

Juggling Spheres of Life: The Provision of Unpaid Care over the
Life Course and Its Impact on Men's and Women's Employment
Trajectories

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A thesis submitted to McGill University in partial fulfillment of the requirements of the
degree of Doctor of Philosophy

October 20th, 2014

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Abstract

In Canada, an increase in life expectancy and a policy shift regarding community care have probably led to an increase in the number of people who provide care without pay to family members, relatives or friends. The increasing involvement of women in the labour force has raised concerns about their availability to provide care and has informed research on the relationship between caregiving and employment. Since most of the research in this area focuses on women, it is unclear whether traditional gender differences in the division of paid and unpaid labour influence the impact of caregiving on employment trajectories. Several factors, which remain poorly understood, can be invoked to account for the effect of providing care on employment. For instance, likely to influence individuals' employment transitions are the nature of the relationship with the care recipient, the combining of care with full-time versus part-time employment, the simultaneous provision of care to aging parents and young children, as well as the duration of caregiving.

The first chapter of this thesis offers a description of caregiving in the population. The retrospective caregiving history collected in the 2007 General Social Survey (GSS) is used to document the proportion of Canadian men and women aged 45 years and over who have ever provided care since the age of 15, the number of people that they helped and their relationship with the care recipients. Using life tables, we confirm an upward trend in caregiving across birth cohorts. Unexpectedly, the findings also show that the provision of care starts at earlier ages in more recent cohorts – a result that appears partly linked to the emergence of new care relationships – and that the gender gap in the provision of care has widened over time.

The objective of the second chapter is to examine the effects of the provision of care on individuals' employment trajectories when care is combined with an employment of varying intensity or with childcare responsibilities. Using proportional hazards models applied to the 2006 and 2007 GSS data, it assesses the impact of providing care to a partner, a parent or parent-in-law, another relative or a non-relative on the risk of leaving employment. The analysis shows that providing care to a parent or parent-in-law

increases the probability of leaving employment only among women employed full-time and among men and women who have no children or only adult children.

The third chapter seeks to discern the impact of providing care on two competing transitions out of full-time employment: leaving employment or transitioning into part-time paid work. Using the 2006 and 2007 GSS data, competing risks models support the idea that women's employment is more likely to be influenced by the provision of care than that of men, given their lower attachment to the labour force. Full-time employed women see their risk of leaving employment increase with parent care. In contrast, men who provide such care are likely to remain employed but to opt for part-time employment in the first year of care. The effect of the nature of the care relationship on transitions out of full-time employment clearly varies according to the duration of care but differently across genders.

Résumé

Au Canada, l'allongement de l'espérance de vie et le remaniement des politiques vers le soutien à domicile ont sans doute contribué à accroître le nombre de personnes qui aident des proches ou des amis sans être rémunérés. L'augmentation de la participation au marché du travail chez les femmes soulève des interrogations quant à leur disponibilité à fournir des soins et sous-tend en grande partie les études antérieures qui ont examiné la relation entre les soins à autrui et l'emploi. Étant donné que la plupart des travaux dans ce domaine portent sur les femmes, on ne peut être assuré que les différences traditionnelles dans la division du travail rémunéré et non rémunéré entre les hommes et les femmes persistent en regard de l'effet de la prestation de soins sur les trajectoires d'emploi. Plusieurs facteurs, dont l'effet demeure mal compris, peuvent être invoqués pour rendre compte de la relation observée entre prestation de soins et emploi. Par exemple, la nature de la relation avec l'aidé, le fait de cumuler la prestation de soins avec un emploi à plein temps plutôt qu'à temps partiel ou de s'occuper d'un parent tout en ayant de jeunes enfants, ainsi que la durée des soins sont susceptibles d'affecter les transitions professionnelles des individus.

Le premier chapitre de cette thèse décrit l'importance de la prestation de soins au sein de la population. En se basant sur l'historique des soins prodigués recueilli dans le cadre de l'Enquête sociale générale (ESG) de 2007, nous examinons la proportion d'hommes et de femmes âgés de 45 ans et plus qui ont déjà fourni de l'aide à autrui depuis l'âge de 15 ans, le nombre de personnes qu'ils ont aidées et la nature des liens qu'ils ont avec ces personnes. À l'aide de tables d'extinction simple, nous confirmons l'augmentation de la prestation de soins au fil des cohortes de naissance. Par ailleurs, l'analyse fait ressortir deux résultats plutôt inattendus : soit le fait que les soins commencent de plus en plus tôt au sein des cohortes récentes, un phénomène en partie associé à l'apparition de nouveaux types de relations d'aide, ainsi qu'un écart grandissant entre les hommes et les femmes dans la prestation de soins à autrui.

L'objectif du deuxième chapitre est d'examiner les effets qu'exerce la prestation de soins sur les trajectoires d'emploi des individus lorsque ces soins sont cumulés à des régimes d'emploi d'intensités variées ou à des responsabilités parentales. Les données

combinées de l'ESG de 2006 et 2007 sont utilisées pour évaluer l'impact de fournir des soins à un conjoint, un parent ou un beau-parent, une autre personne apparentée ou une personne non apparentée sur le risque de quitter son emploi à l'aide de modèles à risques proportionnels. L'analyse montre que le fait de prodiguer des soins à un parent ou un beau-parent augmente la probabilité de quitter son emploi, mais seulement chez les femmes qui travaillent à plein temps, ainsi que chez les hommes et les femmes qui n'ont pas d'enfants ou qui ont seulement des enfants d'âge adulte.

Le troisième chapitre cherche à démêler l'effet de la prestation de soins sur deux transitions concurrentes hors d'un emploi à plein temps : la sortie du marché du travail ou le passage vers un travail à temps partiel. Cette question est abordée à l'aide des données de l'ESG de 2006 et 2007. Les résultats issus des modèles proportionnels à risques concurrents confirment que la prestation de soins à autrui exerce un effet plus marqué sur les comportements en emploi des femmes, qui ont traditionnellement un attachement plus faible au marché du travail que les hommes. Les femmes qui travaillent à plein temps voient leur risque de quitter leur emploi augmenter lorsqu'elles aident un parent. À l'opposé, les hommes qui fournissent de tels soins ont tendance à demeurer en emploi, mais optent plutôt pour un emploi à temps partiel pendant la première année de soins. Par ailleurs, l'effet que la nature de la relation avec l'aidé exerce sur les transitions hors d'un emploi à plein temps varie nettement en fonction de la durée des soins prodigués, mais de manière différenciée selon le genre.

Preface and Contribution of Authors

The first chapter adds to the literature on caregiving by providing estimates across various birth cohorts of the proportion of men and women who have ever provided care over the course of their life and of the time at which they started. Until now, estimates of the proportion of caregivers in Canada were based on repeated cross-sectional data collected in the General Social Survey (GSS) since 1996 and thus solely gave a picture of the individuals involved in providing care at different points in time. Using retrospective information about caregiving, Chapter 1 shows that caregiving was already on the rise prior to 1996 and that the provision of care starts at earlier ages in more recent cohorts. I am the sole author of this chapter.

The second chapter contributes to knowledge in the area of caregiving and employment by comparing the impact of providing care on both men's and women's probabilities of leaving employment. Few studies include men in their analyses. This chapter also adds a meaningful contribution by examining whether the effect of providing care on paid work interruptions depends upon the intensity of employment measured in terms of part-time or full-time schedules. It is the first study to use longitudinal modelling techniques applied to Canadian data to study caregiving and employment transitions. To my knowledge, it is also the only longitudinal study that evaluates whether fulfilling simultaneous parent and child care responsibilities is linked to a higher risk of leaving employment than occupying a single role at a time.

Chapter 2 was coauthored with Professor Céline Le Bourdais and will be published in the *Canadian Journal on Aging* (volume 33, number 4) under the title "Impact of Providing Care on the Risk of Leaving Employment in Canada". I was responsible for developing hypotheses, preparing the data with *Stata*, conducting the statistical analyses and writing the article. Professor Le Bourdais provided guidance throughout with the hypotheses, the methodology, and especially with the structure of the paper and writing at the final stage of this study.

The main contribution of the third chapter focuses on the study of the effect of caregiving on two competing transitions out of full-time employment: leaving employment and transitioning into part-time work. This approach has seldom been used

in this area of research. As was done in Chapter 2, men and women are analysed separately in order to better understand gender differences. Then, we further explore whether or not the effect of the relationship with the care recipient varies according to the duration of care.

Chapter 3 was coauthored by Professor Le Bourdais and presented in May 2014 at *Trajectoires et Âges de la Vie*, a conference organized by the *Association internationale des démographes de langue française* (Aidelf). It is written in French. My role consisted of developing the hypotheses, preparing the data file, running the descriptive analyses and the competing risks models, as well as writing the paper. Professor Le Bourdais aided in refining the hypotheses, providing suggestions about the methodology, commenting several drafts of paper and improving the writing style.

Acknowledgments

Over the long months spent writing my doctoral thesis, I have dreamed many times of writing the acknowledgments. I knew that when this time came, it would mean that I would finally be close to the end of this project. Now having reached this section, I have an incredible opportunity to think retrospectively about the little more than five years of doctoral studies and to thank all those who have accompanied me over the journey.

I have to start by thanking my supervisor Céline Le Bourdais. She is the person who has been the most closely involved in guiding me through every step of the writing process. Words do not seem to be enough to express all of the gratitude I have for everything she has done for me. She has offered an incredible amount of support and advice with respect to methodological questions, funding applications, writing, and publishing. She responded to my queries promptly and most of all, she has provided encouragements and tried to boost my self-confidence during the most difficult of times. It is obvious that she ranks her students' success high on her list of priorities.

I am also indebted to Roderic Beaujot for his comments on the first chapter and to Amélie Quesnel-Vallée and Axel van den Berg who gave important feedback on my thesis proposal and on the first version of the second chapter. This chapter has also gone through the hands of Benoît-Paul Hébert, whom I thank for his thoughtful comments and his methodological advice. I would like to thank his colleague Jorge Uriarte-Landa. My thanks go to Benoît Laplante for the training on data preparation for survival analysis and the useful advice he provided on methodological issues. I also wish to thank Shelley Clark and Dana Hamplová for their methodological advice. Paul-Marie Huot's meticulous work on the conjugal history of respondents to the 2006 GSS was valuable as it saved me an enormous amount of time in data preparation.

I was privileged to receive suggestions from reviewers and editors of the *Canadian Journal on Aging*, which greatly contributed to improving the second chapter of this thesis. Thanks to them, the exercise of refining the scope and analyses of the second chapter helped me to develop the analyses of the third chapter.

I need to thank France-Pascale Ménard, who was just ahead of me in the doctoral process and whose research is so in line with mine. We have shared our thoughts, findings, doubts and encouragements on more than one occasion. I will not name each one of my colleagues but I nevertheless wish to express my gratitude to everyone who has supported me. My thanks go out to Anthony Francis Lombardi, for copyediting the English sections of this manuscript.

This research would not be possible without all of the people who took the time to respond to Statistics Canada's surveys. I am extremely grateful to GSS participants who willingly shared their stories. I thank Statistics Canada and Quebec Inter-University Centres for Social Statistics (QICSS) for data access.

I was very honoured to receive funding from QICSS, the Population Change and Lifecourse Strategic Knowledge Cluster, McGill's Faculty of Arts, the Fonds de recherche – Société et culture (FRQSC), and the Social Science and Humanities Research Council (SSHRC).

I would like to thank all those who provided emotional support and the much-needed distractions from my thesis in times when they were very much necessary. I offer many thanks to my friends, to those who have been running alongside me on an Ultimate field and to those I have known at different stages in my life and who are still present. I extend special thanks to both of my families and especially to Mathis, Éléa and Mélie who remind me to look at the world through a child's eyes and to appreciate it with a child's heart. To my brothers and Isabelle, the joking and laughing sessions around the kitchen table were really therapeutic. I thank my parents for their constant support and unconditional love.

Lastly, I wish to thank Sébastien, for everything but most of all for being patient and understanding when I needed to make this thesis my top priority.

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Introduction¹

In 2036, approximately one in four Canadians will be 65 years or older (Statistics Canada, 2010). This is a drastic increase from the proportion of 16% in 2014 (Statistics Canada, 2014a). This increase, which is in part fuelled since 2010 by the arrival of the first baby boomers in that age group, will continue for at least the next 15 years (Statistics Canada, 2010).

The growing proportion of seniors in the population is likely to increase the need for assistance, as the level of disability increases with age (Decady & Greenberg, 2014). If the probability of disability remains constant at 1996 levels, the proportion of seniors needing assistance would remain relatively constant between 2001 and 2031 but their numbers could double (Keefe, Légaré & Carrière, 2007). However, morbidity could be expanding which, in turn, could impact the proportion of seniors needing assistance. The major part of the increase in life expectancy observed between 1994 and 2007 can be attributed to an increase in disabled years (Mandich & Margolis, 2014).

These demographic changes have been primarily accompanied by a policy shift towards community-based care. In the 1960's and 1970's, the care of disabled elders was primarily provided within public health care institutions (Lavoie, 2012). Since the 1980's, governments have returned to families the responsibility to care for older family members, through cuts in the number of hospital beds – notably in long-term care units – shorter hospital stays, decreased federal health transfers to provinces and caps imposed on home care services (Lavoie, 2012; Rosenthal, 1997; Tully & Saint-Pierre, 1997). Home care services tend to target those who have no relatives to turn to for assistance in order to channel resources to those most in need, even when the absence of a care network is not a criterion for eligibility (Rosenthal, 1997; Le Protecteur du citoyen, 2012).

Family members, relatives and friends provide a large amount of care to seniors who need it. In 2002, 45% of seniors receiving care and living in private households received assistance

¹ The analysis presented in this thesis was conducted at the McGill-Concordia Quebec Inter-University Center for Social Statistics (QICSS) which is part of the Canadian Research Data Centre Network (CRDCN). The services and activities provided by the McGill-Concordia QICSS are made possible by the financial or in-kind support of the SSHRC, the CIHR, the CFI, Statistics Canada, FRQSC and McGill University. The views expressed in this thesis do not necessarily represent the CRDCN's or that of its partners'.

from that source only, 27% from a combination of their own network and formal services and the remainder (28%) only from formal service providers (Turcotte & Schellenberg, 2007). The involvement of family members and friends is even more present among those aged 15 years and over and for whom assistance is provided than among those aged 65 and over; in 2012, only 12% reported professional services as their unique source of support (Sinha & Bleakney, 2014).

That same year, 28% of Canadians aged 15 years and over and living in private households provided care to a family member, a relative or a friend with a long-term health condition, disability or aging needs (Sinha, 2013). Most caregivers provided assistance with transportation (73%) and housework (51%). Still, large proportions of caregivers helped with house maintenance and outdoor work (45%), scheduling and coordinating appointments (31%), managing finances (27%), administering medical treatments (23%) and personal care (22%). Almost half of caregivers provided care to their parents or parents-in-law and 16% helped friends, colleagues or neighbours. Other care relationships were less frequent.

Given the reliance on family members and friends for assistance, it is not surprising to find that unpaid caregivers help contain public spending; their imputed economic contribution was estimated at \$25 billion for 2009 (Hollander, Liu & Chappell, 2009). Considering the aforementioned demographic and political contexts, the pressure to provide unpaid care may even grow in coming years. There are obvious benefits for governments to let individuals assume the care of relatives and friends but any rational decision about how to efficiently allocate resources needs to also take into consideration the costs of such an arrangement.

One of the effects on caregivers concerns their psychological well-being, such as increased stress levels reported by 28% of Canadian caregivers in 2012 (Sinha, 2013). Higher rates of depression and anxiety among caregivers than in the general population are well documented; although, the impact of providing care on their own utilization of health care services is not as well understood (Schulz, O'Brien, Bookwala & Fleissner, 1995). The possibility that caregivers themselves become increasingly reliant on the public health system cannot be minimized.

Another effect of unpaid caregiving consists of its possible impact on employment, which is examined throughout this thesis. This topic is important for governments because their ability to collect income taxes may be hindered if employed individuals reduce their hours of paid work or leave employment because of their caregiving responsibilities. The economic well-being of

caregivers may also be at stake if employment earnings are reduced. Questions about the relationship between caregiving and employment were raised more than 30 years ago, due mainly to population aging and the massive entry of middle-aged women into the labour force (Brody, 1981). On one hand, the availability of women to take up caregiving was questioned in view of their greater involvement in employment (Connidis, 2002). On the other hand, others worried about the consequences providing care might have on women's employment (Lilly, Laporte & Coyte, 2007). The latter concern appears to better describe the relationship that exists between caregiving and employment but longitudinal research is necessary to order the temporal chain of events and thus be able to make claims about causal mechanisms (Lilly et al., 2007).

Women have traditionally been involved in the care of frail relatives (Connidis, 2002). They still form the majority of caregivers to this day (Sinha, 2013). They spend more hours providing assistance weekly and they accomplish more demanding tasks than men, such as personal care and household chores (Cranswick & Dosman, 2008; Sinha, 2013). Male caregivers tend to invest more time than their female counterparts in outdoor work and maintenance but the schedule for doing this type of work is more flexible, which may contribute to explain the gender difference in hours of care. Men also tend to provide support when women are not available to do so (Connidis, 2002). Even with all these differences, men accounted for 46% of caregivers aged 15 years and older in 2012 (Sinha, 2013). However, whether or not the gap between the proportions of men and of women who provide care has narrowed over the past few decades remains unknown.

The narrowing of this gap could be expected, given that gender roles were more segregated in the division of paid and unpaid labour before the 1960's. The specialization of men in paid work and of women in the care of children and housework was deemed ideal by Becker (1981), who saw in this arrangement the most efficient way to manage production and reproduction within households: one that is based on gender's biological differences. Oppenheimer (1994) vehemently critiqued this thesis. Instead, she considered that the gendered division of labour made individuals and families ill-equipped to face such risk as unemployment, illness and divorce.

Since the 1960's, the labour force participation rate of women aged 15 years and over has increased, from below 40% in the 1960's to 62% in 2013 (Engelhardt & Prskawetz, 2004; Statistics Canada, 2014b). By comparison, the men's participation rate was nine percentage

points above that of women in 2013. Thus, even if women's participation is higher than it once was, there still exists a gap between men's and women's employment. Moreover, women are also more likely to work part-time than men and to experience career interruptions (Cook & Beaujot, 1996; Statistique Canada, 2014b).

The concern that reconciling employment and caring roles might prove especially difficult for women has oriented the research on the impact of caregiving on employment, which is still predominantly restricted to women (Connidis, 2002; Lilly et al., 2007). This research developed primarily out of role theory, which is rooted in three main hypotheses: *role strain*, *role accumulation* and *role enhancement*. A "social role" is generally conceived as the behaviour of the individual situated in a particular position in society, behaviour that is motivated by expectations of others, norms and the rights and obligations associated with these positions and relationships (Katz & Kahn, 1966; Merton, 1968).

The hypothesis of role strain stipulates that individuals have a limited amount of time, resources and energy and the accumulation over time of a certain number of roles forces one to exceed their capacities. They are thus constantly balancing their roles in order to allocate their resources wisely and in a way that will preserve the relationships they want or need to preserve as dictated by social norms and expectations but also in a way that is manageable for them. Role strain, or "the felt difficulty in fulfilling role obligations", is inevitable but individuals aim to reduce it as much as they can (Goode, 1960, p.483). Spending more time in a particular role will thus lead to lesser involvement in other roles. The assumption that becoming a caregiver might negatively affect women's employment thus follows that logic.

The other two hypotheses were formulated in response to role strain theory. They stress the rewarding aspects of combining multiple roles. The role accumulation hypothesis posits that role rewards and privileges accumulate more rapidly than obligations (Sieber, 1974). For instance, wages may rise over time without any comparative increase in work required of the employee. Furthermore, when combining multiple roles, some roles may act as buffers for other roles that are more demanding. For instance, engaging in paid work can sometimes give a break from caregiving responsibilities (Masuy, 2009). The work itself may be especially fulfilling and coworkers may be an important source of emotional support.

It is argued that a high degree of gratification can spring from engaging in multiple social roles (Marks, 1977; Sieber, 1974). In fact, as the role enhancement hypothesis suggests, if

individuals feel that they have no energy, it may be a matter of perception since, biologically speaking, energy is constantly replenished and rarely used up (Marks, 1977). In roles for which they are highly committed, individuals may feel like there is no limit to their energy. Therefore, rewarding aspects of roles and of combining multiple social roles are expected to be as likely as negative feelings or outcomes.

Theorizing on work-life balance draws its roots from role theory but it is now common knowledge that a given set of roles comprises both positive and negative aspects (Rantanen, Kinnunen, Mauno & Tillemann, 2011). It is generally agreed upon that when rewards exceed demands, there should be positive outcomes for individuals. Conversely, when demands outweigh rewards, the outcomes are likely to be negative.

Therefore, we think that it is not by merely combining caregiving and employment that conflict is created but the conditions under which this is experienced can also bring about negative outcomes for individuals. For example, providing care to different persons, at varying degrees of intensity and for various durations could, in turn, have a different impact on employment transitions. Furthermore, care could be easier to combine with part-time than with full-time employment. Caregiving is also likely to influence employment differently depending upon its timing over the life course and whether, for instance, children are present in the household. Finally, care cannot be assumed to exert the same effect on employment across genders because, as mentioned above, men and women differ both in their experience of caregiving and employment.

The study of transitions into and out of employment calls for the adoption of a life course perspective. This approach stresses the importance of the ordering of events and of the impact that past events or transitions may have on later trajectories. In the scope of this dissertation, we are interested in understanding, from the moment individuals engage in paid work, the effect of providing care on their risk of experiencing a transition such as leaving employment or moving from full-time to part-time employment. In order to grasp the effect of care, the analysis needs to specify whether or not the provision of care takes place before the employment transition studied. Longitudinal research is thus required to answer these questions.

This research also draws upon another principle of the life course approach: that of the interdependence of the different dimensions of individuals' lives. An employed caregiver could also be a partner or a parent. These dimensions thus need to be taken into consideration as they

may also influence employment transitions. As mentioned above, whether or not individuals need to juggle unpaid care with their own parenting responsibilities may alter employment trajectories in a way that differs from those who engage in caregiving only or have children but do not provide care.

Care Intensity, Nature of Relationship with Care Recipient and Duration of Care

We now turn to the literature on the impact of caregiving on employment to see how different factors have been taken into consideration. In their systematic review of the literature, Lilly et al. (2007) suggested that providing care to immediate family members or for a large number of hours weekly increases the probability of leaving employment or of reducing work hours. Studies rarely examined the influence of both the intensity of caregiving and the nature of the care relationship on employment. This probably has to do with, on the one hand, restrictions imposed by available survey data and, on the other hand, the fact that these two dimensions are closely associated. In Canada in 2012, the data collected in the General Social Survey (GSS) showed that the median number of hours of assistance provided to partners was the highest (14 hours), followed by the care given to a son or daughter (10 hours), a parent (4 hours), a parent-in-law or another relative (3 hours) and a non-relative (2 hours) (Sinha, 2013).

Recent longitudinal studies found that women who had increased weekly care hours or continued to provide high-intensity care were less likely to be employed and more likely to reduce their hours of paid work compared to women not providing care (Berecki-Gisolf, Lucke, Hockey & Dobson, 2008; Carmichael, Charles & Hulme, 2010; King & Pickard, 2013; Masuy, 2009). In contrast, providing less demanding care was shown to increase the likelihood among women of being employed (King & Pickard, 2013; Masuy, 2009). In some way, when care is less demanding, employment could provide a break from caregiving responsibilities. The fact that care of varying intensities has opposite effects on employment may explain the small differences in aggregate labour force participation rates observed between caregivers and non-caregivers (Lilly et al., 2007). Similarly, providing care to a spouse or partner, a disabled son or daughter or a parent or parent-in-law appears to have a greater impact on employment transitions than providing care to more distant relatives or friends (Arber & Ginn, 1995; Dentinger & Clarkberg, 2002).

However, the influence of caregiving on employment transitions differs significantly across genders. Generally, female caregivers appear less likely to be or to remain employed than

women not providing assistance to the aforementioned persons; whereas, men tend to postpone retirement when providing care to a parent or to another relative (Arber & Ginn, 1995; Dentinger & Clarkberg, 2002). There is no agreement across studies on the impact among men of providing care to a partner: men who helped a partner were sometimes more likely and at other times less likely to remain employed than men not providing care (Arber & Ginn, 1995; Dentinger & Clarkberg, 2002). Research suggests that engaging in caregiving could lead men to leave employment but only when providing care for a very high number of hours per week or after being a caregiver for many years (Carmichael et al., 2010; King & Pickard, 2013). In one study, the impact of care on employment was felt earlier among women than among men (King & Pickard, 2013). The lesser involvement of men in caregiving and their greater attachment to the labour force compared to women probably explain the outcomes observed in these studies.

King and Pickard's (2013) study suggests that the effect of the intensity of care is contingent upon its duration. However, more research is needed to understand whether the effect of the nature of the relationship with the care recipient on employment transitions also varies according to the duration of care.

Caregiving and Employment of Varying Intensity

The impact of combining employment of varying intensity with caregiving on the likelihood of experiencing employment transitions has been rarely examined. After tackling this issue, two British studies arrive at contradictory results (Arber & Ginn, 1995; Henz, 2006). Arber and Ginn's (1995) study suggests that some caregivers may find part-time work easier to combine with parent care. Indeed, women who helped a parent or parent-in-law not residing with them were shown as likely to be employed but less likely to work full-time and more likely to work part-time than their counterparts not providing care. However, because this study used cross-sectional data, it is not possible to know whether these women worked part-time to start with or whether becoming a caregiver caused them to transition out of full-time employment and into part-time work. Longitudinal analyses are required to better understand these transitions.

The other study used longitudinal techniques and revealed that on their own, both caregiving and part-time employment increased the probability of leaving the labour market. However, the inclusion of interaction terms between these two variables gave "no indication that it is easier to combine caring with part-time work than with full-time work" (Henz, 2006, p.424). In other words, female caregivers employed part-time were as likely to leave employment as

those employed full-time. Further investigation is thus required if we are to better understand whether unpaid caregivers employed full-time are more likely to leave employment than their counterparts employed part-time and whether full-time employees choose to work part-time when confronted with caregiving rather than leaving employment altogether. Moreover, men need to be included in research, as little is known about whether they use part-time employment as a way to balance employment and the provision of care.

Timing of Care over the Life Course and the “Sandwich Generation”

Most longitudinal research on the influence of care on leaving employment or reducing work hours focused on transitions occurring after the age of 45 years (Berecki-Gisolf et al., 2008; King & Pickard, 2013; Pavalko & Artis, 1997; Spiess & Schneider, 2003). Some studies looked strictly at the impact of care on retirement among older workers (Dentinger & Clarkberg, 2002; Hébert & Uriarte-Landa, 2012). Generally, they found that care at least in the form of high-intensity care or care to immediate family members increased the probability of women leaving employment, reducing work hours or retiring but the results for men were less consistent.

Very few studies have examined how caregiving influences paid work interruptions contingent upon the timing of such care in the life course. In an event-history analysis of the first transition out of employment between 1995 and 2001, Masuy (2009) found that high-intensity caregiving increased the probability of leaving paid work only among European women aged 31-49 years and 50 years and over. No effect of care was found among younger women aged 20-29 years old. In an American study, older women again appeared especially likely to modify their employment behaviour when providing care (Wakabayashi & Donato, 2005). Women aged 46 years and older who began caregiving during the 5-year period separating the two waves of a survey or remained caregivers over this whole period were significantly more likely to reduce their work hours than non-caregivers of the same age. No effect of care was found among women aged 26-35 and 36-45 years old. However, beginning to provide care also had a negative impact on work hours among women who were 19-25 years old. Although the age groups differ across studies, the impact of care on employment transitions thus appeared to be stronger for women passed the age of 40.

These findings suggest that the particular life stage at which caregiving responsibilities arise may modify their effect on employment. It is perhaps not only the fact of being relatively young but also the parental responsibilities that vary throughout professional careers that may

drive the differential effect observed in the studies cited above. The use of a life course approach is crucial in order to understand the circumstances of individuals' lives as they change throughout their careers as well as their impact on employment transitions.

The increased life expectancy and the delay in childbearing have transformed families. Hence, it has become increasingly common for individuals to have living grandparents and even great-grandparents while growing up (Bengtson, 2001). This is not without implications for middle-aged adults, who could increasingly be faced with the care of their parents while they still have children living in the home. In 2002, of Canadians aged 45 years to 64 years who had at least one child below age 25 living in their household, approximately 27% also provided care to someone aged 65 years and older (Williams, 2005). This group of people is commonly referred to as the “sandwich generation” or individuals “caught in the middle” (Brody, 1981; Rosenthal, Martin-Matthews & Matthews, 1996; Williams, 2005).

Holding parent care and parenting responsibilities simultaneously could prove especially challenging for employed individuals. In 2002, 80% of “sandwiched” individuals were also engaged in paid work or self-employment (Williams, 2005). These workers were more likely to report feeling stressed than other workers who provided only eldercare or neither eldercare nor childcare (Williams, 2005).

Despite a growing interest in the “sandwich generation”, there have been nearly no studies that sought to understand whether the influence of parent care on employment transitions varied according to the presence and age of children. An event-history analysis of leaving employment among British women aged 20 to 60 years old found no indication that the effect on employment of providing care to an ill, disabled or elderly person varied according to the number of children or the age of the youngest child present (Henz, 2006). Women who provided assistance had an increased risk of leaving their employment, regardless of the age of their children. However, the care variable in this study did not allow distinguishing between the care provided to parents and the care provided to others.

It is not clear what the impact of being “sandwiched” would be but from the conflict perspective, having more roles should lead to difficulties in meeting all obligations, including in the sphere of employment. However, children, depending upon their age, could be as much a demand on individuals' time and energy as a source of support. Indeed, almost a third of

caregivers aged 45 and over in 2007 reported that their children helped them, for example, by doing more household chores (Cranswick & Dosman, 2008).

Little evidence exists regarding the gender differences in the impact on employment of providing assistance to a parent while having children. It is well known that the birth of a child increases in women the risk of interrupting paid work and decreases that of men (Cook & Beaujot, 1996). These gender differences might be carried over when parent care responsibilities arise. However, no study appears to compare men and women to evaluate whether this is the case. This dissertation aims in part to fill this gap.

Main Objectives and Organization of the Thesis

Given the prevailing context characterized by population aging, policy orientations towards care in the community, the involvement of both men and women in the labour market, increased life expectancy and delayed fertility, individuals are likely to be increasingly confronted with juggling multiple roles: those of paid worker, parent and unpaid caregiver. The main objectives of this thesis are first to reveal the trends in both the probability to provide care as well as the timing of care over individuals' life courses, then to examine the impact of providing care on employment transitions. One of the main contributions of this thesis to the literature lies in its ability to compare men and women on these issues with longitudinal data. The thesis is comprised of three chapters, each one concerned with a gender analysis of caregiving or of both care and employment.

1st Part: Caregiving across Cohorts and Genders

The first chapter provides a descriptive analysis of the experience of caregiving across cohorts and genders. It uses data from the 2007 General Social Survey (GSS) to reconstruct the caregiving histories of respondents. In this survey, start and end dates for up to six episodes of care that last for at least six months occurring since the age of 15 years were collected along with the nature of the relationship with each care recipient. Men and women are compared with regards to the proportions of those who have ever provided care since the age of 15 years, the number of persons that they helped and the relationship that they have with the person(s) they assisted. The life table method is then used to estimate – separately by genders and across birth cohorts – the cumulated proportion of individuals who started providing care for a first time in

their life. It allows us to compare the timing at the onset of care between groups as well as the percentages of individuals who have ever provided care at given ages. The discussion offers such possible explanations as the increasing involvement of grandchildren in the care of grandparents for the fact that the first care episode appears to occur earlier in the life of individuals in recent cohorts. I presented an earlier version of this chapter at the Graduate Research Development Conference of the Canadian Population Society in May 2012. It will be submitted for publication in *Canadian Studies in Population*.

2nd Part: The Impact of Providing Care on Employment Transitions

The second part of this thesis is comprised of two chapters coauthored with Professor Céline Le Bourdais. Each one of them uses a unique data source containing retrospective information on caregiving, employment, conjugal unions and children of respondents. In 2007, for the first time in Canada, two cycles of the GSS were linked for a subset of respondents. Nearly 24,000 Canadians living in the ten provinces responded to Cycle 21 on family, social support and retirement, of which 10,403 had also been interviewed in the preceding cycle on family transitions in 2006. This made possible the reconstruction of respondents' employment, conjugal and parental histories with Cycle 20 and of their caregiving history with Cycle 21. The 2006 survey contained the dates at transitions between full-time and part-time (less than 30 hours) employment, in addition to start and end dates of employment episodes which are key to our analyses in both chapters. These dates are used to distinguish between the periods of full-time employment, part-time work and the periods characterized by leaves of absence from paid work of at least three months. The remaining retrospective information provides for the consideration of the conjugal, parental and caregiving statuses as they evolved over the course of employment episodes. From the moment that individuals become involved in paid work, longitudinal modelling techniques allow us to understand how these variables affect employment interruptions or transitions from full-time to part-time work.

In the second chapter, we draw on event-history analysis to, first, examine whether the provision of care to a partner, a parent, another relative or a non-relative increases the risk of employed men and women of leaving employment. Secondly, we further delve into our analysis of paid work interruptions by seeking to understand whether providing care while working part-time is easier than combining caregiving with full-time work. Finally, one of the major contributions of this chapter lies in its ability to isolate parent care from other care relationships

and to examine whether its impact on leaving employment varies according to the age of the youngest child. Therefore, we attempt to determine whether children, depending upon their age group, exert additional demands or act as sources of support, which could alter the effect parent care induces on employment trajectories. In doing this, we take into consideration the precedence of life events as well as the interdependence of individuals' various life dimensions and thus adopt a life course perspective. We discuss the implications of an increased risk of leaving employment towards the end of men's and women's careers. This chapter was presented in June 2013 at the International Symposium on Aging Families in Victoria, British Columbia. Since then, it has been accepted for publication in a special issue on aging families of the *Canadian Journal on Aging*, to appear in December 2014.

The third chapter, written in French, looks at two employment transitions among men and women employed full-time. Competing risks models, an extension of Cox proportional hazards models, show the impact of providing care on the relative risk of leaving employment or of transitioning into part-time work. The strength of this chapter lies in its ability to distinguish the impact of care on one employment transition net of the risk of experiencing the other possible transition, a method that has seldom been used in the literature on caregiving and employment. With such an analysis, we seek to understand whether individuals use part-time work as a strategy to combine unpaid caregiving and paid employment. A first model takes into consideration the nature of the relationship with the care recipient and a second, the duration of care. The question of whether or not the impact of the assistance provided to a partner, a parent, another relative or a non-relative varies according to the duration of care is also explored. We discuss the results in light of the gender differences in the division of paid and unpaid labour and of their policy implications. This chapter was presented in May 2014 at the conference *Trajectoires et Âges de la Vie* organized by the *Association internationale des démographes de langue française* (Aidelf) and is available on the website of the conference (www.aidelf.org/colloque/progra-mme2.php?colloqueID=1&submissionID=1330).

Chapter One

The Provision of Unpaid Care over the Life Course – Changes across Cohorts and Genders

In 2012, 8.1 million Canadians representing 28% of the population aged 15 years and over and living in the community reported providing some type of care to relatives or friends (Sinha, 2013). Age-related needs of the care recipient were by far the reason most frequently cited for the assistance provided by individuals. With the aging of the population, the need for care is expected to increase in the future. In 2036, one in four Canadians will be aged 65 years or older, a marked increase from their 16% share of the population in 2014 (Statistics Canada, 2010; Statistics Canada, 2014a). The proportion of the population aged 75 years and older will increase from 8% in 2014 to 13% in 2036. A large majority of care recipients receive help from family members, relatives or friends who are not paid for the care they provide (Sinha & Bleakney, 2014). Considering the greater care needs at older ages and government policies prioritizing aging in the community and care in the home (Keefe, Fancey, & White, 2005; Lavoie, 2012), the reliance on unpaid caregivers is unlikely to fade in years to come.

Our understanding of how common the provision of unpaid care is in Canada as well as how it has evolved over time is limited due to the absence of data collected prior to 1996. The number of caregivers appears to have increased over the past two decades. Is the increase linked to a similar increase across cohorts of the proportion of those who provide care or is it also related to a change in *tempo*, that is, the age at which individuals start providing care? The analysis of individuals' care histories, which can be approached with retrospective survey data, can shed light on the life stage at which care responsibilities arise and on the potential consequences that they might have regarding other domains of their life (Elder, 1998). This no doubt constitutes valuable information for policymakers.

The 2007 General Social Survey (GSS) constitutes the very first attempt in Canada at gathering the complete caregiving history of individuals. The survey provided information collected from a total of five periods, during which respondents indicated that they had provided care since the age of 15, elaborating as well on whether or not they had provided care in the twelve months prior. The reconstruction of the respondents' care history allows us to estimate the

percentage of individuals who have provided care at least once in their life, the age at which they started doing so and the extent to which these have changed across cohorts. In addition, this paper examines differences in the cumulated probabilities of men and women to provide care and their variations across birth cohorts.

Literature Review

The Increasing Number of Caregivers

In 1996, Statistics Canada collected information on social support for the first time as part of the 1996 GSS. In this survey, 12,756 Canadians aged 15 years and over and living in private households in one of the ten provinces were asked whether they had provided care to persons with a long-term health condition or physical limitation in the year preceding the survey. If so, they were asked to specify the type of assistance provided, their relation with the persons they helped and the age of each person assisted. They were also asked questions about how often they helped and about some of the consequences of the provision of care on such aspects of their lives as social and work activities, sleep patterns, expenses, health, feelings, etc. No questions were asked about the episodes of care that respondents might have experienced prior to the twelve months preceding the survey, thus making it impossible to estimate the proportion of those who had ever provided unpaid care at least once in their life. Nonetheless, the information allowed an approximation of the size of the population of caregivers at 2.1 million Canadians aged 15 years and over in 1996, of which nearly half were less than 45 years old (Fast et al., 2011; Frederick & Fast, 1999). According to this survey, 9% of Canadians aged 15 and over had been providing care to at least one person during the year prior to the survey (Statistics Canada, 1996).

Six years later, in 2002, Statistics Canada conducted another cross-sectional GSS focusing on social support. This time, the target population was restricted to individuals aged 45 years and over and caregiving questions concerned only assistance provided to seniors. Information was collected on the nature of the tasks performed, the age of care recipients, as well as the repercussions of providing care for the caregiver, but excluded the frequency of provided care. According to this survey, 2 million Canadians aged 45 years and over – 19% of men and 18% of women – had provided eldercare for a long-term health problem within the year prior to the

survey, a clear increase from the approximate number of 1 million people of that age group estimated in the 1996 GSS (Cranswick & Dosman, 2008).

The range of information collected on caregiving was far more extensive in the 2007 GSS. A wide array of questions were asked of respondents aged 45 and over about the care for a long-term health condition or physical limitation provided in the twelve months preceding the survey, inquiring on such aspects as the number of persons helped, the type of accomplished tasks, the relationship with the main care recipient, the start date of the care episode, the frequency of assistance, as well as the repercussions of giving help. Further questions were also asked about the episodes of care that respondents provided to up to five persons since the age of 15, notably the start and end dates of each care episode, as well as the relationship with each care recipient. The definition of caregiving in this survey was not restricted to eldercare as it was in the previous GSS. Studies using this dataset suggested that 3.8 million – or 28.9% of the Canadian population aged 45 and over – had provided care in the year prior to the 2007 GSS, among which 2.7 million, 19% of men and 22% of women, provided care to a senior (Cranswick & Dosman, 2008; Fast et al., 2011). These studies thus suggest that the number of people who provide care to seniors increased by approximately 700,000 between 2002 and 2007 and that the increase was due primarily to the addition of women, the proportion of female caregivers rising from 18% to 22% between the two surveys.

The most recent cycle of the GSS to focus on caregiving and care-receiving was carried out in 2012, and collected similar information to that of the 2007 GSS, including sections on the care provided to the main care recipient and on the caregiving history. As in the 1996 survey, the target population consists of Canadians aged 15 years and over. The definition of caregiving does, however, slightly differ from that of previous surveys and comprises any assistance provided for a long-term health condition, disability or aging. Using this survey, a recent study (Sinha, 2013) estimated at 28% the proportion of individuals aged 15 years and over who provided care, a sharp increase from the percentage of 9%² derived from the 1996 GSS. Expanding the definition of care to include aging needs probably accounts for part of the increase observed but surely cannot explain its entirety. Clearly, caregiving appears to be on the rise. This sharp increase in caregiving described above took place over a relatively short period of time.

² Our own estimation based on Frederick and Fast's (1999) study and Statistics Canada's census data.

Whether this trend was already ongoing prior to the 1990's remains unclear; however, a number of reasons lead us to believe that this trend emerged earlier. Firstly, the de-institutionalization of the elderly that took place in the 1980's shifted the responsibility of providing care to the elderly to family members while it had primarily been that of the government in the 1960's and 1970's (Lavoie, 2012). Home care services were implemented during the 1980's to help seniors remain in their home but the resources for those services remained limited (Lavoie, 2012; Le Protecteur du citoyen, 2012) These institutional changes likely increased the proportion of individuals who had to provide care without pay.

Secondly, given the steady increase in life expectancy over the past 90 years (Decady & Greenberg, 2014), it has become increasingly common for multiple generations of a family to be able to maintain relationships over several years. In a seminal lecture, Bengtson (2001, p.12) used the expression "longer years of shared lives" to describe this phenomenon, which he asserts is likely to yield new forms of interactions. We would argue that the increasing involvement of younger generations in relations of care may be such a form of interaction. Providing care to a grandparent might have been a rare event for the parents of the baby boomers who were less likely than their children and grandchildren to have known their grandparents. These relationships, although not as frequent as other such care relationships as the aging parent-adult child dyad, are becoming more common. For example, in 2000, it was estimated that grandchildren accounted for 8% of caregivers in the United States (Foundation for Accountability & The Robert Wood Johnson Foundation, 2003, as cited in Fruhauf, Jarrott & Allen, 2006). Young adults sometimes act as an additional source of care to that provided by their parents and they might find in this activity a way to return to their grandparents the support they received from them earlier in their lives (Fruhauf et al., 2006). It is unknown whether the provision of care by grandchildren displaces the assistance provided by other members of the family or rather adds to the latter, thus increasing the size of the care network of elderly persons. The latter is plausible since many grandchildren caregivers appear to act as secondary sources of support (Fruhauf et al., 2006).

Third, new forms of care relationships may have emerged as a result of the increasing conjugal instability observed since the late 1960's (Ménard & Le Bourdais, 2012). While it was relatively common in the past for individuals to rely on a spouse or partner when in need of assistance, turning to friends for support appears to be increasingly common, especially following

separation or divorce. Hence, the 2007 GSS revealed that nearly one quarter of unpaid caregivers provided care to a friend or neighbour but only one in ten caregivers provided care to a partner (Fast et al., 2011). Considering that friends spend on average less time per week providing care than spouses and partners (Himes & Reidy, 2000; Sinha, 2013), the decrease in the provision of care to partners could have been accompanied by a larger increase in the number of friends involved in caregiving.

Lastly, the proportion of caregivers reported in surveys might have increased in part due to a change in perceptions about the caregiver role. Guberman, Lavoie and Olazabal (2011) suggest that baby boomers consider their caring responsibilities as a role in itself, a shift from the perspective of their parent generation who perceived these as an aspect of their natural roles of mother, daughter, or wife. Furthermore, baby boomer caregivers tend to perceive caregiving as the responsibility of the state and as such expect greater support from public services than the preceding generation. It is thus reasonable to expect that they will be more likely to report periods of caregiving than previous generations, not only because they provide care in greater proportions but because they perceive care responsibilities differently.

Converging Gender Roles and Norms

The profound transformations of gender roles and norms observed over the past few decades are likely to be accompanied among the younger generations by a convergence in the proportions of men and women who engage in family or friend caregiving. This convergence is likely to originate from a relatively greater increase in the number of men involved in caregiving than in that of women. Women have traditionally engaged in caring work and housework and they continue to form the majority of caregivers (Cranswick & Dosman, 2008; Fast et al., 2011). Women also spend on average more hours per week in that role and are more involved in the provision of personal care and housework than men are. Only in one domain, that of household maintenance and outdoor work do men invest more time than women. In other words, gender differences remain. Nonetheless, in 2007, men accounted for 43.5% of all caregivers aged 45 and over (Fast et al., 2011). This proportion is substantial and probably higher than it used to be 50 years ago, when gender roles were more segregated.

One of the major components of the observed social transformation in gender roles is the greater participation of women in the sphere of paid employment, which increased dramatically from below 40% in the 1960's to 62% in 2013 (Engelhardt & Prskawetz, 2004; Statistics Canada,

2014b). It is now common for both members of a couple to engage in paid employment (Marshall, 2006). However, the narrowing of the gender gap in unpaid labour has occurred much less rapidly than that of paid work. Hochschild and Machung (1997) described how women engaged in paid work dealt with a *second shift* of housework and childcare once they returned home. Whereas a gap of one hour per day still exists between men and women in the amount of time spent doing unpaid work in the home, time-use surveys show that, between 1986 and 2005, men aged 25 to 54 increased their number of hours while their female counterparts saw theirs diminished (Marshall, 2006). Arrangements in the division of paid and unpaid work among couples have become more diversified, with the traditional model losing ground and couples sharing roles becoming more common (Ravanera, Beaujot & Liu, 2009). The gender differences noted in unpaid work and the observed evolution in gender roles and norms motivate us to conduct a separate analysis for men and women in order to assess the extent of changes across cohorts in the provision of caregiving over a life course.

Research Questions

The objective of this study is to examine the population of men and women who have experienced caregiving over the course of their life. More specifically, we aim to estimate: 1) the proportion of individuals who have provided care at least once since age 15; 2) the number of people to whom they have provided care; and 3) the nature of the relationship with the persons that they have helped. We expect the proportion of individuals who have been caregivers at least once in their lives to be higher than the 28.9% observed by Fast et al. (2011) in 2007.

Using the life table method to estimate the cumulated probabilities of men and women to experience a first care episode across four birth cohorts, we examine: 4) whether or not the provision of care has become more common among more recent cohorts; and 5) whether or not the timing of the first care episode has changed across cohorts. Our separate analysis by gender seeks to estimate 6) whether or not the gap in the experience of caregiving separating men and women has narrowed over time. Finally, we aim to 7) observe any possible emergence among younger cohorts of new such care relationships as, for instance, care to grandparents and to friends.

Data and Methods

The General Social Survey (GSS) is an annual survey, using computer-assisted phone interviews, conducted by Statistics Canada, representative of the Canadian population living in private households in one of the ten provinces. We use cycle 21 collected in 2007, which was the first GSS to collect retrospective information about the experience of caregiving. It constitutes the best opportunity to go further back in time to study changing trends in caregiving. The 2007 GSS collected information on family, social support and retirement from a sample of 20,404 respondents aged 45 years and over. Two modules assessed the provision of unpaid care to family members, relatives and friends.

Participants were first asked if they had provided assistance to a person because of a long-term health condition or physical limitation in the twelve months prior to the survey. If they reported giving help for at least one of the following tasks – transportation, shopping, banking, and bill paying; meal preparation and housework; house maintenance and outdoor work; personal care; medical care; and with the coordination of caregiving tasks and management of finances – they were then asked to report the number of persons to which they provided assistance. They also had to respond to a series of questions regarding the main care recipient. These include the latter's age and gender, the relationship respondents have with this person, the date at which they started providing care, the frequency at which assistance was provided for each task, the residential proximity and the type of dwelling of the care recipient.

In a further section of the survey, respondents were asked to indicate the number of people they had helped for a period of six months or longer, excluding those helped in the past twelve months, since the age of 15. The start and end dates of up to five care episodes were collected along with the relationship with each care recipient. In addition to the dates at the onset of the episode of care, only the relationship with each care recipient was collected in both modules. In order to examine the timing of the first caregiving episode experienced by respondents, we had to merge the episode with the primary care recipient recorded in the previous twelve months with all the other episodes that occurred since the age of 15. In order to exclude the episodes recorded in the previous year of the survey that lasted less than six months, we retained only those starting in 2006 or earlier. Respondents' complete caregiving histories could thus contain up to a maximum of six caregiving episodes that lasted at least six months.

In order to establish the timing of the first caregiving episode, we needed respondents' complete history of caregiving. Missing dates for even just one caregiving episode prevents us from ordering all episodes and consequently from studying the timing of first care. Of the original sample of 23,404 respondents, we excluded 1,011 individuals who indicated that they did not know how many people they had helped for a period of six months or longer since the age of 15 or in the year preceding the survey. The caregiving history was *de facto* incomplete for another 2,299 participants who had provided care to more than one person in the twelve months preceding the survey but for whom only the information on the care provided to the main care recipient was collected. Finally, 1,063 respondents were excluded because of missing information on start/end dates or relationships for some care episodes or because they had provided care to more than five persons since the age of 15. The analytic sample thus contains 19,031 respondents.

Because the large majority of excluded cases reported having provided care at least once in their life but had missing information in their caregiving history, the proportions of lifetime caregivers that we estimate are likely to be conservative. A detailed analysis showed that women are slightly overrepresented among the excluded cases, which is not surprising given their greater propensity than men to provide care. The way the survey was designed made it impossible for the large number of respondents who helped more than one person in the year preceding the survey to report the start date and their relationship with all those they helped, except for those of their main care recipient. The exclusion of these cases is thus not due to a recall bias. If it had been, we should have found a greater proportion of older than younger individuals excluded from the sample, which is clearly not the case here.

We use life tables to estimate the cumulated probabilities by age of respondents of experiencing the onset of a first caregiving episode. The youngest age at which individuals could experience this transition was fixed at 15 years. In the life table method, subjects are considered at risk of experiencing a transition, that is, of becoming a caregiver, until they experience that transition or until they are no longer under observation, in which case they become censored (i.e. retrieved from the risk group). In other words, respondents who never had provided unpaid care contributed to the calculation of the cumulated probabilities of providing care from age 15 until the time of the survey in 2007. Hence, all respondents are observed at least until age 45.

The cumulated probabilities of providing care for a first time were estimated separately for men and women among four birth cohorts. All but the oldest birth cohort span ten years. The oldest cohort born prior to 1933 includes respondents who were aged 75 and over at the time of survey in 2007; the other three cohorts were born between 1933 and 1942 (aged 65-74), 1943 and 1952 (aged 55-64) and between 1953 and 1962 (aged 45-54).

Frequency tables are used to provide, separately for men and women, the distribution of respondents' birth cohort, number of care recipients since age 15 and relationship with care recipients. Another table presents, separately by cohorts, the respondents' relationship with their first care recipient for care episodes starting before age 45. Population weights are applied to percentages and cumulated probabilities.

Results

Table 1.1 presents some characteristics of the 8,250 men and 10,781 women aged 45 and older in 2007 retained for the analysis. Given their greater life expectancy, it is not surprising to find that a larger percentage of women than men were born prior to 1933. In contrast, a larger share of men than women belongs to the Baby Boom cohorts of 1943-1952 and 1953-1962.

Caregiving is a common experience. When all respondents aged 45 years and over who provided care to one person or more are taken into consideration, Table 1.1 shows that 38.7% of them provided care at least once for a period of six months or longer since the age of 15. Women were more likely to engage in the provision of care compared to their male counterparts and to provide care to a larger number of recipients over the course of their lives. Twenty-eight percent of women provided care to one person, 11% helped two persons and 6% assisted at least three persons. Although lower, the men's contribution should not be understated, with 22% who helped one person, 8% who assisted two persons and 3% who provided care to three or more persons since they were 15 years old.

Helping a mother was the most frequent care relationship observed, with 13% of men and nearly 24% of women who ever provided care to their mother. More than one in ten women provided assistance to another relative or to their father, compared to 8% of men. Providing care to a spouse or partner appears to be less common. Nearly 5% of men and 7% of their female vis-

à-vis helped their ill or disabled partner at some point in their lives, percentages that are similar to those observed for the provision of care to a non-relative.

Table 1.1: Characteristics of Canadian Men and Women Aged 45 Years and over in 2007.

	Men	Women	Total
Birth cohort***			
Born prior to 1933	13.1	16.8	15.0
1933-1942	17.3	18.5	17.9
1943-1952	30.2	28.4	29.3
1953-1962	39.4	36.4	37.8
Number of care recipients since age 15***			
0	67.8	55.2	61.3
1	21.6	28.0	24.9
2	7.6	10.8	9.3
3 or more	3.0	6.0	4.5
Ever provided care to...			
A spouse/partner***			
No	95.3	92.9	94.1
Yes	4.7	7.1	5.9
A mother***			
No	87.4	76.5	81.8
Yes	12.6	23.5	18.2
A father***			
No	91.9	89.2	90.5
Yes	8.1	10.8	9.5
A parent-in-law			
No	95.4	95.4	95.4
Yes	4.6	4.6	4.6
Another relative***			
No	92.3	88.1	90.1
Yes	7.7	11.9	9.9
A non-relative***			
No	94.4	92.9	93.6
Yes	5.6	7.1	6.4
N (unweighted)	8,250	10,781	19,031

Source: Statistics Canada (2007), General Social Survey 21.

Chi-square tests significance levels: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Some percentages do not add up to 100 due to rounding. The percentages are based on population weight data.

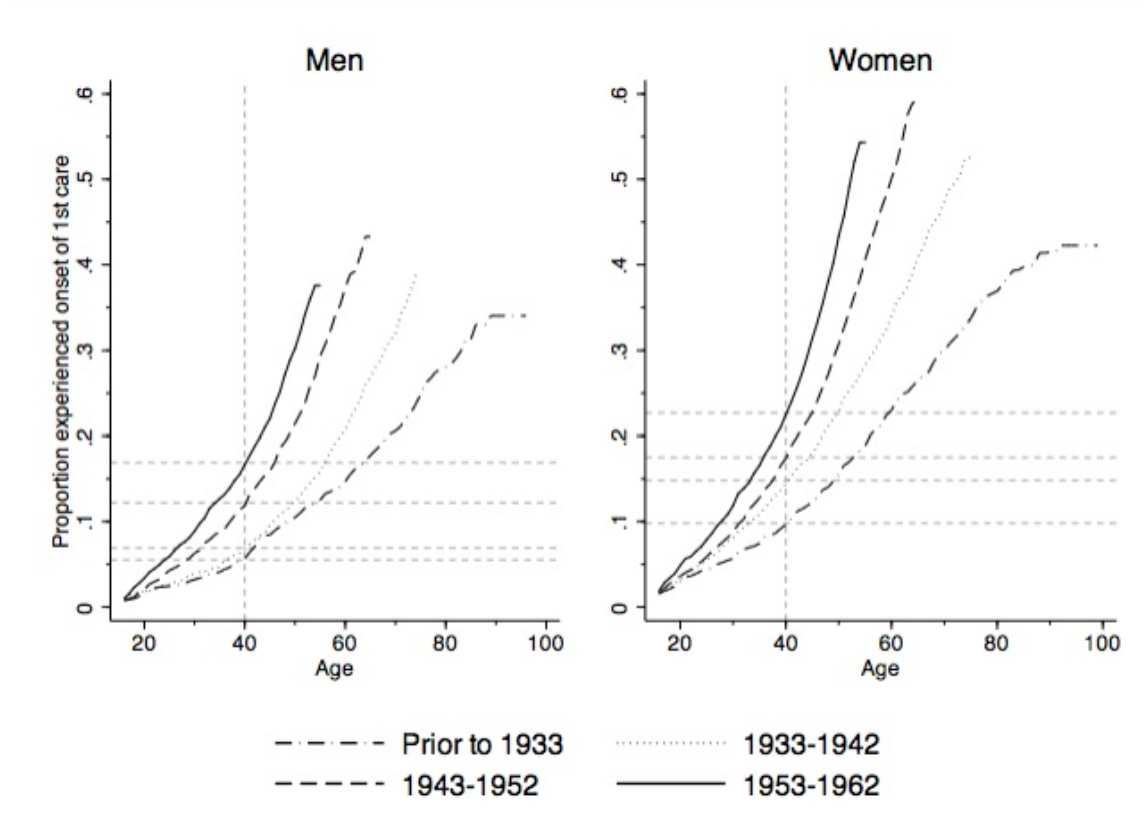
The experience of caregiving is common, and it has become even more common over time, as can be seen in Figure 1.1 that depicts the cumulated probabilities of men and women

who provided care for a first time by birth cohort. Cohorts differ significantly in their experience of caregiving. The oldest cohort (represented by a dash-dot line) exhibits the lowest probability of providing care at any age throughout the life course and the progression of experiencing caregiving is constant across cohorts. Hence, the cohort representing those born between 1953 and 1962 (solid line) presents the highest cumulated probability of having ever provided care at any age up until age 54 (the maximum age of this cohort at survey). For instance, at age 40, 6% of men born prior to 1933 had provided care for a first time compared to 17% of those born between 1953 and 1962. A greater proportion of women had already been caregivers at that age, with one woman in ten from the oldest cohort and 23% of those from the youngest cohort having done so. In other words, the percentage of respondents who had ever provided care by age 40 more than doubled from the oldest to the youngest cohorts of women and nearly tripled among the cohorts of men.

The proportion of respondents who will have ever provided care by the end of their life is clearly increasing across cohorts. Whereas the highest proportion (nearly 35%) of men from the oldest cohort who reported having ever provided care was reached around age 85, a higher fraction of men had already done so at younger ages in the previous cohorts. For example, 43% of the men born in 1943-1952 had experienced caregiving by age 64 (the maximum age in this cohort) and this percentage is likely to keep increasing as they get older. A similar pattern can be observed among women. Slightly over 40% of the oldest group of women reported ever providing care to someone; nearly 60% of them had done so by age 64 in the 1943-1952 cohort.

The differences observed between men and women remain significant across all cohorts. Women are clearly more likely than men to provide care over their life course. This pattern becomes obvious when comparing the horizontal lines denoting the proportions of individuals who had provided care by age 40. No signs of a narrowing gap between genders are found across cohorts. In fact, the gap at the time of survey between men and women appears to be increasing, from 8 percentage points among the cohort born prior to 1933 to 14 percentage points in the 1933-1942 cohort, 16 percentage points in the 1943-1952 cohort and finally 17 percentage points in the youngest (1953-1962) cohort. In other words, the gender gap that had already existed among the oldest cohort widened due to the larger increase over time of the proportion of women than men who ever provided care.

Figure 1.1: Cumulated Probabilities of Starting to Provide Care for a First Time According to Sex and Birth Cohort.



Source: Statistics Canada (2007), General Social Survey 21. The cumulated probabilities are based on population weight data.

The shift of the curves towards the left indicates that the onset of a first care episode occurs at a younger age in younger than in older cohorts. This finding is surprising considering the increase in life expectancy over the past few decades. Indeed, one might have expected that care needs would come later in the lives of individuals and that their caregivers themselves would be correspondingly older. Therefore, the years gained in life expectancy may be disabled years. As well, this could suggest that caregiving is not confined within conjugal and parent-adult child relationships but that it may span across more than two generations, leading young adults to provide care to elderly persons.

Table 1.2 examines this issue by comparing the proportions of respondents who provided care for a first time before age 45 across cohorts depending upon their relationship with the care recipient. The relative importance of the episodes of care to spouses or partners, to parents or parents-in-law and to other relatives has all declined across cohorts. Part of the decline in the provision of care to a partner is probably linked to the better health status of individuals under the

age of 45. In addition, the greater level of conjugal instability experienced by the two youngest cohorts compared to their predecessors may have limited the possibility to rely on a partner when in need of assistance. Even though the relative importance of the provision of care to parents or parents-in-law has declined over time, it still constitutes the majority of care episodes.

Table 1.2: Percentages of Respondents Aged 45 Years and over in 2007 Who Provided Care to Their First Care Recipient before the Age of 45 According to Birth Cohort and Relationship with the Care Recipient.

	Born prior to 1933	1933-1942	1943-1952	1953-1962	Total
Spouse/partner	9.8	6.5	5.8	4.8	5.7
Parent/parent-in-law	67.1	66.8	64.9	58.5	62.0
Grandparent	1.2	4.4	5.6	10.1	7.4
Other relative	16.4	15.7	15.0	14.4	14.9
Non-relative	5.4	6.6	8.7	12.3	10.0
N (unweighted)	350	552	1,178	1,775	3,855

Source: Statistics Canada (2007), General Social Survey 21.

Significant at $p < .001$. Some percentages do not add up to 100 due to rounding. The percentages are based on population weight data.

In contrast, the proportions of respondents who have helped a grandparent or a non-relative have risen significantly over time. The former, which constituted only 1% of all care episodes starting before age 45 for the oldest cohort, increased to 10% among the youngest cohort. Similarly, the importance of help to non-relatives more than doubled, going from 5% to 12% of all first care episodes reported before age 45. The finding regarding the care to grandparents suggests that as life expectancy increases, relationships, including care relationships, can be maintained over a longer period of time across multiple generations of families, a social trend already noted by Bengtson (2001). Friends form the majority of non-relative caregivers. This category has probably increased in relative importance because friends might in part compensate for the absence of support from partners or other relatives that is associated with the profound changes that families have experienced over the last 40 years.

Discussion

The provision of unpaid care is a very common experience. Using the 2007 GSS, Fast et al. (2011) estimated the proportion of caregivers at 28.9% of the population of Canadians aged 45

years and older. In this paper, we showed that 38.7% of Canadians aged 45 years and over have provided care at some point in their lives for a period of at least six months since the age of 15 years. Among women, the proportion is even higher with 45% who assisted at least one person since age 15. As expected, our estimates are higher than those observed for the provision of care over a twelve-month period. However, as mentioned in the Data and Methods section, they are likely to be underestimated since most of the excluded cases concern respondents who reported having provided care. More specifically, the proportion of respondents who have provided care to more than one person is likely to be more largely underestimated given the systematic exclusion of those who did so in the year prior to the survey. However, we do not expect these exclusions to affect the cohort differences observed in Figure 1.1, since we did not find any significant differences between cohorts in the percentages of cases with missing information on caregiving variables.

The use of life tables clearly showed that the provision of care has increased over time. The proportion of respondents in the two youngest cohorts who had provided care at least once in their life by the time they were reached by the survey is already higher than the percentages discussed above. This proportion is likely to keep increasing, as these individuals who were all under 64 years old will age. The deinstitutionalization of the elderly in the public health system may have sustained this trend. Although, the possibility that caregiving is perceived differently – with younger cohorts more likely to report episodes of care than previous generations – clearly cannot be minimized in accounting for the trend observed.

The life table analysis also showed that not only are respondents from younger birth cohorts more likely to have ever been a caregiver but that they also started doing so for a first time at a younger age. This last finding was counter-intuitive given the drastic increase of life expectancy over the past century. If care needs occur later in life, we could have expected caregivers, who oftentimes are the adult children of the care recipient, to be older as well. However, living a longer life does not necessarily mean that it will be exempt of illnesses or disabilities. Research using the 2009-2010 Canadian Community Health Survey showed that while severe disability occurs on average around the age of 77 years, moderate disability – the inability to perform some activities because of a limitation in vision, hearing, speech, mobility, dexterity, feelings, cognition or pain – usually appears around age 40 (Decady & Greenberg, 2014). Hence, almost a third of all individuals aged 15 years and over who received care in 2012

were aged 45-64 years old (Sinha & Bleakney, 2014). The fact that a greater share of people survive into older ages but are not necessarily healthy during these extra years may have contributed to the increase in the proportions of Canadians who provided care (Mandich & Margolis, 2014). That a good share of those who need assistance are middle-aged adults perhaps helps explain the fact that over the last few decades, Canadians have started providing care at ever-younger ages.

Another part of the explanation for the observed trend in the timing of the first care episode lies in the diversification of the relationships of care. While providing assistance to a parent still remains the most important care relationship even among first episodes starting before age 45, baby boomers were found to be involved to a greater extent in the care of their grandparents than their parent generation was. Undoubtedly, this finding is associated with the increase in life expectancy that yields the superposition of three and four generations within families and which makes possible interactions and exchanges across more than two generations. Helping an ill or disabled grandparent was almost unheard of in the oldest cohorts, but is becoming an increasingly common phenomenon. The likelihood to start providing care for a first time before the age of 45 to a non-relative has also increased across cohorts, while that of helping a spouse or partner has decreased. This suggests that social support may be sought in friendships when other such sources of support as the care from a partner may be lacking. Further research in this area is needed in order to assess the role that non-relatives are likely to play in the future.

Given the trend towards more egalitarian gender norms, we were surprised to find that the proportion of women who engaged in caregiving increased more rapidly across cohorts than that of their male counterparts. Whether this result reflects a stable trend or a difference in how men and women perceive and report episodes of care is unclear. More research is needed to examine more closely how gender differences evolve across the life course in terms of the provision of unpaid care.

All things considered, our analysis suggests that social support will continue to be an important part of the lives of Canadians in decades to come. It should thus remain an important area of study. The decreasing age at the onset of care raises a number of questions regarding the consequences that these responsibilities might have on the life course of individuals. A large proportion of the younger cohorts had already provided care to at least one person before reaching the age of 45 years. Compared to their earlier ones, these cohorts have also delayed

childbearing. This suggests that unpaid caregivers are increasingly likely to juggle multiple responsibilities in the future, taking care of their own children while being employed. More refined studies of the repercussions that the provision of care exerts on individuals' employment, conjugal and family relations and health are needed in order to develop policies that meet the needs of these individuals.

The 2007 GSS is a useful dataset to study caregiving over the life course but it is not without limitations. Various pieces of information about the care provided by respondents were not collected retrospectively for the episodes of care that occurred since the age of 15. For instance, the survey did not contain information about the tasks accomplished, their frequency and the number of hours per week taken up by caregiving responsibilities. Furthermore, a large number of cases had to be excluded because the information about the provision of care in the twelve months prior to the survey to other individuals than the main care recipient was not collected. Without the start dates of all episodes, we could not assume that the care provided to the main care recipient was the first episode to occur in the life of these respondents; they could thus not be included for studying the timing of the first care episode. Collecting more information on all the episodes that occurred in the twelve months preceding the survey could be an interesting supplement to add to future collections of the GSS on social support. In the least, Statistics Canada could collect information on the relationship with the care recipient as well as the start and end dates of each episode, as it does in the care history section. In addition, gathering information on whether other people provide assistance to the care recipient or support the caregiver by taking on some of his or her other tasks, could help us understand whether the involvement of grandchildren or of friends compensates for or complements the care that would otherwise be provided by other family members.

Linking Section Between Chapters 1 and 2

In Chapter 1, the use of life tables applied to the 2007 GSS data showed that the provision of care has become increasingly common in recent birth cohorts. This finding is probably linked to the rising demand for care associated with the observed increase in life expectancy and the government policies prioritizing community-based care. The analysis showed that a substantial proportion of individuals – in large part women – provide care to more than one person over the course of their lives. While women are generally more likely to have ever provided care than men, the latter's contribution is nonetheless considerable. It was found that one in four women had provided care to a mother, being the most common provision of care, while the same was true for 13% of the men. The assistance provided to grandparents has been shown to increase across birth cohorts. This finding partly accounts for the earlier onset of the first care episode observed among more recent cohorts.

For many people, caregiving arises at an age at which they are likely to be invested in other such roles as employment and parenthood. Several studies suggest that women's employment trajectories are affected by caregiving responsibilities but very few have examined this issue for men. In Chapter 2, we aim to analyze whether the provision of care to a partner, a parent or parent-in-law, another relative or a non-relative tends to increase the risk of employed men and women of leaving paid work. The use of 2006 and 2007 GSS data allowed us to reconstruct the complete caregiving, professional, conjugal and parental histories of respondents in order to study the effect that the provision of care exerts on their risk of leaving employment over their life course. Using Cox proportional hazards models, we further analyze the impact of combining caregiving with employment of varying intensity on the probability to leave work. In other words, we aim to ascertain whether providing care is easier to combine with part-time employment rather than full-time employment. The rising importance of the “sandwich generation” – that is, of individuals who still have relatively young children while providing care to their own parents – also prompts us to examine whether this particular group faces more difficulties than individuals holding fewer roles in remaining employed. To do so, our final analysis tests whether the effect of the provision of care on leaving employment varies according to the age of the youngest child.

Chapter Two

The Impact of Providing Care on the Risk of Leaving Employment in Canada

The Canadian population is aging. According to a medium-growth scenario, the percentage of seniors aged 65 years and older, which was estimated at 16% in 2014, is expected to near 24% by 2036, when the baby boomers born between 1945 and 1965 will all have passed this age threshold. At the same time, the proportion of seniors aged 75 and older will increase from 8% to 13% (Statistics Canada, 2010, 2014a). Seniors, especially older seniors, are more likely than others in the adult population to live with a number of chronic conditions and to need assistance with certain tasks, including personal care (Gilmour & Park, 2005). It is thus reasonable to expect that the need for care will increase in the future as a consequence of the growing proportion of elders in the population.

At a time when governments wish to limit public expenses on eldercare, individuals might increasingly have to depend upon their network of relatives and friends to receive care (Keefe et al., 2005). The family constitutes the main source of unpaid care, the provision of which is gendered. The increasing involvement of women in paid employment since the 1960s raises questions as to their potential availability to provide unpaid care (Lilly et al., 2007). Being employed does not appear to prevent individuals from taking up caregiving (Henz, 2006). However, the provision of care might lead them to cut back on hours of paid work or to leave employment, particularly when the care recipient is an immediate family member (Lilly et al., 2007). This is not without consequences as it may place unpaid caregivers in a vulnerable economic position, affecting their employment levels (even long after the end of the caregiving episode) as well as their retirement savings (Lilly et al., 2007).

Women may be particularly affected since they have traditionally taken on more caregiving responsibilities and are more likely than men to experience paid work interruptions (Cook & Beaujot, 1996; Henz, 2004). These gender differences are well known, yet additional comparative research is needed in order to gain a better understanding of how men's and women's employment trajectories are affected by the provision of unpaid care (Lilly et al., 2007). Limited evidence suggests that a greater proportion of women than men report interrupting paid employment after the onset of caregiving (Henz, 2004). However, it is not clear whether part-

time employment, a form of employment in which women engage more often than men, allows individuals to combine paid work and care responsibilities more easily than would full-time employment.

Rising life expectancy and delayed childbearing have modified the composition of families, now often comprising several superposed generations, and altered patterns of intergenerational relationships (Bengtson, 2001). It has become common for adult individuals to have aging parents while, at the same time, they have children living with them in the family home. Although the experience of giving assistance to an elderly parent while having children in the home, a situation often referred to as being “caught in the middle” or “sandwiched”, remains relatively rare (Rosenthal et al., 1996; Williams, 2005), the implications of such arrangements on the risk of leaving employment are still not well understood.

The study described in this article assessed the impact of providing care to a spouse or partner, a parent or parent-in-law, another relative, or a non-relative on the risk of leaving employment, after controlling for individuals’ conjugal and parental histories and other co-variates. In addition, we explored the impact of providing care to a parent or parent-in-law on the risk of leaving employment as to whether or not it varied according to the intensity of paid work (full-time vs. part-time), as well as to the presence of young children. In this analysis, we used the 2007 General Social Survey (GSS), which followed up on respondents aged 45 years and older who were interviewed in the 2006 retrospective GSS on family. This database is extremely well suited for our analysis as it contains the respondents’ retrospective caregiving histories (i.e., care episodes of at least six months) collected in the 2007 cycle, as well as their employment and conjugal and parental histories gathered in the 2006 cycle. The use of Cox proportional hazards models applied to these data allowed us to examine the effect of providing unpaid care on the employment trajectories of individuals, while taking into account their changing work and family circumstances. We estimated separate models for men and women, given that the provision of care has been shown to affect differently their risk of leaving employment (Henz, 2004; Lilly et al., 2007).

Theoretical Background

Two main theoretical frameworks guided our analyses. First, we drew on role theory and contemporary theorizing on work-life balance to help us understand the potential consequences for individuals of combining multiple roles such as employment and caregiving. The *role strain*

or *conflict hypothesis* posits that holding multiple roles has negative consequences for individuals' lives (Goode, 1960), given that individuals have limited resources, including time, to meet all the obligations that spring from those roles. For instance, providing unpaid care can disrupt normal employment routines and reduce the time spent at work (Sinha, 2013). If the strain is too great, leaving employment may constitute the only acceptable option for some caregivers (Lilly et al., 2007). Taking part-time employment can be considered as an alternative and help individuals to balance their unpaid care and employment responsibilities, but little is known in this regard (Henz, 2006; Lilly et al., 2007).

Critiques of this hypothesis and proponents of the *role accumulation* and *enhancement* frameworks instead posit that being involved in multiple roles can bring various rewards and advantages to individuals (Marks, 1977; Sieber, 1974). Some scholars argue that being involved in paid work can provide caregivers with a break from unpaid care responsibilities but only when the caregiving role is not too demanding (Masuy, 2009). This respite effect could also be felt when the level of satisfaction in paid work is high, or when the job conditions, such as flexible work schedules, facilitate the balance between employment and other roles (Pavalko & Artis, 1997).

Contemporary views on work-life balance seek to take into account the behavioural responses of individuals – that is, how they act in relation to their roles – as well as the multi-faceted nature of work-life balance (Rantanen et al., 2011). Overall, scholars generally agree that situations in which rewards outweigh demands usually lead to positive outcomes for individuals, whereas those associated with greater demands than resources yield negative outcomes, such as high stress levels. In addition to affecting individual well-being, the difficulty of managing multiple roles, and especially those of caregiver, parent, and employee, could lead individuals to set aside some of their responsibilities, such as employment, in order to concentrate their energy and resources on their other roles.

Second, our analysis draws on life course theory (Elder, 1998). It adopts a longitudinal approach that takes into account the influence that past events and experiences are likely to exert on the likelihood that individuals will undergo given events or transitions – in this case, that of leaving employment. Research has shown that previous work experience, measured as the proportion of years employed in the previous 15 years (Pavalko & Artis, 1997) or the number of

years worked in full-time and part-time jobs (Henz, 2006), is positively linked to the number of hours worked or reduces the likelihood of leaving employment. In other words, past work experience may reflect and influence the current level of labour force attachment.

The life course perspective also emphasizes the interdependence and interconnectedness of the various dimensions of individuals' lives. Conjugal and parental histories are likely to affect employment trajectories and to do so differently by gender. Hence, the birth of a child has been shown to increase the risk that women will interrupt their careers but reduce the probability of work interruptions among men (Cook & Beaujot, 1996). Married men appear less likely than their never-married or divorced counterparts to experience a work interruption of at least six months, whereas the opposite is found among women, with those who are married or cohabiting facing higher risks of an interruption (Cook & Beaujot, 1996; Henz, 2006; Pacaut, Le Bourdais, & Laplante, 2011). Conjugal and parental histories thus need to be taken into consideration in the analysis of employment transitions.

Relationship with the Care Recipient

Research on the impact of care provision on employment shows that caring for an immediate family member tends to increase the probability of leaving employment and of reducing work hours (Lilly et al., 2007), an effect that is more pronounced among women than men (Arber & Ginn, 1995; Covinsky et al., 2001). To our knowledge, only two studies have taken into consideration the nature of the care relationships: one focusing on employment status in Britain (Arber & Ginn, 1995), the other on retirement timing in the United States (Dentinger & Clarkberg, 2002). The former shows that men's employment status is generally not affected by the provision of care to a parent, another relative or a non-relative (Arber & Ginn, 1995), and that when it is, attachment to the labour market tends to be strengthened. The sole exception concerns care provided to a spouse that decreases the likelihood of being employed. Among women, compared to their counterparts who are not caregivers, the probability of being employed is lower for those providing care to a spouse or a child. Providing care to a parent or parent-in-law also lowers that probability but only for co-resident care; when the parent or parent-in-law is not residing with them, women are as likely to be employed but more likely to work part-time. Women thus seem to opt for part-time work to balance their employment with care responsibilities.

In regard to retirement decisions, once again men appear to behave differently than women. On one hand, men postpone their retirement when they provide care to a partner but also when they care for a parent or another relative (Dentinger & Clarkberg, 2002). On the other hand, women's retirement decisions do not appear to be influenced by the provision of care to people other than their partners. In this case, their probability of retiring is higher than that of women not providing care – the opposite relationship of that observed for men.

Caregivers' Family Responsibilities and Support

The presence of dependent children in the household may further shape the effect of caregiving on employment. Being “sandwiched” between eldercare, childcare, and employment brings its share of challenges. Individuals engaged in paid work or self-employment, who provide eldercare and who have children under the age of 25 living at home report significantly more stress than their counterparts who provide only eldercare or neither eldercare nor childcare (Williams, 2005). On a positive note, nearly all (95%) of these “sandwiched” workers report being satisfied with their lives, a proportion that is similar to that found among workers assuming fewer roles. This illustrates that work-life balance is a multi-faceted concept, comprising negative and positive aspects. Some of these “sandwiched” workers have probably found a way to manage their many responsibilities by making adjustments at work or at home. Hence, as reported in one Canadian study, “one in seven sandwiched workers had reduced their work hours over the previous 12 months, 20% shifted their work hours, and 10% lost income” (Williams, 2005, p. 17).

Some relief may be provided to caregivers by children, intimate partners and other family members. In 2007, almost one-third of Canadians aged 45 years and older who identified themselves as unpaid caregivers reported that their children helped them – for instance, by doing more household chores (Cranswick & Dosman, 2008). The second main source of help, mentioned by 26% of caregivers, was spouses or cohabiting partners, closely followed by members of the extended family. Although not mentioned in the study, children who are a source of support are probably adolescents or young adults. Having very young children, particularly those below the age of 6, is likely to create more demands and may make it especially difficult to combine parental, employment and unpaid care obligations.

With the emergence of the “sandwich generation”, one could expect the presence of children to affect the impact of caregiving on employment. However, the results of one study show that the effect of the provision of care does not vary with the age of the youngest child or the number of children (Henz, 2006). The null finding observed in this study was perhaps due to the fact that caregiving was broadly defined as having “looked after someone, for at least three months, who is sick, disabled or elderly” (Henz, 2006, p. 415). The results might have been different if parent care had been isolated from other care relationships.

Other Factors Influencing Employment

A number of other factors influence labour force participation and were included in our analysis where possible. Having a low income or education level, being in poor health and nearing retirement age are all associated with lower labour force participation (Lilly et al., 2007). As we have mentioned, the conjugal status of individuals and the ages and number of their children are likely to influence employment behaviours; past work experience and employment status (full-time versus part-time work) also need to be considered. Labour market conditions, which vary considerably across Canada, are also likely to exert an impact on the risk of leaving employment. Finally, immigrants, who constitute an important share of the Canadian population, face a number of obstacles in the labour market, which could influence their propensity to leave employment (Reitz, 2001).

Research Questions

Based on the literature review, our study assessed to what extent the provision of care increases the probability of individuals to leave employment. More specifically, we examined three criteria as to whether the impact of providing care on the transition out of employment varies: a) according to the nature of the care relationship; b) depending upon whether respondents were working full-time or part-time; and c) according to whether they were or were not “sandwiched” between children and parents. One of the main contributions of our analysis rests on its ability to isolate parent care from other care relationships and to identify individuals who were “sandwiched” between parent care and childcare. We conducted the analyses separately for

men and women, as we expected differences in employment behaviours, by gender, to result from the nature of the care relationships and of being “sandwiched”.

Methods

Data

The data used in the analysis were gathered in 2006 and 2007 by Statistics Canada as part of two cycles of the General Social Survey (GSS). Nearly 24,000 individuals aged 15 years and older were sampled in 2006 by the GSS (Cycle 20) on family transitions, which collected the detailed retrospective employment, conjugal and parental histories of respondents living in private households in one of the 10 provinces. Of these respondents, those aged 45 and older in 2007 were re-interviewed on family, social support, and retirement by the GSS (Cycle 21), which collected their retrospective caregiving histories. In total, 10,403 respondents were interviewed in both GSS cycles.

Sample

Only respondents who had at least one employment episode of at least six months since the end of their schooling and who were under the age of 80 in 2006 were retained in the analysis.³ Of these 8,748 respondents, 1,889 cases were excluded. The majority of the excluded cases ($n = 1,328$) had incomplete information regarding care provided in the 12 months preceding the survey. Nearly 90% of these cases were lost due to survey design and not to recall error. They concern respondents who reported providing care to more than one person in the past 12 months but for whom only the information about the care provided to the main care recipient was collected.⁴ An additional 382 respondents were excluded because they did not mention if they had ever provided care after the age of 15, or because they failed to report the start date, end date,

³ We excluded respondents aged 80 years and older in 2006 since they represented a select group of individuals who survived until old age and were still living in private households. Sensitivity analyses including this group of respondents led to similar results.

⁴ Most of these cases had to be excluded given the possible impact of missing care episodes on the risk of leaving employment. Sensitivity analyses revealed that excluded cases differ from respondents who form the final sample on some of the independent variables, but not on the dependent variable. Given that the survey design is in large part responsible for the exclusion of cases, the importance of recall bias is minimized. Nonetheless, the large proportion of caregivers in the excluded group should be kept in mind in the interpretation of the results.

or relationship with the care recipient for some past care episodes. Fewer respondents were excluded on the basis of missing information on other independent variables: 40 and 80 cases respectively for the conjugal and parental histories, and 59 cases for work experience, education, and place of birth. Our analytic sample therefore includes 6,859 respondents aged 44-79 in 2006 who reported at least one employment episode and who had no missing information on any of the control variables.

Measurement

Employment episodes. In Cycle 20, all respondents who reported having worked for a period of at least six months while not in school were asked if they had ever been away from work for at least three months and, if so, whether or not they had started working again following that interruption. Specific dates (month and year) of the start and end of up to five periods of employment were collected. Statistics Canada distinguished three types of work: paid work, self-employment, and unpaid family work. With these data, we were able to reconstruct the paid work history of respondents for up to five work episodes (comprising four work interruptions) until the time of survey. We excluded periods of self-employment and considered those who were unpaid family workers as not engaged in paid employment. For each work episode, we know whether the respondent was employed full-time or part-time (less than 30 hours per week) at the beginning of the episode, as well as the dates of transition between statuses during the episode, if any. For each employment episode, we can therefore track whether the respondent was working full-time or part-time until he or she left employment or until the observation period ended (that is, if the respondent was still employed at the time of survey in 2006). We are also able to distinguish the rank of each paid work episode.

Caregiving. The provision of unpaid care constitutes the main independent variable in our analysis. The 2007 GSS collected information on care provided in the 12 months preceding the survey in addition to up to five past care episodes. Respondents were first asked if they had provided assistance to a person because of a long-term health condition or physical limitation in the past 12 months. They were also asked if this assistance consisted of one of the following task sets: a) transportation, shopping, banking, bill paying; b) meal preparation and housework; c) house maintenance and outdoor work; d) personal care; e) medical care; and/or f) coordinating caregiving tasks and managing finances. Data were also collected on the start date of the caregiving episode as well as the type of the relationship they had with the main care recipient.

In a separate section of the survey, respondents were asked how many people they had helped since the age of 15, for a period of six months or longer, excluding those helped in the past 12 months. The start and end dates of up to five caregiving episodes, along with the relationship with each care recipient, were collected. After adding the care episode recorded in the previous 12 months that lasted at least six months,⁵ respondents' complete caregiving histories can thus contain up to six caregiving episodes.

The overlapping of a number of caregiving episodes complicated the creation of a mutually exclusive categorical variable indicating the relationship with the care recipient. In the analysis, we differentiated among individuals who 1) did not provide care; 2) provided care to a spouse or partner, regardless of whether they also helped someone else or not; 3) provided care to a parent or parent-in-law, and perhaps to another person, excluding a partner,⁶ 4) helped another relative, regardless of whether they also helped a non-relative or not; and 5) provided assistance only to a non-relative. The value of this variable could change throughout the course of an employment episode as the relationship of the person cared for by the respondent changed. For the sake of brevity, the expressions "care to parents" or "parent care" refer to "care to parents or parents-in-law" in the rest of this chapter.

Conjugal and parental histories. The 2006 GSS includes the respondents' conjugal and parental histories. The survey collected retrospective information on up to four marriages and four cohabiting unions, in addition to any ongoing union at the time of the survey. We know the start date of each union, as well as the date of and reason for each union dissolution, if applicable.⁷ This information allowed us to reconstruct the conjugal trajectories of respondents and to distinguish between individuals who 1) had never been in a union; 2) had a married or cohabiting partner; or 3) did not have a partner following separation, divorce, or the death of a

⁵ For care episodes provided in the past 12 months, we retained only those starting in 2006 or earlier to ensure that only episodes that lasted at least six months were included in the analysis.

⁶ When care is provided simultaneously to a partner and a parent, the episode is categorized with care to a partner, given the greater intensity associated with this care relationship (Sinha, 2013).

⁷ The start date of a cohabiting union followed by marriage is the date when cohabitation began; when both dates of separation and divorce are available, the date of separation is considered the end date of the union. Some imputations were made to assign start and end dates of unions when missing. For more information on the method used, please contact the authors.

partner. The value of this variable can change throughout employment episodes as respondents move between categories.

In addition, the 2006 GSS collected retrospective information on up to 20 biological, adoptive, and stepchildren, including the dates when each child was born, started living with the respondent, and died, if applicable. Unfortunately, the date at which children left the respondent's household was not asked of the majority of respondents; therefore, we could not control for the presence of children in the household during the work episodes.⁸ Two variables were derived from the parental history. The age of the youngest child includes five categories representing different stages of childhood, adolescence, and young adulthood: 1) 0-5 years old; 2) 6-12 years old; 3) 13-17 years old; 4) 18-24 years old; 5) no child under age 25, including childless respondents (reference category). The other variable indicates the total number of children that the respondent had (0, 1, 2 or more). The value taken by these two variables can change throughout employment episodes.

Control variables. These include a) the age of respondent over the course of the employment episode (less than 30 years old; age 30-39; age 40-49; age 50-59; age 60 and older); b) the cumulative number of years of full-time and part-time employment up to the start of the considered work episode; c) the respondent's highest level of completed education at the time of survey (less than a high school diploma; high school diploma; college diploma or certificate; university degree); d) the region of residence at the time of survey (Atlantic region, Quebec, Ontario, Prairie region, British Columbia); and e) place of birth (Canada, outside Canada).

Statistical Method

We used event history analysis to investigate the effect of providing care to a relative or friend on the likelihood of leaving employment. More specifically, we used Cox proportional hazards models that allowed us to estimate the influence of independent variables on the probability (or hazard) of leaving employment, without having to parameterize the baseline hazard. In this type of model, the baseline hazard is left unspecified and only the relative differences in hazards between individuals with different characteristics are estimated (Cleves,

⁸ Stepchildren who lived with respondents during the course of a former union are considered to no longer be part of the life of the respondent once that union ends.

Gould, Gutierrez, & Marchenko, 2008).⁹ Respondents are considered at risk of leaving employment from the moment the episode of employment starts until they leave employment or the observation ends.¹⁰

Since the complete employment history was taken into consideration in our models, many respondents had more than one employment episode over the course of their working lives. Thus, the models need to estimate the effect of the independent variables on recurrent events (i.e., on multiple paid work interruptions), while correcting for the bias arising from the fact that respondents who had multiple interruptions were probably more likely to leave employment again. To correct for this bias, we followed the method used by Prentice, Williams, and Peterson (1981). Respondents who had more than one episode were considered at risk of leaving employment at the start of the first employment episode and remained at risk until that episode ended. They became at risk of leaving employment again only at the start of their second period of employment; the same procedure was followed for the third, fourth, and fifth employment episodes. In the model, the rank of the employment episode was used as a stratum variable to correct for the aforementioned bias. We further clustered the employment episodes within respondents in order to correct the standard errors for individuals who had multiple episodes. To control for the stratified sampling design, we estimated all models using population weights, adjusted by dividing by the number of job episodes for each respondent.¹¹

The first model estimated the impact of the provision of care according to the nature of the care relationship, which could vary throughout the employment episode, on the risk of leaving employment of both men and women, after controlling for a number of co-variables. In the second model, we examined whether the provision of care varied with the intensity of work, and we included an interaction term that combined the care relationship variable with the status of work. We ran this model solely for women, the number of men employed part-time while

⁹ The only assumption was the proportionality of hazard. This was generally respected in our analysis.

¹⁰ Respondents who had missing information at the end of an episode were censored a month after the start of the episode or after another event with valid date occurred within the episode (e.g., change from part-time to full-time work). When the start date of an episode was missing, the entire job episode was excluded from the analysis.

¹¹ Clustering could not be applied with the bootstrap weights provided by Statistics Canada to correct for the multi-stage sampling method used in the GSS. Bootstrap weights were thus not applied, but all models were nevertheless estimated using the adjusted population weight.

providing care being too small to provide estimates. Finally, the third model included an interaction term that combined a less-detailed care variable (not providing care; care to parents; care to others) with the age of the youngest child. Its aim was to compare the risk of leaving employment by men and women “sandwiched” between childcare responsibilities and parent care with the risk of others who held fewer roles (such as individuals having a 0-5-year-old child, but who were not providing unpaid care or those providing care to a parent, but who had older children aged 18 to 24 or aged 25 years and older).

Results

Descriptive Statistics

Table 2.1 reports the distribution of the variables used in the models separately for men and women. As the Table shows, the 3,051 male and 3,808 female respondents retained in the sample reported 4,206 and 6,924 employment episodes respectively. Of these, 46% (men) and 66% (women) ended with an interruption. Nearly all men and women experienced full-time employment at some point during their working lives; however, women were three times more likely than men to have been employed part-time at some point during their careers (38% versus 12%). Women experienced a larger number of paid work interruptions than men; 22% of them had cumulated at least three periods of employment compared to only 7% of men. This explains the higher number of cumulated years of work experience observed among women than men at the beginning of their most recent employment episode (5.2 vs. 4.2 of full-time years of experience).

Parent care appeared to be more common than care provided to any other persons: 17% of men provided care to a parent while they were employed, and as much as 23% of women did so. The least common care relationship observed among employed Canadians was that between partners, with only 3% of men and 4% of women found to provide care to a partner. This was not surprising given that we restricted the analysis to respondents under the age of 80.

Table 2.1: Characteristics of Men and Women Aged 44 to 79 Years in 2006 Who Worked at Least Once for at Least 6 Months, Canada (weighted).

	Men	Women	
Number of Employment Episodes (unweighted)	4206	6924	
% ending with an interruption	45.9	65.9	***
% of respondents within an employment episode who were employed:			
Full-time	99.4	96.8	***
Part-time	12.3	37.8	***
Number of employment episodes (%):			***
1	72.5	49.2	
2	20.4	28.4	
3 or more	7.1	22.4	
Mean paid work experience at the start of the most recent employment episode^a:			
Full-time	4.2 [9.0]	5.2 [7.7]	***
Part-time	0.1 [1.1]	0.6 [2.4]	***
% of respondents who never provided care within an employment episode:	74.0	65.5	***
% of respondents who provided care within an employment episode:			
To a partner	3.3	4.3	†
To a parent	17.0	23.4	***
To another relative	5.5	8.0	**
To a non-relative	4.1	5.0	
% of respondents within an employment episode:			
Who never had a partner	10.4	9.5	
Who had a partner	89.2	89.2	
Who were separated, divorced or experienced the death of a partner	28.3	33.2	***
% of respondents within an employment episode whose youngest child is:			
0-5 years old	76.5	62.1	***
6-12 years old	74.6	63.6	***
13-17 years old	63.9	58.4	***
18-24 years old	50.5	50.5	
% of respondents within an employment episode:			
Who never had children	20.9	22.8	
Who had 1 child	74.6	53.8	***
Who had 2 or more children	67.2	61.7	***
% of respondents within an employment episode who are aged:			
Less than 30 years old	94.9	88.6	***
30-39 years old	89.3	77.8	***
40-49 years old	87.1	77.0	***
50-59 years old	61.3	50.9	***
60 years old and older	25.4	19.4	***
Place of birth (%):			***
In Canada	73.9	78.7	
Outside Canada	26.1	21.3	
Highest level of education attained at time of survey (%):			***
Less than a high school diploma	20.0	20.2	
High school diploma	25.1	28.2	
College diploma/certificate	27.1	31.3	
University degree	27.8	20.3	
Region of residence at time of survey (%):			
Atlantic region	8.0	8.0	
Quebec	26.1	25.4	
Ontario	37.5	37.8	
Prairie region	15.1	15.5	
British Columbia	13.4	13.3	
Number of respondents (unweighted)	3051	3808	

Source: Statistics Canada (2007), GSS, Cycles 20 and 21.

^aStandard deviations in squared brackets. Chi-square or T-test according to gender, significance level: † p<.10; * p<.05; ** p<.01; *** p<.001.

Almost nine out of ten respondents lived in a married or cohabiting union at some point during an employment episode, and 28% of men and one-third of women lived without a partner

after experiencing a union dissolution. Men were more likely to have very young children while engaged in paid work than their female counterparts: 77% of them had at least one child aged 0-5 years during an employment episode compared to 62% of women. Men were more likely than women to be employed, no matter the age group considered, and a larger proportion of them were born outside Canada and held a university degree. Finally, no statistical difference was found between men and women regarding the region of residence at the time of the survey.

Multivariate Results

Table 2.2 presents the results of the Cox proportional hazard models separately for men and women. In Model 1, we included all independent variables. We tested interaction effects in Models 2 and 3. In Model 1, the analysis showed that providing care to a relative or friend did not in itself appear to significantly affect the risk of leaving employment, regardless of the nature of the relationship with the care recipient. However, as we will see later, the lack of statistical effect observed here was due to the fact that the provision of care differently affects the employment behaviours of women depending upon their work status, and affects behaviours of both men and women according to the age of their youngest child.

We also examined the effect of other variables on the risk of leaving employment. As Model 1 shows, conjugal status exerted a different impact depending on the respondent's gender. Not being in a married or cohabiting union increased the likelihood of leaving employment among men, but strongly reduced it among women; hence, compared to their counterparts who were married or in a cohabiting union, women who never lived with a partner had only one-third the risk of leaving employment, and those separated, divorced, or widowed, 70% of that risk. Fewer differences separated genders with regard to the presence and age of children. When compared to those who were childless or had no children under 25, men whose youngest child was under the age of 18 were less likely to leave employment, and women whose youngest child was between 6 and 24 years old also faced a lower risk of doing so. However, women with preschool-aged children appeared no more likely to leave their jobs than those without a child under age 25. This lack of effect might appear surprising; in fact, it resulted from the inclusion in the model of the age of women, which was closely linked to the age of children, and which modified the impact of the latter. Finally, women who had two or more children had approximately half the risk of women with no children of leaving employment. Although it was

Table 2.2: Weighted Hazard Ratios of Leaving Employment for Canadian Men and Women Aged 44 to 79 Years Old in 2006 Who Had Worked at Least Once for at Least 6 Months

	Model 1		Model 2	Model 3	
	Men	Women	Women	Men	Women
Providing care to (not providing care)^a					
A spouse/partner	1.21	0.83			
A parent	1.15	1.11			
Another relative	0.76	1.01			
A non-relative	1.36	1.09			
Conjugal status (married/cohabiting)^a					
Never partnered	1.25*	0.33***	0.33***	1.25*	0.33***
Separated/divorced/death of partner	1.37**	0.70***	0.69***	1.37**	0.69***
Age of youngest child (no child under 25)^a					
0-5 years old	0.69*	0.92	0.92		
6-12 years old	0.70*	0.51***	0.51***		
13-17 years old	0.72*	0.55***	0.55***		
18-24 years old	0.96	0.78*	0.77*		
Total number of children (none)^a					
1	1.20	0.98	0.98	1.18	0.98
2 or more	1.12	0.56***	0.56***	1.11	0.56***
Age of respondent (less than 30 years old)^a					
30-39	0.96	0.67***	0.67***	0.95	0.66***
40-49	1.33	0.73**	0.72**	1.32	0.70***
50-59	2.74***	1.09	1.08	2.73***	1.06
60 years and over	4.64***	2.27***	2.28***	4.63***	2.23***
Working part-time (full-time)^a	2.37***	1.43***		2.35***	
Full-time work experience	0.99	0.99*	0.99*	0.99	0.99*
Part-time work experience	1.06	0.97*	0.96*	1.06	0.96**
Highest level of education (less than high school diploma)					
High school diploma	1.08	0.95	0.95	1.09	0.95
College diploma/certificate	1.14	1.06	1.05	1.15	1.05
University degree	1.10	0.98	0.98	1.11	0.98
Region of residence (Atlantic region)					
Quebec	0.80*	0.70***	0.71***	0.79**	0.71***
Ontario	0.83*	0.94	0.94	0.82*	0.95
Prairie region	0.61***	0.85*	0.85*	0.61***	0.85*
British Columbia	0.83†	0.83*	0.83*	0.82†	0.83*
Foreign-born (born in Canada)	0.86†	0.83**	0.83**	0.86†	0.83**
Interaction of care and work status (not providing care, full-time)^a					
Providing care to a spouse/partner, employed full-time			0.82		
Providing care to a parent, employed full-time			1.25*		
Providing care to another relative, employed full-time			1.12		
Providing care to a non-relative, employed full-time			1.13		
Not providing care, employed part-time			1.51***		
Providing care to a spouse/partner, employed part-time			1.27		
Providing care to a parent, employed part-time			0.87		
Providing care to another relative, employed part-time			0.84		
Providing care to a non-relative, employed part-time			1.50†		
Interaction of care and age of youngest child (not providing care, no child under 25)^a					
Not providing care, child 0-5 years old				0.73*	
Not providing care, child 6-12 years old				0.75†	
Not providing care, child 13-17 years old				0.80	
Not providing care, child 18-24 years old				0.99	
Providing care to a parent, no child under 25				1.60*	
Providing care to a parent, child 0-5 years old				0.11**	
Providing care to a parent, child 6-12 years old				0.53	
Providing care to a parent, child 13-17 years old				0.25**	
Providing care to a parent, child 18-24 years old				1.20	
Providing care to another person, no child under 25				1.21	
Providing care to another person, child 0-5 years old				0.64	
Providing care to another person, child 6-12 years old				0.61	
Providing care to another person, child 13-17 years old				0.47	
Providing care to another person, child 18-24 years old				1.02	
Interaction of care, work status and age of youngest child (not providing care, employed full-time, no child under 25)^a					
Not providing care, employed full-time, child 0-5 years old					0.95
Not providing care, employed full-time, child 6-12 years old					0.53***
Not providing care, employed full-time, child 13-17 years old					0.55***
Not providing care, employed full-time, child 18-24 years old					0.71**
Providing care to a parent, employed full-time, no child under 25					1.31†
Providing care to a parent, employed full-time, child 0-5 years old					0.87
Providing care to a parent, employed full-time, child 6-12 years old					0.22***
Providing care to a parent, employed full-time, child 13-17 years old					0.84
Providing care to a parent, employed full-time, child 18-24 years old					1.36
Providing care to another person, employed full-time, no child under 25					0.92
Providing care to another person, employed full-time, child 0-5 years old					1.37
Providing care to another person, employed full-time, child 6-12 years old					0.47*
Providing care to another person, employed full-time, child 13-17 years old					0.55
Providing care to another person, employed full-time, child 18-24 years old					0.83
Not providing care, employed part-time, no child under 25					1.60***
Not providing care, employed part-time, child 0-24 years old					1.08
Providing care to a parent, employed part-time, no child under 25					0.49
Providing care to a parent, employed part-time, child 0-24 years old					0.78
Providing care to another person, employed part-time, no child under 25					1.08
Providing care to another person, employed part-time, child 0-24 years old					0.88
N	3051	3808	3808	3051	3808

Source: Statistics Canada (2007), GSS, Cycles 20 and 21.

Cox proportional hazard models stratified by job rank, clustered by respondent id. Reference category in parenthesis. Significance levels: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

^a Time-varying covariates.

unexpected, this result was in line with that observed in past research (Henz, 2006; Pacaut et al., 2011).

The influence of the respondent's age helped clarify the impact of the age of the youngest child on women's employment trajectories. Whereas men's probability of leaving employment increased with age, that of women was reasonably high below age 30 and when they reached the age of 50. Compared to women who were less than 30 years old, those aged 30-39 were 33% less likely to leave employment; those aged 40-49, 27% less likely. In contrast, women aged 60 and older faced more than twice the risk to do so. Women with very young children were more likely to be found in the under-age-30 category; this accounted for the lack of significant effect we observed for women whose youngest child was aged 0-5.

The work status experienced during the employment episode exerted a significant effect on the risk of leaving work for both men and women. Men who worked part-time had more than twice the risk of leaving employment than their counterparts engaged in full-time employment. Part-time work was not as common among men as among women, and the latter faced only a 43% higher risk of leaving work when working part-time as opposed to full-time. The cumulative number of years spent in full-time and part-time work at the beginning of the employment episode only significantly affected the transition out of employment among women. Each year of full-time work experience reduced the risk of leaving employment by 1%, and that of part-time work by 3%.

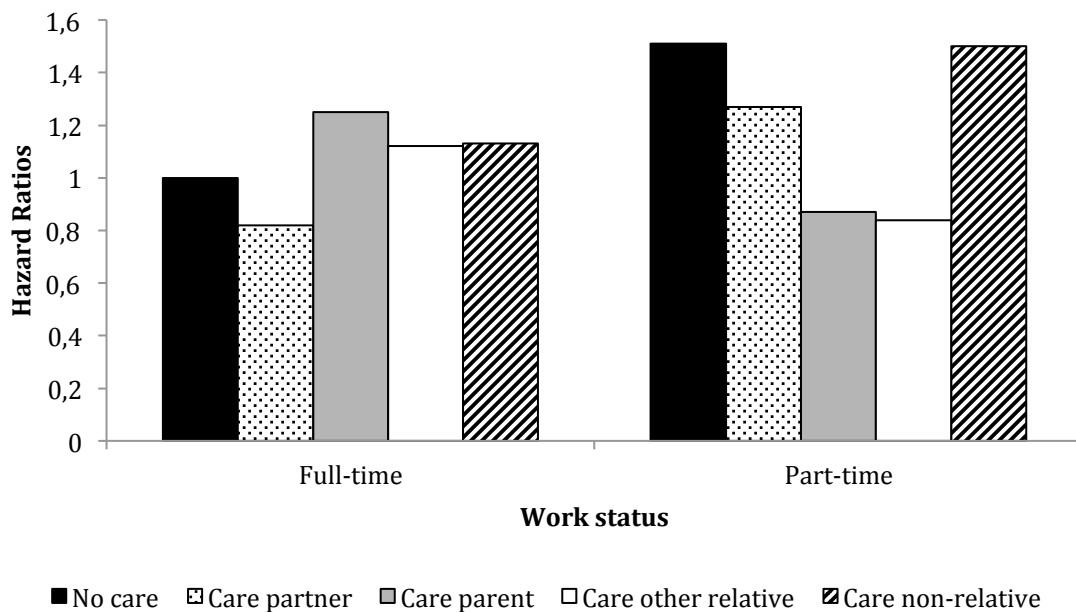
Among the other control variables, the region of residence and the place of birth appeared linked to employment behaviours. Living in the Atlantic region as opposed to elsewhere in Canada was associated with a higher probability of leaving employment. Finally, immigrants faced a lower risk of leaving work than native-born Canadians, a relationship found among both men and women, but which was only marginally significant among men.

In Model 2, we examined whether being employed on a full- or part-time basis modified the impact of care provision on the risk of women of leaving employment, and thus the model includes interaction terms between these two variables. To facilitate discussion of the results, Figure 2.1 presents the hazard ratios of the interaction terms between providing care and work status among women, after controlling for the other variables included in Table 2.2. The

reference category includes women *not providing care and employed full-time*. Differences between all categories were also statistically tested; only significant effects are discussed here.

Figure 2.1 shows that the provision of care to a parent significantly influenced the risk of leaving employment among women employed full-time. Hence, women providing care to a parent had a 25% higher probability of leaving work than those who were employed full-time but did not provide care. In contrast, among women working part-time, those who provided care to a parent had a much lower risk of leaving employment than those who did not provide care (nearly half that risk). The opposite effect that the provision of care to a parent exerted on the risk of leaving employment, depending upon the work status of women, explains the lack of statistical significance that we observed for this variable in Model 1 (see Table 2.2). Working fewer hours thus appeared to help female caregivers combine their employment and care responsibilities, at least when helping a parent. This difference in the work behaviours of full- and part-time employed female caregivers thus needs to be considered when estimating the impact of being “sandwiched” between parent and childcare.

Figure 2.1: Impact of Caregiving Status and Relationship with Care Recipient According to Paid Work Status on the Risk of Leaving Employment, Women (reference category: not providing care, full-time)

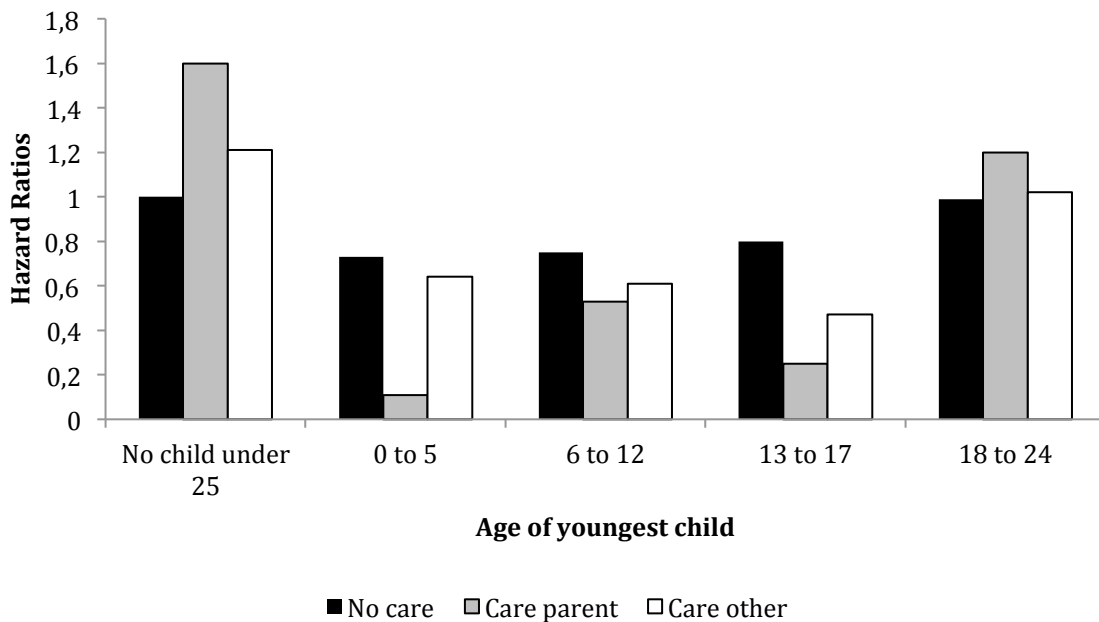


Source: Statistics Canada (2007), GSS, Cycles 20 and 21.

Cox proportional hazard models controlling for other covariates, stratified by job rank and clustered by respondent id.

In Model 3, we included interaction terms between providing care and the age of the youngest child (see Table 2.2) to test the influence of combining unpaid care and childcare responsibilities. In order to have a sufficient number of cases in each category for the proportional hazard model to be estimated, we grouped the care variable into three categories: 1) no care; 2) care to a parent; and 3) care to others (including partners, other relatives and non-relatives). This strategy enabled us to estimate the effect of being “sandwiched” between parent care and childcare – that is, the impact of providing care to a parent depending on the age of the youngest child. Again, only significant effects are discussed here.

Figure 2.2: Impact of Caregiving Status and Relationship with Care Recipient According to Age of the Youngest Child on the Risk of Leaving Employment, Men (reference category: not providing care, no child under 25)



Source: Statistics Canada (2007), GSS, Cycles 20 and 21.
Cox proportional hazard models controlling for other covariates, stratified by job rank and clustered by respondent id.

Figure 2.2 shows the hazard ratios of the interaction terms for men. The analysis shows that men who provided care to a parent but had no children under age 25 were 60% more likely to leave employment than their counterparts who did not provide care and had no children under 25 (the reference category). In contrast, men who provided care to a parent, but whose youngest child was under age 18, had a much lower probability of leaving employment than their

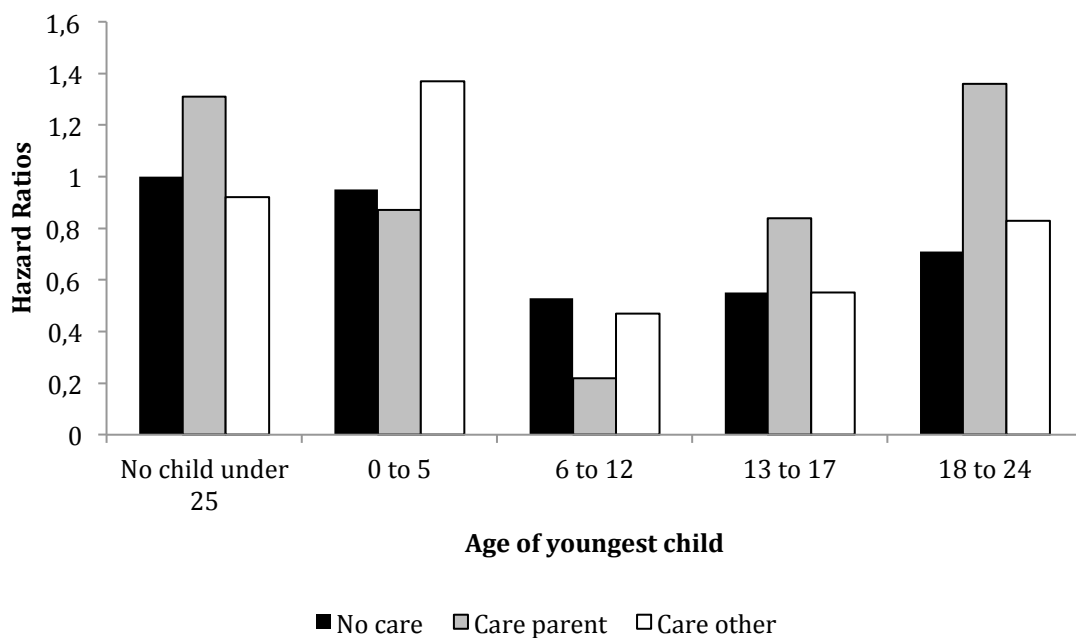
counterparts who were assisting a parent but had no children under age 25. Among men whose youngest child was aged 0-5 or 13-17, those providing care to a parent had a significantly lower risk of leaving work than those not providing care. In other words, the analysis suggested that the combination of care to parents and relatively young children tended to decrease, rather than increase, the risk of men to leave paid work. No statistical differences in the risk of leaving employment were found among men having children aged 18-24. These children were more independent than younger children, and given that their presence in the household was unknown, it was difficult to consider these men as being “sandwiched”. However, regardless of their place of residence, fathers may still have been involved in providing financial support to these children, whereas the latter may have acted as resources in assisting their grandparents. These counterbalancing forces, of young adults creating demands and providing relief simultaneously, could explain the lack of significance we found of parent care on leaving employment for men with children of that age.

We conducted this analysis separately for women. In order to control for the different effect that the provision of care to a parent exerted among women with children of different ages, the analysis also included interaction terms between care and work status. However, due to the small number of part-time working women in the categories in which the youngest child was under 25, this variable only distinguished women with and without children under age 25 among part-time employees. Model 3 presents the hazard ratios of this three-way interaction. Among women without children under age 25, those employed full-time and not providing care, as well as caregivers working part-time, appear less likely to interrupt work than part-time employees not providing care. Given that no other significant differences were found among women employed part-time according to the care status or the age of the youngest child, these effects are not discussed further. Figure 2.3 provides the hazard ratios of the interaction terms for full-time employed women. The reference category includes *women not providing care, employed full-time, and without children under age 25*; statistical tests were run to examine differences between all categories of the interaction variable.

As Figure 2.3 shows, the influence of being “sandwiched” between parents’ and children’s responsibilities on the risk of leaving employment among full-time female paid workers appeared similar to that observed for men. Hence, we observed that women employed full-time who provided care to a parent were less likely to leave employment when their youngest

child was aged 6-12 than their counterparts who had a child of the same age but were not providing care. The effect of parent care did not, however, appear to significantly affect the propensity of leaving work among women employed full-time whose youngest child belonged to another age group under 18. When the child was above that age, the provision of care to a parent was positively linked to the risk of leaving employment. Hence, women employed full-time who had a child aged 18-24 had nearly twice the risk of leaving paid work when they provided care to a parent than when they did not. We found a similar effect, but of a smaller magnitude, among women employed full-time who had no children under age 25.

Figure 2.3: Impact of Caregiving Status and Relationship with Care Recipient According to Age of the Youngest Child on the Risk of Leaving Employment, Women Employed Full-time (reference category: not providing care, no child under 25)



Source: Statistics Canada (2007), GSS, Cycles 20 and 21.

Cox proportional hazard models controlling for other covariates, stratified by job rank and clustered by respondent id.

The main difference emerging between men and women thus concerned the life stage at which parent care increased the risk of leaving employment. For women employed full-time, this impact was felt earlier, when their youngest child was still aged 18-24. Among employed men, providing care to a parent increased the likelihood of leaving paid work only when their youngest child reached the age of 25. In conclusion, this analysis showed that the probability of leaving

employment was lower for both men and women who were “sandwiched” between parent care and the care of minor children, compared to those holding fewer roles.

Discussion

This study makes a significant contribution to existing research on the impact of the provision of unpaid care on paid work interruptions. The identification of various care relationships has allowed us to untangle the effect of combining multiple caregiving roles on the risk of leaving employment, and to examine their influence across employment of varying intensity and in conjunction with parental responsibilities. In addition, our study responds to the need outlined by Lilly et al. (2007) to engage in comparative research to deepen our understanding of the gendered nature of this unpaid caregiving relationship.

Our analysis did not, at first, reveal a significant influence of providing care to a partner, a parent, another relative, or a non-relative on the likelihood of leaving employment. However, further analysis showed that women who were employed full-time were particularly vulnerable to leaving employment when they provided care to a parent. Providing care to persons other than parents did not appear to significantly affect employment behaviours; this is perhaps due to the relatively small sample size in those categories. The more demanding nature of full-time paid work in comparison to part-time employment seems to put strain on women and to make it more difficult for them to combine full-time employment with parent care. In contrast, among women employed part-time, those who provided care to a parent faced a lower risk of leaving paid work than their counterparts not providing care. This tends to suggest that employment, when not too demanding, may provide a break from care responsibilities (Masuy, 2009). However, without information on the frequency of the care or tasks performed, it was impossible to determine whether the apparent ability to combine unpaid care and employment among females employed part-time was due to less demanding care responsibilities than those faced by their counterparts employed full-time. This last hypothesis does not appear very convincing given that women employed part-time may simply have had more time to allocate to unpaid caregiving than those employed full-time. It is also difficult to imagine that the health needs of the care recipients should have differed according to the caregiver’s work status.

Being “sandwiched” between the provision of care to a parent and to children was found to influence paid work interruptions, but perhaps not in the way that theories on the balance of multiple roles suggest. Whereas male employees and women employed full-time both viewed their risk of leaving employment reduced if they had school-aged children when compared to respondents with no children under 25, this risk became even lower when they provided care to a parent. In other words, being “sandwiched” would appear to reduce the risk of leaving employment among men as well as women spending at least 30 hours per week in paid work. Balance is said to be positive when rewards outweigh demands (Rantanen et al., 2011). For women who maintained full-time employment, holding multiple roles probably led to additional demands, but the financial resources and satisfaction derived from employment was perhaps sufficient to allow them to respond to their own needs, as well as to those of their children and parents. “Sandwiched” employees may have experienced strain or found that time was scarce, but leaving paid work may simply not have represented a viable option for them to meet their many obligations.

Employed men and full-time working women who were childless or who had only older children and who provided care to a parent were found to be more likely to leave employment than those not providing care. At the time when their parental responsibilities were probably diminishing, providing care to an aging parent might have encouraged some individuals to leave the labour market. This finding holds even when controlling for the age of respondents. Nonetheless, one might think that the option of leaving employment is more often considered when approaching retirement, usually at the time when children are becoming young adults and financially independent. Along those lines, other analyses conducted using the same dataset showed that both men and women aged 50 and over had a higher probability of retiring when providing care to a relative or friend (Hébert & Uriarte-Landa, 2012). Our study underscores that it was not only the fact of being older, but also the stage in the life course when children were more independent, that increased the likelihood of leaving employment while providing unpaid care to a parent. This stage arrived earlier for women than for men, when their youngest child was 18 to 24 years old and in the process of becoming more independent. In contrast, for men, the probability of leaving employment was greater only when their youngest child was 25 years and older. Controlling for these two age groups of adult children was necessary to understand this

gender difference, given that the data contains no information on the age at which children left the household.

Few gender differences were found regarding the impact of parent care on the risk of leaving employment. A notable difference concerns the greater proportion of women employed part-time during the course of their working lives, and the apparent ability of these women to combine part-time work with parent care. This finding is perhaps related to the job sectors or occupations in which these women were employed and which provided them with flexible work arrangements, such as flexible schedules or the possibility to work from home. Female caregivers employed part-time may even have worked fewer hours than other women employed part-time, which could explain their relative ability to balance unpaid care and paid work. Unfortunately, the GSS contains no information on these work characteristics in the retrospective employment histories. Nevertheless, our findings suggest that less demanding work schedules, at least in the form of part-time employment, could alleviate some of the demands associated with the provision of unpaid care. Clearly, further research on this topic is needed.

Part-time work raises other important issues, however. When individuals cut back on hours of paid work, their earnings are generally reduced and can thus make many of them economically vulnerable. Leaving employment after starting to provide unpaid care is also not without consequences. An investigation of the extent to which other sources of income partly compensate for the drop in employment earnings would help better describe the economic situation of caregivers who reduce or leave employment. Some may rely on the financial support of a partner who might even in some cases increase his or her working hours but this situation does not preclude the possibility that their own, as well as their family's, economic well-being may be at stake in the short and long terms due to reduced capacity to accumulate retirement savings. A few studies further indicate that following the end of a caregiving episode, individuals who had reduced their hours of paid work or left employment rarely return to the same employment levels (Lilly et al., 2007). Little is known, however, about the impact of such transitions on their income.

The reduced labour force participation of individuals who provide care to a parent has implications for the ability of governments to maintain their income tax revenues and, ultimately, to provide services to the population. However, the imputed economic contribution of unpaid

caregivers in Canada, which was estimated at nearly \$25 billion in 2009, undoubtedly helps contain public health expenditures (Hollander et al., 2009). Confronted with rapid population aging, all levels of government therefore need to address the issues of balancing eldercare and paid work, which are likely to become increasingly salient in coming years. Our study attempted to document this issue but is not, however, without limitations.

Retrospective surveys, which collect the specific dates of major events experienced by respondents and allow the reconstruction of their life histories, are useful for studying transitions over the life course but often lack important detailed information. For example, information on respondents' health, income, and region of residence was collected only at the time the GSS surveys were conducted in 2006 and 2007. Moreover, the average number of hours per week spent in any caregiver role was not available in the retrospective history and thus could not be taken into consideration in our models. It is unclear whether the inclusion of this variable in the analyses would have yielded different results, given that the relationship with the care recipient has been shown to be linked to the intensity of caregiving (Sinha, 2013). Another issue arising in retrospective surveys is the potential for recall bias, which cannot be ruled out even though we limited our sample to those under the age of 80 years.

Finally, some caution is required in the interpretation of the results since a relatively large fraction of respondents with missing data were excluded from the analysis. We know that this group significantly differs from respondents with complete information on a number of characteristics. Most of these cases were lost due to survey design, and not to recall bias. However, we cannot eliminate the possibility that the inclusion of this group, had we had complete information about them, could have modified the results. Nonetheless, our findings are generally in line with those observed in previous research, which is reassuring. It suggests that selection bias is perhaps not that important an issue in our study.

Linking Section Between Chapters 2 and 3

Chapter 2 explored the impact of the provision of care on the risk of leaving employment using the rich retrospective information collected in the 2006 and 2007 GSS. Event-history analysis showed that providing care to a partner, a parent or parent-in-law, another relative, or a non-relative did not appear at first to exert a significant effect on the probability of leaving employment. However, further analyses revealed that providing care to a parent increased the likelihood of leaving employment among women working full-time. In contrast, those employed less than 30 hours per week who were helping a parent were found to be less likely to leave employment than their counterparts not providing care. The fact of being “sandwiched” between parent care and childcare responsibilities did not appear to put individuals at a greater risk of leaving employment. Hence, parent care was linked to an increased risk of leaving employment only among women who had no child younger than 18 years old and among men who had no children or only children aged 25 years and older.

Chapter 2 suggested that part-time employment is easier to combine with parent care for women. However, it remains unclear whether full-time employed women transition into part-time employment in order to balance their roles of caregiver and paid worker. Likewise, providing care to individuals other than parents could have little impact on paid work interruptions but influence the likelihood of working part-time. To our knowledge, no Canadian studies have used longitudinal modelling techniques to assess the impact of caregiving on the likelihood of men and women of either leaving their full-time employment or switching to part-time work. The analysis of these two competing transitions constitutes the objective of Chapter 3. More specifically, this chapter examines to what extent the nature of the relationship with the care recipient and the duration of care influence the risk of experiencing a transition out of full-time employment. In the final section of the analysis, we explore whether the effect of the nature of the care relationship on transitions out of full-time employment is contingent upon the duration of care. The analysis is based on the same dataset as in Chapter 2 but includes only full-time employment episodes.

Chapter Three

L'impact de la prestation de soins sur les transitions hors d'un emploi à plein temps au Canada

Le vieillissement de la population suscite de nombreuses interrogations en regard de ses conséquences possibles sur les finances publiques et la société en général. Voulant à la fois limiter la croissance des dépenses des programmes destinés aux aînés et retenir le plus grand nombre possible de travailleurs sur le marché du travail, le gouvernement fédéral canadien annonçait en 2012 la hausse progressive de l'âge d'admissibilité à la pension de la Sécurité de la vieillesse qui passera de 65 à 67 ans entre 2023 et 2029. De leur côté, les provinces canadiennes, responsables de la santé et des services sociaux, pourraient voir leurs dépenses croître grandement dans l'avenir étant donné la demande en soins de santé nettement plus importante passé l'âge de 65 ans (Gilmour et Park, 2005). Elles chercheront sans doute à se tourner vers les aidants non-rémunérés qui, par leur appui et soutien aux personnes âgées, ont par le passé contribué à alléger les coûts du système public de santé (Hollander et al., 2009).

En 2012, un peu plus de 8 millions, soit 28 % des Canadiens âgés de 15 ans et plus, ont prodigué des soins à un membre de leur famille ou à un ami éprouvant des problèmes de santé de longue durée, ayant un handicap ou étant tout simplement âgé (Sinha, 2013). Soixante pour cent de ces aidants occupaient un emploi rémunéré. Les taux d'emploi des aidants et des non-aidants se ressemblent; cependant, ceux qui passent de nombreuses heures par semaine à aider un proche ont tendance à modifier leur comportement de travail, soit en prenant un congé non-rémunéré, en réduisant ou en ajustant leur horaire de travail, ou en quittant le marché du travail (Lilly et al., 2007). Plusieurs facteurs sont associés à ces modifications de comportement, dont le nombre d'heures de soins prodigués, la relation avec la personne aidée, ou encore la gravité des problèmes de santé de celle-ci.

Dans leur recension des écrits, Lilly et al. (2007) constatent que les femmes qui prodiguent des soins apportent plus souvent que les hommes des modifications à leur emploi et adoptent parfois des comportements opposés à leurs homologues masculins, plus fortement liés au marché du travail en raison de leur rôle de soutien financier. Ces comportements ne sont pas

sans conséquences sur la capacité qu'ont les gouvernements de collecter des impôts et, de ce fait, de fournir des services à la population, mais aussi sur la propre capacité des aidants, et surtout des aidantes, de subvenir à leurs besoins dans l'immédiat ainsi qu'à épargner en prévision de la retraite.

La présente étude examine les changements occasionnés par la prestation d'aide à autrui dans les trajectoires d'emploi des femmes et des hommes qui occupent un emploi à plein temps. À l'aide des données de l'Enquête sociale générale (ESG) menée par Statistique Canada en 2007, il est possible d'évaluer l'impact des soins prodigués à un proche ou à un ami sur la probabilité qu'ont les individus de « quitter leur emploi » ou de « travailler à temps partiel ». À notre connaissance, il s'agit de la première étude longitudinale au Canada qui analyse l'effet de donner des soins sur ces deux transitions, en accordant une attention particulière à la durée des soins et à la relation avec l'aidé.

L'attachement au marché du travail

Selon Becker (1981), l'attachement au marché du travail différencié des hommes et des femmes serait en partie lié aux différences biologiques qui les séparent et qui les amènent à se spécialiser dans des rôles spécifiques, là où ils ont un avantage comparatif par rapport aux autres membres du ménage. Cette spécialisation, qui s'exprime à travers les rôles de soutien financier des hommes et de soins aux enfants et d'aide ménagère des femmes, constituerait pour lui la solution optimale de fonctionnement des ménages. Cette thèse a été fortement critiquée par Oppenheimer (1994) qui considère que cette division des rôles est particulièrement mal adaptée pour faire face aux risques de perte de revenus liés au chômage ou à des problèmes de santé. En ce sens, la participation accrue des femmes au marché du travail constituerait en quelque sorte une réponse à la situation de vulnérabilité économique que les individus connaissent en raison de la précarisation de l'emploi et la détérioration des conditions sur le marché du travail des hommes, ainsi que de la hausse de l'instabilité conjugale (Kempeneers, 1992; Oppenheimer, 1994).

Bien que les femmes aient augmenté leur participation au marché du travail, leur taux d'emploi demeure inférieur à celui des hommes et elles sont relativement plus nombreuses à occuper un emploi à temps partiel. Selon les données de l'Enquête sur la population active, le taux d'emploi des hommes de 15 ans et plus était de 65,8 % en 2013 comparativement à 58,0 % chez les femmes (Statistique Canada, 2014b). De plus, les femmes occupaient les deux tiers des

emplois à temps partiel, soit de moins de 30 heures par semaine (Statistique Canada, 2014b). Ces différences, qui traduisent un attachement à l'emploi variable selon le sexe, sont sans doute liées aux comportements parfois divergents qu'adoptent les hommes et les femmes qui donnent des soins à une personne ayant un problème de santé ou un handicap.

Impact de la durée des soins sur les trajectoires d'emploi des femmes et des hommes

Dans l'ensemble, les études montrent que les femmes tendent à modifier leur comportement de travail dès le moment où elles commencent à donner des soins à une personne malade, âgée ou ayant un handicap. Ces études s'appuient généralement sur deux types de données longitudinales mesurant le temps passé dans le rôle d'aidant. L'utilisation de données rétrospectives, qui contiennent les dates de début et de fin des épisodes de soins, permet de tenir compte de l'effet de la durée cumulative des soins prodigués sur les comportements individuels. S'appuyant sur de telles données, Henz (2006) a montré que les femmes britanniques quittent davantage leur emploi au début d'un épisode de soins que lorsqu'elles sont des aidantes depuis plusieurs années.

La plupart des études ayant examiné l'effet de la durée des soins sur les comportements en emploi reposent cependant sur l'utilisation de données prospectives issues d'enquêtes à passages répétés. Étant donné le nombre relativement restreint d'années qui séparent le passage de vagues successives dans de telles enquêtes, il est difficile de déterminer le seuil à partir duquel la durée passée dans un rôle d'aidant change la probabilité d'un individu de réduire ses heures de travail ou de quitter son emploi. Cela est d'autant plus difficile que la durée entre collectes varie entre études, allant de cinq ans (Wakabayashi et Donato, 2005), à trois ans (Berecki-Gisolf et al., 2008; Spiess et Schneider, 2003), et à deux ans seulement (King et Pickard, 2013). Ces études tendent néanmoins à montrer que le fait de commencer plutôt que de continuer à donner des soins affecte la propension des femmes à réduire leur participation à l'emploi. Ainsi, comparativement aux femmes qui ne donnent pas de soins, celles ayant commencé à prodiguer des soins entre deux vagues d'une enquête réduiraient significativement leurs heures de travail (Spiess et Schneider, 2003; Wakabayashi et Donato, 2005); par contre, les femmes donnant des soins depuis un certain temps, c'est-à-dire qui donnaient des soins à chacune des deux vagues, ne s'en distingueraient pas (Spiess et Schneider, 2003).

Les travaux qui examinent l'effet de l'intensité des soins sur les comportements de travail, aboutissent à des résultats similaires; les nouvelles aidantes tendent à réduire leurs heures de

travail ou à quitter leur emploi comparativement aux femmes qui ne donnent pas de soins, et ce de façon plus marquée passé un certain seuil d'heures de soins prodigués par semaine (Berecki-Gisolf et al., 2008; King et Pickard, 2013). Le fait de commencer à donner des soins de faible intensité aurait plutôt l'effet inverse, soit de renforcer le lien de travail des femmes (King et Pickard, 2013).

Très peu d'études ont, par ailleurs, comparé l'impact de la durée des soins prodigués sur les comportements en emploi des hommes et des femmes. Celles qui l'ont fait notent que les hommes subissent aussi des répercussions en emploi liées à l'aide fournie, mais seulement lorsqu'ils ont passé plusieurs années dans un rôle d'aidant (Carmichael, Connell, Hulme et Sheppard, 2005 cités par Lilly et al., 2007; King et Pickard, 2013). L'impact négatif sur le maintien en emploi serait particulièrement marqué une fois passé le cap de 10 heures de soins par semaine (King et Pickard, 2013).

Ces résultats limités suggèrent que le fait de prodiguer des soins d'une grande intensité sur une longue période de temps peut amener les hommes à quitter leur emploi. Les répercussions sur leur emploi ne se font pas sentir aussitôt que les soins débutent, probablement parce que les hommes ont un attachement plus fort au marché du travail que les femmes. Lorsqu'elles investissent de nombreuses heures par semaine dans le rôle d'aidante, la probabilité des femmes de réduire leurs heures de travail rémunéré ou de quitter leur emploi augmente. Cependant, l'étude de King et Pickard (2013) suggère que lorsque la demande en soins est moins exigeante, les femmes pourraient s'investir davantage que les non-aidantes dans leur vie professionnelle. Elles y trouvent peut-être là une forme de répit aux soins non-rémunérés qu'elles prodiguent (Masuy, 2009), ou alors les dépenses supplémentaires encourues par la prestation de soins rendent peut-être le revenu d'emploi indispensable.

Relation avec l'aidé et intensité des soins

Le niveau d'intensité des soins fournis est en partie lié à la relation avec l'aidé. Les données de l'ESG de 2012 indiquent que le nombre médian d'heures passées à fournir de l'aide à une personne malade, ayant un handicap ou étant âgée était le plus élevé parmi les aidants qui s'occupaient d'un conjoint (14 heures), suivis de ceux qui donnaient des soins à un enfant (10 heures), un parent (4 heures), un beau-parent (3 heures), un autre membre de la famille (3 heures) ou une personne non-apparentée (2 heures) (Sinha, 2013).

L'impact négatif de la prestation de soins à un membre de la famille immédiate sur les heures de travail ou sur le fait d'occuper un emploi rémunéré est assez constant dans la littérature (Lilly et al., 2007). Cependant, les hommes semblent à nouveau moins affectés que les femmes (Arber et Ginn, 1995; Covinsky et al., 2001; White-Means, 1992). Les deux seules études qui examinent l'impact de différentes relations avec l'aidé montrent que les hommes sont particulièrement affectés, mais de façon opposée, quand ils donnent des soins à une conjointe; la première révèle une association négative entre prestation de soins et le fait d'occuper un emploi (Arber et Ginn, 1995), alors que la seconde suggère que la probabilité de prendre sa retraite est plus faible parmi les hommes s'occupant de leur conjointe (Dentinger et Clarkberg, 2002). Ces résultats divergents sont peut-être liés aux différentes méthodologies utilisées.

Selon la logique de l'attachement au marché du travail, on pourrait s'attendre à ce que les hommes aient une probabilité accrue d'occuper un emploi lorsqu'ils prennent soin de leur conjointe, en raison du rôle principal de soutien financier qu'ils exercent. C'est également le résultat qu'on observe pour la prestation de soins à d'autres personnes que le conjoint. Ainsi, les résultats de l'étude britannique suggèrent que les femmes effectuent des changements à leur emploi quand leur mari prend soin d'un parent, mais que leur mari, lui, continue de travailler comme il le faisait auparavant (Arber et Ginn, 1995). De même, les hommes auraient tendance à repousser la prise de la retraite lorsqu'ils prennent soin d'un parent ou d'une autre personne apparentée (Dentinger et Clarkberg, 2002).

Les décisions de retraite des femmes semblent influencées uniquement par la prestation de soins à un conjoint et non à d'autres personnes, les femmes donnant des soins à leur conjoint étant plus enclines à prendre leur retraite que celles qui ne le font pas (Dentinger et Clarkberg, 2002). L'étude de Arber et Ginn (1995) suggère que la réponse à la prestation de soins n'est pas la même selon la relation avec l'aidé et le lieu de résidence de celui-ci. Ainsi, les femmes qui donnent des soins à un conjoint, un enfant ayant un handicap ou un parent/beau-parent avec qui elles résident ont une probabilité moindre d'occuper un emploi; par contre, le fait de donner des soins à des parents ou beaux-parents n'habitant pas avec elles diminue leur probabilité d'occuper un emploi à plein temps, mais augmente celle d'occuper un emploi à temps partiel (Arber et Ginn, 1995). Ce résultat révèle l'importance d'examiner les changements de régime de travail des hommes et des femmes, plutôt que de se limiter aux seules interruptions d'emploi, si l'on espère être en mesure de déceler l'impact de la prestation de soins à un proche ou à un ami sur leurs

comportements professionnels. L'analyse de l'effet du rôle d'aidant sur la probabilité de « quitter son emploi » ou de « passer à un emploi à temps partiel » parmi les Canadiens et Canadiennes occupant un emploi à plein temps constitue l'objectif principal de la présente étude. L'inclusion dans l'analyse de deux variables-clés qui influencent les comportements en emploi, soit la relation avec l'aidé et la durée des soins, représente une contribution originale de notre recherche.

Autres facteurs associés aux comportements en emploi

D'autres caractéristiques sont généralement associées aux changements de comportement en emploi, et elles sont, dans la mesure du possible, incluses dans l'analyse. Le fait d'être une femme, d'avoir un faible revenu ou un faible niveau de scolarité, la présence (pour les femmes) de jeunes enfants dans le ménage, les problèmes de santé, et l'approche de l'âge de la retraite sont tous des facteurs qui réduisent la participation au marché du travail (Lilly et al., 2007). Les femmes sont plus enclines à quitter leur emploi lorsqu'elles ont un conjoint (Pacaut et al., 2011), alors que ce facteur aurait plutôt tendance à renforcer le lien de travail des hommes (Johnson et Lo Sasso, 2000). Dans le contexte canadien, les conditions du marché du travail varient d'une région à l'autre, les provinces de l'Atlantique ayant généralement un plus haut taux de chômage et une plus grande proportion d'emplois saisonniers que les autres régions; cela pourrait avoir un impact significatif sur le fait de quitter son emploi. Par ailleurs, les immigrants, nombreux au Canada, font face à de nombreuses difficultés sur le marché du travail (Reitz, 2001), ce qui pourrait influencer leurs trajectoires d'emploi.

Hypothèses de recherche

L'impact de la relation avec l'aidé sur les transitions hors d'un emploi à plein temps est incertain, mais tout indique que les femmes et les hommes sont plus fortement affectés lorsqu'ils aident un conjoint ou un parent/beau-parent, pour qui les soins sont généralement plus exigeants que pour une autre personne apparentée ou non-apparentée. On peut donc penser que 1) les femmes auront un risque accru de quitter leur emploi lorsqu'elles donnent des soins à un conjoint ou à un parent/beau-parent comparativement à leurs vis-à-vis qui ne fournissent pas de soins; et que 2) cette association sera inexistante chez les hommes, qui ont un attachement plus fort au marché du travail que les femmes.

Les études passées qui ont intégré une mesure de la durée des soins suggèrent que 3) l'impact de la prestation de soins sur les transitions hors d'un emploi à plein temps se fera sentir dès le début de l'épisode de soins chez les femmes. 4) Chez les hommes, si le fait de donner des soins exerce une influence, celle-ci se manifestera seulement après quelques années passées dans le rôle d'aidant, étant donné leur propension plus grande à tenter de demeurer en emploi. On peut également s'attendre à ce que 5) la nature de la relation avec l'aidé exerce un effet variable sur les comportements en emploi en fonction de la durée des soins fournis, mais il est difficile de prédire la direction de cette relation, aucune étude passée n'ayant exploré cette question.

Données et méthodes

Les données

Notre analyse est basée sur une exploitation des données du cycle 21 de l'Enquête sociale générale (ESG) réalisée en 2007. Dans le cadre de cette enquête sur la famille, le soutien social et la retraite, Statistique Canada a recueilli des renseignements par téléphone auprès d'un échantillon de 23 404 personnes âgées de 45 ans et plus ne vivant pas en institution et résidant dans l'une des dix provinces canadiennes. Une des particularités du cycle 21 de l'ESG est la possibilité de combiner l'information rétrospective sur l'aide fournie collectée en 2007 avec les historiques professionnel, conjugal et parental détaillés des répondants recueillis lors du cycle précédent de l'enquête. En effet, 10 403 répondants ayant participé à l'ESG de 2006 sur les transitions familiales ont été interviewés de nouveau en 2007. Le recours à ce sous-échantillon d'individus rejoints par les deux cycles de l'enquête s'impose, l'histoire professionnelle des répondants recueillie en 2007 étant incomplète.

Ces données particulièrement riches rendent possible l'analyse des trajectoires d'emploi à l'aide de méthodes longitudinales qui permettent de mieux cerner la direction des relations observées, tout en tenant compte de l'effet de plusieurs caractéristiques dont la valeur peut varier à travers le temps. L'échantillon retenu compte 3 650 femmes et 2 971 hommes âgés de 44 à 79 ans à l'enquête de 2006, ayant connu au moins un épisode de travail rémunéré à plein temps, et auxquels correspond un total de 10 458 épisodes de travail à temps plein. Près des deux tiers des 6 296 épisodes d'emploi recensés chez les femmes se sont terminés par une interruption de travail, comparativement à 44 % des 4 162 épisodes observés chez leurs homologues masculins.

Moins fréquents sont les passages à un emploi à temps partiel, représentant près de 13 % des sorties d'épisodes d'emploi à plein temps occupés par les femmes comparativement à environ 7 % chez les hommes (Tableau 3.1). La limite d'âge maximale imposée à l'échantillon vise à minimiser les risques de biais associés au rappel d'événements passés et à un effet de sélection, la probabilité de vivre en institution et donc d'échapper à l'ESG étant nettement plus élevée passé 80 ans. La prochaine section offre plus de détails sur les modèles utilisés et les variables retenues.

Méthodes

L'analyse est basée sur l'utilisation de modèles proportionnels à risques concurrents¹² (Fine et Gray, 1999). Ces modèles sont utiles pour étudier les transitions lorsque plus d'un événement peut entraîner la sortie de l'état initial. Dans le cas présent, nous examinons les risques de sortie d'un emploi à plein temps, c'est-à-dire parmi les travailleurs rémunérés consacrant au moins 30 heures par semaine à leur emploi, qui résultent d'une interruption d'emploi ou du passage à un emploi à temps partiel. On doit alors modéliser le risque de vivre un événement (quitter le marché du travail) en tenant compte de la possibilité de l'existence d'un risque concurrent (passage à un emploi à temps partiel). Les modèles à risques concurrents sont une extension des modèles à risques proportionnels de Cox (Cleves et al., 2008). Ces modèles semi-paramétriques sont très flexibles et ne requièrent pas de modéliser l'effet du temps. Seul l'effet des variables est estimé au fil du temps, pourvu que l'individu soit toujours sous observation à ce moment.

L'entrée dans le groupe à risque de vivre l'une ou l'autre des deux transitions étudiées s'effectue dès le moment où un épisode de travail à plein temps débute et prend fin lorsque l'un des deux événements (passage au temps partiel ou sortie d'emploi) survient ou lorsque l'observation s'arrête. L'ESG de 2006 a recueilli la date d'entrée dans le premier emploi ayant duré au moins six mois alors que les répondants n'étaient pas aux études; on a également demandé si cet emploi avait été suivi d'une interruption de travail d'une durée minimale de trois mois et, s'il y a lieu, la date de retour en emploi. On a recueilli ces informations pour un maximum de cinq emplois et quatre interruptions de travail. Pour chaque épisode d'emploi, on dispose du statut de travail (travailleur rémunéré ou autonome) et du régime d'emploi (temps

¹² La seule prémisse de ce type de modèles est la proportionnalité à travers le temps des risques de transition, laquelle est généralement respectée dans cette étude.

plein ou partiel) au début de l'épisode, ainsi que la date de changement de régime d'emploi en cours d'épisode, s'il y a lieu. En combinant l'ensemble de ces informations, on a pu reconstituer l'ensemble des trajectoires professionnelles des individus. Nous n'avons retenu ici que les épisodes de travail rémunéré commençant par un emploi à plein temps, ou à partir du moment où un emploi à temps partiel se transforme en emploi à plein temps. Certains individus peuvent avoir jusqu'à quatre épisodes pour lesquels les dates des transitions étudiées ici sont connues¹³.

La variable d'intérêt de cette étude, c'est-à-dire la prestation de soins non-rémunérés à un proche, est créée à partir des informations recueillies lors du cycle 21 de l'ESG. Dans cette enquête, Statistique Canada (2009, p. 293) a demandé aux participants s'ils avaient « aidé une personne qui souffrait d'un problème de santé ou d'une limitation physique de longue durée » au cours des 12 derniers mois. On leur a ensuite demandé si cette aide concernait le transport ou le paiement de factures, les tâches ménagères, l'entretien de la maison ou les travaux extérieurs, les soins personnels, les soins médicaux, ou encore l'organisation des soins ou des finances. On a également collecté d'autres informations sur l'aide fournie à l'aidé principal, dont l'année de début des soins et la relation avec cette personne.

Dans une section ultérieure du questionnaire, Statistique Canada a recueilli des informations sur l'historique des soins prodigués par les répondants. Plus précisément, on leur a demandé : « depuis que vous aviez 15 ans, combien de personnes avez-vous aidé pour une période de 6 mois ou plus à cause d'un problème de santé ou une limitation physique de longue durée », en excluant « l'aide rémunérée fournie à des clients ou des patients » (Statistique Canada, 2009, p. 352). Les dates de début et de fin d'épisode pour un maximum de cinq épisodes de soins, ainsi que la relation avec l'aidé dans chacun de ces épisodes, ont été collectées. Il est à noter que les épisodes peuvent se chevaucher, un individu pouvant, par exemple, s'occuper de sa mère tout en donnant des soins à un ami¹⁴. En tenant compte de l'aide fournie au cours des 12

¹³ Cette approche entraîne un risque de biais lié à la corrélation intra-répondant que le logiciel *Stata* ne permet toutefois pas de corriger dans les modèles à risques concurrents. Nous ajustons les poids individuels fournis par Statistique Canada en divisant le poids de la personne par le nombre d'épisodes d'emploi à plein temps inclus dans l'analyse.

¹⁴ Quelques participants à l'ESG ont donné des soins à plus de cinq personnes depuis l'âge de 15 ans. Nous les avons exclus de l'échantillon, ne sachant pas si, par exemple, le sixième épisode de soins prodigués dans le passé chevauchait le cinquième épisode pour lequel l'information est connue. La même procédure s'est imposée pour tout individu ayant aidé plus d'une personne dans les 12 derniers mois.

mois précédant l'enquête de 2007, les historiques de soins peuvent donc contenir jusqu'à six épisodes de soins ayant duré au moins six mois¹⁵.

Comme les épisodes de soins prodigués à différentes personnes peuvent se chevaucher, il est difficile d'établir une catégorisation exclusive en regard de la nature des liens existant entre aidant et aidé. Dans l'analyse, nous distinguons les situations suivantes : 1) aide à un conjoint, peu importe la prestation ou non de soins à une autre personne¹⁶; 2) aide à un parent ou à un beau-parent, incluant ou non des soins à une autre personne à l'exclusion d'un conjoint; 3) aide à toute autre personne apparentée, incluant ou non des soins à une personne non-apparentée; 4) aide à une personne non-apparentée. Nous comparons les comportements de travail de ces catégories d'aidants aux répondants qui ne donnent pas de soins. Dans la suite du texte, nous utilisons le terme « parent » pour désigner une mère, un père, une belle-mère ou un beau-père. S'occuper d'un parent tout en occupant un emploi à plein temps est chose fréquente, tel que montré dans le Tableau 3.1, concernant plus d'une Canadienne sur cinq ainsi que 17 % des hommes.

Nous analysons également de façon séparée l'impact de la durée des soins sur les transitions hors d'un emploi à plein temps. Dans ce cas-ci, lorsque plusieurs épisodes de soins se chevauchent, la durée est calculée à partir du début du premier épisode de soins jusqu'au moment où le dernier épisode se termine. Nous comparons les comportements des individus qui donnent des soins 1) depuis moins d'un an, 2) depuis au moins un an, mais moins de cinq ans, et 3) depuis cinq ans ou plus, comparativement aux personnes qui n'en fournissent pas. Dans un modèle ultérieur, l'inclusion de termes d'interaction entre la nature de la relation avec l'aidé et la durée des soins fournis cherche à voir si l'effet de la nature des liens entre aidant et aidé sur les risques de transition hors d'un emploi à plein temps est conditionnel à la durée des soins.

Le recours aux données combinées de l'ESG 20 et 21 permet de prendre en compte de nombreuses variables dont la valeur peut changer à travers le temps. L'ESG 20 a recueilli de façon rétrospective la date de formation de la première union – libre ou légale – ainsi que la date

¹⁵ Pour les soins prodigués dans les 12 derniers mois, seuls les épisodes ayant débuté avant 2007 sont considérés dans l'historique des soins, de façon à n'inclure que ceux ayant duré au moins six mois.

¹⁶ Lorsque des soins sont prodigués de façon simultanée à un conjoint et à un parent, cet épisode est classé dans la catégorie de soins au conjoint, étant donné que les soins à un conjoint sont habituellement plus exigeants que les soins à un parent. Une analyse séparée montre que le rattachement de ce groupe à la catégorie des soins aux parents ne change pratiquement pas les résultats.

et le motif de dissolution de cette union, le cas échéant. On dispose de telles informations pour un maximum de quatre mariages et quatre unions libres, en plus de l'union existante au moment de l'enquête. La reconstruction de la trajectoire conjugale des répondants établie à partir de ces informations permet de distinguer les individus qui n'ont jamais été mariés ou vécu en union libre, des individus qui sont en couple (marié ou union libre) et de ceux qui vivent sans conjoint à la suite d'une séparation, d'un divorce ou du décès de leur conjoint.

La date de naissance des enfants biologiques, adoptés et par alliance ainsi que la date d'arrivée dans le ménage des répondants des enfants adoptés et par alliance ont été recueillies dans l'ESG 20 pour un maximum de 20 enfants. Malheureusement, on a omis de demander aux répondants la date de départ des enfants de leur foyer; il est donc impossible de contrôler la présence des enfants dans le ménage au cours des épisodes de travail considérés¹⁷. Deux variables sont dérivées à partir de ces informations. L'âge du plus jeune enfant est regroupé en cinq catégories : 0-5 ans; 6-12 ans; 13-17 ans; 18-24 ans; aucun enfant de moins de 25 ans (catégorie de référence). Cette dernière catégorie regroupe les répondants qui n'ont aucun enfant et ceux dont le plus jeune enfant a 25 ans ou plus. Le nombre total d'enfants de tous âges comprend 3 catégories (0, 1, 2 ou plus). Les hommes occupant un emploi à plein temps sont relativement plus nombreux que les femmes à rapporter avoir des enfants; ainsi, les trois-quarts des hommes ont rapporté avoir un enfant en cours d'épisode, mais seulement la moitié des femmes (Tableau 3.1).

La valeur que prennent les variables établies à partir de l'histoire conjugale et parentale des répondants peut changer au cours des épisodes de travail observés. Il en va de même avec l'âge du répondant, regroupé en cinq catégories : moins de 30 ans, 30-39 ans, 40-49 ans, 50-59 ans, et 60 ans et plus. Une caractéristique additionnelle est dérivée de façon rétrospective, sans toutefois varier en cours d'épisodes. Il s'agit de la durée cumulée (en années) passée dans tous les emplois (à temps partiel ou à plein temps) jusqu'au mois précédant l'entrée dans l'épisode d'emploi à plein temps considéré. Les durées moyennes d'expérience de travail ainsi estimées au Tableau 3.1 apparaissent plutôt faibles; cela tient au fait qu'elle est de valeur nulle lors du premier épisode d'emploi, lequel constitue aussi le dernier épisode d'emploi au moment de l'enquête pour un grand nombre de répondants.

¹⁷ Pour les enfants par alliance, nous considérons qu'ils ne font plus partie de la vie du répondant à la dissolution de l'union dans laquelle ils ont intégré le ménage.

Tableau 3.1: Caractéristiques des femmes et des hommes âgés de 44 à 79 ans en 2006 et ayant connu au moins un épisode de travail rémunéré à plein temps, Canada (données pondérées).

	Femmes	Hommes	
Nombre d'épisodes de travail (non pondéré)	6296	4162	
% se terminant par une interruption	60,1	43,9	***
% se soldant par un passage vers un temps partiel	12,8	7,4	***
% de répondants en cours d'épisodes n'ayant jamais donné de soins:	68,7	74,3	***
% de répondants en cours d'épisodes ayant prodigué des soins selon la:			
Relation avec l'aidé			
À un conjoint	3,8	3,2	
À un parent	21,3	17,1	***
À un autre apparenté	7,3	5,3	**
À un non-apparenté	4,3	4,1	
Durée des soins			
Depuis moins de 1 an	27,6	24,7	*
Depuis 1 an ou plus, moins de 5 ans	23,8	20,3	**
Depuis 5 ans ou plus	13,8	10,7	**
% de répondants en cours d'épisodes:			
N'ayant jamais été en couple	10,3	9,5	
Ayant été en couple	88,2	90,2	*
Ayant vécu une séparation, un divorce ou le décès du conjoint	32,0	28,3	**
% de répondants en cours d'épisodes:			
N'ayant jamais eu d'enfants	26,9	19,9	***
Ayant 1 enfant	50,2	75,1	***
Ayant 2 enfants ou plus	55,7	67,6	***
% de répondants en cours d'épisodes dont le plus jeune enfant a:			
0-5 ans	57,9	77,0	***
6-12 ans	55,4	75,3	***
13-17 ans	50,3	64,2	***
18-24 ans	44,3	50,7	***
% de répondants en cours d'épisodes âgés de:			
Moins de 30 ans	88,7	94,6	***
30-39 ans	72,2	90,1	***
40-49 ans	68,4	87,5	***
50-59 ans	44,7	61,5	***
60 ans ou plus	17,0	24,8	***
Durée cumulée moyenne en emploi au début du dernier épisode (années)^a:			
À temps partiel	1,0 [3,2]	0,3 [1,5]	***
À plein temps	5,2 [7,7]	4,5 [9,1]	**
Plus haut niveau de scolarité atteint à l'enquête (%):			
Moins qu'un diplôme d'études secondaires (D.E.S.)	19,8	19,8	***
D.E.S.	16,9	13,7	
Études postsecondaires	42,8	38,6	
Diplôme universitaire	20,4	27,9	
Région de résidence à l'enquête (%):			
Atlantique	7,9	7,7	
Québec	25,8	25,7	
Ontario	37,8	38,2	
Prairies	15,5	15,0	
Colombie-Britannique	13,1	13,4	
Lieu de naissance (%):			
Au Canada	79,0	73,9	***
À l'extérieur du Canada	21,0	26,1	
Nombre de répondants (non pondéré)	3650	2971	

Source: Statistique Canada (2007), Cycles 20 et 21 de l'Enquête sociale générale.

^a Écarts-types entre crochets. Test du chi-carré ou de T: * p<0,05; ** p<0,01; *** p<0,001.

Les trois dernières variables réfèrent à la situation observée au moment de l'enquête, aucune information rétrospective n'étant disponible. Le plus haut niveau de scolarité atteint comprend quatre catégories : 1) niveau moins élevé que le diplôme de secondaire; 2) diplôme d'études secondaires; 3) études postsecondaires; 4) diplôme universitaire. La région de résidence distingue les répondants vivant : 1) dans les provinces de l'Atlantique; 2) au Québec; 3) en Ontario; 4) dans les Prairies; et 5) en Colombie-Britannique. Une dernière variable indique si l'individu est né au Canada ou à l'extérieur du Canada. Parmi les Canadiens représentés par notre échantillon, 21 % des femmes et 26 % des hommes sont nés hors du Canada.

Analyse des transitions hors d'un emploi à plein temps

Les résultats de l'analyse de transition hors d'un emploi à plein temps sont présentés au Tableau 3.2. Les Modèles 1 et 2 fournissent les risques d'interruption de travail, et les Modèles 3 et 4 les risques de passage à un emploi à temps partiel; les Modèles 1 et 3 examinent l'effet de la relation avec l'aidé, et les Modèles 2 et 4 l'effet de la durée des soins prodigués. Les résultats des analyses centrées sur la relation avec l'aidé supportent l'hypothèse de l'attachement plus faible des femmes au marché du travail. Dans l'ensemble, les femmes affichent un risque plus élevé de quitter leur emploi lorsqu'elles donnent des soins; celles aidant un parent ont, par exemple, 27 % plus de chances de quitter le marché du travail face à leurs homologues ne prodiguant pas de soins (Modèle 1). Chez les hommes, on n'observe aucune relation significative à cet égard. Par contre, le faible risque qu'ils ont de passer à un emploi à temps partiel lorsqu'ils aident une conjointe (Modèle 3) témoigne de l'importance pour eux de conserver l'emploi à plein temps.

Tel qu'attendu, les risques qu'ont les femmes de quitter leur emploi sont plus élevés lorsqu'elles commencent à donner des soins plutôt que lorsqu'elles le font depuis un certain temps : les femmes qui exercent un rôle d'aidante depuis moins d'un an ont un risque près de deux fois plus élevé de quitter leur emploi, alors que celles qui le font depuis un an ou plus ne se distinguent pas de leurs vis-à-vis qui ne donnent pas de soins. La durée des soins ne semble pas, par ailleurs, influencer de manière significative les risques des femmes d'opter pour un emploi à temps partiel. Chez les hommes, le temps passé dans le rôle d'aidant a relativement peu d'impact sur les interruptions de travail. Par contre, le risque de passer à un emploi à temps partiel semble nettement plus marqué dès les débuts de l'épisode de soins (Modèle 4). Ainsi, le fait de prodiguer

Tableau 3.2: Impact de certaines caractéristiques sur les risques de transition hors d'un emploi à plein temps des femmes et des hommes âgés de 44 à 79 ans en 2006 (rapports de risque des modèles proportionnels à risques concurrents).

	Quitter l'emploi				Passage à temps partiel			
	Femmes		Hommes		Femmes		Hommes	
	1	2	1	2	3	4	3	4
Soins prodigués^a								
(ne donne pas de soins)								
Au conjoint	0,78		1,04		0,77		0,11*	
À un parent	1,27*		1,18		1,06		1,32	
À un autre apparenté	1,20		0,74		0,53†		0,51	
À un non-apparenté	1,39		1,07		0,83		1,43	
Depuis moins de 1 an		1,91***		1,14		1,02		2,85†
Depuis 1 à 4 ans		1,08		1,20		1,02		0,81
Depuis 5 ans et plus		1,07		0,97		0,76		0,64
Statut conjugal^a								
(en couple)								
Jamais en couple	0,31***	0,31***	1,15	1,15	0,43***	0,43***	1,07	1,08
Plus en couple	0,61***	0,62***	1,36**	1,36**	1,02	1,02	1,14	1,15
Âge du plus jeune enfant^a								
(aucun de moins de 25 ans)								
0-5 ans	0,94	0,94	0,68*	0,69*	1,98**	1,94*	0,75	0,74
6-12 ans	0,46***	0,46***	0,74†	0,74†	1,28	1,27	0,65	0,65
13-17 ans	0,52***	0,52***	0,75†	0,75†	0,70	0,69	0,67	0,67
18-24 ans	0,72**	0,72**	0,94	0,94	0,73	0,73	0,67	0,67
Nombre d'enfants^a								
(aucun)								
1	1,18	1,18	1,27	1,27	0,73	0,74	1,28	1,30
2 ou plus	0,61***	0,61***	1,22	1,21	0,82	0,83	1,17	1,19
Âge du répondant^a								
(moins de 30 ans)								
30-39 ans	1,04	1,03	1,29†	1,29†	1,93***	1,94***	1,58	1,57
40-49 ans	1,16	1,15	1,96***	1,96***	3,70***	3,71***	4,44***	4,38***
50-59 ans	2,32***	2,29***	4,70***	4,71***	5,78***	5,75***	7,53***	7,45***
60 ans et plus	6,60***	6,40***	9,58***	9,58***	8,69***	8,58***	9,17***	9,06***
Expérience temps partiel	0,93***	0,93***	1,09**	1,09**	1,00	1,00	0,99	0,99
Expérience plein temps	0,99**	0,99*	1,00	1,00	0,92***	0,93***	0,96***	0,96***
Plus haut niveau de scolarité								
(moins qu'un D.E.S.)								
D.E.S.	0,92	0,92	1,01	1,01	1,16	1,16	0,94	0,93
Études postsecondaires	0,96	0,97	1,13	1,13	1,52**	1,52**	1,52*	1,52*
Diplôme universitaire	0,90	0,90	1,01	1,01	1,32†	1,32	1,13	1,13
Région de résidence								
(Atlantique)								
Québec	0,70***	0,71***	0,78**	0,78**	1,11	1,11	0,93	0,93
Ontario	0,91	0,91	0,78**	0,78**	1,12	1,12	1,36	1,35
Prairies	0,81**	0,81*	0,60***	0,60***	1,10	1,09	0,85	0,85
Colombie-Britannique	0,75**	0,75**	0,85	0,84	1,42*	1,42*	1,32	1,32
Né à l'extérieur du Canada								
(au Canada)	0,81**	0,81**	0,88	0,89	0,73*	0,73*	0,80	0,81
N	3650		2971		3650		2971	

Source : Statistique Canada (2007), Cycles 20 et 21 de l'Enquête sociale générale.

Modèles à risques concurrents. Catégories de référence entre parenthèses. † $p < 0,10$; * $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$.

^a Caractéristiques dont la valeur peut changer au fil du temps.

des soins depuis moins d'un an multiplie par près de trois le risque des hommes d'opter pour un emploi de moins de 30 heures par semaine. Ce résultat est quelque peu surprenant; on verra plus loin qu'il est lié à l'effet variable de la nature de la relation avec l'aidé selon la durée des soins.

L'influence du statut conjugal différenciée selon le sexe est en lien avec ce que prédit la littérature. Les femmes qui n'ont jamais été en couple ont 31 % du risque des femmes mariées ou en union libre de quitter leur emploi, et 43 % de celui de passer à un emploi à temps partiel. Les femmes séparées, divorcées ou ayant vécu le décès de leur conjoint ont également un risque moindre de quitter leur emploi que leurs semblables qui sont en union. De leur côté, seuls les hommes qui ne sont plus en couple ont un risque accru de 36 % de quitter leur emploi à plein temps comparativement à leurs homologues vivant en couple.

Lorsque le plus jeune enfant est d'âge scolaire, soit âgé entre 6 et 17 ans, le comportement des femmes et des hommes est similaire; ils sont moins enclins à quitter leur emploi que leurs semblables n'ayant pas d'enfants de moins de 25 ans. Par ailleurs, les femmes ayant au moins un enfant de 0-5 ans ne sont pas plus enclines à quitter le marché du travail que leurs vis-à-vis sans enfant de moins de 25 ans. Cela tient essentiellement au fait que seules les femmes occupant un emploi à plein temps, soit celles ayant un attachement fort au marché du travail, sont étudiées ici. Ces femmes, si elles ne quittent pas davantage leur emploi, ont cependant deux fois plus souvent recours au travail à temps partiel que leurs homologues n'ayant pas d'enfants de moins de 25 ans. À l'inverse, les hommes ayant de jeunes enfants affichent une probabilité moindre de quitter leur emploi. Enfin, les résultats montrent que les femmes qui ont au moins deux enfants sont moins enclines à quitter leur emploi comparativement à celles qui sont sans enfant.

Autant les femmes que les hommes voient leur probabilité de vivre une transition hors du travail à plein temps croître à mesure qu'ils vieillissent. À l'aube de la retraite, soit chez les 60 ans ou plus, le risque de quitter son emploi est de six et neuf fois plus élevé que chez les femmes et les hommes âgés de moins de 30 ans. Le risque de passer à un emploi à temps partiel est aussi plus grand, étant près de neuf fois plus élevé peu importe le sexe.

Le nombre d'années cumulées d'expérience de travail dans un emploi à temps plein ou partiel est associé à un risque moindre de quitter le marché du travail pour les femmes; par contre, seul le nombre d'années passé dans un emploi à plein temps, qui traduit une forme d'attachement plus grand à l'emploi, réduit de manière significative leur risque de passage à un emploi à temps partiel. Chez les hommes, les années passées dans des emplois à temps partiel

augmentent leur risque de quitter le marché du travail, ce qui ne saurait surprendre, le travail à temps partiel étant plus souvent dicté par les aléas économiques que choisis par eux; à l'inverse, les années passées dans un emploi à plein temps diminuent la transition vers le temps partiel.

Le niveau de scolarité n'affecte pas de manière significative le risque de quitter un emploi à plein temps. Cependant, le fait d'avoir poursuivi des études postsecondaires augmente de 52 % le risque de transition vers un emploi à temps partiel, et ce, tant pour les femmes que pour les hommes. La région de résidence, qui vise à contrôler les différences régionales en matière d'emploi, est associée à un risque plus élevé de quitter leur emploi pour les individus vivant dans les provinces de l'Atlantique. Cependant, le fait de résider en Colombie-Britannique plutôt que dans la région de l'Atlantique augmente le risque des femmes de passer à un emploi à temps partiel. Enfin, le fait d'être né à l'extérieur du Canada réduit le risque de quitter son emploi ou de passer à un emploi à temps partiel, mais seulement de façon significative chez les femmes.

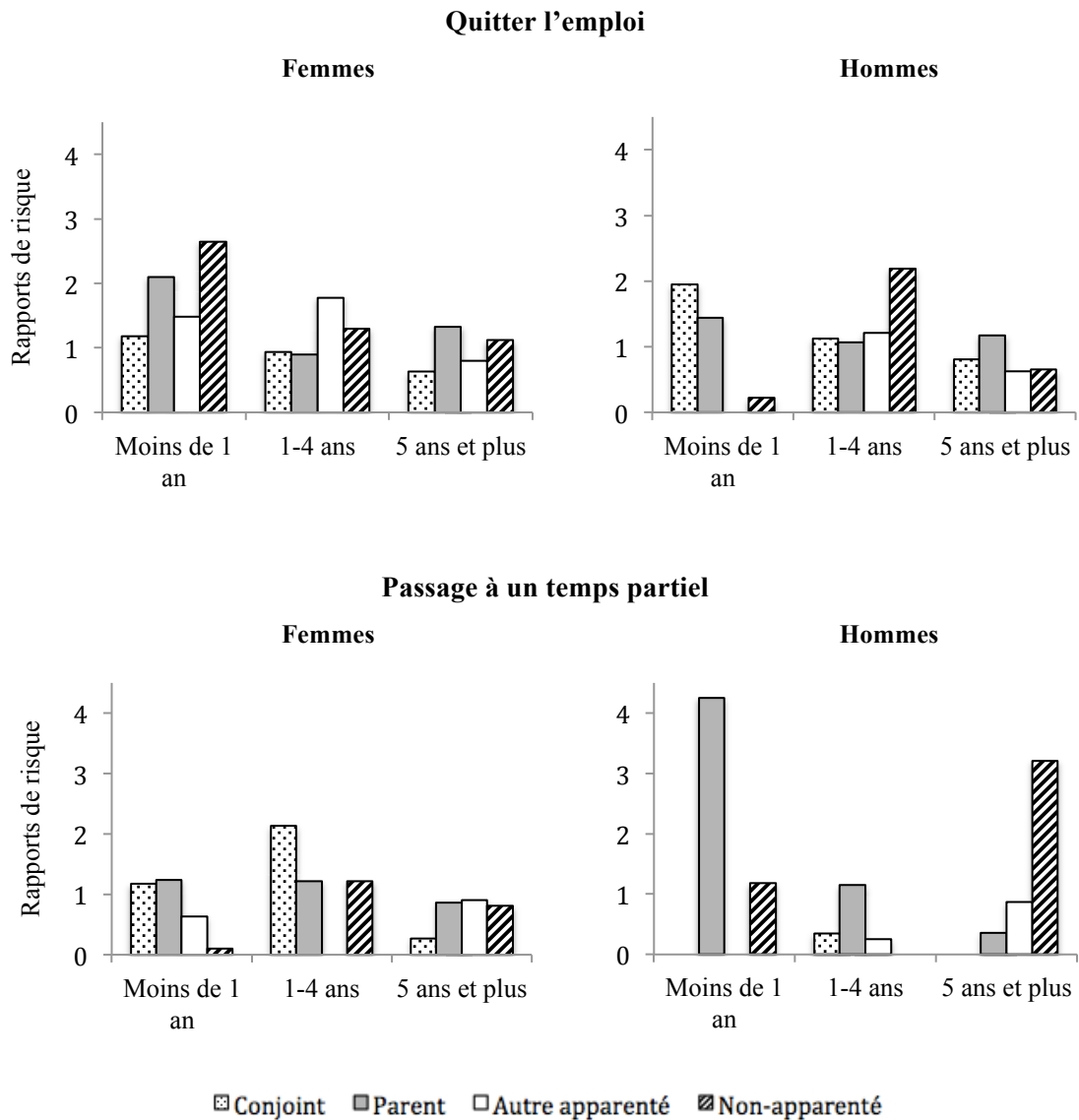
Cherchant à voir si l'effet de la durée des soins fournis sur les risques de transition hors d'un emploi à plein temps est conditionnel à la relation avec l'aidé, nous avons repris l'analyse en incluant des termes d'interaction entre ces deux variables. La Figure 3.1 présente les rapports de risques de cette analyse, une fois contrôlé l'effet des autres caractéristiques incluses dans le Tableau 3.2. Seuls sont décrits les résultats significatifs au plan statistique.

L'effet de la relation avec l'aidé en fonction de la durée des soins varie de manière différente selon le sexe. Le fait de s'occuper d'un conjoint aux prises avec une incapacité ou un problème de santé de longue durée ne semble pas modifier les comportements en emploi des femmes, sauf lorsqu'elles le font depuis au moins cinq ans. Dans un tel cas, elles ont une probabilité moindre de passer à un emploi à temps partiel, comparativement aux femmes qui ne donnent pas de soins. Les hommes sont aussi moins susceptibles d'opter pour un emploi à temps partiel lorsqu'ils donnent des soins à une conjointe, mais seulement de façon significative pour les durées de moins d'un an et de cinq ans et plus.

L'analyse de la prestation d'aide à un parent fait ressortir des résultats plutôt inattendus. Les femmes qui aident un parent depuis moins d'un an sont deux fois plus enclines à quitter leur emploi que leurs consœurs ne donnant pas de soins. De leur côté, les hommes ont un risque accru d'opter pour un emploi à temps partiel lorsqu'ils donnent des soins à un parent depuis moins d'un an, ce risque étant quatre fois plus élevé que chez leurs homologues ne prodiguant pas de soins.

Les hommes choisiraient donc davantage de réduire leurs heures de travail en-deçà de 30 heures par semaine plutôt que de quitter leur emploi, comme le font les femmes.

Figure 3.1: Impact de la relation avec l'aidé conditionnel à la durée des soins sur les risques de transition hors d'un emploi à plein temps selon femmes et hommes âgés de 44 à 79 ans en 2006.



Source : Statistique Canada (2007), Cycles 20 et 21 de l'Enquête sociale générale.
Modèles à risques concurrents, autres variables de contrôle incluses.

Chez les femmes, la prestation de soins depuis un an à quatre ans à d'autres personnes apparentées (y inclus à un enfant ayant un problème de santé de longue durée¹⁸) augmente le risque de quitter le marché du travail, mais est associé à une probabilité moindre de passer à un emploi à temps partiel. Ce sont peut-être particulièrement les soins donnés à un enfant qui motivent les femmes à quitter leur emploi à plein temps plutôt que de passer à un temps partiel. Chez les hommes, le fait de fournir de l'aide à une autre personne apparentée diminue à la fois le risque de quitter le marché du travail ou de passer à un emploi à temps partiel, mais seulement parmi les nouveaux aidants, c'est-à-dire ceux qui donnent des soins depuis moins d'un an.

L'impact de la prestation de soins à une personne non-apparentée se fait de nouveau sentir au début de l'épisode chez les femmes. Le fait de prodiguer des soins depuis moins d'un an à une telle personne réduit de 90 % le risque qu'elles ont de passer à un emploi à temps partiel, comparativement à leurs consœurs ne donnant pas de soins, mais multiplie par plus de deux fois et demie leur risque de quitter leur emploi. On observe un effet similaire chez les hommes, mais seulement après qu'ils aient passé plus de temps dans leur rôle d'aidant. Ainsi, les hommes qui aident un ami, collègue ou voisin pour une durée d'un an à quatre ans ont un risque moindre de passer vers un temps partiel, alors qu'ils sont deux fois plus enclins à quitter leur emploi.

Conclusion

Cet article représente la première étude longitudinale canadienne qui examine l'impact de la prestation de soins à autrui sur les risques concurrents de « quitter son emploi à plein temps » ou de « passer à un emploi à temps partiel » chez les femmes et les hommes. L'analyse a été rendue possible grâce aux données inédites de l'ESG 20 et 21 qui permettent de reconstruire les trajectoires professionnelle, conjugale et parentale des répondants, ainsi que l'historique des épisodes de soins fournis à autrui, incluant la relation avec l'aidé et la durée des soins.

L'analyse a montré que la prestation de soins à certains membres de la famille tend à conforter les différences existantes entre sexes dans les comportements de travail. Les femmes paraissent plus sujettes que les hommes à quitter leur emploi à plein temps lorsqu'elles aident un

¹⁸ En raison de la petite taille de l'échantillon pour ce groupe, les soins à un enfant ayant un problème de santé ou une limitation physique de longue durée ne peuvent être étudiés séparément.

parent. La première hypothèse avancée semble donc confirmée, du moins en ce qui concerne les soins à un parent, les soins à un conjoint n'exerçant aucun effet significatif. Chez les hommes, seule la prestation de soins à une conjointe affecte significativement leur rythme de travail, ces derniers étant alors moins susceptibles d'opter pour un emploi à temps partiel. Les hommes semblent donc se maintenir en emploi afin de contribuer aux charges du ménage, lorsque leur conjointe est aux prises avec un problème de santé de longue durée.

Les résultats de l'analyse de l'influence de la durée des soins prodigués sur l'emploi des femmes soutiennent les constats des travaux passés. Le fait d'être une aidante depuis moins d'un an amène les femmes à quitter leur emploi. Par contre, l'hypothèse voulant que les hommes soient peu affectés en début d'épisode de soins n'a pu être confirmée, ceux qui prodiguent des soins depuis moins d'un an étant plus à risque de passer à un emploi à temps partiel.

La prise en compte de l'effet de la relation avec l'aidé en fonction de la durée des soins prodigués a permis de mieux cerner la dynamique en jeu. On a ainsi montré que les hommes sont plus enclins à opter pour un emploi à temps partiel lorsqu'ils donnent des soins à un parent depuis moins d'un an, alors que cette éventualité est mise de côté lorsqu'ils aident plutôt une conjointe ou une autre personne apparentée. On peut penser que leur attachement au marché du travail les pousse à se maintenir en emploi en réduisant leurs heures de travail, alors que les femmes quittent leur emploi lorsque le besoin de soins aux parents s'impose. Par ailleurs, l'effet de fournir des soins à une personne non-apparentée se fait sentir à des moments différents pour les femmes et les hommes. Les premières connaissent un risque plus élevé de quitter le marché du travail dès le moment où elles s'occupent d'une personne non-apparentée, alors que les seconds affichent un tel risque seulement lorsque les soins ont duré entre un et quatre ans. Ces derniers tentent donc de rester en emploi plus longtemps que les femmes lorsqu'ils prennent soin d'une personne non-apparentée.

Il est quelque peu surprenant de constater que les hommes tendent à quitter leur emploi pour fournir de l'aide à un ami, un collègue ou un voisin, étant donné que ces soins sont en général moins exigeants. On peut penser que ces soins arrivent peut-être plus tard dans la vie active des individus et concordent avec la prise de la retraite. La prestation de soins à des personnes non-apparentées risque de devenir plus importante dans le futur étant donné l'instabilité conjugale croissante qui risque d'affaiblir les liens d'entraide entre les membres

d'une famille (Ménard et Le Bourdais, 2012). Il est donc essentiel de tenir compte de la nature de la relation d'aide, tout comme de sa durée, dans l'analyse des comportements professionnels.

Si les trajectoires d'emploi des femmes paraissent plus étroitement marquées par la prestation de soins à autrui que celles des hommes, dans certains cas, ceux-ci réduisent également leurs heures de travail ou quittent leur emploi. Des travaux passés ont montré que la prestation de soins par des aidants non-rémunérés a contribué à limiter la croissance des dépenses des gouvernements en matière de santé (Hollander et al., 2009). La présente étude souligne cependant que le fait de donner des soins n'est pas sans effet sur les comportements en emploi des individus et donc sur la capacité des aidants de maintenir leurs conditions de vie, ainsi que sur la capacité des gouvernements de collecter des impôts et de garantir des services à la population. Elle suggère que c'est souvent au cours de la première année passée dans le rôle d'aidant que les ajustements dans l'emploi se produisent, et que les mesures visant à faciliter la conciliation de ces deux rôles devraient intervenir très tôt et se poursuivre tout au long de l'épisode de soins.

Le recours aux données rétrospectives de l'ESG nous a permis d'aborder dans sa dynamique l'étude de l'effet de la prestation de soins à autrui sur les risques de transition hors d'un emploi à plein temps. Ces données ne sont cependant pas sans limites. D'une part, on ne peut écarter la possibilité de biais lié au rappel d'événements passés ou à la sélection des répondants. D'autre part, on ne disposait d'aucune information sur des variables pertinentes pour notre étude, telles l'historique du revenu, l'état de santé du répondant et le niveau d'intensité des soins prodigués. À défaut de cette dernière variable, nous avons utilisé la nature de la relation avec l'aidé. Comme certaines études l'ont montré, on peut supposer que cette variable est corrélée avec le nombre d'heures d'aide fournie par semaine, et que nous serions arrivées à des conclusions similaires en contrôlant à la fois l'intensité des soins et la nature des liens avec l'aidé.

Peu d'études ont analysé l'impact de la relation avec l'aidé sur les transitions hors d'un emploi. Certaines enquêtes ne ciblent qu'un type de relation donné, telle l'aide fournie aux parents seulement. D'autres incluent l'ensemble des personnes ayant un problème de santé, une limitation physique ou étant âgées, à qui les répondants ont prodigué des soins sans qualifier la nature des relations existantes. Notre étude montre que le fait de qualifier la relation avec l'aidé est peut-être tout aussi important que de quantifier le niveau d'intensité des soins fournis.

Conclusion

Objectives

The overall objective of my doctoral thesis was to study the impact of providing unpaid care on employment trajectories. The thesis was comprised of three chapters, each answering a different set of questions. In the first chapter, the objectives were to estimate the proportion of individuals who ever provided care; to describe to how many people and to whom they provided care and to evaluate whether or not the proportion of caregivers as well as the timing of the first care episode changed across birth cohorts and genders. Taking into consideration the nature of the relationship with the care recipient, the second chapter examined – separately for employed men and women – whether or not providing care increases the probability of leaving employment, and whether or not less demanding employment and parenting responsibilities help balancing care and employment. Finally, the last chapter assessed whether or not providing care leads men and women employed full-time to leave their full-time paid work or to opt for part-time employment and whether or not the effect varies according to the nature of the care relationship and the duration of care.

Summary of Findings

Chapter 1: The Provision of Unpaid Care over the Life Course – Changes across Cohorts and Genders

In the first chapter, the 2007 General Social Survey (GSS) data were used to reconstruct the caregiving histories of respondents aged 45 years and older at the time of survey. The start and end dates of care episodes were collected for up to five episodes of at least six months that occurred since the age of 15 years. This information, combined with the start date of the care provided to the main care recipient in the twelve months preceding the survey, was used to reconstitute the complete history of caregiving for a majority of respondents (N=19,031). Furthermore, the survey contained, for each episode, the relationship with the care recipient.

An examination of the proportions of individuals who ever provided care first revealed that caregiving is a very common experience. Almost two in five persons provided care at least

once since they were 15 years old, of which nearly half helped their mother. A substantial proportion of respondents helped more than one person over the course of their lives. The life table method further showed that caregiving has become increasingly common over time. An analysis comparing the cumulated probabilities of individuals to care for a first time across different birth cohorts showed that the proportion of individuals who ever provided care since the age of 15 years has increased steadily across cohorts.

Secondly, a greater share of women than men ever provided care over the course of their lives. However, the gender gap in the experience of caregiving did not narrow over time as expected. The proportion of individuals who ever provided care increased across cohorts of men, but it did so at an even faster rate among women.

Finally, the age at which individuals started providing care for a first time receded across cohorts. An inspection of the nature of the relationship with the care recipient for the first episodes starting before the age of 45 years suggested that the emergence of new care relationships, such as care to grandparents, partly explains this trend.

Chapter 2: The Impact of Providing Care on the Risk of Leaving Employment in Canada

In Chapter 2, we relied on an extremely useful dataset to study the relationship between caregiving and employment transitions with longitudinal modelling techniques. Of all the respondents to the 2007 GSS, 10,403 individuals had also been interviewed in 2006 as part of the preceding cycle of the GSS on family transitions. For this sample, we could link the caregiving history collected in 2007 with the professional, conjugal and parental histories gathered in 2006, and evaluate, once respondents started paid work, their risk of leaving employment associated with some characteristics. The sample comprised 6,859 respondents aged 44 to 79 years old in 2006 who had held paid work at least once since they had finished their schooling.

Because providing care to immediate family members has been shown to affect employment transitions to a greater degree than the care provided to more distant relatives or to non-relatives, we created a caregiving variable that adjusts through time and accounts for the nature of the relationship with the care recipient. We were especially interested in understanding whether the impact of care on paid work interruptions varied depending upon the intensity of employment and childcare responsibilities. In addition to the dates of transitions into and out of employment, survey respondents provided the dates at which they transitioned between full-time and part-time employment (less than 30 hours per week). The work status (full-time or part-time)

of respondents could thus be taken into consideration throughout employment episodes. The age of the youngest child was used to test the impact of leaving employment and that of being “sandwiched” between parent care and the care of relatively young children. Separate analyses were run for men and women.

Cox proportional hazards models did not at first reveal any significant relationship between providing care and leaving employment. However, the results suggested that part-time employment helped women manage their care and paid work responsibilities. Among all care relationships, only the care provided to parents or parents-in-law appeared to influence the decision to leave employment. The introduction of interaction terms linking providing care with work status showed that only women employed full-time and providing care to a parent had a higher probability of leaving employment compared to their female counterparts who were not providing care. In contrast, women employed part-time who provided care to a parent were less likely to leave employment than those employed part-time and not providing care.

Being “sandwiched” did not appear to increase the risk of leaving employment. We expected individuals with parent care and childcare roles simultaneously to be more likely to leave employment than those who occupied but one of those roles. This hypothesis was not supported by the analysis. In fact, individuals who provided care to a parent and had adult children or no children appeared to be more likely to leave employment than those who had younger children and provided care to a parent or those who were at the same life stage and did not provide care.

The impact of providing care to a parent on leaving employment was felt at different periods over the course of men’s and women’s lives, as was shown when interacting caregiving and the age of the youngest child. The risk of leaving paid employment was found to be higher among full-time working women who provided parent care and had children aged 18-24 but only later among employed men, that is, when they no longer had children below age 25.

Chapter 3: L’impact de la prestation de soins sur les transitions hors d’un emploi à plein temps au Canada

In the third chapter, the probability of leaving full-time employment was estimated in the presence of a competing risk: that of switching to part-time employment. The analyses were based on the same dataset used in the second chapter: the sample who responded to the GSS in 2006 and again in 2007, for which retrospective information was available on caregiving,

employment, conjugal unions and children. Here, the sample was limited to respondents aged 44 to 79 years in 2006 and who had been employed full-time at least once since they had finished their schooling.

Separately for men and women, we evaluated the impact of providing care on the risk of leaving full-time employment or of beginning part-time employment, while taking into consideration firstly, the nature of the care relationship and secondly, the duration of care. We also explored whether the impact of the nature of the care relationship varied depending upon the duration of care, that is, by introducing interaction terms between these two variables.

First, women employed full-time did not appear to turn to part-time paid work as a strategy to juggle their many roles. The first competing risk model showed that women employed full-time who provided care to a parent had a 30% higher probability of leaving employment but were no more likely to switch to part-time employment.

Second, the relationship between caregiving and transitions out of full-time employment differed between women and men. For the latter, only the care provided to a partner revealed a significant effect. It lowered the likelihood of men employed full-time to switch to part-time employment. In other words, men providing care to a partner were found to be less likely to start working part-time, and thus more likely to keep working full-time, than men not providing care.

Third, competing risk models taking into consideration the duration of care showed that women who had been providing care for less than a year were almost twice as likely to leave employment than women not providing care. Contrary to our expectations, men also appeared more affected by the care they provided early in an episode, although the effect of providing care for less than a year on opting for part-time employment was only marginally significant.

Finally, the impact of the nature of the relationship with the care recipient varied according to the duration of the care episode. As such, women employed full-time who provided care to a partner appeared less likely to start working part-time than those not providing care but only when they had been providing care for a minimum of five years. The same effect was found among men early in the care episode or after at least five years. The effect of parent care was amplified in the first year of care, women employed full-time being twice as likely to leave employment and men four times as likely to change to part-time employment compared with their vis-à-vis not providing care. Providing care to another relative was associated with a lower likelihood of leaving employment and of switching to part-time employment only in the first year

of care for men employed full-time. Caregiving of this nature affected female employment trajectories but only when care lasted between one and four years, at which point it lowered the likelihood to choose part-time paid work but increased the probability of leaving employment. Women employed full-time who provided care to a non-relative were less likely to become part-time employees but more likely to leave employment in the first year of care than their counterparts not providing care. The same relationship was found among men, however later in the care episode, when lasting between one and four years. To summarize, men's and women's transitions out of full-time employment are influenced by both the nature of the care relationship and the duration of care.

Discussion

This thesis offered three major contributions to the literature on caregiving and employment transitions. First, we were able to compare the impact of caregiving on transitions out of employment for men and women, where most of the literature had focused on women (Lilly et al., 2007). Second, we were able to assess the effect of being “sandwiched” between parent care and childcare on leaving employment. Last, we examined the impact of providing care on two transitions out of full-time employment: leaving paid work and switching to part-time employment.

Notable differences between men and women stood out. Regarding parent care, women employed full-time who provided such care had a greater tendency to leave employment as early as within the first year of care, at a time when their youngest child was becoming more autonomous, than other employed women not providing care. Reducing their paid work hours below the mark of 30 hours per week did not appear to be a strategy they used to combine their many roles. In contrast, men employed full-time who provided care to a parent did not a priori have a higher probability of leaving employment; they first appeared to undergo a transition to part-time employment within the first year of care. It is only later in their careers, a few years later than female paid workers, that parent care increased men's probability to leave employment.

The reasons why part-time employment was not used as a strategy instead of leaving full-time employment among women who provided care to a parent can only be guessed, for lack of data to address this issue. Additional information on the occupation of these women might have

indicated that the particular type of work in which they engaged was not compatible with a part-time schedule. However, there are no reasons to believe that full-time employed women occupy jobs that are less compatible with part-time schedules than the jobs held by full-time employed men. Yet, these men resorted to part-time employment when confronted with parent care responsibilities. Why would their occupations be better suited for part-time work when women hold two thirds of all part-time jobs in Canada (Statistics Canada, 2014b)? This hypothesis seems very unlikely.

The lower attachment of women to the labour force and their greater involvement in caregiving compared to men appear to offer a more convincing argument. As the first chapter made clear, women are more likely to engage in caregiving than men. Other research has also shown that women spend more hours per week providing care and tend to accomplish more demanding tasks, such as personal care (Cranswick & Dosman, 2008; Sinha, 2013). There was no information on the intensity of caregiving or the specific tasks accomplished in the retrospective caregiving history of the GSS but our findings suggest that the care provided to the same group of people, for example parents or parents-in-law, did not have the same effect on employment by gender. This leads us to conclude that the relationship that men and women entertain with regards to paid employment and/or caregiving is different.

We argue that although women have gained ground in the domain of paid employment over the past few decades, they still experience more interruptions in their careers to care for dependents. They appeared especially likely to leave employment under the age of 30 years, the age at which these cohorts of women had already started forming their families. Findings concerning the effect of work experience suggest that these women who interrupted their careers or delayed their entry into the labour market, most often for the care of their children, had a higher probability of experiencing further career interruptions. Women had the lowest probability of leaving paid work when they had school-aged children, probably because they had more financial responsibilities at that time or because, for many, work schedules coincided with their children's school day. The risk of leaving employment rose again later in their lives when they were older and their children were more autonomous. Parent care increased the risk of leaving employment even more so among women working full-time, but only once their own children were more independent.

The situation regarding the effect of parent care was different for men, who were shown to remain employed as long as possible. Providing parent care by itself did not appear to increase their risk of leaving paid work, but it did increase the likelihood of opting for part-time employment among men who worked full-time and had been providing care for less than a year. However, once men started working part-time, they were much more likely to leave employment compared to their counterparts employed full-time. Ideally, we would have liked to test whether or not the effect of caregiving varied according to work status (full-time or part-time) in order to estimate whether or not men employed part-time and providing care to a parent or to another relative are more likely to experience a paid work interruption than those employed part-time but not providing care. However, too few male respondents were simultaneously employed part-time and providing care to each group of care recipients to allow such an analysis. The impact of parent care on the transition out of employment came later in the lives of men than in those of the women and possibly more gradually as well. Their involvement in paid employment appeared strengthened early in their careers, when they formed their families. Hence, they exhibited a lower probability of experiencing a work interruption before the age of 50 years when they were partnered and the parents of very young or school-aged children. It is thus not entirely a surprise to see that once care responsibilities arise, men try to remain in paid work as much as possible. This may have to do with their caregiving tasks being less demanding and easier to combine with employment than women's caregiving. If it does, it would only give more weight to the argument of the persisting gendered division of paid and unpaid labour in our society.

The gender differences appeared the most striking regarding the provision of care to parents but the impact of providing care to other persons than parents or parents-in-law also supports the thesis of lower attachment of women to the labour force and greater involvement in the care of dependents. Both men and women see their risk of leaving full-time employment increase only with providing care to non-relatives; however, men appear to remain in employment longer when confronted with that care.

One way in which men and women were more alike than expected is in their apparent ability to balance parent care with employment when they had young children. According to the role conflict hypothesis (Goode, 1960), widely cited in the literature on the impact of caregiving on employment trajectories, meeting all obligations should become more difficult as the number of roles increases. However, employed men and women who had young children and provided

care to a parent appeared less likely or, at least, no more likely to leave employment than their counterpart not providing care to a parent.

Several hypotheses can be put forth to explain this finding. First, the rewards individuals obtain from employment may exceed the additional demands created by their many roles. The satisfaction derived from paid work, which can also give a break from caregiving responsibilities and the financial resources gained are two of the possible rewards associated with remaining in paid employment.

Second, the involvement of parents in the care of their own aging parents may further change the dynamics within the household, leading school-aged children themselves to become more involved in household chores to relieve their parents of some their responsibilities (Cranswick & Dosman, 2008).

Third, at the point when their children enter school, mothers may feel a social pressure either to return to paid employment after being at home with their children or to remain employed if they had been so already. This may partly explain why mothers with children aged 6 to 12 years faced with the care of their own parents exhibited a lower probability of leaving employment than their counterparts not providing care. They may cling to those expectations and resist their competing roles to a greater degree.

Finally, the care provided to parents at this stage in their life may differ from parent care responsibilities occurring later in life. Unfortunately, the GSS did not collect information on the type of care tasks or number of hours per week spent providing care in its retrospective caregiving history. Consequently, it was impossible to verify whether the caregiver role differed throughout the life course, for instance, involving financial support and the management of care tasks earlier in life but increasingly requiring such hands-on care later in life as personal care and household chores. Younger caregivers may also spend less time providing care than older caregivers, which could help them combine care, employment and their role of parents.

Policy Implications

To some extent, governments benefit from the care provided without pay by family members, relatives and friends. Hollander et al. (2009) estimate the economic contribution of unpaid caregivers in 2009 at around \$25 billion in Canada. However, as this thesis has shown,

providing care has consequences for individuals. It sometimes increases the probability of leaving employment or reducing work hours below the 30-hour-per-week mark depending on gender, the nature of the relationship with the care recipient, the duration of care, the intensity of paid work and the stage in the life course. There is also some limited evidence to suggest that once caregivers interrupt their careers, they rarely return to similar levels of employment following the end of the caregiving (Lilly et al., 2007). This may reduce the ability of caregivers to secure earnings but also that of governments to collect taxes.

In a context in which governments are concerned with limiting expenses, they may be reluctant to develop new policies or to invest more in existing programs that support people who need assistance to reside in their homes or help their caregivers reconcile care, employment and other responsibilities. Whatever decision is taken in the allocation of public funds, it is likely to have an impact on the social network of people who need assistance. In Austria, care allowances paid to the care recipient were said to reinforce gender and class divisions (Hammer & Österle, 2003). A caregiver benefit implemented in 2009 in Nova Scotia may have had similar repercussions. Other such policies as, for example, increased resources in home care services, could possibly help caregivers combine caregiving and employment, just as the creation of affordable public daycare spaces for children helped raise the labour force participation rate of mothers of young children (Lefebvre & Merrigan, 2008). We showed that the provision of parent care increases the probability of transitioning out of full-time employment as early as the first year of care. Therefore, any policy aimed at caregivers should try to identify and reach caregivers as soon as they take on care responsibilities.

The potential policy benefits should not solely be understood in terms of employment and financial advantages; increasing resources in home care services could improve the quality of life of those who need assistance. In 2002, one in five persons aged 65 years and over, living in private households in Canada and needing assistance reported having at least one of their care needs unmet (Busque & Légaré, 2012). Having unmet care needs appears to have less to do with individual characteristics and the social network than with the delivery of care by formal services. Younger seniors and those who need assistance with more than two but less than five activities out of six seem especially likely to report unmet care needs, most probably because their needs are not yet regularly evaluated within the formal system and/or because they need more help than

their network of family members, relatives and friends can provide but not enough to be eligible to receive formal home care services (Busque & Légaré, 2012).

Limitations

The main limitations with the use of retrospective questions in surveys like the ones we used are the potential for recall bias and failure to collect information on some key variables. If major life events such as employment and conjugal transitions, the birth of a child or the start of caregiving may be easier to remember, the time spent in a caregiver role, the tasks accomplished and how those changed over the course of a caregiving episode are probably more difficult to report on retrospectively. In order to understand these processes as they unfold and their impact on other aspects of the lives of caregivers, the use of longitudinal data collected in a prospective survey would be needed.

The 2006 and 2007 GSS also failed to collect information on health, income and the occupation of the partner retrospectively. Again, this kind of information is difficult to collect retrospectively. Without health and income histories, those characteristics cannot be included as independent variables in the study of employment transitions. It is also impossible to analyze the impact of caregiving on health and income with longitudinal statistical techniques. Individuals who combine the roles of parent of school-aged children, paid worker and caregiver to a parent may not be more likely to interrupt their careers than other individuals not providing care but having to juggle these many roles may increase their stress level, and lead to poorer health outcomes. Considering that individuals start providing care ever earlier, they may increasingly need to reconcile these roles.

The decision to leave employment possibly depends on how affordable it is. Without information on household income, savings and wealth, it is not possible to know whether caregivers who leave paid work do so because they can afford it, either because they have accumulated enough savings to retire or because they can rely on the income of other household members or, conversely, whether they are part of the most vulnerable groups who are exposed to an increased risk of experiencing poverty in the short and long run. Collecting income data longitudinally in a prospective survey could help understanding whether providing care has a short- or long-term impact on income.

The absence of details on the employment and care activities of the partner prevented any analysis of how couples negotiate care and employment responsibilities. If men with children aged 0-5 years or 13-17 years and providing care to a parent were less likely to leave employment than their counterparts not providing care, it might have been because their partner provided a significant proportion of the care and/or engaged in fewer hours of paid work.

Another limitation concerns the incomplete history of caregiving for respondents who reported having provided care to more than one person in the twelve months preceding the 2007 survey. We excluded these respondents from our analysis since only the start date of care and relationship with the main care recipient were collected, making it impossible to order all episodes correctly and to assign the relevant relationship with the care recipient. By definition, these individuals had all provided care at least once in their life. In Chapter 1, this undoubtedly led to an underestimation of the proportion of individuals who had ever provided care. Nevertheless, the fact that older birth cohorts were no more likely than younger cohorts to be among the excluded cases suggests that recall bias was not an important issue in our study. In Chapters 2 and 3, we excluded respondents aged 80 years and older to further limit the risk of bias in the recollection of past events.

The 2006 GSS collected information on conjugal and parental histories, which are essential to be able to consider these characteristics as they vary over time. One of the objectives of the second chapter was to understand whether caregiving combined with the presence of young children in the respondent's household influenced employment trajectories differently than each one of these dimensions separately. However, the GSS asked about the age at which the respondents' children left their household only for those who were below the age of 25 at survey. Since all respondents in our sample were between the ages of 44 and 79, the large majority of their children were above that age. Therefore, we could only control for whether respondents had children of different age, but not for their presence in the household.

Finally, to study the impact of caregiving at different stages in the life course, it was necessary to include all the employment episodes of the respondents. As we have shown, the impact of parent care differed depending upon the age of the youngest child. This would have proven impossible to show if only the first employment episode had been considered in the analyses. However, the introduction of multiple employment episodes is likely to introduce an intra-respondent correlation bias. This bias will arise if, for example, respondents who have

already experienced a work interruption are at greater risk of further interruptions. In the second chapter, we used the rank of the employment episode as a stratum variable, a method suggested by Prentice et al. (1981) to address this issue. This method controls for the rank of the employment episode but allows a different baseline hazard to be estimated for each episode. It can be used in proportional hazards models which are more flexible, as they do not require the choice of a parametric model for the baseline hazard. Unfortunately, it could not be introduced in the competing risks models of the third chapter.

Directions for Future Research

As is often the case in research, this thesis raises more questions than it answers. I will briefly discuss some of these questions and, when possible, I will incorporate the Canadian data sources that could be used to address them.

First, if we want to document whether the population of caregivers keeps increasing, its size needs to be estimated on a regular basis. This can be done with repeated cross-sectional surveys, such as the GSS, for which information on caregiving is asked approximately every five years. However, caution is required in making the survey questions and target populations comparable. Statistics Canada took a good decision to sample individuals aged 15 years and over in the 2012 GSS since, as we have shown, caregiving occurs ever earlier in the life course.

Second, in order to further our understanding of the impact that parent care has on the probability of leaving employment at different stages of the individuals' life course, a comparison of the nature of parent care provided earlier and later in life is particularly warranted. Since the population surveyed in the 2012 GSS was aged 15 years and older, this will constitute a useful data source to compare younger and older caregivers. The information on the episode of care provided to the main care recipient in the twelve months preceding the survey could be used to compare the care tasks and the average number of caregiving hours per week of respondents having either school-aged children or older children.

Third, this study made clear that the relative proportion of grandchildren and friends who start providing care before age 45 is increasing. Less clear is our knowledge of the care networks of individuals. For instance, we do not know to what extent the assistance provided by grandchildren complements or replaces the care provided by their parents and whether friends are

called upon to provide care when no partner is present. This type of research could help identify the reasons underlying the importance of unmet care needs among individuals who report a friend as their main caregiver (Turcotte, 2014). The 2012 GSS could be used to study the size and general composition of care networks, either from the perspective of respondents who receive help or from that of those who provide assistance. Unfortunately, from both perspectives, the questions regarding the relationships between other caregivers than the primary caregiver and the care recipient make it impossible to identify each member of the care network with precision.

Fourth, the dataset used in this thesis could be drawn upon to examine the impact of providing care during a paid work interruption on the probability of resuming employment. Such an analysis would help understand whether employees who provide care differ from those who do not in returning to employment after an absence of at least three months. It would clarify our findings by showing whether caregiving increases the probability of temporary work interruptions or that of early retirement. The effect of parent care on leaving employment was shown to be stronger later in individuals' careers – when their own children were older, which suggests that they may have exited the labour market permanently. A comparison of the probabilities of return to employment among caregivers who had left the labour market at different stages of the life course would increase knowledge regarding the longer-term consequences of caregiving on employment.

Fifth, more research is needed to investigate the consequences of caregiving on dimensions other than employment. For example, the impact of providing care on conjugal relationships has scarcely been studied despite concerns voiced 30 years ago suggesting that caring for an aging parent modifies family dynamics with the spouse and children (Brody, 1985). Caregiving responsibilities can lead to reduced time spent with the partner, create conflict within couples and lower marital satisfaction (Dandurand & Saillant, 2005; Pelot, 2009; Sutor & Pillemer, 1992). However, no study has yet evaluated the impact of caregiving on separation and divorce in Canada. Such research would be feasible using the 2006 and 2007 GSS, which collected the complete histories of caregiving and conjugal unions. It will be one of the objectives of my postdoctoral research, along with a study of the influence of providing care on repartnering.

Sixth, it was noted above that income was not used as an independent variable in this thesis because it could not be collected retrospectively in the GSS. However, understanding

whether or not it is mostly low-income individuals who experience the employment outcomes documented here would be of great interest to policymakers if they are to develop policies that better meet the needs of caregivers. For this type of research, two types of data could be used: panel data containing information on caregiving, income, employment and other covariates or cross-sectional data with retrospective information on caregiving – as we have used – which would, however, be linked with the respondents’ income tax files. Such a dataset could be used to determine whether the personal income of respondents who started providing care from one year to the next differs from that of those who were not caregivers in both years, while controlling for employment status and other covariates. The new Canadian Longitudinal Study on Aging (CLSA), a large-scale prospective longitudinal study that, for the first wave, sampled respondents 45 to 85 years old living in or near several Canadian cities, may prove useful for this type of research. However, the drawback with the income questions is their lack of precision, with only five categories of self-reported income. Being able to compare the household and personal incomes of respondents could nonetheless further our understanding of whether the income of other household members compensate for the drop in earnings, if any, among caregivers and especially caregivers who have given up employment.

Finally, as our research showed, individuals who were “sandwiched” between parent care, the care of school-aged children and employment exhibited a lower probability of leaving employment than their counterparts not providing care. However, the possibility that their health was impacted by caregiving, through increased stress levels for example, could not be set aside. For the study of the health consequences of the provision of care, the CLSA will probably constitute the best source of data in a few years, when the first three waves will be collected. It contains a number of self-report questions on health, in addition to objective medical tests administered in laboratories for the major part of the sample. With the first three waves of data, it will be possible to examine the health status in the third wave of individuals who started providing care in the second wave and determine whether there is a deterioration in their health between waves 1 and 3.

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