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A Multivariate Analysis**

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ABSTRACT

The Effects of Work-Life Benefits on Employment Outcomes in Canada: A Multivariate Analysis*

Using the longitudinal Workplace and Employee Survey of Canada, we examine the association between the provision of work-life benefits and various employment outcomes in the Canadian labour market. Whilst the theory of compensating wage differentials hypothesizes an inevitable trade-off between higher wages and non-wage benefits, the efficiency wage theory suggests otherwise. The empirical evidence broadly supports the efficiency wage theory, thus rejecting the compensating wage differentials theory. If bundled appropriately, it appears that work-life benefits are positively associated with increased wages, in addition to a greater number of promotions, enhanced employee morale in the form of job satisfaction, and improved employee retention. The study concludes that organizations and employees can both profit when work-life benefits are offered.

JEL Classification: J32, J33, J38

Keywords: compensating wage differentials, efficiency wage theory, job satisfaction, promotion, wages, work-life benefits

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Introduction

In response to increased female labour market participation (Arthurs, 2006), the motherhood wage penalty (Anderson, Binder, & Krause, 2002; Nielsen, Simonsen, & Verner, 2004; Felfe, 2012a), and the rise in total working hours within families and households (Masterson & Hobbler, 2014), employers have recently begun to pay attention to the need for an improved work-life balance among their employees (Avgar, Givan, & Liu, 2011) as a means of promoting organizational attractiveness (Bourhis and Mekkaoui, 2010). Some organizations provide employees with work-life benefits (WLBs), which can be defined as non-wage, family-friendly perks, including various types of flexible work arrangements and dependent care programs. WLBs are very much a part of today's changing employment landscape and are also often at the centre of public policy discussions (Gajendran and Harrison, 2007; Gregory & Milner, 2009; Allen, Johnson, Kiburz, & Shockley, 2013; Butts, Casper, & Young, 2013).

Previous research has found that family-friendly benefits (a specific category of WLBs) are adopted by employers to help their employees balance the often-conflicting demands of work and family life (De Cieri, Holmes, Abbott, & Pettit, 2005; Evans, 2001). In Canada, although scholars (Wang, Lesage, Schmitz, & Drapeau, 2008) have examined the impact of work-family conflicts on individual psychological well-being, there has been a paucity of empirical research focusing specifically on the positive economic effects of WLBs (rather than "conflicts" *per se*) or other family-friendly benefits on either organizations or employees. Gunderson (2002) reviewed the previous literature and found that, generally speaking, family-friendly benefits have positive impacts on workplace performance, although rigorous cost-benefit calculations were found to have been seldom performed.

From a public policy perspective, it is important to deepen the research on the effects of WLBs on employees. By closely examining the applied research in this area, governments and organizations can then make an informed choice in developing the appropriate policies around the provision of such benefits. Utilizing the 1999 to 2004 waves of the Canadian Workplace and Employee Survey (WES), this study aims to investigate the impact that these WLBs have on the labour market outcomes of individual workers. Specifically, we explore whether employees who use WLBs are less likely to quit and more likely to enjoy higher pay, greater job satisfaction, and more promotions than those who do not use these benefits. The results of the study speak directly to the usefulness of the compensating wage differentials theory vis-à-vis the efficiency wage theory. Although these two theories are not necessarily competing and mutually exclusive, they provide alternate lenses through which the effects of work-life benefits can be conceptualized.

Contextualizing WLBs in Canada

Over the past decade, emerging trends in the labour market have presented new challenges to Canadian organizations and their employees. Some of these new trends in the economy include an increased proportion of families with dual-income partners, many of whom struggle to balance their paid work with child-rearing responsibilities as well as increasing demands to care for aged parents. The federal government has responded to these challenges, in part, by extending combined maternal and parental leave benefits to one full year (Jenson, 2004). In addition, several provinces have made legislative changes in order to allow employees to take unpaid leave to care for their elderly relatives over a longer period of time. For instance, in June 2004, the government of Ontario created a provision for Family Medical Leave, which allows employees to take up to eight weeks of job-protected, unpaid leave to provide care or support for a specified family member who has a serious condition (cf. Evans, 2007).

Simultaneously, some Canadian employers have also tried to alleviate the inherent time pressures between paid work and a balanced lifestyle by attempting to tackle this problem through the provision of alternative work arrangements such as flextime, teleworking, reduced work weeks, and compressed work weeks. Flextime is defined as a workplace arrangement where the employee has the discretion to vary the start and stop times provided that a full week is worked (Ralston, 1989; Gloden, 2011; Wooden, Warren, & Drago, 2009). Teleworking is defined as the ability to carry out job duties from home (Bailey & Kurland, 2002). A reduced work week refers to a special arrangement allowing employees to work fewer hours every week (van Ginneken, 1984). A compressed work week involves working fewer days per week, but longer hours per day (Romen & Primps, 1981). These arrangements ostensibly allow employees the time and the flexibility to handle their duties outside of work without compromising their duties within the workplace, at least in theory. Some employers have taken more concrete steps to solve a specific work-life conflict by providing family support for their employees. These organizations, for example, offer child-care and eldercare support services to ensure that family responsibilities on the part of the employees will not hinder their productivity at work (cf. Avgar *et al*, 2011; Wood and de Menezes, 2010).

Theoretical Framework

A key contribution of the present study is to put two economic theories to the test in the context of a common industrial relations problem: what is the effect of offering different levels of benefits on employees and organizations? The compensating wage differentials theory assumes a negative sum relationship between wages and non-wage benefits, such that an increase in one is associated with a decrease in the other. The efficiency wage theory assumes a positive sum relationship between the total compensation package and non-wage benefits, such that,

when bundled appropriately, both are positively associated. The aim of this section is to set the stage for the empirical evaluation of these two theories.

Initially, Rosen (1974) developed the compensating wage differentials theory in order to explain the effect of employee benefits on earnings. Since then, the theory has been applied to various other economic phenomena, including, for example, shift work (Kostiuk, 1990) and commuting (Leigh, 1986). Applied in the present context, the compensating wage differentials theory posits that employees in receipt of “above-market” benefits must accept a corresponding decrease in wages in order to compensate for the provision of these benefits (Akerlof & Yellen, 1990; Gerhart & Milkovick, 1990). The underlying assumption in this theory is that an employee’s utility remains unchanged, thus, those who want to enjoy such benefits must “purchase” them from their employers through the sacrificing of higher wages (Felfe, 2012b). There should, concomitantly, be no effect whatever of WLB usage on job satisfaction, turnover, or promotions. On this basis, we present:

H1: The provision of WLBs is negatively related to wages, but unrelated to job satisfaction, the likelihood of promotion, and turnover intention.

A major criticism against the compensating wage differential theory is the fact that employers usually offer fringe benefits to all employees or to none, so individual level trade-offs of benefits for wages may be impractical. Goldstein & Pauly (1976) present such an argument for health insurance. Wages are usually downwardly inflexible in the short run, so the total compensation (and utility) for employees receiving WLBs may increase, but a wage increase for the WLB user should not be greater than that of the non-user unless the user can clearly demonstrate a higher level of productivity.

Standing in sharp contrast to the compensating wage differentials theory is the efficiency wage theory (Akerlof, 1984; Shapiro and Stiglitz, 1984; Krueger & Summers, 1988). Advocates of this theory argue that the provision of non-wage benefits may potentially enhance the productivity of employees, an effect that can offset the cost of providing them. Thus, higher wages and the provision of better benefits, including WLBs, may increase individual productivity and efficiency through the channels of reduced shirking, lower turnover, and improved affective job satisfaction (Akerlof & Yellen, 1986, 1990). It has been argued, for example, that compensation above and beyond market clearing may offer workers cost-effective incentives to work hard rather than to shirk their responsibility (Gintis, 1968). There is also a substantial literature detailing the so-called “job lock” effect of health insurance coverage on the mobility of employees (Madrian, 1994; Peach & Stanley, 2009). This body of literature may well provide an explanation for the potential negative effect of WLBs on employee quits. Finally, it could also be argued that low-wage organizations typically attract job applicants with, on balance, low abilities, whilst higher-wage firms can readily attract employees of all abilities (i.e., on average they will select average workers). High-wage firms are, therefore, said to be paying an efficiency wage – in other words, they pay higher wages, but, on balance, get more productivity from them (e.g., see Malcolmson, 1981; Peach & Stanley, 2009; Stiglitz, 1976; Weiss, 1980) and enjoy significantly lower levels of turnover (Baughman, DiNardi, & Holtz-Eakin, 2003).

Following this theory of efficiency wages, productivity can potentially be higher for the WLB users, and this higher productivity, which is visible to the employer, may lead to tangible rewards for the employees such as an increase in earnings for individuals who use these benefits. Given this situation, it is possible that child care, flextime and flexible leave policies differ from

the traditional job benefits discussed by Rosen (1974). Auerbach (1988) supports this position as he theorizes that flexible leave benefits may actually enhance productivity as these benefits help employees balance their work and non-work demands. If WLBs reduce the time needed by employees to complete household activities (e.g., through the provision of employer-supported child care) or to complete personal activities such as finance or health related appointments (e.g., through flexible scheduling benefits), individual employees can then concentrate fully on their paid work. This greater energy and focus should then be translated into higher job satisfaction and greater productivity, which potentially lead to intra-company rewards such as promotions and higher wages. In addition, workers should be less likely to leave the company, given the employees' higher satisfaction with the flexibility and additional rewards (higher wages, more promotions) derived from such programs, combined with more perceived organizational support. On the basis of this theory, we present:

H2: The provision of WLBs is positively related to wages, job satisfaction, and the likelihood of promotion and negatively related to intention to leave.

Previous Work

It is difficult to predict definitively which of these two hypotheses possesses more explanatory power, especially in light of the fact that the literature on this question is mixed. Looking at the “big picture,” the literature arguably provides more support to H2. Work-life policies are generally thought to be beneficial for the organization and employees because individuals benefit from having improved health and wellbeing and this can be said to impact positively on both organizational productivity and performance (e.g., De Cieri *et al.*, 2005; Beauregard & Henry, 2009; Wood & de Menezes, 2010). Anderson, Coffey & Byerly (2002) include a rich array of job-related outcomes such as work-to-family conflict, job satisfaction,

intentions to leave, stress and absenteeism, and find that the use of flextime leads to less work-family conflict, higher job satisfaction, and lower turnover intentions.

The results with respect to the effect on wages are also mixed, though, again, arguably balanced in favor of the efficiency wage theory. Using US data, Garlety & Shaffer (2001) reveal that there is a positive wage gain associated with the use of flextime by women. However, they find no such differential associated with the use of flextime by men. Weeden (2005) shows that there is a wage premium of between 6% and 11% for flexible benefits such as flextime or teleworking. However, she does not find any variation in this premium across gender or parental status. Batt and Valcour (2003) report that employees with more access to flexible scheduling practices have a lower probability of voluntary turnover. Baltes, Briggs, Huff, Wright, and Neumann (1999) examine the impact of flexible time and a compressed work week on job-related outcomes, concluding that flextime has positive effects on employee productivity, job satisfaction and decreased absenteeism.

Compressed work schedules are also largely positively associated with job satisfaction (Allen, 2001; Baltes *et al.*, 1999; McNall, Masuda & Nicklin, 2010). However, compressed work schedules were found to have no effect on employee productivity or absenteeism (Goff, Mount & Jamison, 1990). Conversely, Saltzstein, Ting & Saltzstein (2001) found that there was a negative relationship between job satisfaction and the use of a compressed work week in the public sector. Finally, Baughman, DiNardi & Holtz-Eakin (2003) found that the provision of compressed work schedules by a firm raised the firm's entry-level wages. Based on these studies, there is no definitive conclusion on the effects of flexible work arrangements on wages or outcomes related to the employment of the individual.

Some studies have examined the impact of child-care support on employee and job outcomes. The conclusions to these studies also vary. Auerbach (1988) argues that child-care benefits are important because employees focus less attention on locating care for their child, instead transferring their attention to their job tasks. Goff *et al.* (1990) tested this hypothesis empirically and found no effect of child-care support on performance or absenteeism. However, Kossek & Nichol (1992) demonstrate that the provision of on-site child-care leads to more effective recruitment and retention. Johnson & Provan (1995) find that there is a positive effect of employer-sponsored child-care on wages, especially for females. In later studies, Saltzstein *et al.* (2001) showed that the use of child-care programs had a positive effect on job satisfaction for public sector employees and Baughman *et al.* (2003) found that, although there was a positive impact of child-care on retention, there was a negative effect of child-care on earnings. Once again, these empirical studies on the effects of child-care support on employment outcomes paint a mixed and inconclusive picture.

Other studies have taken a more general focus on work-life practices. Wang *et al.* (2008) claim that poor work-life balance is a stronger risk factor than work-related stress in terms of inducing mental disorders. Studies by Carlson *et al.* (2011) and Magee, Stefanic, Caputi & Iverson (2012) confirm that work-family conflict consistently predicted poor health, both physical and emotional, leading to greater levels of employee stress. Gray (2002) utilizes an employee–employer linked survey and finds the provision of positive work-life practices leads to better workplace performance, but also that organizations that offer full-time work to individuals outperform those with more flexible work arrangements. Eaton (2003) shows that employees feel more committed in workplaces with flexible practices and, as a result, self-report higher levels of productivity; in addition, turnover in the firm is reduced. Heywood, Siebert & Wei (2007) find

that employees who use family-friendly work practices have significantly lower wages after correcting for the endogeneity inherent in the use of family-friendly work practices, which supports the compensating wage differentials theory. However, once again, the conclusions across these studies are mixed and do not provide a clear picture of the impact of WLBs on individual labour outcomes.

While previous studies generally support the hypothesis that work-life policies can increase commitment and reduce absenteeism and turnover (Bailyn *et al.*, 1996; Meyer & Allen, 1997), Eaton (2003) highlights the importance of providing employees with the freedom to use such policies and the subsequent impact on organizational outcomes. Furthermore, using linked data for workplaces and employees in the U.K., Budd & Mumford (2006) report a low base rate of workplace-level availability, and a significantly lower rate of accessibility, to five work-life practices, including: parental leave, paid leave, job sharing, subsidized child care and working from home. They conclude that British workplaces appeared at the time to be responding to these work-life challenges slowly, and perhaps even disingenuously. On the other hand, they found that labour unions in the U.K. were working to increase availability of three ameliorative policies, including: parental leave, special paid leave and job-sharing options, although all three are negatively associated with availability of work-at-home arrangements as well as flexible working hours options.

In conclusion, there has been a lack of WLB studies using nationally representative and longitudinal data, and certainly never in the context of Canada. The Canadian empirical literature related to this topic consists of primarily descriptive statistics outlining the potential for family-friendly benefits as a solution to work-family conflict (Stone, 1994; Lipsett & Reesor, 1997; Lowe & Schellenberg, 2001; Comfort, Johnson & Wallace, 2003; Ferrer & Gagne, 2006). What

is more, the wider literature on the effect of WLBs presents some evidence in favour of the compensating wage differentials theory and some in favour of the efficiency wage theory. The aim of the present study is to hold both theories to account, using longitudinal data from the Canadian labour market, described in the following section.

Data and Methodology

The data are drawn from the 1999 to 2004 Canadian Workplace and Employee Survey (WES). WES is a linked dataset consisting of information about employers and employees. The organizations are sampled according to physical location, and then employees are subsequently sampled within each organization. The survey excludes businesses in the Yukon, Nunavut and the Northwest Territories, as well as agriculture, fishing, road, bridge and highway maintenance, government services and religious organizations. Since WES is a longitudinal survey, it is repeated across six years in the same business locations with two-year rotating panels of their employees. Employees are thus surveyed annually for two consecutive years and then are replaced by other employees within the same firm.

The sampling frame for WES was generated from the Statistics Canada Business Register. Prior to selecting the sample, the organizations were stratified by industry, region, and size. The sample was drawn using a Neyman allocation (Statistics Canada, 2004). The initial wave of sampling was first conducted in 1999. Responses were received from 6,322 businesses and 23,540 employees. Response rates were as high as 95.2 per cent for employers and 82.8 per cent for employees (Statistics Canada, 2006). These response rates were facilitated by the fact that co-operation with Statistics Canada is obligatory and that protections were put into place to ensure confidentiality. Data were collected through CATI (computer-aided telephone interviews) with senior management officials at each workplace, conducted by trained interviewers. Each

workplace was sent a copy of the survey with instructions to regard the instrument “as a working tool to inform you ahead of time of the questions being asked and to help you in preparing your answers” (Statistics Canada, 2006). Before releasing the data, Statistics Canada spent over two years cleaning the data set. Input and ratio editing identified outlying observations based on robust outlier detection programs (Statistics Canada, 2004).

As a nationally representative survey of workplaces and employees, WES covers a broad range of topics from both the demand and supply side of the Canadian labour market. It not only contains detailed demographic and labour market information on individual workers, but also key information on various workplace characteristics. More importantly, WES has information on various work-life practices such as flexible work hours, reduced work week, work-at-home options, and compressed work week (classified as flexible scheduling policies), and child-care and/ or eldercare support (classified as dependent care services). This information, together with other controls, provides a unique opportunity to explore the question of whether WLBs influence employment outcomes such as wages, promotions, job satisfaction and quit probabilities.

Work-life Policies

Table 1 presents the proportion of benefit users among all employees in the dataset over the 1999 to 2004 period. Aggregate usage of at least one work-life benefit fluctuates over the years, with the use of at least one WLB being high in 1999, decreasing slightly in 2001, and remaining relatively steady at over 50% for the next three years. These aggregate results can be directly attributed to the usage of flexible hours and telework benefits. For the five-year period, the usage of these two benefits was relatively high at approximately 35% for flexible hours and about 25% for teleworking. Usage of reduced work weeks grew from 4.9% in 1999 to 7.5% in 2003, but in 2004 it decreased slightly to 6.3%. For the compressed work week benefit, the proportion continually increased from 3.2% to 6.7% over the five-year period.

(Insert Table 1 about here.)

The use of child-care and eldercare benefits is somewhat less common compared to the use of flexible scheduling benefits. However, the usage of such benefits is growing. Over the five-year period (1999-2004), the usage of WLBs related to programs such as child-care and eldercare support has increased. The results are primarily driven by the growing importance of child-care use (from 0.3% in 1999 to 1.0% in 2004).

Our key explanatory variable is whether the employee uses at least one of the WLBs detailed in this study. The related longitudinal measure is a positive increase in number of WLBs used year-over-year. A range of control variables is applied in our models, including marital status, children, race, immigrant status, educational attainment, teamwork participation, work experience, job tenure (not in the quit equation where age is included instead), occupation, union, industry, and workplace size at the time when the outcome measures were reported. Descriptions of the main variables of interest are provided in Appendix 1 and summary statistics for the main variables in 2004 are reported in Table 1A.

Labour Market Outcomes

This paper compares a number of labour market outcomes for benefit users as opposed to the non-users. The labour market outcomes that we analyze are divided into four measures. The models we use are both cross-sectional (for the purpose of comparison with previous studies) and longitudinal. The first outcome refers to wage outcomes measured as the natural logarithm of an employee's hourly wage. The related longitudinal outcome is the year-over-year change in the natural logarithm of the hourly wage. The second outcome refers to the number of promotions received by the individual. The related longitudinal outcome is a dichotomous measure, which examines whether the individual received at least one promotion across the two years. The third outcome refers to employee job satisfaction as measured on a four-point scale. The related

longitudinal outcome is the year-over-year change in job satisfaction. Our final outcome is solely a longitudinal measure, which indicates whether an employee quit from the first to the second year.

Summary Statistics

Table 2 presents the summary statistics for the difference in labour market outcomes for employees who used at least one WLB compared to those who did not utilize any WLBs. The difference in the outcomes indicates that there is a stark contrast between these two groups of employees. For employees who use at least one WLB, they have significantly higher wages and more promotions. These employees also have marginally higher job satisfaction ratings. These results remain similar for the employees who have utilized some type of WLB related to flexible scheduling such as flexible hours, telework, compressed workweeks and reduced workweeks. However, these results do not hold uniformly when examining the dependent care benefits. The major difference was that employees who use dependent care benefits are likely to receive fewer promotions than those who do not. However, it is worth noting that the number of employees who used such benefits is very small.

(Insert Table 2 about here.)

Multivariate Analytic Techniques

To determine the impact of WLBs on potential labour market outcomes, our basic cross-sectional estimate is calculated from the following equation.

$$Y_{ijt} = \alpha_{it} + \beta X_{ijt} + \gamma Z_{jt} + \delta B_{it} + \varepsilon_{it} \quad (1)$$

where Y_{ijt} is one of the first three labour market outcomes (e.g., natural logarithm of the observed hourly wage, number of promotions, and job satisfaction) of the i^{th} worker in the j^{th} workplace; α is a constant; X_{ijt} is a vector of human capital variables for the i^{th} worker in the j^{th} workplace; Z_{jt} is a set of characteristics of the j^{th} workplace; B_{it} is an indicator for the benefit usage of the i^{th}

worker; and ε is a randomly distributed error term. All of the variables are measured at time t . The coefficient δ gives us an estimate of the effects of using at least one work-life benefit after controlling for observed employee and workplace characteristics.

We use the employee survey weights provided by WES in all of our estimations. In addition, we identify the primary survey units as the establishments from which multiple workers may be interviewed. The resulting estimation of equation (1) is designed to return representative results and to provide heteroskedasticity-robust standard errors (Stock & Watson, 2003: 596-597). These errors correct for the common components associated with a cluster of workers from a given workplace. In the following section, we report the results of our analyses, followed up by a series of robustness checks.

Results

The effects that the use of at least one work-life benefit has on three outcomes (wages, actual promotions, and job satisfaction) based on the 2004 employer–employee linked WES data are reported in Table 3 (the full set of regression estimates are presented in Table 3A).

(Insert Table 3 about here.)

Aggregate benefit use is positively associated with all three outcome measures for the full sample, with highly significant coefficients. More specifically, benefit usage is associated with a larger number of promotions and higher wages for both the male and female samples. However, benefit usage is insignificantly correlated with job satisfaction for men, but not for women.

Next, we separate our estimation by the two different types of benefit programs (flexible scheduling and dependent care) and report the results in Tables 3B and 3C. The results indicate that the effect of the aggregate measure is mostly attributable to WLBs related to flexible scheduling (flexible hours, teleworking, reduced work week and compressed work week) as both

the magnitudes and significance levels for the flexible benefits variable are similar to those for the aggregate work-life benefit variable, as shown in Table 2. When the results for the dependent care (elderly care and child care) regressions are examined, it is evident that these benefits only positively and significantly affect employee job satisfaction for the full sample and two sub-samples.

(Insert Tables 3B and 3C about here.)

These results from the 2004 cross-sectional analysis can, of course, be interpreted only as correlations, not causal effects. For the cross-sectional analysis, it can be argued that the choice of benefit use by workers is not random as a result of endogeneity. If more motivated employees select themselves into using these benefits, or if employers selectively reward more productive employees with these benefits, then our estimated impact of work-life benefit usage on employee outcomes, such as wages and promotions, may be biased. Thus, for the cross-sectional analysis, concerns remain over the possibility of reverse causation between WLB utilization and positive labour market outcomes of benefit users as the individual decisions to use (or change use of) WLB is our primary independent variable. All else equal, a firm may be more likely to offer a flexible schedule to a talented employee that it anticipates promoting soon than to one with lower potential. This may account for the positive correlation between promotions and WLB usage. This type of reverse causality may also explain the consistent finding that workers who use WLB have higher wages, a result that stands in direct contrast to compensating wage differentials theory and is supported by efficiency wage theory.

In an attempt to correct for the widely recognized problems associated with endogeneity (Hwang et al., 1998; Brown, 2001), we carried out a robustness check using the variables “computer use,” “team-based work” and the “average offering of flexible work by industry” as

instruments. Due to the higher flexibility of their jobs, individuals who use the computer, participate in more team-based work and who have a higher incidence of use of flexible work hours are arguably more likely to use WLBs as indicated by the first stage results. After using two-stage least squares to potentially correct for this bias, the results still indicate that individuals who use WLBs have higher wages, more promotions, and are more satisfied with their jobs. Indeed, the estimates are even stronger (Appendix 2).

In addition to the use of instruments, we also take advantage of the longitudinal nature of the WES data and examine whether there exist productivity differentials (as measured by wages and number of promotions) between those who increased benefit usage from the second year and those who maintained their amount of benefit usage in both years (including those with non-usage status). The summary statistics indicate that there are no significant differences in wages or number of promotions between these two groups of employees. Although we cannot entirely eliminate the possibility of unobservable differences between the two groups, it is important to emphasize that this empirical evidence may suggest an off-setting influence between employer selection and employee self-selection. This means that employees who increased their benefit usage may not be inherently more productive than employees who maintained the same level of usage (or non-usage).

To more accurately examine the causal effect of benefit use and to remove potential biases, we also estimate the influence that the change in benefit usage may have on the change in labour market outcomes such as wage gains, change in number of promotions, and change in job satisfaction, and finally the differential in quit probability.

Table 4 shows the changes in labour market outcomes (over 2 years) for employees who did not change their level of WLB usage and employees who increased their WLB usage. This

table summarizes the difference in labour market outcomes for these two groups of employees. The summary statistics show that those employees who used more WLBs in the second year (as opposed to the first year) have a higher income, a higher chance of promotion, and a higher level of job satisfaction, but were more likely to leave the job than those who maintained the same level of WLBs. These results are generally the same whether employees increased their usage of flexible scheduling benefits or dependent care benefits with one exception: the quit probability is essentially the same for those who increased flexible scheduling benefits and those who did not.

(Insert Table 4 about here.)

Formally, we then estimated the following equation:

$$\Delta Y_{ijt} = \alpha_{it} + \beta X_{ijt} + \gamma Z_{jt} + \delta \Delta B_{it} + \varepsilon_{it} \quad (2)$$

where ΔY_{ijt} measures the change in labour market outcomes of the individual worker i in workplace j from time $t-1$ to t ; ΔB_{it} , for the aggregate measure of an increase in usage of WLBs is coded as the difference in the number of benefits used by individual i in workplace j from time $t-1$ to time t ; alternatively, ΔB_{it} is coded 1 if the individual worker i in workplace j went from non-user at time $t-1$ to benefit user at time t , and coded zero if the worker remained a non-user for both time periods for each specific work-life benefit. For the dichotomous dependent variable quit probability, logistic regression is more appropriate and thus applied, where marginal effects (calculated at the mean of the dependent variables) of one unit change of independent variables are reported.

(Insert Table 4A about here.)

After controlling for potential biases from unobserved heterogeneity in this longitudinal analysis, the results become much more interesting. At the general WLB usage level, the wage measure (wage gains) emerges as positive, but not significant, providing little evidence for the

efficiency wage hypothesis (Table 4A). More substantially, however, the aggregate level also shows positive and statistically significant results for changes in promotions and difference in job satisfaction. The aggregate level also indicates that employees are less likely to quit if they use a WLB. Note that, at this level of aggregation, increased use of benefit programs contributes positively to three out of the four measures of labour market outcomes (i.e., more promotions, improved levels of job satisfaction, and reduced employee quit probabilities), suggesting that, if effectively bundled, the use of an appropriate WLB can significantly and positively affect both the performance of the individual and potentially the economic outcomes of the organization.

Similar to the cross-sectional analysis, most of these results at the aggregate level are driven by the flexible scheduling benefits (Table 4B). Other than for the wage measure, all the flexible scheduling policies positively influence the employees' likelihood of promotions, increased job satisfaction and increased the likelihood of retention. Once again, it seems that dependent care benefit use does not significantly affect employees' job outcomes.

(Insert Table 4B about here.)

Finally, we also separate our estimation of the change models by gender. The results, reported in Tables 4C and 4D, reinforce some interesting patterns of gender differences. The results were very significant for females as opposed to males. At the aggregate level, increased usage of WLBs may help female employees with positive wage gains, increasing the likelihood of promotions and retention while also having a positive effect on job satisfaction. The only effect of WLBs on males was to help them receive more promotions. These results are as expected, and they reinforce the hypothesis that WLBs help to alleviate the time pressures that females face in balancing work and demands outside of work such as family responsibilities. The

employer appears to gain in reaping the benefits of a more productive employee (as evidenced by wage and promotion changes) through females who use these WLBs.

(Insert Tables 4C and 4D about here.)

In sum, our results provide no evidence in favour the theory of compensating wage differentials, some evidence in favour of the efficiency wage theory, and very strong evidence of the efficiency wage theory for women in relation to the provision of WLBs. We thus reject H1 and partially accept H2. Employer-provided WLBs offer measurable advantages to employees in terms of marginally higher wages, more likelihood of promotion, and a higher level of job satisfaction. These labour market outcomes are also potentially beneficial to employers as they obtain more productive workers as evidenced by their enhanced labour outcomes, combined with a higher retention rate for their employees. The results also show that it is the flexible scheduling benefits that influence the labour market outcomes of the employees the most. Although we fail to find any evidence that dependent care benefits have an impact on labour market outcomes, we cannot make such an assertion that dependent care benefits do not matter because the sample size for the benefit users is small. Finally, our analyses reveal that, after controlling for unobserved heterogeneity, female workers appear to be the prime beneficiaries of WLBs.

Discussion and Conclusion

Work-family conflict can dramatically reduce the quality of one's family life and overall wellbeing (Näswall *et al.*, 2008). In response to work-family conflict, some organizations provide WLBs to employees as a form of support as well as to stimulate overall productivity (Masterson & Hoobler, 2014). However, the underlying assumption that WLBs are positive sum, with a couple exceptions (Beauregard & Henry, 2009; Gunderson, 2002), has lacked rigorous cost-benefit calculations, and never before in a Canadian context. This study has attempted to

address this research need. In so doing, we seek to make several contributions to the empirical literature. We provide among the first studies of the impact of WLB usage, operationalized as flexible scheduling programs and dependent care programs, on various employee and job outcomes on a nationally representative sample of employees and organizations by examining the use of WLBs at both aggregated and disaggregated levels. The employee and job outcomes included in our analyses are comprehensive, covering employee quit probabilities, absolute levels and changes in wages, promotions and job satisfaction. Furthermore, this paper also controls for unobserved heterogeneity by using both instrumental variables and longitudinal data, which generate more consistent estimates of the impact of WLBs on employee and job outcomes. Whilst causality should never be assumed in the absence of an experimental pre-test/post-test design, we provide at least some tentative evidence of a potential directionality.

Across a variety of measures of WLBs, evidence of positive labour market outcomes emerges when at least one work-life benefit is used. More specifically, with the use of at least one work-life benefit, employees appear to enjoy a greater level of pay and job satisfaction. This is reflected by a number of desirable labour market outcomes enjoyed by benefit users, such as higher wages and a greater number of promotions, as well as increased employee morale such as higher job satisfaction and a higher retention rate with the same company. The evidence broadly supports the efficiency wage theory in the area of WLBs and, on balance, rejects the compensating wage differentials theory. Building on Avgar *et al.* (2011), who conclude that greater use of WLB practices enhances organizational outcomes, the present study has detailed further empirical evidence in favour of this argument. While providing WLBs relating to flexible scheduling may, by extrapolation, be associated with an increase in productivity (through increased wages, promotions and retention), providing WLBs relating to dependent care seems to

have no impact on the individual. One caveat with the dependent care results is that the adoption rate of these policies, such as child care and eldercare, is relatively low. Given the small sample size of individuals who use these benefits, it is hard to conclude definitely that dependent care benefits have no impact on the labour market outcomes of employees. Indeed, further research on this question is indicated.

Some commentators may argue that the distribution of benefit usage is not random across employees, and that employers may restrict the benefit use only to more productive employees or, alternatively, that highly motivated employees may also self-select into such programs. Our main measure for the use of WLBs is designed to moderate this issue. The measure of the use of at least one WLB provides a more accurate estimation of the general impact of WLBs on labour market outcomes because the confounding effects of those employees whom self-select into the organization in order to use a great number of these benefits are somewhat mitigated. In addition, while our statistical evidence on this point can only be called suggestive, it is important to emphasize that there may be an off-setting influence of employer selection and employee self-selection as we failed to find that the employees who became benefit users or who increased their benefit usage in the second year necessarily received higher wages or were promoted more often in the first year than did those who maintained their benefit usage or who were not benefit users in the two consecutive years.

Finally, in terms of gender differences, WLBs appear to have a major impact on female employees across most of our job outcome measures. Conversely, the impact was negligible for males, especially in relation to job satisfaction. This evidence indicates that female employees appear to benefit the most from WLBs. The finding is consistent with previous studies (e.g., Dex & Scheibl, 2001; MacInnes, 2005) that many work-life policies disproportionately benefit female

employees, because women nowadays still assume a disproportionately larger amount of family responsibilities. As such, WLBs can help them to become more productive at work.

While this study adds to the empirical literature on WLBs, further research remains to be carried out. Future work should effectively assess the impact of WLBs on labour productivity and organizational profitability at the firm level. As previously noted, this paper reports insignificant results for dependent care benefits. The proportion of organizations offering dependent care services such as child-care and eldercare is small and even smaller percentages of employees are using them. However, this does not mean that these benefits are not needed to reduce work-family conflict and achieve a higher level of work-life balance. Many employers are reluctant to provide such benefit programs because, in their minds, they cannot justify the high costs of offering and maintaining such benefits and it is difficult to demonstrate the measurable outcomes associated with such programs. Many employees, too, if offered such benefits, are often hesitant to use them because of the fear of backlash and resentment both from the employer and co-workers. Better data and research design should help uncover the real impact of such dependent care benefits on employee outcomes. Future research should shed light on these as yet unanswered questions and facilitate policy-makers and organizations to make informed decisions to alleviate work-life conflict and improve employee productivity and organizational performance. Yet another area for future research might involve extending our conceptual model to examine trade-offs between wages and other workplace amenities, including type of work and job security (Bonhomme and Jolivet, 2009). Although our study provides robust longitudinal evidence in favour of the efficiency wage theory, the debate, no doubt, will rage on.

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Table 1: Percentage of Benefit Users Among All Employees: 1999–2004

	1999	2000	2001	2002	2003	2004
<i>Use any WLB</i>	55.50	56.00	52.40	56.05	55.29	54.29
<i>Use WLB- Flexible Scheduling</i>	55.37	55.80	51.86	55.73	54.90	53.94
<i>Flexible Hours</i>	38.27	38.60	34.23	36.52	35.72	35.14
<i>Compressed Work Week</i>	----	3.23	5.80	6.70	6.57	6.73
<i>Reduced Work Week</i>	4.74	4.99	7.36	7.58	7.52	6.29
<i>Telework</i>	27.62	27.61	22.82	25.03	24.44	24.70
<i>Use WLB- Dependent Care</i>	0.60	0.68	1.17	0.93	1.00	1.17
<i>Child Care</i>	0.34	0.46	0.77	0.73	0.80	0.91
<i>Eldercare</i>	0.30	0.23	0.45	0.22	0.31	0.30
<i>Number of Observations</i>	18125	18443	18653	14338	19575	14760

Source: Workplace and Employee Survey: 1999–2004.

Table 1A: Summary Statistics with Means and Standard Deviations

1999-2004 WES Pooled Means and Standard Deviations (N= 103,894)		
<i>Variable</i>	<i>Mean</i>	<i>Standard Deviation</i>
Times promoted	0.928	1.580
Job Satisfaction	3.213	0.665
Used at least one WLB	0.546	0.498
<i>Personal Characteristics</i>		
Male	0.475	0.499
Caucasian	0.844	0.363
Immigrant	0.181	0.385
Married	0.560	0.496
Separated	0.036	0.187
Divorced	0.078	0.269
Widowed	0.009	0.096
Single	0.316	0.465
Has a Child 6 or less	0.183	0.386
Has a Child 7 to 13	0.344	0.475
Age	39.67	10.49
Edu – less than high school	0.094	0.291
Edu – high school	0.173	0.379
Edu – some post-secondary	0.141	0.348
Edu – trade school	0.120	0.324
Edu – college grad	0.241	0.427
Edu – undergrad	0.150	0.357
Edu – professional	0.007	0.081
Edu – graduate degree	0.033	0.178

Edu – Other	0.042	0.201
Experience	16.61	10.35
<i>Job Characteristics</i>		
Hourly wage	18.71	12.10
Job Tenure	8.42	8.05
Team Participation	0.746	0.435
Computer Use	0.640	0.480
Flex Hours Industry Average	0.291	0.115
Occ – manager	0.132	0.338
Occ – professional	0.170	0.375
Occ – technical/trade	0.415	0.493
Occ – marketing/sales	0.076	0.265
Occ – clerical/admin	0.141	0.348
Occ – production	0.067	0.250
<i>Firm Characteristics</i>		
Ind – Forestry	0.016	0.124
Ind – Manuf Labour	0.050	0.217
Ind – Manuf Prim	0.034	0.182
Ind – Manuf Sec	0.038	0.191
Ind – Manuf Capital	0.050	0.218
Ind – Construction	0.042	0.201
Ind – Transportation	0.104	0.306
Ind – Communication	0.019	0.138
Ind – Retail	0.230	0.421
Ind - Finance	0.048	0.213
Ind – Real Estate	0.017	0.130
Ind – Business Services	0.101	0.302
Ind - Education Health	0.216	0.412
Ind – Information Cultural	0.034	0.180
Union	0.265	0.441
Firm size 1-19	0.314	0.464
Firm size 20-99	0.309	0.462
Firm size 100-499	0.209	0.407
Firm size 500+	0.168	0.374

Table 2: 2004 Usage of Work-Life Benefits and Labour Market Outcomes

	<i>Used at least one Work-Life Benefit</i>	
	<i>Yes (N=8272)</i>	<i>No (N=6875)</i>
<i>Hourly Wage</i>	\$21.30 (13.39)	\$17.22 (8.53)
<i>Times Promoted</i>	1.239 (1.923)	0.932 (1.536)
<i>Job Satisfaction</i>	3.203 (0.680)	3.175 (0.653)
	<i>Used at least one Flexible Scheduling Work-Life Benefit</i>	
	<i>Yes (N=8233)</i>	<i>No (N=6914)</i>
<i>Hourly Wage</i>	\$21.31 (13.42)	\$17.23 (8.54)
<i>Times Promoted</i>	1.244 (1.927)	0.928 (1.533)
<i>Job Satisfaction</i>	3.204 (0.680)	3.174 (0.653)
	<i>Used at least one Dependent Care Work-Life Benefit</i>	
	<i>Yes (N=151)</i>	<i>No (N=14996)</i>
<i>Hourly Wage</i>	\$22.94 (12.74)	\$19.39 (11.59)
<i>Times Promoted</i>	0.903 (1.494)	1.101 (1.766)
<i>Job Satisfaction</i>	3.238 (0.598)	3.190 (0.669)

Table 3: Pooled (1999-2004) Model Results: Use of at least one Work-Life Benefit[†]

<i>Outcomes</i>	<i>Full Sample</i>	<i>Male</i>	<i>Female</i>
<i>LN (wage)</i>	0.061 (0.005)***	0.065 (0.007)***	0.058 (0.007)***
<i>Times Promoted</i>	0.133 (0.019)***	0.159 (0.029)***	0.108 (0.024)***
<i>Job Satisfaction</i>	0.034 (0.010)***	0.010 (0.013)	0.052 (0.014)***
<i>Observations</i>	103,894	57,945	45,949
<i>R-squared</i>	0.53	0.50	0.53

[†]Models also include marital status, children, race, immigration, education, experience, tenure, occupation, union, industry, and firm size. Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Table 3A: OLS Cross-Sectional (1999-2004) Full Sample, Complete Model Results

Variable	LN (wage)	Times Promoted	Job Satisfaction
Used at least one WLB	0.061 [0.005]***	0.133 [0.019]***	0.034 [0.010]***
<i>Personal Characteristics</i>			
Male	0.137 [0.006]***	0.024 [0.021]	-0.055 [0.011]***
Caucasian	0.037 [0.008]***	0.087 [0.030]***	0.062 [0.016]***
Immigrant	-0.008 [0.007]	-0.043 [0.030]	-0.076 [0.014]***
Marital Status (married base)			
Separated	-0.048 [0.013]***	-0.007 [0.045]	-0.07 [0.026]***
Divorced	-0.038 [0.010]***	0.062 [0.032]*	-0.062 [0.019]***
Widowed	-0.065 [0.019]***	0.041 [0.066]	-0.04 [0.037]
Single	-0.07 [0.007]***	-0.032 [0.024]	-0.053 [0.012]***
Has a Child 6 or less	0.02 [0.008]***	-0.057 [0.032]*	-0.01 [0.016]
Has a Child 7 to 13	0.017 [0.007]**	-0.026 [0.026]	0.006 [0.012]
Age	0 [0.000]	-0.03 [0.001]***	0.002 [0.001]***
Education (less than high school base)			
Edu – high school	0.091 [0.009]***	0.048 [0.041]	-0.01 [0.020]
Edu – some post-secondary	0.128 [0.010]***	0.167 [0.044]***	-0.037 [0.020]*
Edu – trade school	0.141 [0.010]***	0.056 [0.040]	-0.075 [0.019]***
Edu – college grad	0.212 [0.009]***	0.088 [0.040]**	-0.062 [0.019]***
Edu – undergrad	0.352 [0.011]***	0.065 [0.045]	-0.096 [0.021]***
Edu – professional	0.517 [0.031]***	-0.121 [0.102]	-0.138 [0.054]**
Edu – graduate degree	0.459 [0.017]***	0.143 [0.060]**	-0.037 [0.030]
Edu – Other	0.146 [0.014]***	0.111 [0.057]*	-0.039 [0.030]
Experience	0.019 [0.001]***	0.016 [0.003]***	-0.001 [0.002]
Experience Squared	0 [0.000]***	0 [0.000]***	0 [0.000]
<i>Job Characteristics</i>			
LN (wage)		0.276 [0.026]***	0.209 [0.012]***
Job Tenure	0.007 [0.000]***	0.066 [0.002]***	-0.001 [0.001]**
Occupation (manager base)			
Occ – professional	-0.07 [0.011]***	-0.526 [0.039]***	-0.063 [0.018]***
Occ – technical/trade	-0.29 [0.010]***	-0.468 [0.039]***	-0.063 [0.016]***
Occ – marketing/sales	-0.417 [0.016]***	-0.736 [0.054]***	-0.094 [0.027]***
Occ – clerical/admin	-0.383 [0.010]***	-0.585 [0.042]***	-0.014 [0.019]
Occ – production	-0.464 [0.013]***	-0.637 [0.054]***	-0.127 [0.025]***
<i>Firm Characteristics</i>			
Industry (Forestry base)			
Ind – Manuf Labour	-0.267 [0.025]***	-0.254 [0.088]***	-0.036 [0.030]
Ind – Manuf Prim	-0.087 [0.024]***	-0.033 [0.089]	-0.018 [0.029]
Ind – Manuf Sec	-0.108 [0.025]***	-0.173 [0.090]*	-0.001 [0.030]
Ind – Manuf Capital	-0.076 [0.024]***	-0.208 [0.087]**	0.003 [0.029]
Ind – Construction	-0.001 [0.024]	-0.151 [0.092]	0.043 [0.030]
Ind – Transportation	-0.11 [0.024]***	-0.237 [0.087]***	0.005 [0.027]
Ind – Communication	-0.054 [0.024]**	-0.071 [0.092]	0.013 [0.030]

Ind – Retail	-0.382 [0.024]***	-0.228 [0.086]***	0.054 [0.029]*
Ind – Finance	-0.006 [0.025]	0.236 [0.091]***	0.015 [0.028]
Ind – Real Estate	-0.179 [0.028]***	-0.173 [0.099]*	0.004 [0.038]
Ind – Business Services	-0.099 [0.025]***	-0.25 [0.087]***	-0.028 [0.029]
Ind – Education Health	-0.19 [0.024]***	-0.595 [0.085]***	0.016 [0.027]
Ind – Information Cultural Union	-0.076 [0.025]***	-0.195 [0.090]**	0.019 [0.030]
Union	0.031 [0.006]***	-0.432 [0.021]***	-0.047 [0.011]***
Firm size (1–19 base)	0.08 [0.007]***	0.196 [0.025]***	-0.084 [0.013]***
Firm size 20–99	0.169 [0.007]***	0.197 [0.024]***	-0.09 [0.013]***
Firm size 100–499	0.223 [0.008]***	0.305 [0.029]***	-0.054 [0.016]***
Firm size 500+	-0.005 [0.008]	0.21 [0.030]***	-0.036 [0.015]**
Year Effects (1999 base)			
2000	0.006 [0.008]	-0.012 [0.025]	-0.027 [0.015]*
2001	0.011 [0.009]	0.336 [0.033]***	-0.042 [0.016]***
2002	0.007 [0.008]	0.039 [0.027]	-0.017 [0.015]
2003	0.011 [0.009]	0.223 [0.030]***	-0.053 [0.016]***
2004	0.011 [0.009]	0.223 [0.030]***	-0.053 [0.016]***
Constant	2.579 [0.033]***	1.021 [0.132]***	2.725 [0.057]***
Observations	103894	103894	103894
R-squared	0.529	0.181	0.047

*significant at 10% level, ** significant at 5% level, *** significant at 1% level

Table 3B: Pooled (1999-2004) Model Results: Use of a Work-Life Benefit Related to Flexible Scheduling⁺

<i>Outcomes</i>	<i>Full Sample</i>	<i>Male</i>	<i>Female</i>
<i>LN (wage)</i>	0.062 (0.005)***	0.065 (0.007)***	0.059 (0.007)***
<i>Times Promoted</i>	0.134 (0.019)***	0.161 (0.029)***	0.109 (0.024)***
<i>Job Satisfaction</i>	0.033 (0.010)***	0.008 (0.013)	0.051 (0.014)***
<i>Observations</i>	103,894	57,945	45,949
<i>R-squared</i>	0.53	0.50	0.53

⁺Models also include marital status, children, race, immigration, education, experience, tenure, occupation, union, industry, and firm size. Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Table 3C: Pooled (1999-2004) Model Results: Use of a Work-Life Benefit Related to Dependent Care⁺

	<i>Full Sample</i>	<i>Male</i>	<i>Female</i>
<i>LN (wage)</i>	-0.017 (0.020)	0.014 (0.034)	-0.037 (0.025)
<i>Times Promoted</i>	0.006 (0.073)	0.060 (0.123)	-0.076 (0.091)
<i>Job Satisfaction</i>	0.174 (0.039)***	0.213 (0.054)***	0.149 (0.054)***
<i>Observations</i>	103,894	57,945	45,949
<i>R-squared</i>	0.53	0.50	0.52

⁺Models also include marital status, children, race, immigration, education, experience, tenure, occupation, union, industry, and firm size. Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Table 4: Changes over 2 years in usage of Work-Life Benefits and Labour Market Outcomes (whole sample)

	<i>Increased WLB Usage (N = 9161)</i>	<i>Unchanged WLB Usage (N = 36782)</i>
<i>Difference in Hourly Wage</i>	\$0.50 (5.57)	\$0.31 (5.36)
<i>Difference in Number Promotions Received</i>	0.261 (0.439)	0.208 (0.406)
<i>Difference in Job Satisfaction</i>	-0.023 (0.725)	-0.044 (0.663)
<i>Quit Probability</i>	0.110 (0.313)	0.080 (0.271)
	<i>Increased WLB Flexible Scheduling Usage (N = 6173)</i>	<i>Unchanged WLB Flexible Scheduling Usage (N = 15106)</i>
<i>Difference in Hourly Wage</i>	\$0.32 (4.86)	\$0.34 (3.53)
<i>Received a Promotion</i>	0.262 (0.440)	0.187 (0.390)
<i>Difference in Job Satisfaction</i>	-0.004 (0.756)	-0.055 (0.630)
<i>Quit Probability</i>	0.080 (0.271)	0.080 (0.272)
	<i>Increased WLB Dependent Care Usage (N = 280)</i>	<i>Unchanged WLB Dependent Care Usage (N = 45252)</i>
<i>Difference in Hourly Wage</i>	\$0.53 (3.69)	\$0.35 (5.41)
<i>Difference in Number Promotions Received</i>	0.221 (0.416)	0.219 (0.414)
<i>Difference in Job Satisfaction</i>	0.026 (0.727)	-0.039 (0.677)
<i>Quit Probability</i>	0.096 (0.295)	0.086 (0.281)

Table 4A: Longitudinal Sample, Complete Model Results

Variable	LN (wage)	Times Promoted	Job Satisfaction	Probability of Quitting
Used more WLB compared to first year	0.006 [0.005]	0.036 [0.009]***	0.037 [0.017]**	-0.011 [0.005]**
<i>Personal Characteristics</i>				
Age				-0.003 [0.000]***
Male	0.023 [0.005]***	0.019 [0.010]*	0.000 [0.015]	0.001 [0.006]
Caucasian	0.008 [0.006]	0.04 [0.014]***	0.009 [0.021]	0.014 [0.006]**
Immigrant	0.015 [0.006]**	-0.001 [0.013]	0.016 [0.019]	0.004 [0.007]
<i>Marital Status</i>				
(Married)				
Separated	0.018 [0.011]	-0.005 [0.021]	-0.009 [0.039]	-0.003 [0.011]
Divorced	0.01 [0.009]	0.006 [0.015]	-0.016 [0.027]	0.004 [0.011]
Widowed	0.009 [0.017]	-0.051 [0.031]	-0.083 [0.052]	0.014 [0.026]
Single	0.012 [0.006]*	0.037 [0.011]***	-0.019 [0.017]	-0.006 [0.006]
Has a Child 6 or less	0.001 [0.008]	-0.006 [0.013]	0.003 [0.022]	0.009 [0.008]
Has a Child 7 to 13	-0.006 [0.009]	0.003 [0.012]	-0.026 [0.019]	-0.001 [0.007]
<i>Education (less than high school)</i>				
Edu – high school	0.015 [0.008]*	0.014 [0.016]	0.011 [0.027]	0.011 [0.012]
Edu – some post-secondary	0.01 [0.008]	0.04 [0.017]**	0.014 [0.027]	0.006 [0.011]
Edu – trade school	0.006 [0.012]	0.009 [0.017]	-0.005 [0.029]	0.025 [0.013]**
Edu – college grad	0.019 [0.009]**	0.038 [0.016]**	0.012 [0.027]	0.014 [0.011]
Edu – undergrad	0.024 [0.009]***	0.027 [0.018]	0.058 [0.028]**	0.037 [0.015]**
Edu – professional	0.059 [0.024]**	-0.033 [0.038]	0.042 [0.065]	-0.01 [0.022]
Edu – graduate degree	0.018 [0.012]	0.081 [0.026]***	-0.01 [0.037]	0.057 [0.025]**
Edu – Other	0.00 [0.017]	0.015 [0.024]	-0.002 [0.043]	0.033 [0.021]
Experience	0.000 [0.001]	-0.003 [0.002]*	0.005 [0.003]*	0.000 [0.001]
Experience Squared	0.000 [0.000]	0.000 [0.000]	0.000 [0.000]*	0.000 [0.000]
<i>Job Characteristics</i>				
LN (difference in wage)		0.065 [0.024]***	0.161 [0.035]***	-0.05 [0.007]***
Job Tenure	0.000 [0.000]	0.002 [0.001]***	0.003 [0.001]***	
Participation on a Team	0.002 [0.006]	0.069 [0.009]***	-0.002 [0.018]	0.019 [0.006]***
<i>Occupation (manager)</i>				
Occ – professional	0.007 [0.008]	-0.055 [0.016]***	0.013 [0.025]	0.009 [0.011]
Occ – technical/trade	0.008 [0.007]	-0.049 [0.016]***	0.056 [0.024]**	0.009 [0.009]
Occ – mkting/sales	0.027 [0.017]	-0.083 [0.027]***	-0.028 [0.039]	0.001 [0.013]

Occ – clerical/admin	0.014 [0.008]*	-0.028 [0.018]	0.024 [0.028]	-0.005 [0.010]
Occ – production	0.005 [0.011]	-0.065 [0.021]***	0.074 [0.035]**	0.023 [0.016]
<i>Firm Characteristics</i>				
Different Employer than 1 st year	0.034 [0.009]***	-0.179 [0.010]***	0.356 [0.028]***	
<i>Industry (Forestry)</i>				
Ind – Manuf Labour	-0.014 [0.014]	-0.064 [0.025]***	-0.011 [0.049]	0.011 [0.019]
Ind – Manuf Prim	-0.009 [0.011]	-0.028 [0.025]	-0.058 [0.048]	-0.009 [0.014]
Ind – Manuf Sec	-0.002 [0.012]	-0.051 [0.027]*	0.000 [0.050]	-0.028 [0.009]***
Ind – Manuf Capital	-0.016 [0.012]	-0.064 [0.025]**	-0.022 [0.047]	-0.021 [0.011]*
Ind – Construction	-0.002 [0.013]	-0.003 [0.029]	-0.023 [0.051]	-0.002 [0.015]
Ind – Transportation	-0.003 [0.012]	-0.059 [0.025]**	-0.017 [0.048]	-0.007 [0.013]
Ind – Communication	-0.002 [0.012]	-0.031 [0.027]	0.03 [0.051]	-0.021 [0.010]**
Ind – Retail	-0.023 [0.013]*	-0.021 [0.026]	0.085 [0.050]*	0.01 [0.016]
Ind – Finance	0.009 [0.012]	-0.009 [0.027]	0.042 [0.050]	-0.012 [0.012]
Ind – Real Estate	-0.018 [0.016]	-0.03 [0.030]	0.006 [0.054]	0.004 [0.018]
Ind – Busin Services	0.003 [0.012]	-0.041 [0.026]	0.001 [0.051]	0.012 [0.016]
Ind – Educa Health	0.01 [0.012]	-0.119 [0.024]***	-0.011 [0.048]	-0.005 [0.013]
Ind – Info Cultural	-0.007 [0.012]	-0.022 [0.028]	0.036 [0.050]	-0.012 [0.012]
Union	-0.024 [0.006]***	-0.062 [0.010]***	0.02 [0.016]	-0.023 [0.005]***
<i>Firm size (1–19)</i>				
Firm size 20–99	0.006 [0.007]	0.034 [0.013]***	-0.009 [0.020]	-0.004 [0.007]
Firm size 100–499	0.013 [0.006]**	0.032 [0.012]***	-0.036 [0.020]*	-0.008 [0.007]
Firm size 500+	0.013 [0.007]*	0.072 [0.015]***	0.016 [0.024]	-0.023 [0.007]***
<i>Year Fixed Effects</i>				
1999–2000	-0.015 [0.006]**	0.102 [0.010]***	0.042 [0.017]**	-0.02 [0.005]***
2001–2002	-0.013 [0.004]***	0.091 [0.010]***	-0.002 [0.017]	0.018 [0.006]***
Constant	-0.013 [0.018]	0.139 [0.037]***	-0.224 [0.067]***	
Observations	46077	46077	46077	44210
R-Squared	0.015	0.063	0.037	0.124

Table 4B: Change in Work-Life Benefit Use: Longitudinal Model, Summary of Results[†]

<i>Outcomes (Year over Year)</i>	<i>Used more WLBs compared to 1st year</i>	<i>Went from not using WLBs in the 1st year to using WLBs in the 2nd year</i>	
		<i>Flexible Scheduling</i>	<i>Dependent Care</i>
<i>Difference in LN wages</i>	0.006 (0.005)	-0.005 (0.006)	0.001 (0.017)
<i>Change in Promotions</i>	0.036 (0.009)***	0.049 (0.014)***	0.014 (0.036)
<i>Difference in Job Satisfaction</i>	0.037 (0.017)**	0.062 (0.023)***	0.075 (0.081)
<i>Quit Probability</i>	-0.011 (0.005)**	-0.005 (0.007)	0.022 (0.026)
<i>Observations</i>	46077	21345	45665
<i>R-squared</i>	0.015	0.021	0.015

[†]Models also include marital status, children, race, immigration, education, team participation, change in employment, experience, tenure (not in the quit equation: age is included instead), occupation, union, industry, and firm size in the first year of a two-year period (1999–2000, 2001–2002, 2003–2004). Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Table 4C: Change in Work-Life Benefit Use: Female Sample[†]

<i>Outcomes (Year over Year)</i>	<i>Used more WLBs compared to 1st year</i>	<i>Went from not using WLB in the 1st year to using WLB in the 2nd year</i>	
		<i>Flexible Scheduling</i>	<i>Dependent Care</i>
<i>Difference in LN wages</i>	0.012 (0.007)*	-0.004 (0.008)	-0.011 (0.022)
<i>Change in Promotions</i>	0.040 (0.013)***	0.052 (0.020)***	0.045 (0.052)
<i>Difference in Job Satisfaction</i>	0.059 (0.021)***	0.104 (0.031)***	0.140 (0.106)
<i>Quit Probability</i>	-0.022 (0.007)***	-0.025 (0.009)***	-0.021 (0.023)
<i>Observations</i>	20294	9859	20075
<i>R-squared</i>	0.019	0.024	0.019

[†]Models also include marital status, children, race, immigration, education, team participation, change in employment, experience, tenure (not in the quit equation: age is included instead), occupation, union, industry, and firm size in the first year of a two-year period (1999–2000, 2001–2002, 2003–2004). Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Table 4D: Change in Work-Life Benefit Use: Male Sample[†]

<i>Outcomes (Year over Year)</i>	<i>Used more WLB compared to 1st year</i>	<i>Went from not using benefit in the 1st year to using the benefit in the 2nd year</i>	
		<i>Flexible Scheduling</i>	<i>Dependent Care</i>
<i>Difference in LN wages</i>	0.000 (0.006)	-0.007 (0.009)	0.012 (0.026)
<i>Change in Promotions</i>	0.031 (0.012)***	0.044 (0.019)**	-0.020 (0.050)
<i>Difference in Job Satisfaction</i>	0.013 (0.026)	0.019 (0.033)	0.006 (0.104)
<i>Quit Probability</i>	0.001 (0.006)	0.001 (0.009)	0.054 (0.047)
<i>Observations</i>	25783	11486	25590
<i>R-squared</i>	0.018	0.034	0.018

[†]Models also include marital status, children, race, immigration, education, team participation, change in employment, experience, tenure (not in the quit equation: age is included instead), occupation, union, industry, and firm size in the first year of a two-year period (1999–2000, 2001–2002, 2003–2004). Robust standard errors are in parentheses.

*significant at 10%; **significant at 5%; *** significant at 1%

Appendix 1: Description of Main Variables

Cross-Sectional Analysis

<i>Variable Name</i>	<i>Description</i>
(Outcome Measures)	
Log of Wage	Log of converted hourly wage (indexed for inflation)
Promotion	Times promoted (maximum of 20 times)
Job Satisfaction	Satisfaction with all aspects of job (1 – very dissatisfied, 4 – very satisfied)
(WLB Measures)	
All Work-life Benefits (WLB)	Sum of the number of FFB used (includes flexible hours, reduced work week, compressed work week, child-care support and eldercare support)
All (WLB) related to flexible scheduling	Whether or not the individual used an FFB related to hours (includes flexible hours, reduced work week and compressed work week)
Flexible Hours	Work a certain number of core hours with varied start or end times
Reduced Work Week	Working fewer hours every week as agreed with the employer
Compressed Work Week	Working longer hours each day to reduce the number of days in a work week
All (WLB) related to dependent care	Whether or not the individual used an FFB related to family support (includes child-care support and eldercare support)
Child-Care Support	Employer offers help for child care (on-site centre, assistance with external suppliers, informal arrangements)
Eldercare Support	Employer offers help for eldercare
Teams	Participation (occasionally, frequently, always) in teams (quality or workflow issues, self-directed work group)
Experience	Number of years of full-time working experience
Age	Age of individual in years
(Female)	
Male	Sex of the individual
Immigrant	Not born in Canada
Caucasian	Ethnicity is Caucasian
Children	Split into 3 variables relating to dependent children <ol style="list-style-type: none"> 1) Has at least one dependent child 2) Has at least 1 dependent child who is 6 or under 3) Has at least 1 dependent child between 7 and 13
Unionized	Member of a union or covered by a collective bargaining agreement
Job Tenure	Derived Variable generated by taking the current year less the year the employee started at the job
Marital Status	Divided into married, separated, divorced, widowed and single
Industry	Divided into 14 Industries: Forestry, mining, oil and gas extraction

	Labour-intensive tertiary manufacturing
	Primary product manufacturing
	Secondary product manufacturing
	Capital-intensive tertiary manufacturing
	Construction
	Transportation, warehousing, wholesale
	Communication and other utilities
	Retail trade and consumer services
	Finance and insurance
	Real estate, rental and leasing operations
	Business services
	Education and health services
	Information and cultural industries
Occupation	Divided into 6 categories (manager, professional, technical/trade, marketing/sales, clerical/admin, production)
Firm Size	Divided into 4 categories (1–19, 20–99, 100–499, 500+ employees)
Education	Highest level of education, divided into 9 categories (Less than high school, high school graduate, some post-secondary, trade school diploma, college graduate, undergraduate degree, professional degree, graduate degree, other education)

Longitudinal Benefit Use Analysis

<i>Variable Name</i>	<i>Description</i>
Lndiffwage	Take the log of the hourly wage in year 2 and subtract the log of the hourly wage in year 1
Difference in Promotions	Take the number of promotions in year 2 and subtract the number of promotions in year 1. If the number is positive, set the variable equal to 1, if the number is negative, set the variable equal to 0.
Difference in Job Satisfaction	Take the job satisfaction value in year 2 and subtract the job satisfaction value in year 1.
Quit	Take only the individuals who left the job for the following reasons: (found new job, started own business, dissatisfaction with current job, moved to new residence, own illness or disability, maternal leave, caring for own children, caring for elder, other family responsibilities, other)
Diffemp	Working for the same employer as last year
WLB Difference	Difference between the number of WLBs used in the 2 nd year with the number of WLBs used in the 1 st year. Used only when the number is greater than or equal to zero (i.e. unchanged WLBs or increased WLBs)
NU2NU WLBHRS	Individuals who don't use any WLBs related to flexible scheduling (flexible hours, telework, reduced work week, compressed work week) in both years
NU2U WLBHRS	Individuals who didn't use any WLBs related to hours in the 1 st year and then used an WLB related to hours in the 2 nd year
NU2NU flex hours	Individuals who don't use flex hours in both years

NU2U flex hours	Individuals who didn't use flex hours in the 1 st year and then used flex hours in the 2 nd year
NU2NU redc week	Individuals who don't use reduced work week in both years
NU2U redc week	Individuals who didn't use reduced work week in the 1 st year and then used reduced work week in the 2 nd year
NU2NU comp week	Individuals who don't use compressed work week in both years
NU2U comp week	Individuals who didn't use compressed work week in the 1 st year and then used compressed work week in the 2 nd year
NU2NU CARE	Individuals who don't use any type of WLB care in both years.
NU2U CARE	Individuals who didn't use any type of WLB care in the 1 st year and then used some WLB care in the 2 nd year
NU2NU child care	Individuals who don't use child care in both years
NU2U child care	Individuals who didn't use child care in the 1 st year and then used child care in the 2 nd year
NU2NU elder care	Individuals who don't use eldercare in both years
NU2U elder care	Individuals who didn't use elder care in the 1 st year and then used eldercare in the 2 nd year

Appendix 2. Instrumental Variables Cross-Sectional (1999-2004) Full Sample, Complete Model Results

Variable	LN (wage)	Times Promoted	Job Satisfaction
<i>Instrumental Variable (First Stage)</i>			
Compuse	0.059 [0.009]***	0.045 [0.009]***	0.045 [0.009]***
Team	0.092 [0.008]***	0.087 [0.008]***	0.087 [0.008]***
Flexindav	0.027 [0.040]	0.023 [0.040]	0.023 [0.040]
<i>Second Stage</i>			
Used at least one WLB	1.125 [0.094]***	3.75 [0.353]***	1.175 [0.148]***
<i>Personal Characteristics</i>			
Male	0.104 [0.011]***	-0.033 [0.037]	-0.072 [0.014]***
Caucasian	0.015 [0.015]	0.027 [0.051]	0.043 [0.020]**
Immigrant	0.032 [0.015]**	0.089 [0.051]*	-0.034 [0.019]*
<i>Marital Status (married base)</i>			
Separated	-0.029 [0.022]	0.037 [0.080]	-0.056 [0.033]*
Divorced	0 [0.017]	0.174 [0.059]***	-0.027 [0.024]
Widowed	-0.117 [0.039]***	-0.16 [0.115]	-0.104 [0.046]**
Single	-0.024 [0.013]*	0.095 [0.044]**	-0.013 [0.017]
Has a Child 6 or less	0.013 [0.014]	-0.078 [0.052]	-0.016 [0.020]
Has a Child 7 to 13	0.014 [0.012]	-0.029 [0.042]	0.005 [0.016]
Age	0.003 [0.001]***	-0.019 [0.003]***	0.006 [0.001]***
<i>Education (less than high school base)</i>			
Edu – high school	0.05 [0.019]***	-0.053 [0.069]	-0.044 [0.026]*
Edu – some post-secondary	0.041 [0.022]*	-0.075 [0.076]	-0.113 [0.029]***
Edu – trade school	0.109 [0.019]***	0.003 [0.068]	-0.092 [0.025]***
Edu – college grad	0.127 [0.020]***	-0.116 [0.070]*	-0.127 [0.026]***
Edu – undergrad	0.182 [0.026]***	-0.368 [0.085]***	-0.233 [0.033]***
Edu – professional	0.451 [0.060]***	-0.134 [0.166]	-0.142 [0.066]**
Edu – graduate degree	0.178 [0.037]***	-0.624 [0.119]***	-0.278 [0.050]***
Edu – Other	0.046 [0.029]	-0.169 [0.093]*	-0.127 [0.041]***
Experience	0.019 [0.002]***	0.026 [0.006]***	0.002 [0.002]
Experience Squared	0 [0.000]***	-0.001 [0.000]***	0 [0.000]
<i>Job Characteristics</i>			
LN (wage)		-0.129 [0.058]**	0.082 [0.023]***
Job Tenure	0.007 [0.001]***	0.069 [0.002]***	0 [0.001]
<i>Occupation (manager base)</i>			
Occ – professional	0.003 [0.019]	-0.305 [0.064]***	0.007 [0.024]
Occ – technical/trade	-0.097 [0.024]***	0.069 [0.082]	0.106 [0.030]***
Occ – marketing/sales	-0.252 [0.031]***	-0.346 [0.105]***	0.029 [0.041]
Occ – clerical/admin	-0.102 [0.031]***	0.21 [0.105]**	0.237 [0.040]***
Occ – production	-0.22 [0.032]***	0.001 [0.104]	0.074 [0.042]*

Firm Characteristics

Industry (Forestry base)			
Ind – Manuf Labour	-0.208 [0.035]***	-0.164 [0.139]	-0.008 [0.039]
Ind – Manuf Prim	-0.083 [0.033]**	-0.054 [0.137]	-0.024 [0.037]
Ind – Manuf Sec	-0.045 [0.035]	-0.002 [0.141]	0.053 [0.040]
Ind – Manuf Capital	-0.034 [0.033]	-0.098 [0.137]	0.038 [0.037]
Ind – Construction	-0.035 [0.035]	-0.267 [0.141]*	0.006 [0.040]
Ind – Transportation	-0.143 [0.033]***	-0.393 [0.137]***	-0.044 [0.036]
Ind – Communication	-0.08 [0.034]**	-0.182 [0.139]	-0.022 [0.037]
Ind – Retail	-0.442 [0.035]***	-0.586 [0.142]***	-0.058 [0.040]
Ind – Finance	-0.005 [0.034]	0.238 [0.142]*	0.015 [0.037]
Ind – Real Estate	-0.259 [0.042]***	-0.518 [0.150]***	-0.105 [0.045]**
Ind – Business Services	-0.165 [0.035]***	-0.514 [0.140]***	-0.111 [0.039]***
Ind – Education Health	-0.268 [0.033]***	-0.937 [0.139]***	-0.092 [0.039]**
Ind – Information Cultural	-0.146 [0.036]***	-0.463 [0.145]***	-0.065 [0.040]
Union	0.135 [0.014]***	-0.068 [0.051]	0.068 [0.021]***
Firm size (1–19 base)			
Firm size 20–99	0.068 [0.013]***	0.185 [0.043]***	-0.088 [0.017]***
Firm size 100–499	0.172 [0.013]***	0.275 [0.044]***	-0.065 [0.018]***
Firm size 500+	0.212 [0.014]***	0.357 [0.048]***	-0.038 [0.021]*
Year Effects (1999 base)			
2000	-0.012 [0.014]	0.183 [0.051]***	-0.044 [0.020]**
2001	0.032 [0.014]**	0.08 [0.049]*	0.002 [0.020]
2002	0.001 [0.015]	0.306 [0.053]***	-0.052 [0.020]**
2003	0.001 [0.014]	0.023 [0.047]	-0.022 [0.019]
2004	0.023 [0.015]	0.265 [0.053]***	-0.04 [0.021]*
Constant	1.822 [0.081]***	-0.498 [0.257]*	2.247 [0.095]***
Observations	103894	103894	103894

*significant at 10% level, ** significant at 5% level, *** significant at 1% level

Instruments used are Compuse, Team and FlexIndave, please contact authors for the first stage of the regressions