

1. Introduction

Private employers increasingly offer family-friendly benefits such as flexible work schedules, telework, and daycare services. In principle, these benefits meet significant social demands from those workers who seek to balance work-family conflict. Accordingly, workers with specific family characteristics are expected to search for jobs that offer the benefits most appropriate to their specific needs. In practice, however, little is known about the actual take-up of available family-friendly benefits among different workers. Consequently, little is known about whether or not benefits are made available to the workers who need them, and whether or not the available benefits do meet the specific needs of these workers. The answer to these questions is of direct practical relevance to employers and employees. It is also relevant for understanding whether or not adequate social protection can be met by the market rather than the government.

In this paper, we assess the take-up of family-friendly benefits that are provided by employers using the Canadian Workplace and Employee Survey (WES) for the period 1999-2002. We distinguish between the availability and the actual use of these benefits and account for workers selection into firms according to family-friendly benefits. Overall we find that selection effects are important for understanding the take up of these benefits. We also find that the provision of benefits appears to help workers relatively little to manage the work-family conflict and that the benefits are often unavailable to those who would need them most. Our findings suggest that the market fails to help employees balance their family-work conflict

The WES is a unique data set for assessing the impact of family-friendly benefits. Typically, the impact of these benefits is hard to quantify. The evidence is fragmented into diverse studies which use different measures of availability. While firm surveys tend to have

availability questions, employee surveys have only questions regarding workers' use of these benefits. Furthermore, nationally representative surveys do not routinely include this information in their questionnaires and evidence is often drawn from very limited surveys covering a small number of firms in specific industries or particular locations. In contrast, the WES surveys a nationally representative sample of Canadian firms and their employees. This link between workplaces and employees allows us to connect employee characteristics, such as use of family-friendly benefits, education, and hours of work, with firm characteristic such as availability of benefits, organizational changes, and human resources practices. To our knowledge, this is the only data set that has a large, representative sample as well as the employee-employer connection.

The low take up of firm provided family-friendly benefits is somewhat surprising. The WES indicates that about 57% of firms in Canada offer flexible work schedules, 11% offer telework, and 12% offer family support services, such as daycare. By contrast the take up of benefits is substantially lower. About 37% of the workers use flexible time arrangements, 6% use telework, and only 2% use family support services.¹ Moreover, the take up of benefits is much lower than the percentage of the working population that is expected to face family-work conflict – those in dual earner families with young children or single parents. For instance, in 2002, 72% of all couples (up from 33% in 1965) and over 60% of all Canadian two-parent households with dependents were dual earners households, while 63% of all single parents worked. In addition, although families with dependents do have a slightly higher use of telework (6.7% among

¹ In the U.S., a 1993 Work/Family Directions study of 80 top U.S. corporations reports that 85% of these companies offer flexible work programs. In turn, fewer than 26% of employees used any of these services (Salomon 1994). In the U.K., Gray (2000) reports that according to the Workplace Employee Relations Survey 1998, 15.2% of private companies offer flexible work or shorter week work, 10% offer telework, and 4.5% offer workplace nurseries or financial assistance with childcare. No information on use is available for similar benefits.

females with dependents versus the average use of 4.8%), that is not the case for the use of flexible schedules (34.6% of females with dependents use flexible schedules versus the average of 34.7%).² The small proportion of workers using flexible arrangements is even more puzzling if we consider that flexible time and telework are available to over 50% and 10% of these workers respectively. These figures suggest substantial under-use of available benefits among workers who could potentially benefit from them.

Discrepancies between use and availability of benefits may indicate that workers who need the benefits do not have access to them. Alternatively, such discrepancies may indicate that workers with families do not find family-friendly workplace benefits very useful. For instance, flexible hours may be of little use to full time working parents of pre-school children, as they may prefer full time care for their children, which is mostly available during regular work hours; telework may have limited usefulness to parents of small children, as they need to be attended to, and working at home restricts the attention that can be given to a child; childcare or eldercare may be quite useful, provided that the worker has children or eldercare responsibilities. To address these issues, we distinguish between use and availability of benefits and employ this distinction to account for worker selection into employment conditions, using technical constraints in the provision of available benefits as exclusion restrictions in a two-step estimation procedure. We find that selection issues are important for all except one of the benefit-gender group combinations studied (male workers using telework). Furthermore, after correcting for selection, not all benefits are equally useful. The use of flexible time seems unrelated to work-family conflict. Telework, on the other hand, seems to be related to factors measuring family

² Similarly, in the US (2005), 51% of all couples and 61% of two-parent households with dependents were dual earners households and 74% of all single parents worked. Federal Labour Standards Review and US Department of Labour (See http://www.fls_ntf.gc.ca/en/bg_01.asp and <http://www.bls.gov/news.release/pdf/famee.pdf>)

work conflict for female workers, whereas family support services such as day-care do not seem to be offered to workers who would find them more useful.

Literature Review

A large literature, summarized in Curry (2004), analyzes the take up of publicly provided benefits. Financial costs, administrative complexity and stigma (Moffitt (1983)) are usually listed among the most common reasons for low take up of public benefits. It is therefore remarkable that the distinction between use and availability is not even made in the majority of studies of privately provided benefits. As a consequence, conventional estimates of the factors influencing use of benefits are biased since use of benefits is not observable unless the worker has the benefit available. Further, to address the questions posed above it is not enough to restrict our attention to those workers who have the benefit available, as it is plausible that workers characteristics are correlated to the provision of benefits.

Work-family conflict has potentially important social costs. Baum (2003) and Ruhm (2004) among others explore the relationship between benefits and the development of learning skills in young children. Work family conflict may also considerably increase medical costs Duxbury and Higgins (2004). Consequences of the work-family conflict range from mental health disorders, physical health problems, family strain, employee absenteeism, high turnover rates and low productivity.³ Research on family-friendly practices also looks into employers' benefits of implementing these practices. Gray (2002) uses British data on an employee-workplace linked survey to look at the impact of a wide arrangement of workplace characteristics (including family-friendly benefits) on several measures of firm outcomes, finding a positive association between family-friendly benefits and most measures of firm outcomes. Glass and

³ See Allen et Al. (2000) for a survey on the effects of the work-family conflict on workers.

Riley (1998) use American data to look at the impact of family responsive policies on employee retention after childbirth, and find positive effects of maternity leave policies on reducing turnover. More generally, Eaton (2003) suggests that family supportive practices involving flexibility increase commitment on the part of the workers, therefore increasing productivity and reducing turnover. We do not analyze direct measures of firm performance in relation to benefit availability, as these studies do. Rather, by understanding the reasons for low take up of benefit we shed light into the channels through which the interaction between benefits and firm outcomes can occur. Other work investigates the employee and/or employer characteristics associated with benefit availability. In general, family-friendly benefits are found in larger, unionized firms (Glass and Fujimoto, 1995). Golden (2001) looks into the characteristics of employees who do not work a standard schedule (voluntarily) and finds that females with dependents, Caucasians, union members, the more educated long-serving employees, and private sector employees are more likely to engage in this practice. Finally, there is some research centered specifically on the use of work-family benefits, although ignoring selection effects. It has developed outside economics and is, in general, constrained both in the scope of benefits and in the extent of the sample studied.⁴ In contrast, we exploit the advantages of substantially larger samples and take into account the selection of workers into firms according to benefit availability.

We next present the empirical methodology and describe the data we use for the analysis. Section 3 shows our results and discusses its implications and robustness. Section 4 concludes.

2. Methodology

⁴ See for instance, Secret (2000), whose study is limited to 88 organizations of a local North American community employing 527 workers.

Government involvement in the provision of family-friendly benefits consists generally in the regulation of leave, pregnancy related insurance, and the provision of subsidies for schooling/care for children.⁵ In this paper, however, we focus solely on the role of employers in the provision of family-friendly benefits. Family-friendly workplace benefits are crucial in countries with low government involvement in social matters, but even in countries with significant welfare states, employers may play an important role in the mitigation of the work-family conflict by offering employees additional flexibility. For instance, families may prefer the possibility of working from home to save commuting time, or to have flexible schedules to accommodate unexpected changes in caregiver schedules. These are types of family-friendly practices that depend mainly on the firm and can hardly be subject to regulation. Further, a correct assessment of the need for additional public family-friendly services requires an understanding of the scope and effects of those that are privately provided.⁶ Finally, as indicated above, the provision of workplace family-friendly benefits may be in the interest of employers themselves, hence justifying further attention to these practices.

These (firm provided) family-friendly benefits are practices introduced voluntarily by the firms to help workers to reconcile the demands of work and family life. Firms have different instruments at hand to help employees deal with work-family conflict. They could be classified in three groups:

- a) Policies facilitating leave from work. These include extensions to maternity leave, paid or unpaid, other forms of parental leave and the possibility of taking career breaks.

⁵ See, for instance, Klerman and Leibowitz (1990), and Cleveland, Gunderson and Hyatt (1996). There is also much variation in the public provision of family benefits across countries, Ruhm (1998), Gornick, Meyers and Ross (1996).

⁶ The gains of expanding public programs depends critically on the extent to which public eligibility will cover just the uninsured, or will crowd out existing private coverage. The evidence indicates that crowding out exists in the case of medical services, Cutler and Gruber (1996).

- b) Policies facilitating changes in the work schedule. These include all forms of work schedule reductions, including flexible hours or work from home (telework).
- c) Family support policies, which offer practical help with child or elder care.

Our paper analyzes generic family support policies (c) and two specific types of policies that facilitate changes in work schedule: telework and flexible hours.

The interpretative framework for this paper is rooted in Becker's (1965, 1991) new home economics and on the theory of the firm. If certain family oriented benefits and workplace arrangements exist, they must benefit either employers, via increased employee productivity, or employees, via contributions that improve their family life. We assume that the benefit/cost of workplace benefits and arrangements to the employee can be captured by looking at employee's attachment to the firm and are not concerned with that choice.⁷ Under this assumption, individuals will use benefits if they face enough family conflict and a suitable benefit is offered by the firm. The trade-offs regarding the take-up of family-friendly benefits are similar to those discussed in the literature on take-up of public benefits: lack of information, transaction costs and stigma or, more likely, a combination of the three.⁸ Lack of information is not rare as firms rarely have explicit policies regarding flexible hours or telework. It is usually left to managers' discretion whether a worker is able to use these benefits (Salomon (1994)). Transaction costs may arise because making arrangements to use flexible time or telework may increase the difficulty of working in teams or require investment in home office equipment. Regarding stigma, Eaton (2003) documents the existence of a corporate culture that limits use of available benefits because workers feel that it would negatively affect their careers. It follows that, for a

⁷ We comment later in the text on the implications of considering the choice of workplaces that provide family benefits.

⁸ Reasons for relatively low take-up of public health services in the US have also been examined by Remler, Rachlin and Glied (2001).

fixed cost/stigma associated with taking the benefit, individuals will do so if the pressure from managing the demands from work and family is high enough.

The literature on work-family conflict hypothesizes a relationship between work-family conflict (*WFC*) and family structure (*FS*). It is expected that workers with more or younger children or those with less flexibility to manage care responsibility (absent partner) will be more likely to use benefits. If this is the case, one could conclude that benefits appear to contribute to lessen work-family conflict, since individuals with plausibly higher conflict are more likely to use them. Therefore, we will measure the magnitude of this work-family conflict with indicators for family characteristics that are plausibly correlated to the amount of conflict faced.

The extent of work-family conflict is, however, not observable. What we observe is the individual's use of family-friendly benefits. Given a fixed individual cost of using the benefit, a "use of benefit" equation could be stated as

$$Pr (B_U = 1 | FS) = Pr (WFC > 0 | FS) \Phi(\alpha FS) \quad (1)$$

where B_U is an indicator equal to 1 if the individual uses the benefit, Φ represents the normal cumulative density function, and α is a vector of parameters indicating the effect of family structure and other variables on benefit use. B_U is only observed if the (unobserved) work family conflict is greater than the (fixed) costs of using the benefit

If workers were randomly distributed across firms, estimates of equation (1) would provide estimates of the causal effect of each factor on the use of a given benefit. However, individuals work in firms or areas with different probabilities of offering family-friendly benefits, as organizations themselves are constrained in the supply of the benefits (Heywood et Al. 2005). There may be technical constraints in the provision of benefits, such as the feasibility of offering telework. In addition, the structure of the labour market may also influence the

availability of these benefits. For instance, firms hiring from a labour market characterized with skills shortages will benefit more from offering compensation packages that are attractive to their employee demographic groups.⁹ Alternatively, it may induce firms to respond to aggregate characteristics from local labour markets. The benefit to the firm of supplying these benefits is not observed. Instead we observe whether or not the benefit is available.

Since benefit use cannot be observed unless the benefit is offered by the firm, estimates of equation (1) will be biased, as they would be based on the sample of workers for whom the benefit is available, rather than on a random sample of workers. To take this selection into account we will estimate the joint bivariate distribution of use and availability to obtain the probability of use free of this selection bias.¹⁰

$$B_U = \alpha FS + \beta X + \varepsilon; \quad \text{where } B_U > 0 \leftrightarrow B_A > 0$$

$$B_A = W\gamma + L\tau + v > 0 \quad (2)$$

where B_A is an indicator of availability of benefits, W is a vector of workers' attributes and firm characteristics influencing the provision of benefits, L is a vector of variables describing the structure of the labour market from where the firm is likely to hire its workers, and (γ, τ) are the associated vectors of parameters. The error terms ε and v are jointly normally distributed, independently of the variables in the respective equations, with zero expectations and $corr(\varepsilon, v) = \rho$. The vector FS in the benefit use equation includes variables that predict employee use of benefits, such as marital status, indicators for age of children and indicators for number of children. The vector X represents additional variables that may influence benefit use.

⁹ The Washington Post, Sunday, June 12, 2005; Page K01.

¹⁰ This method was first proposed by Heckman (1974). Despite the strong functional form assumption, bivariate models have been shown to perform better than instrumental variable models in Montecarlo experiments (Deb, 2007).

The regressors in the availability equation include variables that predict the employee's selection into firms offering the benefit, sometimes referred to as identifying restrictions. These include worker characteristics the employer may wish to retain/attract, like job tenure, experience, education and occupation indicator variables; firm characteristics that impose technical restrictions on benefit availability such as industry and firm size indicator variables; and characteristics of the labour market from where the firm is likely to hire their employees, such as the fraction of male and female skilled workers in the strata, the fraction of women of child bearing age in the strata, the fraction of the strata that is unionized and the fraction of unionized females of child bearing age in the strata.¹¹

Discussion of the econometric framework: What we do and what we do not do

The empirical determination of benefit availability and benefit use is a complex process. First, availability is only observed for individuals who decided to work, which may lead to further sample selection issues. In this respect our estimates are conditional on employment and we implicitly assume that a wider availability of *workplace* offered benefits would have a negligible impact on whether an individual chooses to work or not.¹² This will probably not hold in the case of a wider availability of *publicly* provided benefits, specially subsidized daycare (Baker, Gruber and Milligan, 2005) or if the workplace provision significantly lowers childcare pecuniary costs for certain groups (Anderson and Levine, 1999). Regarding the use of benefits, it is likely that workers' access to benefits embodies a trade off between family-friendly benefits and other forms of compensation. In this case, the demand for benefits could also be modeled as the result of a simultaneous choice over wages and other job characteristics that influence their

¹¹ A strata (defined by the set of observations in a given province, industry and firm size) reflects the geographic location from where the firm is more likely to draw their workers.

¹² Blank (1990) finds that this type of selectivity is unlikely to influence the estimated coefficients of benefit availability.

provision.¹³ We view that as a separate, if related, question. Here, we abstract from this trade off to focus on the factors that affect the actual use of benefits.

In a sense, we are trying to answer a basic question regarding family-friendly benefits: Once firms have decided whether or not to offer such benefits, and workers have chosen appropriate “compensation/family-benefits” packages, why do we not observe high levels of take-up for these benefits? Is it because benefits are not useful to workers? Or is it because workers that need the benefits have no access to them? We can answer this question with our stylized model. Unconstrained probit estimates of benefit use, such as those proposed in (1), assess the influence of the demographic characteristics measuring work-family conflict on the probability of using benefits among those who have benefits available. The selection corrected use equation in (2) assesses the influence of these demographic characteristics on the probability of using benefits for a random sample of workers. By comparing the two sets of estimates we gain insight into the usefulness of family-friendly benefits to mitigate work-family conflict and into the selection process of workers into firms with benefits. If, for instance, the demographic variables used to measure family conflict are not significant among workers with available benefits, but they are significant determinants of use of benefits among a random sample of workers -- producing significant estimates in equation (2), but not in equation (1) -- it would indicate that workers with available benefits do not use the benefit to reduce work-family conflict, although the benefit would be useful for the general population. This would support the hypothesis of a mismatch between use and availability of benefits. Alternatively, if the variables that measure family conflict are significant determinants of use of benefits among those who have available benefits, but not among a random sample of workers -- producing significant

¹³ Averett and Hotchkiss (1995)

estimates in equation (1), but not in equation (2) -- this would support the notion that workers with high levels of work-family conflict are more likely to be in jobs that offer family-friendly benefits (no mismatch).

Finally, we are not considering that workers' skills may represent endogenous choices on the part of workers who anticipate that they will eventually use benefits and therefore choose skills and occupations more likely to offer these. If this is the case, our selection-corrected estimates of the probability of use could differ from estimates that take into account this additional selection issue. There are however, two characteristics regarding family-friendly benefits that support our choice of abstracting from this issue. One is that many career choices that may determine availability of benefits in the future are made well before the worker faces high levels of family-work conflict and can be considered, to some extent, independent of benefit use. This is the case with education level or occupation. In addition, benefits like telework or flexible hours, unlike other fringe benefits, are very often not formal policies, but are at the manager's discretion. Therefore, it is rather unlikely, at least for two of the policies we study here, that workers making skill choices are taking the availability of future family-friendly benefits into consideration.

3. The Workplace Employee Survey

This study uses data from the 1999-2002 Workplace and Employee Survey (WES). The survey collects a broad range of information on a nationally representative sample of employers and their employees, covering all industries except farming, fishing, hunting, trapping and public administration.¹⁴ This is a very important aspect of the data as many studies are based on surveys

¹⁴ The survey frame on the workplace component was created from information on the Statistics Canada Business Register. Business locations were stratified into 252 relatively homogeneous groupings by industry (14), region (6) and size (3) called stratas, From these, 9,144 businesses were sampled in 1999 and 6,322 surveys collected. This

with only a limited number of establishments surveyed. In addition, the linkage between employee and workplace data allows researchers to connect employee's outcomes, such as use of benefits, not only with the worker's own characteristics but also with firm characteristics, such as availability of benefits. These are extremely uncommon features in the literature on family-friendly benefits. Indeed, to our knowledge this is the first study on benefit use that uses a nationally representative survey. The widespread representation of the sample, large sample sizes and the connection between employers and employees information provide a rare opportunity to improve on the methods used to determine the incidence of family-friendly benefits.

We will examine the following employer provided family-friendly benefits:

Flex-time or flexible hours: Under this work arrangement an employee works a certain number of core hours, but can change the start and stop times provided that a full complement of hours is worked. Use is determined by answer to the following question, stated to explicitly minimize reporting error: “Do you work flexible hours? (This means you may work a certain number of core hours, but you can vary your start and stop times as long as your work the equivalent of a full work week)”. Since many firms do not have formal policies regarding flexible time, we construct a variable for flex-time availability at the firm based on this benefit being available to other similar workers in the firm.¹⁵ Flexible time is used approximately by 37% of the workers and available to 56%.

Telework: This is a type of work arrangement where employees work at home (for pay) at least some hours of their regular schedule. The employee responds the question: “Is your work at

sample is supplemented every two years with new workplaces added to the Business Register. Up to twenty four employees from every workplace (3.5 on average) were sampled using a probabilistic mechanism.

¹⁵ A benefit is available if other workers in similar broadly defined occupations within the firm report using the benefit. This definition underestimates the availability of benefits. We also define a benefit as available if any employee in the firm reports using the benefit, which is likely to overestimate the incidence of availability. The results with the alternative definition (not reported here) are not significantly different from those using the more restrictive definition.

home mainly: a) Paid and within your normally scheduled work hours? b) Paid and in addition to your normally scheduled work hours? c) Unpaid and in addition to your normally scheduled work hours?''. We consider that a worker is using telework if he answers (a) to the above question. Similarly to the case of flex-time, we consider that telework is available if it is available to other workers in the firm with similar occupations (see footnote14). Approximately 11% of the workers report having telework available, while 6% report use.

Family support: The employee is asked a series of questions on employer support regarding childcare, eldercare, or other type of family support: *“Does your employer offer help for childcare either through an on-site centre or assistance with external suppliers or informal arrangements?”*, *“Does your employer offer help with eldercare services?”* and *“Does your employer offer other personal support or family services?”*. Each question is followed by a question regarding use (for instance, the question regarding childcare availability is followed by *“Did you use this help within the past twelve months?”*). We construct an indicator variable for “family support” equal to 1 if the employee answered that either one of these three benefits is offered by the employer. Hence, the family support variable includes childcare, eldercare and other family support services.¹⁶ Although child care services constitute approximately half of the services provided, they are only a third of the use of family support services. For this reason, we present here results for the three forms of family support services grouped into a single category. Around 2% of the workers report using this benefit and 12% report the benefit being available. For this variable, we are able to define use and availability directly, based on employee’s answers to these questions. This employee based definition of availability is not without

¹⁶ The questionnaire is not more specific about what other type of support that could be. It does not include fitness or recreational services or employee assistance (counselling, financial assistance, legal aid etc), which are specifically asked for in other questions.

problems however. Miss-reporting of availability may occur as employees that do not need the benefit are less likely to know about its availability.¹⁷

According to the model specified above, use of benefits depends on family structure (captured through indicators for number and age of children and an indicator for marital status) and possibly on the demands of the job (measured by three indicators of usual hours of work). Additionally, workers from different cultures feel very strongly about the proper way to deal with family responsibilities and work demands or that recent immigrants face a different set of choices regarding family benefits due to less knowledge of Canadian institutions.¹⁸ We control for this heterogeneity by including an indicator for Canadian born and for Caucasian ethnicity.

Availability depends on a vector of workplace characteristics reflecting: a) worker's and firm's characteristics, and b) characteristics of the strata where the firm is more likely to draw their employees. The first group includes five indicators for industry (primary industries is the reference group), four occupational indicators (production workers is the reference group), three indicators for firm size (firms with less than 20 workers is the reference group), measures of tenure and experience, three indicators for numbers of hours worked and four educational indicators (no educational degree is the omitted category). We also include an indicator for whether the worker is unionized or covered by collective agreement since unionization may affect the likelihood of certain benefits being offered. As mentioned, a firm of certain size may face technical constraints in offering daycare services to its employees. Alternatively, it may also face difficulties offering telework to workers of certain education level because of the nature of the work they do, or it may be forced to offer flexible hours to individuals working long shifts.

¹⁷ When we performed the analysis using a similar measure of availability to that employed in the analysis of flexible hours or telework, we obtain similar qualitative results. These results are available upon request.

¹⁸ For instance, Caputo (2000) reports that, in the US, race is a determinant of benefit incidence.

The second group of variables includes a measure of the fraction of skilled workers and skilled working women in the corresponding strata, a measure of the fraction of women in the strata that are of child bearing age and an indicator for whether or not the strata is highly unionized.¹⁹ To discern whether the effect of unionization depends on the composition of the strata, we include an indicator for the fraction of women of child bearing age in the strata that are unionized. All models include indicators for geographical region.

In order to increase the number of benefit users, we pool the two available waves of the survey (1999-2000 and 2001-2002) and control for survey year in our analysis.²⁰ We report robust Huber-White standard errors, allowing for clustering among firms. We restrict the sample to those workers who provided answers to the benefits and labour characteristics questions, which results in 33,082 observations for female workers and 43,212 for males.

We report the mean characteristics of the sample by use of benefits in Table 1 for female and male workers separately. Table 1 indicates that skill levels (tenure and experience) are similar among workers who use flexible hours and those who do not use this benefit. This is in contrast with the use of telework or family support, which are mostly associated with more educated and experienced workers. In general, users of benefits have more children, and their youngest child tends to be older, than nonusers, except for flexible hours. Note, however, that single parents are not more represented among the users of benefits (approximately the same fraction of single parents, around 9%, female (5% male) workers, can be counted among users and nonusers). Since it is difficult to argue against the need of those facing single parenthood to work in a family-friendly environment, this could suggest that the benefits are either not suitable

¹⁹ A strata has a high degree of unionization if more than a quarter of its workers is unionized. While this choice is arbitrary, we tried different definitions of high degree of unionization with no effect on our estimates.

²⁰ Although, the WES follows employees for two years, the longitudinal feature of the data is too short to be used effectively in the analysis. There is close to zero variation in the take-up or availability of benefits across time.

or not available for this particular group. Surprisingly, married male workers are more represented in the telework and family support user categories than in the nonuser category, while married female workers are approximately equally represented in both categories. Employees using flexible hours are over-represented in firms in Commerce (females) or Finance (males) relative to non users, while among users of family support, those in Other Services are over-represented relative to those who do not use these benefits. For telework, female users are over-represented in Finance and other Services while male users are similarly distributed between Construction, Finance and other Services. Users of flexible hours are more concentrated among smaller firms (up to 49 employees) than non users, and those using family benefits, particularly males, are clearly concentrated in larger firms (more than 500) relative to non users. There is a higher fraction of managers and professionals among users of these three benefits than among non users. In general, a higher proportion of users of flexible hours are unionized and work full time than of non users, but this is not the case for the other two benefits. Most labour market characteristics appear unrelated to the use of telework or flexible hours. However, workers who use family benefits are over represented in stratas with higher fractions of skilled workers, high unionization rates or higher fractions of females of child bearing age.²¹

4. The Use of Family-friendly Benefits

Table 2 shows the percentage of use and availability of benefits by gender and family type. There is no *a priori* evidence that females or families with dependents use family-friendly benefits more than other groups. The proportion of female (male) users of flexible time ranges only between 33.5% and 36.3% (38.2% to 41.2%) across all family types. There is some

²¹ Average characteristics by availability of benefits reflect, broadly, the same patterns. The interested reader can review these in the working paper Ferrer and Gagne (2006).

evidence of higher use of telework and family support among workers with dependents, but the differences are surprisingly small. Between 5.5% and 7.3% of workers with dependents use telework, versus 3.4% to 7.3% for workers with no dependents; further, between 1.8% and 2.7% of workers with dependents use family benefits, versus 1.1% to 1.9% for workers with no dependents. In addition, although benefits are slightly less available to (female) single parents, the distribution of availability by family type reveals that most benefits are equally available among all family types and that some, such as telework, are even more likely to be available to female workers with children than to other females. The conditional (on availability) probabilities shown in the third and sixth column of Table 1 further confirms the small uptake of benefits, specifically of family benefits, which is not over 22% for any family type. Conditional on availability, telework is used on average by 53% of workers, whereas flexible time is used by around 67% of workers.

We turn now to the main estimates of our selection model, reported in Table 3. For each benefit we report the marginal effect of a change in the independent variable on the probability of use in columns labelled (I). We compare these estimates with those resulting from our selection model and report these in columns labelled (II). The correlation coefficient between the error terms in the use and availability equations, ρ , is reported below each set of selection corrected estimates along with its p -value in parenthesis. The sign of the correlation coefficient (ρ) provides an intuition for the direction of the selection effect. Positive values of ρ indicate that unobservable factors that influence the probability of having benefits available also influence the probability of using benefits. In general, we expect this correlation to be positive as workers with higher family demands are more likely to seek out family-friendly benefits from their employers. If ρ is statistically significant, then the null hypothesis that the availability and use equations are

independent can be rejected. The next row reports the results of the first stage F-test of the hypothesis that the excluded instruments are jointly zero in the first stage regression, followed by its p -value. The next to last row reports the predicted probability of use conditional on availability (column I) and the predicted unconditional probability of use (column II). The unconditional probability can be interpreted as the fraction of workers who would use the benefit if it was available to every worker. Results are reported separately by gender.

Our main result is the relevance of accounting for selection to understand the incidence of benefit use. In all cases, except for males using telework, we reject the null hypothesis of zero correlation between the error terms of the use and availability equations, indicating that the selection model is indeed appropriate. The correlation coefficient is, as expected, positive.

A second question was whether benefits were mismatched with workers needs. Mismatching can be identified by differences in the significance of the coefficients with and without correcting for selection. As discussed above, significant estimates in equation (2), but not in equation (1) would suggest that workers with available benefits do not use the benefit to reduce work-family conflict, although the benefit would be useful for the general population. This would support the hypothesis of a mismatch between use and availability of benefits. Alternatively, significant estimates in equation (1), but not in equation (2) would support the notion that workers with high levels of work-family conflict are more likely to be in jobs that offer family-friendly benefits (no mismatch).

Flexible time does not seem to be used by most women as a solution to the work-family conflict. Both sets of estimates, in column (I) and (II), are not significant. For male workers and conditional on having children, the presence of pre-school children is positively and significantly related to the use of flexible hours among those with available benefits, an effect that remains

after we consider selection. The similitude of estimates under both models indicates that the selection bias does not primarily affect the indicators for family conflict, suggesting that other, unaccounted for factors are driven the selection. Further, there is no indication that low use is due to lack of availability, since workers seem to be fully selected into this arrangement (indicated by the unchanged probability of use).

The use of *telework* shows significant gender differences. Family characteristics do influence the use of telework among female workers who have the benefit available -- column (I) -- but these effects disappear when we consider selection. This suggests that family demands are a likely factor in the selection process leading females to the use of telework. For males, the estimates remain significant, and even increase in magnitude, after we account for selection. However, the test of independence of equations reveals that selection corrected estimates are not sufficiently different from those obtained under the assumption of independence to warrant the use of the selection model (P-value = 0.11). This indicates that work-family conflict does not drive males to select into firms that offer telework. This is reinforced by the fact that the probability of males using telework is *negatively* correlated with the presence of older children, while conditional on having children females tend to use more telework with elementary school age children.²² The difference in the sign of these estimates by gender supports the idea that while women seem to use telework to cope with childcare responsibilities, men with older children are less likely to use telework. The difference between the predicted probabilities in both models seems to indicate that lack of availability may account, at least for females, for low use of this benefit.

²² Telework may not be well suited to take care of younger children who require high levels of attention, but rather with school aged children to reduce commuting times.

The use of *family support* is not significantly influenced by indicators of family-work conflict, among workers who have the benefit available (column (I) under this benefit heading). However, once we account for selection, the presence of one or two older children has a significant impact on the likelihood of using this benefit for women (one child for men). Similarly, conditional on having children, women with school aged children are more likely to use this benefit when we account for selection. This is consistent with the observation that workers with high levels of family conflict are under-represented in firms that offer family support, and suggest the existence of a mismatch in the availability of family benefits. These appear to be available to workers who do not use them. Interestingly, single mothers are more likely to use these benefits than married mothers, further supporting the hypothesis that family benefits are most useful for workers with families and high potential work-family conflict.²³ The predicted probability of use would double if the benefit became available to all workers. However, it is a small impact (only 5% of all workers would use if it was generally available). This could indicate that formal care, even if conveniently located and facilitated by the firm, may be an expensive benefit for workers.²⁴

Robustness: Hours of Work and Single Parents

In our analysis of use of benefits we have included indicators for hours of work to account for the existence of time constraints in taking care of family demands. This approach presumes that hours of work are exogenously determined. However, an important issue regarding the robustness of these estimates concerns the possible endogeneity of hours of work. This is a particular concern with the use of telework and flexible hours, since these benefits could be

²³ Single parents are represented by the intercept *and* the dummy variable indicating the number of children they have. Hence, a single parent is more likely to use the benefit than a married parent with the same number of children due to the negative effect of the “married” indicator.

²⁴ Estimated coefficients for the first stage availability equation are displayed in the appendix.

demanded for reasons other than the existence of family-work conflict as considered here. Hence, the choice of hours of work may be related to the choice of benefit use through some unobservable individual characteristic. It is plausible, for instance, that workers with low taste for rigid and demanding schedules choose both, jobs that are flexible or can be performed from home and less hours of work, regardless of family responsibilities.

To check the robustness of our estimates to this problem we repeat the previous regressions for the sub-sample of full time workers and show the marginal effects in Table 4.²⁵ Results for female workers are virtually unchanged when considering the sample of full time workers, suggesting that our previous estimates were not strongly biased on this account. For full time males we observe some noteworthy changes. Most significant is the change in the sign of the correlation coefficient between use and availability of flexible hours, which becomes negative. This reinforces our previous results that the use of flexible time among males is unrelated to family-work conflict for full time male workers and that other, unaccounted for, characteristics are driving the selection of males into flexible hours. For the other two benefits, the estimates are similar, though slightly less precise. Overall the results for the full time sample of workers suggests that endogeneity of hours of work is unlikely to cause a strong bias in our previous estimates and reveal further gender differences in the use of benefits to cope with family responsibilities.

Despite the considerable improvements the WES allows in the analysis of family-friendly practices, thanks to the sample structure and large sample sizes, individual responses pose a problem on the interpretation of results. Namely, having no information about overall availability of benefits for the household, we are unable to infer much from observed gender differences in

²⁵ Conventional treatment of this endogeneity problem is complicated in our framework since we are already correcting for a selection issue. Moreover, the WES contains no suitable instruments to correct for this problem.

use. In addition, we cannot generally address the specific question of whether or not one of the reasons for low use is “dual” access to benefits. We can, however, partially answer this question by looking at the probability of use among single parents, as this demographic group is less likely to have access to a partner’s benefits. If the selection corrected estimates of the effect of demographical variables on use are not significant for the single parent sample, it would suggest that the benefit in question is less adequate to deal with work and family demands, rather than the alternative explanation that the benefit is available through a partner’s job.

Table 5 shows the results from regressions similar to those in table 4 but estimated for the (gender pooled) sub-sample of single parents. To account for the small numbers of single parents in the sample, we have made the model more parsimonious. The use equation collapses the three indicators for age of the youngest child to a single indicator variable for children less than 11, and the three indicators for number of children to a unique indicator for the presence of more than one child. We observe similar trends for the subsample of single parents. For flexible hours, the only significant effect among selection corrected estimates is for the coefficient for the presence of (one) young child. However, the negative correlation coefficient suggests that selection is not guided by family work conflict. For use of telework and family support, female single parent seem more likely to use these than male single parents. In the case of telework, the presence of (one) young children increases the likelihood of use, whereas in the case of family support it is the presence of more than one (older) children that affects the likelihood of use. The difference in the estimates of demographic variables in (I) and (II) again suggests that family support is not available to single parents who would use them. Overall, the estimates reported in Table 6 do not suggest that dual access to benefits is a likely reason of low use of benefits, on the

contrary, these estimates strengthen those from Table 4 since this sub-sample of workers is less likely to have meaningful access to a partner's benefits.

4. Conclusion

We ask the following question regarding privately provided family-friendly benefits: why do we not observe higher levels of take-up for these benefits? Is it because benefits are not useful to workers, or is it because workers that need the benefits have no access to them? We use a unique data base that distinguishes between use and availability of benefits to account for worker selection into employment conditions, using technical constraints in the provision of available benefits as exclusion restrictions in a two-step estimation procedure. We specifically consider flexible work scheduling, telework and family support services.

Our analysis reveals two things. First, selection issues are important in understanding the take-up of employer provided benefits. Second, after correcting for selection, not all benefits are equally useful. Workers do not seem to use flexible schedules to achieve work-life balance. Telework, on the other hand, seems to be related to factors measuring family work conflict for female workers. Family support services, such as day care, do not seem in turn, to be offered to workers who would find them more useful. These findings suggest that the market fails to help employees balance work and family demands.

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