions not reproduced here<sup>34</sup>.

### **Table 4 about here**

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<sup>33</sup> The social position of spouses is approximated here to those of male spouses. This is for reasons of efficiency. Firstly, given social homogamy, it is often necessary to know the social position of only one partner to position couples socially. Secondly, the French coding system of social position (*Professions et Catégories Socioprofessionnelles*) is still quite androcentric: it is easier to identify the social positions associated with male occupations, so that the social position of couples is better approximated using male social positions.

<sup>34</sup> Results are available on request from the author. The distance between couples' mid-workdays have been modeled by a Negative binomial regression. Controls included amongst others work duration, education, and earnings. Different combinations of children-related variables were also introduced. The effects of social position, approximated by the French social class structure, were large and highly significant. Negative Binomial regressions are a particular case of Generalized Linear Models and are a generalization of Poisson regression. Their use is recommended with non negative dependent variables (McCullagh and Nelder 1989). Selection models are another alternative to handle zeroes.

More precisely, what matter most are both the social position *and* the kind of occupation, which are of course closely related<sup>35</sup>. Employees located high up on the social ladder are also those who have the most freedom to choose their schedules and who, on average, have the longest work hours. However, these long work hours are relatively<sup>36</sup> standard from a scheduling point of view. The kind of occupation does not really matter which is not the case for employees located lower down the social ladder who have a much higher probability of having atypical work schedules whose shape depends on the characteristics of the job and the economic sector. For instance, factory workers can operate round the clock in eight-hour shifts, and have consequently shifted schedules in the morning and at night, whereas unskilled service workers can also have atypical work schedules but consisting of full- or part-time afternoon or evening shifts, staggered schedules and other highly irregular work schedules.

Overall, few couples, mostly located high up the social ladder, do have control over their work schedules and when they do, they disproportionately ‘choose’ synchronized work schedules. Other dual-earner couples face a greater risk of having desynchronized work schedules, depending on each partner’s occupation and employment sector. These findings are congruent with the contention that the timing of work is crucial for employers and is related to the position of employees in the organization and of the latter in the economic system.

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<sup>35</sup> Another argument in favor of using French data is the long tradition of this country to measure social position (Desrosières and Thévenot 1988). The French social class structure (PCS) is based on various dimensions: occupation, education, self-employed vs. employees, public vs. private, economic sector, etc.

<sup>36</sup> Relatively only because long work hours necessarily mean that some work hours are located on the fringes of the standard work day (9-to-5). As a matter of fact, work hours often overflow in the evening for this category of employee (Lesnard 2006a).



## Family time

I turn now to trends in family time and firstly, couples with no children<sup>37</sup>, where family time is by definition reduced to conjugal time. The main conjugal activities in 1986 were having meals, watching TV, and other leisure pursuits (see Table 5). On average, partners spent almost three and a half hours daily with one another. Conversations, as defined in time use surveys, i.e. declared as a main activity, are quite residual, obviously because most of them occur while something else is going on. The fabric of conjugal time is not made up of deep discussions but of more mundane daily activities—even unpaid work is quite a substantial part of conjugal time, although women do most of it alone. Conjugal time increased by about 50 minutes between 1986 and 1999. Watching TV together has soared and is the new number one conjugal activity. More detailed analyses reveal that the bulk of this increase in conjugal time happened on weekend days. This increase in time together fits with the hypothesis of the growing importance of family togetherness<sup>38</sup>.

### **Table 5 about here**

Family time is radically different for couples with children. Most of the partners' time together is logically transformed into parents-child time, and in particular meal-time, the family activity *par excellence* (see Table 6). This is less true for TV and other leisure activities for which only a small amount seems to be transferred from conjugal time to parents-child time, even if both of these remain two of the main parents-child activities. Conjugal time shrinks drastically and TV becomes the most popular activity in which partners spend time together.

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<sup>37</sup> In the remainder of this article, a family with no children is defined as a couple with no children living at home at the time of the interview.

<sup>38</sup> P-value of the t-test < 0.00001; calibrated effect  $d=0.267$ ,  $p(d/s < 0.4) = 1$ . The difference is statistically significant but small.

### Table 6 about here

Not surprisingly, mother-child time is much higher than father-child time, and the predominant mother-child activity is not care but unpaid work. In everyday life, the dividing line between domestic chores and parental responsibilities is non-existent and since women are in charge of most of those two kinds of unpaid work, they have to develop multitasking capabilities. Fathers' time alone with their children is limited to a few minutes here and there, but mostly concentrated on TV and other leisure activities.

It appears that couples with children are more likely to organize their time more efficiently as the presence of children generates more work. As a result of this, couples with children have less time to spend together as a family than those with no children present. Indeed, the provision of care, mostly for young children, is disproportionately dealt with by women while men spend time with older children at leisure activities and TV. Not only do women spend more time with children than men do, but the content of parental time is also gendered. It is mainly women who take over responsibility for daily care and other daily domestic chores, whereas the few minutes French fathers spend with their children are mainly recreational (almost 40% of father-child time and only 15% of mother-child time).

Time together within families with children increased by three hours between 1986 and 1999. Conjugal and parents-child time increased by one hour<sup>39</sup>, and father- and mother-child time also increased each by one hour<sup>40</sup>. More detailed analyses (not reproduced here) show that it is on weekend days that most of this additional time together took place. Whereas women were spending four times as much time alone with children in 1986 than men,

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<sup>39</sup> P-value of the t-test < 0.00001; calibrated effect  $d=0.930$ ,  $p(d/s > 0.6) = 1$ . The difference is statistically significant and large.

<sup>40</sup> The increase in mother- and father-child time is likely to be overestimated due to the flaws in the design of the 1999 survey. P-value of the t-test for mother-child time:  $p < 0.00001$ ; calibrated effect  $d=0.435$ ,  $p(d/s > 0.4) = 0.923$ . The difference is statistically significant but neither small nor large. P-value of the t-test for father-child time:  $p < 0.00001$ ; calibrated effect  $d=0.671$ ,  $p(d/s > 0.6) > 0.995$ . The difference is statistically significant and large.

thirteen years later, mother-child time is only twice as much as father-child time. However, the content of father-child time remains marked by gender, men spending time with their children mainly for leisure activities or to watch TV while the time they spend providing care increased by only 4 minutes. In contrast, the number one mother-child activity is more than ever household chores, during which the time spent in the presence of children even increased, revealing the greater daily tensions women are facing. Even if gender differences in the total amount of time spent with children have decreased, gender differences in the kind of time spent with children are on the rise<sup>41</sup>. All components of family time rose despite the highest proportion of women in the labor force observed in 1999, in accordance with theories asserting that being together is increasingly important in all contemporary families. Dual-earner families are no exception to this trend as the results for this type of households are almost identical to those found for all families<sup>42</sup>.

#### The consequences of the family work day for family time

It has been established that off-scheduling is widespread and seldom chosen by the few couples who control the timing of their work hours, and that time spent with the family has increased. I will now investigate whether family time varies significantly with the amount and timing of off-scheduling. To do this, I will first consider the total amount of conjugal and parents-child time broken down into types of family workdays and years (see Figure 1). Before doing so, it can be seen in Figure 1 that the rise in conjugal and parents-child time observed for dual-earner families hides a slight decline (7 min.), though statistically not significant ( $p=0.1050$ ), when only the days jointly worked by those couples are considered. The decline is even more pronounced and this time statistically significant for dual-earner

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<sup>41</sup> The fact that father- and mother-time activities are very different from conjugal and parents-child ones in both surveys suggests that the comparison of the two surveys is not too problematic.

<sup>42</sup> Space constrains do not allow me to present separate results for dual-earner families.

couples with standard work schedules<sup>43</sup>. The fact that family time is lower when the days are jointly worked than when they are not is not really a surprise. However, the fact that family time stagnated on these days is more surprising given the overall strong upward trend. In all likelihood, the rise in dual-earner couples' off-scheduling, which affected even the most synchronized workdays, accounts for this trend.

### **Figure 1 about here**

The effects of off-scheduling on conjugal and parents-child time depend on timing. When off-scheduling is located in the evening (completed shifted schedules and shifted in the evening for men), then time together is greatly reduced<sup>44</sup>. On the contrary, when off-scheduling happens in the morning (men with shifted schedules in the morning), the amount of conjugal and parents-child time is not significantly different from the most synchronized dual-earner couples. All in all, this suggests that most conjugal and parents-child activities take place in the evening during the week and as a consequence that even if parents have quite desynchronized work schedules, this does not affect conjugal and parents-child time as long as the whole family can be together at the key moment of the day, namely at the end of the afternoon/ beginning of the evening. This is also true even if the number of hours worked is small, as is the case with women who work part-time in the evening. In those couples, the amount of conjugal and parents-child time is significantly<sup>45</sup> lower than in families with the lowest level of off-scheduling (40 min. less, not shown in Figure 1).

### **Figure 2 about here**

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<sup>43</sup> Significant test (t-test):  $p = 0.014$ ;  $d = 19$  min. (difference)  $s = 85.90$  (standard error),  $d/s = 0.224$  (calibrated effect),  $p(d/s < 0.4) = 0.956$  (probability that the effect is small). The difference is therefore statistically significant but small.

<sup>44</sup> For men with work schedules shifted in the evening, the p-value of the t-test is  $p < 0.00001$ .  $d = 74.996$  min. (difference)  $s = 85.035$  (standard error),  $d/s = 0.882$  (calibrated effect),  $p(d/s > 0.6) = 0.949$  (probability that the effect is large).

<sup>45</sup> In the statistical sense of the word (p-value of the t-test = 0.0013). The calibrated effect is equal to 0.474, that is to say, points to an effect of medium magnitude. However, the size of the sample does not allow us to extend this result beyond the sample analyzed ( $p(d/s > 0.4) = 0.681$ ).

Turning to parent-child time, father-child time appears to be quite sensitive to the scheduling of work within couples (see Figure 2). Fathers with a standard family workday spent approximately half an hour daily alone with their children in 1986. Logically, it is when fathers have a long workday that they spend less time with their children. However, when partners' workdays are shifted, parents spend more time alone with their children, and all the more so when the end of the father's work-time is synchronized with school closing times<sup>46</sup>. When the number of hours worked is not too high, off-scheduling seems to create some sort of temporal complementarity between partners. However, a more detailed analysis (not shown here) reveals that this father-child time remains largely gendered, i.e. that when fathers spend more time with their children, this time still mainly consists of watching TV and other recreational activities. Results found in 1999 are very similar but are not exactly a translated version of 1986 since the increase in father-child time seems to be greater for fathers working long hours and those who have completely shifted schedules (+1 hour) than for fathers who work morning or evening shifts (+45 min.).

### **Figure 3 about here**

Figure 3 reveals that even though mother-child time varies less with the different types of family workdays, it is nonetheless greatly responsive to off-scheduling. On the whole, the more off-scheduling, the more women spend time with their children without their partners, but unlike for men, the location of off-scheduling within the day is less relevant. The main dividing line is between standard and shifted family workdays, in particular when men work

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<sup>46</sup> Father time is 37 minutes higher in couples where men have work schedules in the morning than in those where off-scheduling is the lowest (p-value of the t-test:  $p < 0.00001$ ). The calibrated effect is equal to 0.766 and suggests that this difference is not only statistically significant but also large, though the sample size does not allow us to extend this conclusion further ( $p(d/s > 0.6) = 0.886$ ).

in the evening<sup>47</sup> or at night. It is interesting to note that when women finish work at broadly the same time as school closing time and their partners are still at work (family workdays with shifted schedules in the evening), then they spend two hours alone with their children. Again, it is the triple synchronicity of partners' work schedules and children's school time that matters. However, when the situation is reversed, that is, when the time men finish work coincides with school closing hours (family workdays with shifted schedules in the morning) and the women are still at work, then they spend almost half of this time (1:03) alone with their children. This shows that the effects of off-scheduling on family time are not symmetrical for men and women.

## SUMMARY

An analysis of the empirical typology of couples' work schedules which was built using Dynamic Hamming Matching shows that off-scheduling is widespread and on the rise. The few dual-earner couples that claim to have some control over the timing of their work overwhelmingly favor standard family workdays, suggesting a preference for synchronized work schedules. The proportion of shifted family workdays, characterized by high levels of off-scheduling, is seven times higher for couples whose work schedules are chosen by the firm. Atypical work schedules and off-scheduling are not randomly distributed but are highly correlated with employment sector, occupation, and position on the social ladder.

The three kinds of family time measured (conjugal, parents-child, and father- and mother-child) have considerably increased since the mid-1980s despite the rise in the number of

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<sup>47</sup> T-test p-value < 0.00001. Bayesian test:  $d = 62.194$ ,  $s = 58.204$ ,  $d/s = 1.069$ ,  $p(d/s > 0.6) = 1$ . The difference is statistically significant and of large magnitude. The difference between family workdays shifted in the morning and standard is statistically significant (t-test p-value < 0.00001) but smaller (Bayesian test:  $d = 42.162$ ,  $s = 64.618$ ,  $d/s = 0.652$ ,  $p(d/s > 0.6) = 0.65$ ).

women who participate in the labor market. The effects of off-scheduling on family time vary with the timing of off-scheduling and the kind of family time. Off-scheduling is associated with less conjugal and parents-child time only when it occurs in the evening, i.e. at the moment of the day where most family sociability is located. The impact of off-scheduling on father- and mother-child time differs. Off-scheduling tends to increase the amount of time fathers spend with their children, all the more so when the time at which men finish coincides with school closing times. The effects of off-scheduling on mother-child time appear to be more wide-ranging but to depend less on the time of day. The content of family time was found to be highly gendered—household chores and childcare for mothers, and TV and other recreational activities for fathers—and strengthened by off-scheduling.

## DISCUSSION

Most of the results presented in this paper were also found, scattered throughout various studies, for other countries. Whatever measurement methods were used, previous studies already evidenced that off-scheduling was a reality for many dual-earner couples (Hamermesh 2002; Nock and Kingston 1984; Presser 1984). While these studies all refer to the US, the factors put forward to account for off-scheduling were not limited to the US only but involved parental or conjugal preferences more generally and, to a certain extent, employment sector and occupation (Presser 1987 and 2003). In this regard, it is interesting to note that preferences in terms of off-scheduling and togetherness were deducted from observed behavior in these studies, that is to say, time-use was interpreted in behavioral terms without taking economic constraints into account. Yet, historically, economic expansion is based on factory discipline, i.e. on a strict control of the timing of work (Thompson 1967; Clark 1994).

One of the many strong points of French time-use data is the existence of a question about who controls the scheduling of paid work. Only 21% of French employees have flexible work schedules<sup>48</sup>, a figure close to the 27% found for the US (Golden 2001). The proportion of flexible work schedules is logically lower at the couple level: only in one dual-earner couples out of ten do both partners claim some control over their work schedules. These findings are consistent with the idea that controlling the timing of work is crucial for contemporary employers. As this information is available in the 1999 French time-use survey, it was possible to see how couples used this freedom. Results are unambiguous: when both partners control the timing of their work, 79% of couple workdays are highly synchronized and when both partners have their work schedules decided by their employers, the proportion of highly synchronized workdays plunges to 43%. This result supports the hypothesis put forward by Hamermesh (2002) according to which couples have a preference for having synchronized leisure.

Although this study did not concentrate on the question of the causes of atypical work schedules, off-scheduling was found not to be randomly distributed but on the contrary highly correlated with dual-earner couples' occupation and employment sector. US studies also evidenced that less skilled employees were more likely to have shifted schedules (Golden 2001; Hamermesh 2002; Presser 1987). Again this is consistent with the hypothesis according to which employers fix work schedules for reasons related to the nature of their commercial activities, the competition they are facing, the size of the company, and the kind of jobs needed. Working a night shift does not make sense for most professionals and managers as most of the time work is not organized in shifts for these occupations. It is therefore logical to find that atypical work schedules are more commonly found at the bottom

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<sup>48</sup> At the individual level. At the couple level, freedom is reduced as in some couples only one partner has control over his/her work schedules.



of the social scale among poorly skilled workers rather than at the top where most professionals and employees control their own work schedules, if not others’.

Summing up, it appears that off-scheduling is more commonly found among couples where both partners have no control over their work schedules and who are located low down on the social ladder. These two results are in keeping with the theory according to which off-scheduling is an employer-on-couple externality. Indeed, it is important to emphasize that, with the exception of couples where both partners work for the same organization, employers do not determine couples’ workdays directly. And when they do, it is very unlikely that they have something to gain from imposing desynchronized work schedules. But the scheduling of work is a crucial economic resource for any organization, whether it operates in the industrial sector where equipment use is a concern or in the service sector where hours of opening are an issue. At the couple level, these individual constraints cumulate and in some instances, give rise to off-scheduling. The concept of externality seems particularly well adapted to describe and understand the situation as it focuses on the unintended and neglected effects that an employer’s work-time policies have on dual-earner couples.

But there is more. If off-scheduling is the composition of two individual effects, namely partners’ work schedules, “morphological factors always exert their action through the specific logic of each field” (Bourdieu 1984, my translation)<sup>49</sup>. Put simply, this means that if off-scheduling is an unintentional product of an organization’s economic behavior, such a phenomenon would however not exist in the first place without the atypical work schedules that employers require of low-skilled employees. These atypical work schedules are linked to employment sector and occupation, in a word to the way economic activities are organized, and because of social homogeneity, these individual inequalities become stronger at the level of

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<sup>49</sup> Original quote: “l’action des facteurs morphologiques ne s’exerce jamais qu’au travers de la logique spécifique de chaque champ”.

the couple. All in all, the lower the position of dual-earner couples on the social ladder, the higher the likelihood of off-scheduling, and as a consequence, off-scheduling is an externality that increases inequalities.

Turning to family time, the volume and structure of time together appears very similar in American and French families, confirming time-budget findings restricted to primary activities (Gershuny 2000). French family time together (conjugal and parents-child activities) consists of meals, TV and other leisure activities, and does not differ much in this respect from the daily life of American families (Kingston and Nock 1987). As Nock and Kingston (1988) found for the US, and Silver (2000) for Canada, the predominant mother-child activity in France is not care but unpaid work whereas fathers spend most of their time alone with their children watching TV. To my knowledge, it is the first time that trends in three different kinds of family activities have been studied. All components of family time soared between 1986 and 1999, including dual-earner families, despite a greater female labor force participation rate (from 70% to 78%, women aged 25 to 54, OECD). Similar trends have been found for the US (Bianchi, Robinson and Milkie 2006) and for childcare activities, for the US, Canada, France, the Netherlands, and the UK (Sayer, Bianchi and Robinson 2004; Bianchi, Robinson and Milkie 2006). American dual-earner couples may have more control over time than French ones (Rice, Goodin and Parpo 2006), but current trends in time spent together in the family are very similar in the two countries, suggesting that the behavioral changes at work are not related to welfare regimes but rather to the spread of dual-earner couples and the greater weight of togetherness within the contemporary family. These findings are indeed consistent with theories asserting that being together is increasingly important for contemporary families (Durkheim 1921; Berger and Kellner 1964).

When only days which have been jointly worked by French dual-earner couples are considered, the picture is however different as the time these couples spend together, either

with their children or alone, remained the same between the mid-1980s and the end of the 1990s. It may even have diminished. The fact that the time dual-earner families spend together increased every day except for those which are jointly worked suggests that the expansion of off-scheduling has negatively affected family time. This is particularly true of the most synchronized family workdays whose synchronicity dropped between 1986 and 1999 and with it the time parents spend together alone or with their children. The rise of off-scheduling is thus correlated with less time together at the society level.

At the couple level, the results also indicate, that, as expected and consistent with Kingston and Nock's findings (1987), off-scheduling is, overall, negatively correlated with partner's time together and with children. However, because Nock and Kingston used a simple numerical indicator of off-scheduling, they did not see that this negative correlation is observed only when partners' work schedules lack synchronicity in the evening, the time of day when the bulk of family sociability takes place. It is the triple synchronization of the schedules of fathers, mothers and children that matters. When fathers come home late at night, either because they work long hours or evening shifts, they are desynchronized with the rest of their family. When they stop working roughly at the same time their children finish school, fathers spend more time with their families, whether in parents-child activities if their partners are also back home from work, or in father-child activities if not. Off-scheduling is positively associated with father-child time, especially when the end of the fathers' workday coincides with school closing times, a result also found by Nock and Kingston (1988). The impact of off-scheduling on mothers' time alone with their children is even bigger but also less dependent on the timing of desynchronized work hours.

If the rise in parents-child and conjugal time is interpreted as the sign of an increasing importance of being together as a family, then off-scheduling seems to have negative effects on family solidarity. However, one might think that off-scheduling fosters a better division of

parental labor between partners thus allowing a more efficient use of time within the family and that this would offset the loss of togetherness. The evidence at hand provides limited support for this hypothesis. Firstly, the effects of off-scheduling on parent-child time are largely asymmetrical, suggesting that off-scheduling is only partially being translated into temporal complementarity<sup>50</sup>. Temporal complementarity would imply that partners pursue, or at least take advantage of, off-scheduling so that they better divide parental work. The fact that off-scheduling has twice as much effect on mother-child as on father-child time suggests limited parental complementarity between partners. Secondly, the extra time desynchronized fathers spend alone with their children remains highly gendered as it consists mainly of TV and other recreational activities, a result that also appears, though not commented on, in Nock and Kingston's study. Most of these fathers have not integrated unpaid work into their daily sequences of activities. As a disposition, i.e. as a structured and structuring system of action, caring for children or maintaining the household is not only a matter of being present but of knowing what to do, when and how, of anticipating the various needs of the house and of household members. In sum, it is possible that it is this domestic expertise that women acquire during their childhood and not men because of the highly gendered socialization sons and daughters are subject to (Chodorow 1978; Kaufmann 1997) that prevent men from turning this unintended organization of the workday into temporal complementarity. It is also possible that men refuse to learn those skills and/or refuse to do unpaid work or care for their children no matter how their workdays coincide with their partners'.

Since most of the time off-scheduling is an employer-on-couple unequal externality rather than a choice made by couples, the resulting greater involvement of fathers with their

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<sup>50</sup> Zerubavel (1981) defines temporal complementarity as a "temporal division of labor" and asserts that "the temporal coordination of complementarity differences among [group members] enhances their interdependence and, thus, functions as a most powerful basis for a strong organic solidarity within the group" (p. 69).

children is not the outcome of a parental strategy to improve parenting. The apparent greater gender equality observed is but a smokescreen, hiding highly structured and structuring gender dispositions. Since asynchronicity in dual-earner couples' work schedules reduces the amount of time partners and children spend together but fails to promote a temporal complementarity between partners. Overall, off-scheduling appears to be negative for family solidarity. Moreover, as off-scheduling does not affect dual-earner couples randomly but above all those located lower down the social ladder, the way work and family are balanced on a daily basis is socially determined to a significant extent. On average, executives who control the timing of their work hours have more conjugal and parents-child time than factory worker couples. Consequently, the volume and the structure of family time are also homologous to the social position of spouses, i.e. the higher their social rank, the more time they spend together and the less mother- and father-child time. Pieced together, these results strongly support the hypothesis that off-scheduling is a negative and unequal externality for family time.

#### Conclusions and further research

In spite of its limitations this research extends our understanding of changes in everyday family life. If, as has just been emphasized, many of the findings replicate results found in previous studies, the broader theoretical perspective adopted here nonetheless enables a reinterpretation of them and allows new light to be cast on the issue of off-scheduling within dual-earner couples. Indeed, it is because important traditions within sociology have been drawn on that it was possible to put the different pieces of this jigsaw, scattered in many studies, together. But the focus of this article is to go beyond re-interpreting previous results as it was also possible to provide new insights into how the various kinds of family workdays and off-scheduling impact on the different types of family time. These results hinge on the variant of Optimal Matching used to build the empirical typologies of family work schedules.

Combined with the comprehensive definition of family time, this analytical approach has proved to be very effective in exploring how various forms of off-scheduling relate to family togetherness.

The results of this study, above all, suggest that dual-earner couples' off-scheduling is the unintentional consequence of employers' economic behavior. What I have strived to show here is that very few couples control the timing of their work hours. Combined with information from the empirical typology of family workdays, it has also been demonstrated that these couples seem to prefer synchronized work schedules whereas those who have no power over their work schedules have strikingly higher chances of having desynchronized family workdays. I have extended research on dual-earner couples' preferences for the timing of their joint work hours. As previous studies do not provide information on factors constraining choices made by couples, synchronized work schedules were interpreted only in motivational terms. As it turns out that very few couples are free to fix the shape of their family workdays, such interpretations stretched the data at hand.

Furthermore, most of the results of this study tally with US findings. The proportion of flexible work schedules (at the individual level), the extent of and the trend in off-scheduling, the correlation between atypical work schedules with occupation and employment sector, the structure and volume of family time, the effect of off-scheduling on conjugal, father- and mother-child time appear to be strikingly similar in France and in the US. This leads to only one conclusion, that the importance of togetherness for contemporary families, the causes of off-scheduling and consequences for family time are very likely part of trends in social change which pervade welfare regimes. As such, the connections between the timing of work and the positions of employees and employers within national economic fields are a promising avenue of research in this respect to better understand the economic causes of off-

scheduling. Such research would also cast light on how individual inequalities combine at the level of the couple to produce stronger inequalities.

It would also be of particular interest to investigate other levels of off-scheduling within dual-earner couples. Given the existing data, it could be possible to build empirical typologies of family workweeks by applying Dynamic Hamming Matching to workweek grids in which respondents were asked to report their work hours for seven consecutive days with 15-minute time slots. Such simplified seven-day diaries have been used to collect data on workweeks in some of the countries which participated in the Harmonized European Time Use Studies (HETUS) project.

With the exception of the UK, the possibilities of replication are to date limited in view of the data required by such analyses. However, as the importance of collecting couple time-use data is increasingly acknowledged, more and more suitable datasets should be available in the future. All surveys conducted within the context of the HETUS project feature couple data and the next wave will allow rigorous and detailed cross-national comparisons to be conducted in order to assess whether or not welfare regimes or national policies mitigate the results found for France.

Finally, the results of the present study also have implications for policy as balancing work and family life is not only an issue for women but a major conjugal and social question. The replacement of male breadwinner by dual-earner families requires new modes of division of domestic and parental labor and calls for new temporal rights for families. In this context, the ‘three worlds of welfare capitalism’ scheme traditionally used for orienting comparative public policy regimes seem less relevant as the scheduling of work within couples is not taken into account by standard public policies. To my knowledge and to date, the first law acknowledging this problem is the “Flexible Working and Work-Life Balance” law enforced since April 2003 in the UK, which forces employers to consider employees’ request for more

family friendly work schedules but unfortunately does not coerce employers to accept them. In any event, the kind of public policy dual-earner couples may need remains to be invented and may not fit in with the traditional welfare regimes scheme as this example suggests.

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## Figures and Tables

**Table 1 – Samples sizes**

Number of households	1986	1999
Dual-earner couples who worked the day of the survey	1,463	1,111
Without children present at home	425	330
With children present at home	1,038	781
Other types of households	8,909	6349
<b>Total</b>	<b>10,372</b>	<b>7,460</b>

**Table 2 - Types of family workdays in 1986 and 1999**

Type of family work day	1986				1999			
	%	Length of the husband's work day	Length of the wife's work day	Work schedules synchronicity (%)	%	Length of the husband's work day	Length of the wife's work day	Work schedules synchronicity (%)
Double standard work day	49	8:36	7:54	72.8	44	9:02	8:20	70.1
With long hours	8	11:04	8:51	57.7	10	11:15	9:36	57.8
With shifted schedules	14	7:05	7:07	23.9	15	7:06	7:16	23.3
- in the morning for men	8	6:34	6:48	31.0	8	7:01	7:02	29.9
- in the evening for men	4	7:21	7:39	22.1	4	6:34	8:08	23.4
- perfectly shifted	3	8:15	7:16	5.4	3	8:02	6:56	4.2
With a partially worked day by women	12	8:54	4:49	36.9	16	9:07	5:18	36.5
With short/irregular work hours	17	5:47	4:15	27.0	15	6:45	4:46	31.9
<b>Total</b>	<b>100</b>	<b>8:09</b>	<b>6:53</b>	<b>52.4</b>	<b>100</b>	<b>8:39</b>	<b>7:18</b>	<b>50.5</b>

**Table 3 - Determination of work schedules for employed couples in 1999**

Type of family work day	Determination of each spouse's work day				Total
	Imposed on both partners (51%)	Imposed on one partner (27 %)	Decided by both partners (10 %)	Other (12 %)	
Double standard work day	43	51	79	38	48
With long hours	4	7	5	9	6
With shifted schedules	21	16	4	12	17
With a partially worked day by women	19	15	8	18	17
With short/irregular work hours	14	11	5	22	13
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Table 4 - Some social positions of the husband and types of family workdays in 1999**

Type of family work day	Social position of the husband								Total
	Self-employed	Cadres Executives	Media and culture positions	Head clerks	Salesmen and domestic service occupations	Clerks	Health, workers, drivers, police officers	Factory workers	
Double standard work day	34	66	43	55	43	65	34	37	46
With long hours	27	4	1	7	24	0	14	5	10
With shifted schedules	8	4	7	12	0	20	28	28	15
With a partially worked day by women	16	15	13	15	19	15	11	18	16
With short/irregular work hours	16	10	34	11	14	0	13	12	14
Total	100	100	100	100	100	100	100	100	100

**Table 5 - Family time for couples with no child at home (hours and minutes per day)**

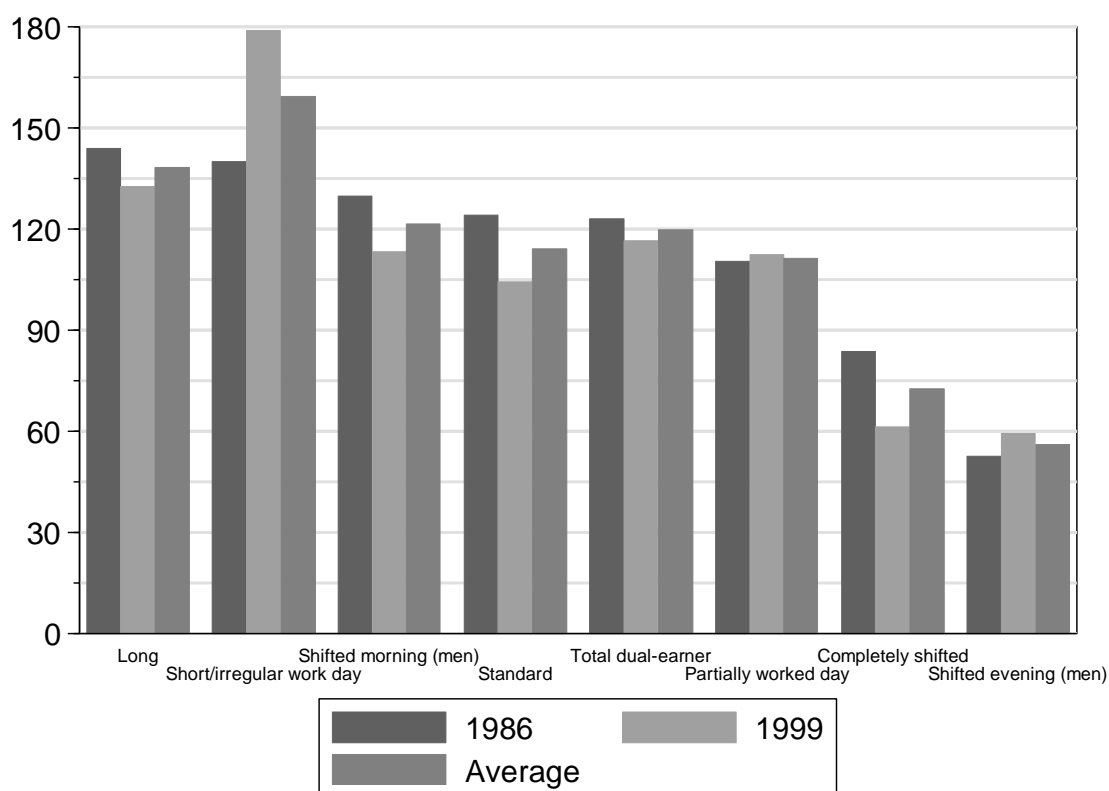
Activity	Conjugal time	
	1986	1999
Paid work	0:04	0:01
Unpaid work	0:19	0:24
Travel	0:16	0:12
Meals	0:55	1:09
Conversations	0:05	0:02
Leisure	0:44	0:59
TV	0:54	1:16
Care	0:04	0:04
Semi-leisure	0:02	0:04
Total	3:23	4:11

**Table 6 - Family time for couples with children (hours and minutes per day)**

Activity	1986					1999			
	Conjugal	Parents-child	Father-child	Mother-child	Total	Conjugal and parents-child	Father-child	Mother-child	Total
Paid work	0:02	0:00	0:01	0:01	00:04	0:04	0:05	0:05	00:14
Unpaid work	0:05	0:04	0:04	0:37	00:50	0:16	0:10	0:53	01:19
Travel	0:03	0:06	0:03	0:10	00:22	0:10	0:08	0:18	00:36
Meals	0:08	0:27	0:02	0:10	00:47	0:50	0:13	0:22	01:25
Conversations	0:01	0:01	0:01	0:03	00:06	0:03	0:01	0:03	00:07
Leisure	0:09	0:15	0:05	0:10	00:39	0:43	0:14	0:23	01:20
TV	0:15	0:12	0:06	0:08	00:41	0:49	0:20	0:17	01:26
Care	0:01	0:01	0:06	0:35	00:43	0:07	0:10	0:40	00:57
Semi-leisure	0:00	0:00	0:01	0:03	00:04	0:02	0:05	0:03	00:10
Total	0:44	1:06	0:29	1:57	04:16	3:04	1:26	3:04	07:34

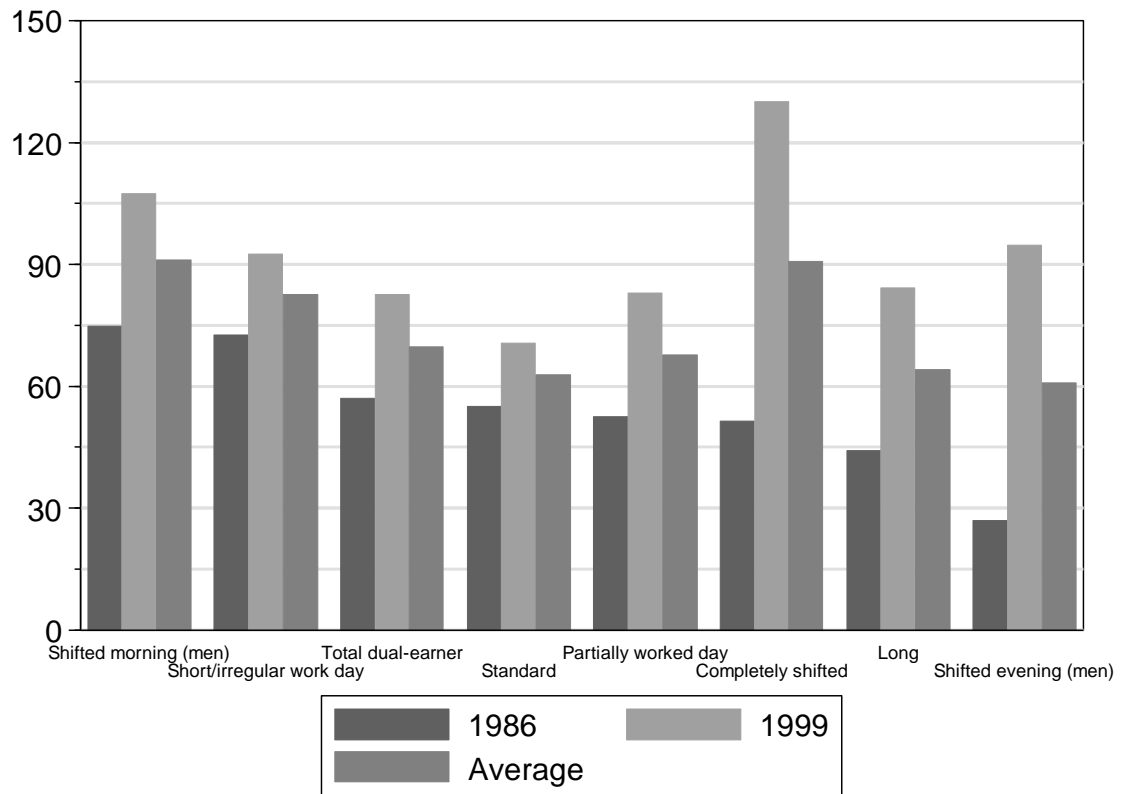
**Table 7 - Family time for dual-earner couples with children (hours and minutes per day)**

Activity	1986					1999			
	Conjugal	Parents-child	Father-child	Mother-child	Total	Conjugal and parents-child	Father-child	Mother-child	Total
Paid work	00:04	00:00	00:00	00:01	00:05	00:06	00:07	00:07	00:20
Unpaid work	00:05	00:05	00:05	00:32	00:47	00:16	00:11	00:45	01:12
Travel	00:03	00:07	00:03	00:09	00:22	00:11	00:09	00:18	00:38
Meals	00:08	00:27	00:03	00:08	00:46	00:47	00:14	00:21	01:22
Conversations	00:01	00:01	00:01	00:03	00:06	00:04	00:01	00:03	00:08
Leisure	00:08	00:16	00:05	00:10	00:39	00:43	00:13	00:22	01:18
TV	00:15	00:10	00:05	00:06	00:36	00:43	00:17	00:14	01:14
Care	00:02	00:02	00:07	00:30	00:41	00:06	00:11	00:36	00:53
Semi-leisure	00:00	00:00	00:01	00:02	00:03	00:02	00:04	00:02	00:08
Total	00:50	01:11	00:35	01:45	04:21	03:02	01:31	02:52	07:25



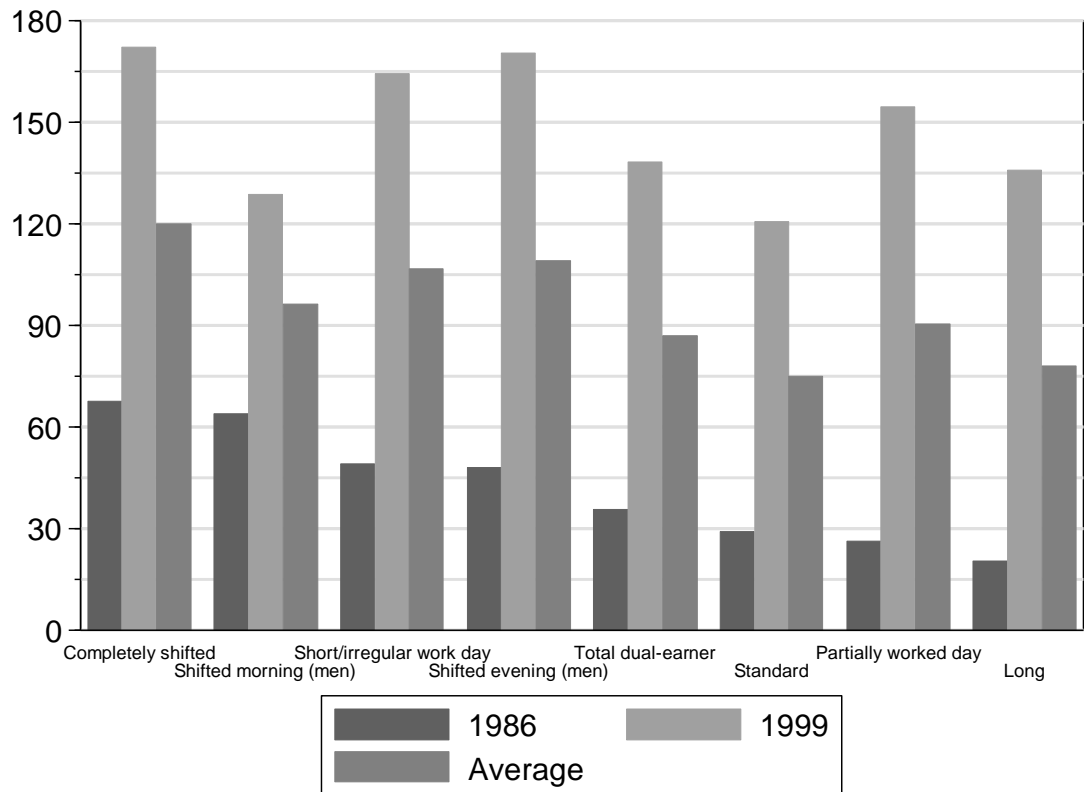
Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

**Figure 1 - The consequences of the family workday on conjugal and parents-child time for couples with children**



Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

**Figure 2 - The consequences of the family workday on father-child time for couples with children**



Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

**Figure 3 - The consequences of the family workday on mother-child time for couples with children**