

***The Intersection of Caregiving and Employment Across the Life Course***

*Final Report*

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## **Abstract**

The purpose of this project was to better understand the interplay between individuals' caregiving and employment across their life course and the cumulative risks to employment, financial security and well-being that caregivers face.

Relying on the Taxonomy of Economic Costs of Care for Family/Friend Caregivers, developed as part of a companion project to this one, and data from the 2007 cycle of Statistics Canada's General Social Survey on family, social support, work and retirement transitions of mid-life and older Canadians, we examined Canadians' caregiving trajectories and risk factors for experiencing care-related employment consequences.

Our analyses verified previous findings that caregiving is an increasingly common experience, one that is likely to be experienced by the majority of Canadians at some time during their lives; that most caregivers are employed and most of these are employed full time; and that caregivers commonly accommodate their employment to care demands. Those most at risk of experiencing care-related employment consequences, such as absenteeism, working fewer hours for pay, and being out of the labour force, include: women (especially those caring for a disabled child); men caring for a spouse; those approaching retirement age; those in poorer health; and those spending more time performing care tasks (women spending more than 20 hours per week on care tasks; men spending as few as 10 hours per week caregiving).

Care-related employment consequences have implications for the economic security of caregivers, but also important downstream implications for employers, labour market sustainability and the health of the economy in general. At a time when population aging is expected to result in future skilled labour shortages as well as increased demands on family/friend caregivers, these labour market implications cannot be ignored.

**Key Words**

Family/friend caregiving; caregiving and employment; caregiving across the life course; economic costs of care; care-related employment consequences; economics of aging;

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## Executive Summary

### Purpose

The purpose of this project was to better understand the interplay between individuals' caregiving and employment across their life course and the cumulative risks to employment, financial security and well-being that caregivers face.

### Methods

The conceptual framework for the study was the Taxonomy of Economic Costs of Care for Family/Friend Caregivers, developed as part of a companion project to this one, which lays out the main domains of employment consequences of care, and their most common predictors. We used a range of descriptive and multivariate techniques to analyze data from the 2007 cycle of Statistics Canada's General Social Survey on family, social support, work and retirement transitions of mid-life and older Canadians in order to examine:

- the caregiving trajectories of Canadians;
- the circumstances under which caregivers are most likely to experience employment consequences of caregiving; and
- the implications of caregiving across the life course for current labour force behavior

### Results

Key findings can be summarized as follows:

- Caregiving is an increasingly common experience, one that is likely to be experienced by the majority of Canadians at some time during their lives.
- Most caregivers are employed; most of these are employed full time.
- Caregivers commonly accommodate their employment to care demands, by:
  - ⇒ Reducing their hours of paid work
  - ⇒ Missing days of work
  - ⇒ Turning to self-employment

- While few caregivers self-reported that they had quit, lost or retired early from a job during the 12 months preceding the survey in order to provide care, they were found to be less likely than their age peers without care responsibilities to be in the labour force.
- Though risk factors vary somewhat across the types of employment consequences examined, in sum caregivers at greatest risk of care-related employment consequences include:
  - ⇒ Women
  - ⇒ Women caring for a disabled child; men caring for a spouse
  - ⇒ Those approaching retirement age (peak earning years)
  - ⇒ Those in poorer health
  - ⇒ Those spending more time performing care tasks
- There is evidence of a threshold effect: it is the most intense caregiving situations that are likely to result in care-related employment consequences, including absenteeism, reducing hours of paid work and being out of the labour force entirely. There also is evidence that the threshold may be different for men and women: 20 hours per week spent on care tasks for women; as few as 10 hours per week for men.
- Women remain at greatest risk of being financially disadvantaged by taking on care responsibilities for a number of reasons
  - ⇒ They are more likely than men to be a caregiver at a point in time
  - ⇒ They experience more episodes of care that occupy more years of their life course
  - ⇒ They perform tasks that are less easily scheduled around other commitments such as paid work
  - ⇒ They spend more time performing care tasks, particularly tasks that require their presence on a regular basis
  - ⇒ They are more likely to be caring for a disabled child (a lifelong commitment). As result, women also are more likely to experience care-related employment consequences, and to experience more

extensive consequences than men are. Since women still earn less than men, are less likely to have job-related pension plans, and contribute less to the Canada Pension Plan, caregiving represents a much greater source of risk to income insecurity throughout their life course than it does for men.

### **Conclusion**

The pattern of findings that both current and past caregiving episodes are associated with a higher likelihood of self-reported employment consequences and negatively associated with current labour force participation and hours of paid work has clear implications for the economic security of caregivers. But it also has important downstream implications for employers, labour market sustainability, and the health of the economy in general. The caregivers reporting that they had missed an average of about three days of work annually due to care responsibilities represent over 520,000 employed Canadian caregivers age 45 and over. Collectively, they are estimated to have missed nearly 1.5 million work days per month due to caregiving responsibilities. Those who reduced their hours of work in order to accommodate their caregiving represent over 313,000 employed caregivers and an aggregate loss to the labour force of 2.2 million work hours each week. At a time when population aging is expected to result in future skilled labour shortages, as well as increased demands for care from family/friend caregivers, these labour market implications cannot be ignored.

## 1. Introduction

In this project we take advantage of new, nationally representative data to fill a gap in our knowledge about the long-term relationship between the assumption of care responsibilities and participation in paid employment. We seek to understand the interplay between individuals' caregiving and employment episodes across their life course in order to describe cumulative employment risks to caregivers. Findings identify groups of caregivers at highest risk of sustained employment-related economic consequences that may have profound cumulative effects on their financial security and well-being.

### 1.1. Project Objectives

The overall goal of this project is to quantify the impact of caring for family members and friends by examining employment consequences arising from caregiving episodes across the caregiver's life course. More specifically, our objectives were to:

#### 1.1.1. Objective 1: Explore the caregiving trajectories of Canadians

- describe the frequency, duration and timing of care episodes across the life course
- describe differences in frequency and duration of care episodes across the life course
- determine the predictors of the frequency and duration of care episodes across the life course

#### 1.1.2. Objective 2: Examine the circumstances under which caregivers are most likely to experience employment consequences of caregiving

- describe the occurrence of recent care-related employment consequences among Canadian caregivers (where recent is defined as occurring during the 12 months preceding the survey)
- describe differences in the occurrence of recent care-related employment consequences
- determine predictors of the occurrence of recent care-related employment consequences

### 1.1.3. **Objective 3: Examine the implications of caregiving across the life course for current labour force behaviour**

Findings from this project also will inform the development of a module for the Life Paths model that will be used in Project 3 to estimate employment consequences that arise from caregiving responsibilities across the life course, and to monetize these consequences. These requirements include:

- Counts and profiles of caregivers and care receivers
- Determining predictors of labour force behavior (participation and hours of paid work)

## 1.2. **Background and Rationale**

Population aging has led to a paradoxical situation that places multiple pressures on some caregivers. The view of care as economically burdensome to the public health system has led to a shift in responsibility for care from the public sector to family and friends (e.g., by reducing investment in home and continuing care and other supports) (Dosman & Keating, 2005). At the same time, labour market shortages have led to increasing pressure on experienced workers to enter and maintain employment regardless of their caregiving demands (Taylor, 2007). As pressures from these conflicting policy goals mount, more people will find themselves in a position of trying to cope with the competing demands of paid work and dependent adult care (Martin Matthews & Phillips, 2008). There is growing evidence of work-family conflict for those trying to balance paid work and care (Carmichael, Connell, Hulme, & Sheppard, 2008; Duxbury, Higgins, & Schroeder, 2009; Fast, Keating & Yacyshyn, 2008; Henz, 2004). In cases where caregiving trumps employment, causing people to reduce or leave their paid work, poor health, social, and economic outcomes are likely (Evandrou & Glaser, 2004; Rosenthal, Hayward, Martin Matthews & Denton, 2004).

The association between providing care and disruptions to paid work has been established repeatedly over a number of years and across much of the developed world. The volume of this evidence is expanding as more researchers and statistical agencies around the world have begun collecting data that allow investigation of the relationship. Most population-based surveys show that the majority of caregivers are employed and most of those are employed full-time. For

example, 56% of all eldercare providers in Statistics Canada's 1996 GSS were employed full time and another 12% were employed part time (Keating, Fast, Frederick, Cranswick & Perrier, 1999). In the 2002 GSS, 77% of men and 63% of women caregivers aged 45 to 64 reported that their main activity was working at a job or business and most (93% of men and 63% of women) worked full-time hours (Cranswick, 2002). By 2007 the proportion of Canadians who were caregivers had grown by 10% but their numbers had escalated by 65%; 78% of women and 84% of men caregivers age 45-64 were employed (Fast et al., 2011).

Perhaps the most financially damaging employment accommodation a caregiver can make is to leave or never enter the labour force. A number of studies provide evidence of a significant negative association between providing family/friend care and the likelihood of labour force participation (Bolin, Lindgren, & Lundborg 2008; Carmichael & Charles, 2003; Crespo, 2006; Evandrou & Glaser, 2003; Henz, 2004; Masuy, 2009). There also is evidence that some care providers take temporary unpaid leaves from their paid jobs when care demands become unmanageable (Dautzenberg, Diederiks, Philipsen, Stevens, Tan & Vernooij-Dassen, 2000; Gillen & Chung, 2005). Stone & Short's (1990) findings show not only that caregivers reported quitting their jobs, but also that the prospect of having to accommodate work to the demands of caregiving keeps some people from entering the work force entirely. Other findings reveal more specifically that some caregivers quit or retire early from their jobs when they take on care responsibilities (Carmichael, et al., 2008; Covinsky et al., 2001; Dentinger, & Clarkberg, 2002; Evandrou & Glaser, 2003; Henz, 2004; Lai & Leonenko, 2007; Stone & Short, 1990; Uriarte-Landa & Hébert, 2011).

Several of these studies find evidence of a 'threshold effect' whereby participation in care has no significant impact on labour force participation unless it exceeds a threshold of intensity or level of demand (Carmichael & Charles, 2003; Crespo, 2006; Lilly, Laporte & Coyte, 2010). Intensity has been variously measured as hours of care (Berecki-Gisolf, Lucke, Hockey & Dobson, 2008; Bolin, Lindgren, & Lundborg, 2008; Carmichael & Charles, 2003; Lilly, Laporte & Coyte, 2010) co-residence with the care receiver (Crespo, 2006; Heitmeuller & Michaud, 2006), frequency (daily v. weekly, monthly, etc.), provision of personal care (Johnson & Lo

Sasso, 2004), being the primary caregiver (Stone & Short, 1990) and duration of caregiving spells (Van Houtven, Coe, & Skira, 2010). This growing body of evidence seems to suggest that it is primarily high demand caregiving situations that place caregivers at greatest risk of experiencing employment consequences.

Some research suggests that caregivers also encounter difficulty returning to paid work once they leave the labour force to provide care (Hutton & Hirst, 2000; Lee & Gramotnev, 2007; Pavalko & Artis, 1997; Spiess & Schneider, 2003). Indeed, Spiess and Schneider (2003) found that caregivers decreased rather than increased hours worked for pay following termination of care. Evandrou and Glaser (2003) report that, while the majority did report either starting work again or increasing their hours of work after caregiving ended, 35% of women and 18% of men reported that termination of caregiving had no effect on their work arrangements.

Of those who remain in the labour force, many report other restrictions on their work hours or options. Some report working fewer hours for pay, for example by moving from full-time to part-time work or turning down overtime, in order to be able to juggle both roles (Bereki-Gisolf, Lucke, Hockey, & Dobson, 2008; Bolin et al., 2008; Carmichael & Charles, 2003; Carmichael, et al., 2008; Covinsky et al., 2001; Dautzenberg, et al., 2000; Evandrou & Glaser, 2003; Gillen & Chung, 2005; Henz, 2004; Keating et al., 1999; Latif, 2006; Rossi et al., 2007; Spiess & Schneider, 2003; Viitanen, 2005; Wakabayashi & Donato, 2005). In contrast, some studies find that, for those who stay in the workforce once they take on care responsibilities, caregiving has no statistically significant impact on paid work hours (Bittman, Hill, & Thomson, 2007; Wolf & Soldo, 1994), or that the impact is restricted to only a portion of respondents, with estimates ranging from 11% to 44% (Evandrou & Glaser, 2003; Henz, 2004; Spiess & Schneider, 2003; Wilson, Van Houtven, Stearns & Clipp, 2007).

Other strategies for accommodating paid work to care demands include changing work schedules (Dautzenberg, et al., 2000; Doty, Jackson, & Crown 1998), missing whole or part days of work (Dautzenberg, et al., 2000; Gillen & Chung 2005; Gray & Zmigelski, 2008; Lai & Leonenko, 2007), using holidays or sick days to meet care

responsibilities (Dautzenberg, et al., 2000; Gillen & Chung, 2005), declining promotions (Dautzenberg, et al., 2000; Gillen & Chung, 2005), changing jobs (Lai & Leonenko, 2007; Rossi et al., 2007) and taking unpaid leaves (Lai & Leonenko, 2007).

These findings come from across much of the developed world: the U.S., the U.K., Europe, Australia and Canada, though relevant Canadian studies are rare compared to other countries. Many studies focused exclusively on women, but studies involving samples of both men and women conclude that women are more likely to accommodate their paid work in order to provide care. Some research also suggests that women accommodate their paid work to care responsibilities, but do not accommodate their care work to their paid work demands (Pavalko & Artis 1997).

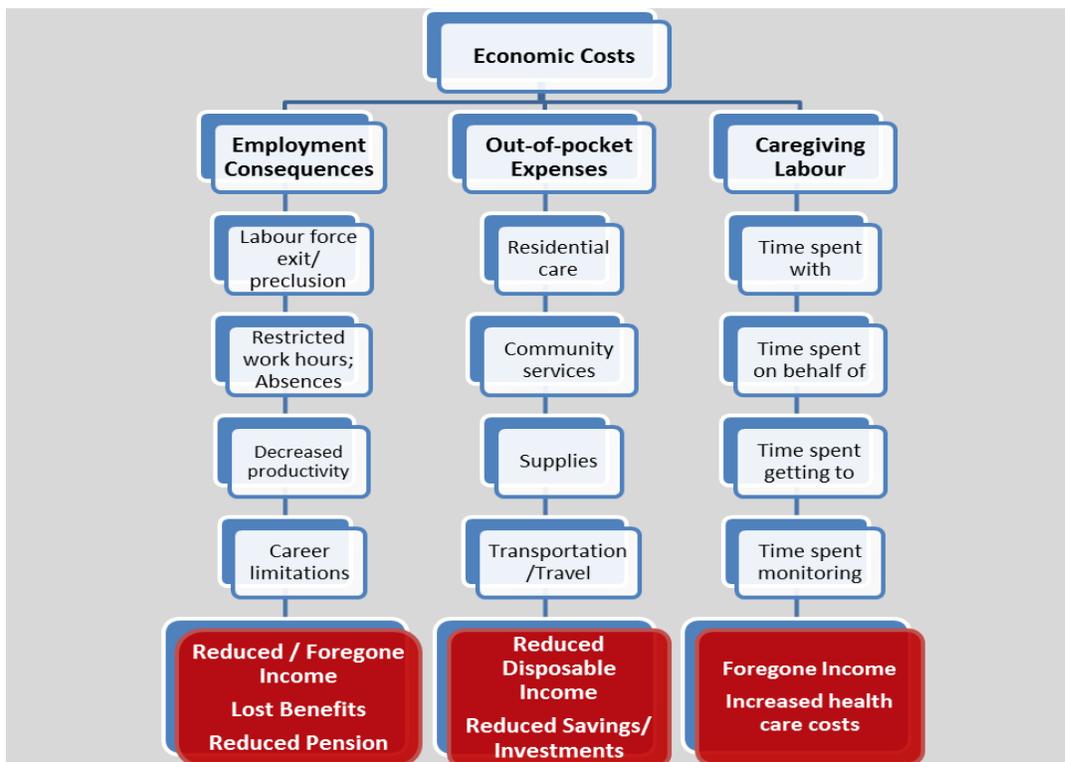
To date we have investigated the types of economic consequences experienced by caregivers, their incidence and predictors (Fast, Williamson & Keating, 1999; Fast, Keating & Yacyshyn, 2008; Walker, 2005). However, our knowledge remains piecemeal and largely cross-sectional in nature. Life course issues, such as caregiving trajectories and cumulative costs for family/friend caregivers, in particular, have been ignored, despite evidence that both caregiving and employment have multiple episodes, trajectories, and on-going implications that are cumulative in nature (Shewchuk & Elliott, 2000). We believe that this state of affairs can be attributed, in part, to lack of appropriate data. However, new national survey data include, for the first time, retrospective care history data. With these data we can examine: caregiving episodes across the life course and their relationship to labour force behaviour; groups of caregivers at highest risk of sustained employment-related economic consequences; how care trajectories intersect with paid work in producing or exacerbating those risks; and critical points for intervention to mitigate the consequences associated with the risks. Shewchuk and Elliott (2000) urge us to employ statistical approaches and research designs that will help us identify the different career trajectories and pathways observed among caregivers by uncovering sequential patterns in relationships among variables.

## 2. Conceptual Framework and Approach

This project is framed by the Taxonomy of Economic Costs of Care for Family/Friend Caregivers, developed as part of a companion project to this one (Keating, Lero, Fast, Lucas & Eales, 2011). As Figure 1 illustrates, this framework identifies three main domains of economic costs: employment consequences; out-of-pocket expenses; and caregiving labour.

This report focuses on the domain of employment consequences, for which the subcategories of labour force exit/preclusion, restricted work hours/absences, decreased productivity, and career limitations have been identified. This project addressed directly the subcategories of labour force exit/preclusion and restricted work hours/absences, though these have clear downstream implications for both productivity and career advancement potential.

**Figure 1. Taxonomy of Economic Costs of Care for Family/Friend Caregivers**



Source: Keating, Lero, Lucas, Fast, & Eales, 2011

Given evidence that the stage of the life course at which care episodes occur matters with respect to the impact that caregiving will have on labour force behaviour (Masuy, 2009), the project was further guided by life course concepts. Changes in care responsibilities over the life course will place some people at higher risk of exclusion from material resources, either by limiting the caregiver's ability to earn income from paid work and/or placing added demands on his/her available resources. As Shewchuk and Elliott (2000) observe, "Caregiving is not a static event or a single behaviour but is instead a complex, dynamic process that unfolds over time" (p. 257). Caregiving situations can follow different trajectories across time (e.g. characterized by stability, steady escalation or decline, or periodic or cyclical crises) which also can influence the nature, timing and flow of care demands, and subsequent accumulation of employment consequences. In addition, caregivers may experience multiple caregiving episodes across their life course. Therefore, costs may accumulate and intensify over the adult life course (Evandrou & Glaser, 2003; Fast & Dosman, 2009;). It is crucial, then, that we understand the dynamics of care trajectories or caregiving careers (Shewchuk & Elliott 2000). In this project we began the task of addressing the ways in which care trajectories and employment trajectories intertwine across the life course. Because of unexpected data limitations we were not fully successful, but we are continuing this line of investigation as part of a companion project to this one on Monetizing the Costs of Care-related Employment Consequences.

### **3. Methods**

#### **3.1. Data**

Data were drawn from Cycle 21 of Statistics Canada's General Social Survey. Cycle 21 focused on family, social support, work and retirement transitions of mid-life and older Canadians. Data were collected from January to December 2007. The final sample was 23,404 Canadians aged 45 and over living in the ten provinces. This survey employed random digit dialing to select a sample (with the exception of a subset of Cycle 20 respondents who were re-interviewed for Cycle 21) and Computer Assisted Telephone Interviewing (CATI) to collect the data. Thus, persons living in the northern Territories, those without telephones and those living in institutional settings were omitted from the sample.

Five samples from Cycle 21 were used to conduct multivariate analyses:

- the full survey sample;
- a sub-sample of respondents of normal employment age (45-64);
- a sub-sample of respondents age 45-64 who reported that they were employed at the time of the survey;
- a sub-sample of respondents who reported that they had provided care to at least one family member or friend within the last 12 months; and
- a sub-sample of respondents age 45-64 who reported that they had provided care to at least one family member or friend, and were employed during the last 12 months.

### **3.2. Selection and Operationalization of Variables**

Dependent variables in multivariate analyses include:

- for Objective 1: care history variables (whether the respondent had ever provided care to a family member or friend since the age of 15; and the total number of such care episodes experienced since the age of 15)
- for Objective 2: employment consequences that respondents attributed to their care responsibilities (job loss [quit, lost, retired early, turned down job]; absenteeism; reduced hours of paid work; self-employed).
- for Objective 3: labour force participation (employed or not); usual hours of paid work

Keating, Lero, Fast, Lucas & Eales (2011) identified factors found in prior research to influence employment consequences. These factors were categorized as follows:

- caregiver characteristics: sex; age/life course stage; health; education; employment status
- care receiver characteristics: disease/disability type; severity of condition
- characteristics of the caregiver-care receiver dyad: geographic proximity; relationship
- caregiving context: intensity of care provided

Based on a life course perspective, we also included family/life history variables among explanatory factors for Objective 2. For multivariate analyses addressing Objective 3, we also entered control variables reported in other literature to influence labour force behaviour (e.g., geographic region and urban/rural residence).

Independent variables were chosen to represent the fullest range of these factors as possible. A full list of variables used in the study appears in Table 1 below. This table also indicates how each of these variables was operationalized.

**Table 1. Operationalization of Variables**

Variable	Description of Variable
<b>Dependent Variables: Objective 1</b>	
Number of care episodes ever	A continuous variable measuring the number of people the respondent had ever cared for since the age of 15
Duration of all caregiving	A continuous variable measuring how many years in total the respondent spent providing care (to a maximum of five individuals plus the current primary care recipient)
<b>Dependent Variables: Objective 2</b>	
Turned down job offer or promotion	In the past 12 months, has assisting someone caused you to turn down a job offer or promotion?
Missed full days of work	In the past 12 months has assisting someone caused you to miss full days of work?
Reduced hours of work	In the past 12 months has assisting someone caused you to reduce your hours of work?
Quit a job	In the past 12 months, has assisting someone caused you to quit a job?

Variable	Description of Variable
Lost a job	In the past 12 months, has assisting someone caused you to lose a job?
Retired early	Main reason retired included having to provide care to a family member or friend
Self-employed	A dummy variable indicating whether the respondent was self-employed at the time of the survey
<b>Dependent Variables: Objective 3</b>	
Labour force participation	A binary variable indicating whether the respondent was involved in the labour force, either in paid work or looking for paid work (includes self-employed)
Current hours of paid work	A continuous variable measuring the usual number of hours worked at all jobs in a week
<b>Caregiver Characteristics</b>	
Age	Current age of the respondent caregiver, in years
Marital status	A dummy variable indicating whether the respondent currently had a partner (married or common-law) or was single (never married, divorced, separated, widowed).
Parental status	A dummy variable indicating whether a child under the age of 15 was living in the respondent's household
Education	A set of dummy variable indicating the highest level of education attained by the respondent: <ul style="list-style-type: none"> <li>• University degree</li> <li>• College/vocational diploma</li> <li>• High school graduate</li> <li>• Less than high school (reference category for multivariate analyses)</li> </ul>

Variable	Description of Variable
<b>Caregiver Characteristics</b>	
Self-perceived health status	<p>A set of dummy variables indicating respondents' self-reported state of health relative to others their own age:</p> <ul style="list-style-type: none"> <li>• Excellent/Very good</li> <li>• Good</li> <li>• Fair/Poor (reference category in multivariate analyses)</li> </ul>
Activity limitations	<p>A dummy variable indicating whether the respondent was limited in the amount or kind of activity he/she can do at home, at work, at school or in other activities because of a physical condition, mental condition or health problem</p>
Ever employed	<p>A dummy variable indicating whether a respondent had ever been employed</p>
Age when last employed	<p>A continuous variable measuring the age at which the participant was last employed, or current age if still employed</p>
Number of unions	<p>A set of dummy variables indicating the total number of unions (marriages or common-law) reported by the respondent:</p> <ul style="list-style-type: none"> <li>• No unions (reference category in multivariate analyses)</li> <li>• One union</li> <li>• Two unions</li> <li>• Three or more unions</li> </ul>

Age at first union	<p>A set of dummy variable indicating the respondent's age at their first union (common-law or marriage):</p> <ul style="list-style-type: none"> <li>• No union (reference category in multivariate analysis)</li> <li>• Under 20</li> <li>• Age 20 to 29</li> <li>• Age 30 to 39</li> <li>• Age 40 to 49</li> <li>• Age 50 or older</li> </ul>
Age at first caregiving episode	<p>A set of dummy variables measuring the age at which the participant first provided assistance:</p> <ul style="list-style-type: none"> <li>• Never provided care (reference category in multivariate analyses)</li> <li>• Under age 25</li> <li>• Age 45 to 64</li> <li>• 65 or older</li> </ul>
Immigrant status	<p>A dummy variable indicating whether the respondent was born in Canada or outside Canada</p>
Province	<p>A set of dummy variables indicating respondent's province of residence:</p> <ul style="list-style-type: none"> <li>• British Columbia (reference category in multivariate analyses)</li> <li>• Prairies</li> <li>• Ontario</li> <li>• Quebec</li> <li>• Atlantic provinces</li> </ul>
Urban/rural status	<p>A set of dummy variables indicating type of region the respondent resided in:</p> <ul style="list-style-type: none"> <li>• CMA (Census Metropolitan Area)<sup>2</sup></li> <li>• CA (Census Agglomerations) (traced or untraced)<sup>3</sup></li> <li>• Strong to moderate MIZ (Metropolitan Influenced Zones)<sup>4</sup></li> </ul>

	<ul style="list-style-type: none"> <li>Weak to no MIZ (reference category in multivariate analyses)<sup>5</sup></li> </ul>
<b>Care Receiver Characteristics</b>	
Type of health condition of care receiver	<p>A dummy variable indicating condition(s) for which the primary care recipient required care:</p> <ul style="list-style-type: none"> <li>Physical health problem (reference category in multivariate analysis)</li> <li>Mental health problem or both physical and mental health problems</li> </ul>
<b>Caregiver-Care Receiver Dyad Characteristics</b>	
Geographic proximity of care receiver	<p>A set of dummy variables indicating where the primary care recipient lived relative to the caregiver:</p> <ul style="list-style-type: none"> <li>Co-resident (same house/building)</li> <li>Same or surrounding community</li> <li>Less than half a day's drive away</li> <li>More than half a day's drive away (reference category in multivariate analyses)</li> </ul>
Relationship of care receiver to caregiver	<p>A set of dummy variable indicating the relationship of the care recipient to the respondent:</p> <ul style="list-style-type: none"> <li>Spouse</li> <li>Parent or parent in law</li> <li>Sibling or sibling in law</li> <li>Children or children in law</li> <li>Distant kin</li> <li>Friends or neighbours (reference category in multivariate analyses)</li> </ul>

<sup>2</sup> CMAs have >100,000 total population, with 50,000 or more in urban core

<sup>3</sup> CA has urban core population of at least 10,000

<sup>4</sup> An area outside any CMA or CA with strong or moderate social and economic influence of the nearest metropolitan area (as indicated by flow or residents to the metropolitan area)

<sup>5</sup> An area outside any CMA or CA with minimal social and economic influence of the nearest metropolitan area

Caregiving Context	
Amount of care provided per week	<p>An ordinal variable that measured how many hours of assistance per week the respondent provided during the past 12 months:</p> <ul style="list-style-type: none"> <li>• No care hours (reference category in multivariate analysis)</li> <li>• 1 to 9 hours</li> <li>• 10 to 20 hours</li> <li>• More than 20 hours</li> </ul>

### 3.3. Analyses

Following data manipulation to select the relevant sub-samples and sub-sets of variables, recoding some variables and deriving others, descriptive analyses were conducted—frequencies, means and cross-tabulations as appropriate on: (a) relevant characteristics of the respondent caregiver and their primary care recipient so as to adequately describe the nature of our sample; (b) the type and amount of care provided to family members and friends; (c) the frequency and duration of care episodes across the respondent's adult life course; (d) respondents' current employment status; and (e) the employment consequences attributed to care responsibilities by respondents experienced during the twelve months prior to the survey.

Our research questions pertaining to understanding how caregiving episodes interact with paid work interruptions required application of multivariate analytic techniques. In this project we wish to understand the factors that explain (a) the occurrence and duration of care episodes across the life course; (b) the occurrence of recent employment consequences (absenteeism, reducing work hours, or job exit) due to care responsibilities; and (c) current labour force behavior (participation and current hours of paid work, as a function of caregiver characteristics, care recipient characteristics, dyad characteristics, caregiving context characteristics, and, where appropriate, family, life and care history).

Models were estimated using Ordinary Least Squares (OLS), logistic, Poisson and duration regression models as appropriate to the nature of the dependent variable.<sup>6</sup> Since employment, family transitions and caregiving all are experienced differently by men and women (Navaie-Waliser, Spriggs & Feldman, 2002), all analyses were split by sex.

Secondary analyses always are constrained by the fact that the data are not collected for the researcher's specific purposes. However, Statistics Canada data are known to be of high quality, and since several members of our team were consulted by Statistics Canada during development of the surveys from which we have drawn data for this project, data are better suited to our purposes than they might otherwise be. Statistics Canada data files also tend to be complex, with complicated skip patterns and weighting requirements, that can make their use challenging. However, we have enjoyed a close partnership with Statistics Canada for many years and have good access to methodologists and analysts who help us problem solve on a regular basis.

Failure to include respondents under the age of 45 in the survey, and to obtain data on employment history limit the scope of our examination of caregiving and its consequences for employment. The only other meaningful limitation we faced was a high rate of non-response to income questions, which typically run as high as 20% in Statistics Canada's household surveys. We were thus unable to include income among our explanatory variables. However, educational attainment, often used to proxy income and socioeconomic status, was entered among the control variables in the multivariate analyses.

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<sup>6</sup> Previous authors have raised concerns about the potential for selectivity bias (the dependent variable) (in this case, for example, hours of work) is observed only for a restricted, non-random sample) and endogeneity of the caregiving and employment decisions (unobservable characteristics simultaneously affect both caregiving and work hours) as empirical challenges in carrying out this sort of analysis. Several studies have tested explicitly for the presence of these sources of bias and have generally found little evidence of either (Bolin, Lindgren & Lundborg, 2008; Kolodinsky and Shirey, 2000; Latif, 2006).

## 4. Findings

### 4.1. Sample Description

In this section, we describe relevant sample characteristics. From the original sample of 23,404 respondents, 6741 were found to have reported that they had provided assistance to a family member or friend because of that person's long-term health condition or physical limitations during the last 12 months. This represents just under 3.8 million caregivers aged 45 and over in the Canadian population. These respondents comprise the primary sub-sample for our analyses, though for comparative purposes we also are working with the full sample of 23,404 respondents, a sub-sample of respondents who reported that they had ever provided care to a family member or friend since the age of 15 (57.5%, 13,464 respondents, 7.2 million Canadians), a sub-sample 11,935 employed respondents (51%; 7.17 million Canadians age 45+) and a sub-sample of 4,129 employed caregivers (61% of caregivers; 2.3 million Canadians). (See Tables A-1 and B-

#### 4.1.1. Respondent characteristics

As Table A-1 illustrates, women are over-represented among caregivers relative to the general population. Of the 6741 respondents who had provided care to a family member or friend with a long-term health condition or physical limitation during the previous 12 months, 2932 were men and 3809 women, representing 43.5% and 56.5% of the sample and just over 1.6 million men and 2.1 million women caregivers age 45+ in the population, respectively. Sixty-one percent of the sample was employed (67% and 57% of men and women respectively). However, when only respondents of usual employment age (45-64) are considered, 78% of women and 84% of men caregivers were employed.

Caregivers also were somewhat younger, better educated, and more likely to be married and Canadian-born than the general population. In addition, employed caregivers were somewhat younger, more likely to be married, and better educated, but less likely to be immigrants when compared to non-employed caregivers. Employed caregivers also were more likely to be "sandwich generation" (to have simultaneous dependent adult care and child care responsibilities), to report themselves to be in very good to excellent health, and

are less likely to report activity limitations than are non-employed caregivers (see Table A-2).

Table B-1 shows that the majority of caregivers lived within close proximity of their current primary care receiver (the person to whom they provided the most care during the last 12 months), with more than 60% living in the same community and fewer than 5% living more than a half day's drive away. It is notable that more than 20% co-resided with their primary care receiver. Caring for a co-resident family member or friend has been shown to be more time consuming and otherwise demanding than caring for someone who is living elsewhere. Employed caregivers were less likely to co-reside with the care receiver than were their non-employed counterparts (17% of employed v. 28% of non-employed women caregivers; 18% of employed v. 24% of non-employed men caregivers).

Table B-1 also shows that the majority (more than 60%) of caregivers was caring for close family members (spouses, parents or children), though a substantial minority (23% of women and 25.7% of men) were caring for non-kin. Employed caregivers were more likely to be caring for parents and less likely to be caring for a spouse or non-kin compared to non-employed caregivers.

#### **4.1.2. Care receiver characteristics**

Most care receivers were older adults—73% of those cared for by women and 71% of those cared for by men. Employed caregivers were somewhat less likely to be caring for seniors than their non-employed counterparts (72% of employed v. 75% of non-employed women caregivers; 70% of employed v. 74% of non-employed men caregivers) (see Table B-1).

The majority of care receivers (between 68% and 74%) had only a physical health problem or disability, however a substantial minority (between 26% and 32%) had more complex conditions involving mental/cognitive disabilities, often in combination with physical limitation. Employed caregivers were slightly more likely than non-employed caregivers to be caring for someone with a mental/cognitive and/or physical disability (see Table B-1).

The vast majority (more than 80%) of care receivers lived in a private household, but a substantial minority (18-19%) lived in some form of supportive housing or residential care setting. This contradicts the common myth that family members and friends withdraw from care provision when their loved one has other, formal, sources of help (Stabile, Laporte & Coyte, 2006). Even in supportive housing arrangements, careful monitoring is required to ensure the resident is receiving adequate and appropriate care and attention. In addition, family members and friends provide social support that busy staff are unable to provide and which is equally crucial to quality of life of the care receiver as more instrumental tasks.

#### **4.1.3. Type and amount of care provided**

As indicated in Table B-1, caregivers were providing care to an average of two family members or friends during the 12 months preceding the survey (1.9 care recipients for women and 2.2 for men). Women were spending more time on care tasks for those for whom they were caring than men (13.6 and 8.2 hours per week on average, respectively). It is worth noting that this is the equivalent of 1 to 1½ normal work days. Employed caregivers spent substantially less time providing care than their non-employed counterparts (10.9 v. 17.4 hours per week for employed v. non-employed women caregivers; 6.4 v. 12.0 hours per week for employed v. non-employed men caregivers).

Emotional support and assistance with transportation, shopping, banking and bill paying are by far the most common tasks performed, with between 80% and 90% of caregivers performing these tasks. Domestic and home maintenance tasks also are common, though significant gender differences are evident here: 61% of women report that they perform domestic tasks for their primary care receiver while only 38% of men do, while the reverse is true of home maintenance tasks with 60% of men and only 38% of women performing them. These tasks often are critical to the care receiver being able to continue living in familiar surroundings—their own homes and communities. Women also were more likely to report that they assisted their primary care receiver with such high intensity care tasks as medical and personal care (28% and 36% respectively) than their male counterparts (19% and 17%). The 2007 GSS provides information about care management tasks for the

first time. Such tasks turn out to be common as well, performed by almost half (48%) of women and 39% of men.

It is interesting to note that employed caregivers were, for the most part, more likely than their non-employed counterparts to be helping with the hands-on care tasks. In fact, a higher proportion of employed than non-employed women caregivers provided assistance with all of the care tasks. Men also were more likely to provide assistance with indoor and outdoor domestic tasks, medical and personal care and emotional support, but were less likely to help with transportation and personal care if employed than if not employed.

#### **4.2. Objective 1: Explore the caregiving trajectories of Canadians**

Cycle 21 of the GSS includes, for the first time, data on respondents' experience with caregiving throughout the adult life course. In this section, we report findings for Objective 1 regarding care histories. For these analyses, we were working with the full sample of 23,404 respondents. We found that 51.9% of all women and 39.8% of all men reported that they had provided care to at least one family member or friend with a long-term health problem or disability at some time since they were 15 years of age (see Table B-2). Figure 2 illustrates the discrepancy between the occurrences of recent episodes of caregiving (during the last 12 months) relative to episodes occurring across the life course.

##### **4.2.1. Number, duration and timing of care episodes across the life course**

As Table B-2 illustrates, both the mean number of episodes of care by those who experienced them (2.7) and the range (1 to 30) are identical for men and women. However, caregivers who were not employed at the time of the survey had experienced somewhat fewer care episodes over their life courses than employed caregivers (8.3 v. 7.6 for non-employed and employed men caregivers respectively; 9.7 v. 8.4 for non-employed and employed women). When the duration of each of the care episodes was summed we found that women also spent more of their lifetimes (5.8 years on average) providing care to family members and friends with long-term health problems than did men (3.4 years on average).

Table B-2 also shows that women who reported ever having provided care during their lifetimes began their first care episode at a younger age than men (46.1 years on average for women and 47.9 years on average for men). However, currently employed caregivers reported an earlier onset to their caregiving careers than did caregivers who were not employed at the time of the survey (42.2 years v. 50.8 years for employed and non-employed women respectively; 44.3 years and 54.5 years for employed and non-employed men). It is also important to note, that 11.6% of employed women and 8.3% of employed men caregivers began their caregiving careers as an adolescent or young adult (under age 25).

#### **4.2.2. Predictors of the probability, number, and duration of care episodes across the life course**

Results of our analyses to determine predictors of the probability of experiencing at least one episode of care during one's lifetime, and of the number of care episodes experienced during the life course, are presented in Tables B-3, B-4 and B-5.

The models we estimated in order to identify predictors of respondents' care histories explained only a small amount of the variance, indicating that the models did not capture all of the factors that contribute to caregiving engagement. Nonetheless, all models (for men and women) were statistically significant indicating that the included variables did explain some of the variance. Overall we observed that age, education and employment history (such as we have access to) were better predictors of care history than were variables representing family history. One possible implication is that Canadians provide care when needed regardless of competing family demands.

Late middle aged men and women (age 55-64) were at greatest risk of having ever had care responsibilities: men in this age group were 1.33 times more likely than men age 65 and over to report having ever provided care for someone with a long-term health problem or physical limitation while their female counterparts were 1.15 times more likely than women age 65 and over to have ever provided care. This finding is surprising since these respondents would have had less opportunity to experience such events. However, it also is possible that older respondents faced health and functional limitations of their own that limited their caregiving capacity.

In addition, older men's gender role attitudes and competence in care roles may limit their ability and/or willingness to provide care.

The probability of having experienced at least one episode of caregiving during their lifetime increased with educational attainment for both men and women. Women and men with University degrees were 1.8 times more likely than those who had not completed high school to report ever having provided care. Respondents who were employed at the time of the survey also were more likely to report ever having provided care (1.5 times more likely for women; 1.8 times more likely for men). Further, men who were last employed later in life were more likely to have experienced an episode of care.

Respondents who had a history of having immigrated to Canada were less likely than Canadian-born respondents to have experienced at least one care episode during their lives (women immigrants were a little more than half as likely as Canadian-born women; immigrant men were 60% as likely as Canadian-born men). This contradicts the frequent assumption that immigrants, especially those from East and South Asian cultures (two of the most common current source regions of immigrants to Canada), have a stronger sense of responsibility for caring for family members (National Advisory Council on Aging, 2005). It may be that this finding indicates geographic separation from family members needing care for immigrants. Unfortunately, we were unable to test this hypothesis as our data did not indicate whether the respondent's older family members were also living in Canada or had remained in their home country.

Our Poisson Regression models predicting the number of care episodes reported by respondents (Table B-4) show that age was not a strong predictor of having had more frequent encounters with caregiving, with the exception of early middle aged men (age 45-54) who reported .29 fewer episodes of care on average than older men (age 65+).

Educational achievement was positively associated with more lifetime care episodes for both men and women. Immigrant men and women were not only less

likely to report ever having provided care to a family member or friend, those who had experienced care episodes reported fewer of them.

There is evidence in these findings that employment has an impact on women's involvement in caregiving. Women who had been employed at some time during their lifetimes reported almost .4 fewer episodes of care over the same period than those who had never been employed. This is consistent with findings reported in some previous studies (Pavalko & Artis 1997).

Findings from Ordinary Least Squares regression models estimated to identify predictors of the total duration of all lifetime episodes of care are reported in Table B-5. In this model younger middle-aged women were found to have spent about 4 fewer months in total engaged in caregiving over their life courses than older women aged 65+.

Once again, educational attainment was associated with more involvement in caregiving over the life course. All respondents with a high school or post-secondary education spent more years in total involved in caregiving than those who had not graduated high school and the impact increased with increasing educational attainment. Women with a university education spent about 4 additional months engaged in caregiving over their lifetimes than women without a high school diploma, while university educated men spent about 6 months more engaged in care.

In this model women who had ever been employed spent an average of about 5 extra months providing care over their life course than those who had never been employed. In addition, women immigrants spent almost a half year less over their lifetime engaged in caregiving than Canadian-born women, while women who had had children spent about two months less over their lifetimes caring for a family member or friend with a long-term illness or disability than childless women.

### **4.3. Objective 2: Examine the circumstances under which caregivers are most likely to experience employment consequences of caregiving**

In this section we report findings related to Objective 2, to examine the circumstances under which caregivers are most likely to experience employment consequences of recent caregiving (recent being within the 12 months prior to the survey). In Cycle 21 of the GSS, respondent caregivers were asked a series of questions about whether they had experienced each of a set of common economic, social and health consequences of having care responsibilities. For caregivers who were employed at the time of the survey these questions included several about employment consequences, which are the focus of our analysis for Objective 2. The relevant questions included:

- In the past 12 months, has assisting someone caused you to turn down a job offer or a promotion?
- In the past 12 months, has assisting someone caused you to miss full days of work?
- In an average month, how many days have you missed because you were assisting someone?
- In the past 12 months has assisting someone caused you to reduce your hours of work?
- How many fewer hours did you work in an average week because you were assisting someone?
- In the past 12 months, has assisting someone caused you to quit a job?
- In the past 12 months, has assisting someone caused you to lose a job?

Respondents who reported that they had ever retired also were asked:

- Did your retirement reasons include having to provide care to a family member or friend?

In addition, self-employment has sometimes been proposed as a strategy for improving work-life balance for caregivers (Bourke, 2009). Thus, we included

self-employment as one of the potential employment consequences of caregiving, but also as a potential predictor of the likelihood of having to make other care-related employment accommodations.

#### **4.3.1. Occurrence of recent care-related employment consequences by sex**

As Table C-1 shows, the most commonly reported employment consequence arising from recent caregiving episode(s) was absenteeism. Almost 21% of men and 30% of women reported having missed at least one full day of work as the result of having provided assistance to a family member or friend with a long-term health condition or disability within the last 12 months. Women who missed days of work also were absent for more days than men (3.1 days per month on average compared to 2.4 days for men).

The next most common employment consequence was reducing hours of work. Men and women were almost equally likely to report cutting back on their employment at 15.3% and 16.8%, respectively. However, women who did reduce their hours of work once again reported a greater impact than men, reducing their hours by more than a full work day (8.3 hours) each week on average while men reduced their hours of work by an average of almost  $\frac{3}{4}$  of a day (5.8 hours) each week.

Turning down, quitting or losing a job were rare occurrences reported by about 5% of employed caregivers (6.7% of women, 3.1% of men). Similarly only 4.4% of all women and 1.1% of all men caregivers reported that they had retired *early* in order to provide care to a family member or friend. However, among all caregivers who reported that they had *ever* retired, a substantial minority (almost 13%) of women had retired in order to provide care.

#### **4.3.2. Predictors of the likelihood of experiencing recent care-related employment consequence**

None of the models predicting the likelihood of experiencing care-related employment consequences within the twelve months immediately prior to the survey explained much variance, but all were statistically significant, as were

selected explanatory variables, including those representing various aspects of the respondent's current and past caregiving experience.

*Any employment consequence.* Examining the predictors of whether respondents reported any of the employment consequences captured by the survey (quitting or losing a job, retiring, reducing hours of paid work or missing days of work) provides a more comprehensive picture of the likely opportunity costs of the caregiving experience as pertains to employment. As Table C-2 illustrates, both current and past caregiving experience explained the probability that caregivers would report experiencing at least one care-related employment consequence during the 12 months leading up to the survey.

A more extensive care history, being currently engaged in more intense caregiving responsibilities, and currently caring for close kin were all positively related to the odds that men will have experienced one or more employment consequences over the last 12 months. Men were 1.1 times more likely to experience employment consequences for each additional episode of care they reported over their lifetime. Providing 10 or more hours of care per week during the most recent care episode increased the odds of care-related employment consequences by 3.0 times for men, while caring for close kin increased the odds by between 3.7 and 10.2 times, with the most profound impact being felt by those caring for a spouse or partner.

Women's care histories were unrelated to the likelihood of experiencing one or more employment consequences, but elements of the current care episode did matter. Women involved in the most intense care situations also were more likely to report employment consequences, but their intensity "threshold" was higher than men's: it was only those who provided more than 20 hours of care who were more likely to report employment consequences. Caring for close kin also increased women's odds of incurring employment consequences relative to caring for non-kin (7.5 times if caring for a spouse/partner; 4.2 times if caring for a parent/parent-in-law; 7.6 times if caring for a disabled child; 3 times if caring for other kin). In addition, women caring for family members or friends with more complex mental health or combined mental and physical health conditions were 1.5 times more

likely to report employment consequences than those caring for someone with only physical disabilities.

In this model, being self-employed was associated with higher odds of experiencing at least one employment consequence. Self-employed women were 1.9 times more likely and self-employed men 1.6 times more likely to report at least one employment consequence than those who were employed by someone else.

*Reduced hours of paid work.* As Table C-3 indicates, several aspects of respondents' current and past caregiving experience explained whether caregivers (both men and women) reported that their care responsibilities had led them to reduce their hours of paid work. The number of caregiving episodes caregivers had experienced during their lifetimes influenced the probability that employed caregivers had reduced their hours of paid work in the 12 months leading up to the survey differently for men and women. Women were about 5% *more* likely to report recent care-related work reductions for each additional care episode they had experienced over their lifetimes while each additional care episode *reduced* the probability of men reducing their paid work hours by 96%.

Intensity of the most recent episode of caregiving (as measured by hours per week of care provided) also was a significant predictor of the odds of employed caregivers reducing their hours of paid work. Women who spent more than 20 hours per week on care tasks were more than twice as likely as those who were spending less than an hour per week providing care to report reducing their hours of paid work. More hours spent on care tasks also was associated with a higher likelihood of reducing hours of paid work to accommodate care tasks for men, but their threshold appears to be lower: men who spent 10 hours or more per week caregiving were more than twice as likely to reduce their hours of work.

Being a "sandwich generation" caregiver also increased significantly the odds that women reduced their hours of work within the last 12 months (by almost 1.6 times). In contrast, having children under the age of 15 in the household was not significantly related to the likelihood that men had reduced their hours of paid work to accommodate their other caregiving responsibilities.

Being self-employed was another significant predictor of reducing work hours that had different implications for women and men. Self-employed women were 4.7 times more likely than those working for an employer to have reduced the hours they spent working at their own business because of their care responsibilities, while self-employed men were only about half as likely as men working for someone else to reduce their work hours because of caregiving.

Both men and women caring for close kin were more likely than those caring for distant kin or non-kin to reduce their hours of work to accommodate caregiving demands (2.7 to 5.6 times more likely for women; 3.0 to 6.2 times more likely for men). Of particular note is the finding that men were more than 6 times more likely to reduce work hours if caring for a spouse than if caring for distant kin or non-kin. In contrast, it was women caring for a disabled child who were most likely to reduce their work hours (5.6 times more likely than if caring for distant kin or non-kin).

Another interesting gender difference is evident related to the relationship between the caregiver's geographic proximity to their primary care receiver and the likelihood of reducing their hours of paid work. Women living nearby were most likely to reduce work hours (2.4 times more likely if co-resident and 2.7 times more likely if living in the same community, relative to living more than a half day's drive away). In contrast it was men living a half day's commute from their primary care receiver who were most likely to reduce work hours (2 ½ times more likely than if living further away than that).

*Absenteeism.* Characteristics of the most recent care episode (during the last 12 months) explained more of the variability in the odds that caregivers reported care-related absenteeism during the last 12 months than did elements of their care history (see Table C-4). In fact, only the number of care episodes experienced over men's lifetimes predicted absenteeism: men were 5% more likely to have reported a recent care-related absence from their job for each additional care episode experienced.

Both men and women who provided more intense care (exceeding 20 hours per week) were more likely to miss days of work because of their care responsibilities (3.4 times more likely and 2.4 times more likely, for employed men and women, respectively).

Caring for kin also was more likely than caring for non-kin to lead to care-related absenteeism for both men and women caregivers. Women were between 4.3 and 8 times more likely, and men between 2.5 and 10.2 times more likely, to be absent from work in order to attend to care responsibilities if caring for kin. Women were most likely to experience absenteeism if caring for a disabled child while men were most likely to be absent if caring for a spouse or partner.

Women also were almost 1.4 times more likely to experience care-related absences from their jobs if caring for someone with a mental/cognitive disability or combined mental/cognitive and physical disability than if caring for someone with a physical disability only.

*Self-employment.* As Table C-5 illustrates, few of the variables representing aspects of the respondents' caregiving experience influenced whether caregivers were self-employed, with a couple of exceptions, the most notable of which was the age at which men first began caregiving. Those who became caregivers at a very early stage (< 25 years) were 3.4 times more likely to be self-employed than those who had never experienced a caregiving episode.

Relationship to the care receiver mattered for women, but so did geographic proximity. Women caring for a parent, and women living in the same community as the person for whom they cared, were less likely than those caring for non-kin or living more than a half day's drive away (29%% and 43%% less likely respectively) to be self-employed.

Health also was a significant predictor for both men and women in this model. Caregivers in better health were more likely to be self-employed than those in poor to fair health.

#### **4.4. Objective 3: Examine the implications of caregiving across the life course for current labour force behaviour**

In this section of the report we present findings related to Objective 3, which will be used to create the Life Paths module required to carry out Project 3. These include:

- Profile of caregivers and care receivers (number and characteristics)
- Determining predictors of labour force behavior (participation and hours of paid work)

Results of Logistic regression predicting the probability of being employed at the time of the survey are presented in Table D-1. This model fit the data relatively well as indicated by the pseudo R-square statistics of 0.37 and 0.32 for women and men respectively. The following discussion will focus on factors representing characteristics of recent caregiving episodes as well as respondents' care histories. We also will discuss self-reported health status since caregiving is also known to have a negative impact on caregiver health.

Consistent with findings from prior research reported in section 1.2, our findings indicate that providing high intensity caregiving, as measured by weekly hours devoted to care tasks over the 12 months prior to the survey, significantly and substantially increases the risk of the respondent being out of the labour force at the time of the survey. In contrast, providing fewer than 20 hours per week of care had no statistically significant effect on the labour force participation of either women or men. More specifically, women who provided more than 20 hours of care per week were 60% less likely to be in the labour force as women who had not recently provided care, while men providing this level of care were 61% less likely to be employed as non-caregiving men. In addition, women and men who cared for a parent or parent-in-law were significantly more likely to be in the labour force than those caring for a friend or neighbor.

Among the care history variables only total lifetime duration of caregiving significantly predicted labour force participation, and only for women. Women who spent more years in total providing care during their lifetimes were significantly less

likely to be in the labour force at the time of the survey. More specifically, each additional year of care they reported was associated with a 2% decline in the probability of being currently employed.

Another finding of note is the significant relationship between health status and labour force participation. Caregivers in good to excellent health were between 4 and 6 times more likely to be in the labour force than those in poor to fair health. Substantial minorities of caregivers from the same survey reported that caregiving had negatively affected their health (19% of women and 8% of men). Even higher proportions of respondents providing more intense care reported care-related health consequences: more than 30% of women and about 15% of men providing end-of-life care or caring for someone with multiple disabilities report that caregiving had negatively affected their health (Fletcher, Fast & Eales, 2011).

The explanatory power of the Ordinary Least Squares regression model predicting hours of paid work was low, indicating that we did not capture all of the factors that influence respondents' labour force participation, but the model was statistically significant, as were some of the variables representing respondents' caregiving experience. The effect of spending more years in total across the life course providing care was statistically significant, but the effect was small, for men. Men worked .09 fewer hours per week for pay for every additional year of care they'd provided over time. In contrast, men who reported that they had been caring for a disabled child over the past 12 months were more involved in paid work at the time of the survey, working the equivalent of an extra day (more than 7 hours) each week compared to men caring for a friend or neighbour.

For women, caring for a family member or friend with a mental/cognitive disability or multiple disabilities was the only caregiving variable that was significantly associated with hours of paid work. These women spent 1.4 additional hours in the labour force than their counterparts caring for someone with physical disabilities only.

Health was not a significant predictor of hours of employment in this model. That is, health profoundly affected whether a respondent was in the labour force at all, but

once in the labour force had no significant effect on hours of paid work, all else equal.

## 5. Summary

In this section, we summarize and integrate findings from analyses across the three major objectives of the project. First and foremost our analyses confirm that caregiving is an increasingly common experience: 29% of our sample, representing just under 3.8 million Canadians aged 45 and over, were caregivers at the time of the survey in 2007. Comparing these findings to those from the previous survey conducted in 2002, the proportion of Canadians over age 45 who were caregivers had grown by nearly 10%, but their numbers had increased by 65% (Fast et al., 2010).

The data on care histories, available for the first time in the 2007 GSS, also demonstrate that caregiving is an even more common experience when examined from a life course perspective. More than half of all women and almost 40% of all men age 45 and over reported that they had provided care to at least one family member or friend with a long-term health problem or disability at some time since they were 15 years of age.

Data also confirm previous findings that most caregivers are employed (more than three-quarters of caregivers of employment age), and that most of these (79% of women and 90% of men) are employed full time. Findings also show that employed caregivers are systematically different from non-employed caregivers: they were younger, better educated, more likely to be married and to have young children at home. In other words, they have multiple competing demands. They also were less likely to be caring for non-kin (most report caring for parents at the time of the survey), were less likely to co-reside with the person for whom they are caring, and spent less time on care tasks. Nonetheless, they still averaged between 6 and 11 hours per week (for men women, respectively), the equivalent of  $\frac{3}{4}$  to  $1\frac{1}{2}$  normal work days.

Perhaps our most important conclusion, given the objectives of the study, is that participating in caregiving has implications for caregivers' employment. Descriptive

analyses showed that many caregivers experience employment consequences, chief among them absenteeism and working fewer hours for pay. While few respondents reported that their recent care responsibilities had caused them to quit work altogether or lose their job, a smaller proportion of caregivers were in the labour force, and those who were worked fewer hours, compared to their age peers in the general population. However, failure to capture full data on employment history in the 2007 GSS limits what we can conclude about the impact that earlier (than the last 12 months) care episodes may have had on respondents' employment trajectories and the extent to which these may have contributed to what we observed with respect to current labour force behavior. Cycle 26 of the GSS is attempting to redress this data gap.

Men caregivers also were more likely to be self-employed, and self-employed caregivers were more likely to experience employment consequences, in particular reducing their hours of work, compounding the impact of caregiving on employment income.

Multivariate analyses confirmed that both current and past caregiving experiences matter when it comes to the likelihood and extent of employment consequences. Taken as a whole findings suggest that the more extensive and demanding the caregiving experience is, the more extensive the employment consequences. More caregiving episodes that encompass more years of caregiving across the respondent's life course were associated with both self-reported care-related employment consequences during the 12 months previous to the survey and with labour force participation and usual hours of paid work at the time of the survey. Contrary to expectations, in this study beginning one's caregiving career early in life was associated with a higher likelihood of being in the labour force at the time of the survey for both men and women, but beginning in mid-life depressed the likelihood of current labour force participation for women. Perhaps the early onset of care responsibilities allows caregivers to adapt to, and develop effective strategies for, balancing care and work responsibilities while those who acquire care responsibilities for the first time as an older worker struggle to make that transition.

All of the features of recent (during the 12 months preceding the survey) care episodes that were measured in this survey were found to predict one or more of the employment consequences examined. Spending more hours on care tasks was associated with a higher likelihood of experiencing care-related employment consequences for both men and women and a lower likelihood of being in the labour force at the time of the survey for women. There also is evidence of a threshold effect in that these relationships were detected only for the most intense caregiving situations. Interestingly there also is evidence that the threshold may be different for men and women. For women the threshold was consistently 20 hours per week spent on care tasks, while for men the threshold was as low as 10 hours per week.

Caring for closer kin was consistently shown to have greater potential for employment consequences than caring for non-kin, and generally speaking the evidence suggests that the closer the relationship the greater the potential for consequences. But here, too, there were important gender differences. Men were most likely to experience employment consequences when caring for a spouse, while the greatest impacts were most often reported by women who were caring for a disabled child. This is consistent with recent Canadian and U.S. research, including a study based on analysis of Statistics Canada's 2006 Participation and Activity Limitations Survey in which it was reported that almost  $\frac{2}{3}$  of mothers of a disabled child adjusted their employment to meet their child's care needs by working fewer hours and another  $\frac{1}{4}$  shared employment consequences equally with the child's father (Statistics Canada, 2008). Interestingly, caring for a parent was associated with a higher likelihood of being in the labour force, compared to caring for non-kin, for both men and women.

Women caring for someone with more complex mental/cognitive health issues, or combined mental and physical disabilities were more likely than those caring for someone with a physical disability only to report recent care-related employment consequences, but worked more hours for pay. Geographic proximity was related to the likelihood of both men and women self-reporting that they had reduced their hours of work in order to provide care, but again in different ways. Women were more likely to report this employment consequence when caring for someone living

close to them, while men reported it more often when they lived a half day's commute from their primary care receiver.

It is also important to note that self-reported health status was a significant predictor of labour force participation for both men and women: those in better health were more likely to be employed. We also note that employed caregivers in this sample were in better health than either non-employed caregivers or other employed Canadians of the same age, and that caregivers are known to report that caregiving has negative consequences for their health (Duxbury, Higgins & Smart, 2011; Fletcher, Fast & Eales, 2011; NAC, AARP, & MetLife Foundation, 2009). It may be, then, that caregivers whose health had been compromised by their involvement in care were no longer in the labour force at the time of the survey.

Our findings may suggest that factors related to the most recent caregiving episode (in the last 12 months) matter more than care history, though this may also be attributed to the fact that we know more about the current episode than past episodes.

## **6. Implications**

The pattern of findings that both current and past caregiving episodes are associated with a higher likelihood of self-reported employment consequences and negatively associated with current labour force participation and hours of paid work has clear implications for the economic security of caregivers. Prior research has identified these as including lost current and future wages, benefits and pension income (Bittman, Hill & Thompson, 2007; Carmichael & Charles, 2003; Evandrou & Glaser, 2003, 2004; Leger, 2000; MMMI, NAC, & CLTCRP, 2011). Little evidence about the magnitude of these losses is available, especially for Canadian caregivers, making the next phase of the research program of which this study is a part a critical next step.

If caregivers are less involved in the labour market, and if those who are employed are working fewer hours for pay and absenting themselves from their jobs in order to meet care demands, it is no great stretch to expect that employers are feeling the effects as well. The interface between caregiving and employment can be set in the

broader context of the work-life interface, which has been the subject of extensive conceptual and empirical research. Evidence emerging from this body of literature demonstrates clearly that the implications of work-life conflict for employee stress, physical and mental health, job satisfaction, career prospects, etc. also have downstream effects for employers. These have been shown to include increased tardiness, absenteeism, turnover, poorer job performance and retention, as well as effects on the achievement of organizational goals such as productivity/quality of service, customer satisfaction, and shareholder value (Higgins, Duxbury & Lyons, 2007; Lero, Richardson & Korabik, 2009). Absenteeism, employee turnover, poorer employee health, and lower employee productivity have been shown to be costly to employers (Bachmann, 2000; Burton, Chen, Conti, Pransky & Edington, 2004; Dewa, Chau & Dermer, 2010; MMMI & NAC, 2006; Lero, Keating, Fast, Lucas & Eales, 2011; Witters, 2011)

Aggregating the employment consequences reported by individual caregivers to the population level makes it clear that care-related employment consequences also have downstream implications for labour market sustainability and for the health of the economy as a whole. The caregivers reporting that they had missed an average of about three days of work annually due to care responsibilities represent over 520,000 employed Canadian caregivers age 45 and over. Collectively they are estimated to have missed nearly 1.5 million work days per month due to caregiving responsibilities. Those who reduced their hours of work in order to accommodate their caregiving represent over 313,000 employed caregivers and an aggregate loss of 2.2 million work hours each week (Fast, et al, 2011). At a time when population aging is expected to result in future skilled labour shortages, as well as greater demand for care from family/friend caregivers, these labour market implications cannot be ignored.

At the same time it is worth noting that the survey from which data for this project were drawn were collected prior to the most recent global economic recession. While Canada was insulated from the worst of its effects, there is no question that some Canadians found themselves at greater risk of unemployment in the two years that followed the survey. The employment downturn did not affect the prime caregiver population as much as others (specifically younger women and young and middle-aged men; those with lower levels of education; and those in the

manufacturing sector) (LaRochelle-Côté & Gilmore, 2009), but the recession may nonetheless have increased caregivers' vulnerability to layoffs, for example because their higher rates of absenteeism, work interruptions and lower productivity may make them less attractive employees, especially in hard economic times. On the other hand, caregivers who found themselves out of work may have devoted more time and energy to caregiving, benefitting those they cared for and potentially taking some burden off the health and continuing care sector, but making it more difficult for them to re-enter the labour force during subsequent economic recovery.

All stakeholders—caregivers, employers and policymakers—have reason to seek ways of mitigating the employment consequences of care in ways that will allow caregivers to maintain their employment while still meeting their care responsibilities. The challenge of balancing paid work and care demands is not a new one. Since women began entering the labour force in large numbers work-life balance or conflict has been the subject of much research and of innovative public and private workplace policies and practices intended to help achieve it. Workplace supports that have been shown to be desired by and useful to employees in balancing competing work and care demands include flexibility in terms of the time and place of work, reduced work hours, job sharing, paid and unpaid leaves, and employer-sponsored child care and elder care practices (Lero, Richardson & Korabik, 2009). However, researchers have noted that organizational culture and supervisory support can influence the availability and effectiveness of work-life balance practices (Legault & Chasserio, 2005; Lero, Richardson & Korabik, 2009). Many of the employed Canadian caregivers who took part in the GSS survey being used in the current study reported that such options were available in their workplaces, including the option to: work part time (48%); work a flexible schedule (38%); the option to take a leave to care for spouse/partner (86%) or other family member (80%); the ability to take extended personal leave (85%); and the opportunity to telework (19%). However, more than one in three (38%) employees who reported having these options also reported that they did not feel that they could use them without adversely affecting their careers (Fast et al., 2011).

Collectively the evidence presented in this report confirms strong gender differences found in previous research that place women at much greater risk for

negative employment consequences and subsequent income insecurity. Women were shown to be more likely than men to be caregivers and to spend more time performing care tasks at a point in time, to experience more episodes of caregiving that occupy more years of their life course, to perform tasks that are less easily scheduled around other commitments such as paid work, and to be more likely to be caring for a disabled child—a lifelong commitment shown also to affect family income and the capacity to purchase additional care supports (Statistics Canada, 2008). As result women also are more likely to experience care-related employment consequences, and to experience more extensive consequences, than men. Since women still earn less than men, are less likely to have job-related pension plans, and contribute less to the Canada Pension Plan, caregiving represents a much greater source of risk to income insecurity throughout their life course than it does for men.

It is also important to acknowledge that it will not always be possible to balance care and paid work demands sufficiently to allow caregivers to carry on in both roles. In such cases, it is important to acknowledge the contribution caregivers are making, not just to the person for whom they are caring, but also to the broader society and the economy, and to act to ensure that they do not become the sick and poor seniors of the future.

Further, comparing the incidence of caregiving, and of episodes of combining care with paid work, observed in this study with those observed in earlier surveys indicates that employment consequences, and resultant implications for economic security are likely to escalate as the population continues to age and care needs increase. Rather than wait for the full brunt of these trends to hit, action taken now may help preserve the well-being of Canadian caregivers and of the Canadian workforce and economy.

Our experience conducting this project also points to remaining knowledge gaps, mainly attributable to data gaps. Future data collection and analyses should focus on better capturing the ways in which family, care and employment trajectories come together across the life course, on the resultant economic outcomes for

caregivers, their employers and public health care expenditures, and on the full population of caregivers rather than just those over the age of 45.

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