UNTYING THE KNOTS: FURTHERING DECENT NEW EMPLOYMENT AFTER THE ADVENT OF WORK-LIMITING DISABILITY

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Abstract

For many years, people with disabilities have been about two-thirds as likely as people without disabilities to be employed in Canada. The employment rate of some people with disabilities has persistently hovered at around one-third the rate of non-disabled people. Financial estimates of the cost of this problem in Canada differ considerably, but are on the order of many billions of dollars annually. The human costs are also major. This issue is enmeshed in a tangle of theories about disablement that can point in very different directions in terms of understanding the nature of the issue, some solutions that would address it, and the policy and program implications. For example, there is the interplay between disability and people's age, gender, visible minority and Aboriginal person status. Different rates of employment flow from whether people experience impairment effects in the areas of mobility, seeing, hearing, cognition or emotional well-being; many people contend with impairment effects across several functional domains. People's geographic locations and the vagaries of regional economies need to be factored into the picture, as do the effects of social assistance and other income support programs. People's employment history, their needs for job accommodations, and whether those needs have been addressed, are crucial considerations that can vary according to type of disability, the nature of the work to be performed, and employer attitudes, values and fiscal capacity. People's educational attainment and job-specific skills training also have a major bearing on employment trajectories. This research begins to untie the knot that binds these factors into an often-confusing conceptual, policy and program tangle. It identifies some of the key factors that most strongly predict whether people are likely to obtain "decent work" with

their first employer or with a new employer after the advent of work-limiting disability. An aim of the research is to suggest areas for focusing policy and program efforts in order to maximize positive employment outcomes for such individuals, employers and the broader employment 'system'. The research draws extensively from scholarly and administrative literature and from Statistics Canada's Canadian Survey on Disability of 2012.

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Chapter One: Introduction and structure

This dissertation identifies the factors that most strongly predict the likelihood that people with disabilities will obtain "decent work" after they become limited in the kind or amount of work they can do. The research focuses on over 200,000 people who would be limited at work and who are unlikely to be employed, but who have managed to obtain decent work nonetheless. These are people who have successfully navigated job interviews to obtain permanent work with employers or who have entered into self-employment that pays reasonably well. The focus was placed on these people to produce research and a methodology that would be relevant to the design of public policy and programs that could improve the employment prospects of the hundreds of thousands of other significantly disabled people who are presently not working. The widespread lack of reasonably well-paying or secure work among people with disabilities has been a longstanding issue that results in disproportionate poverty, distress and many other disadvantages for people with disabilities and their families. This problem also creates enormous waste of human potential and major economic costs to society.

Several features of the present research set it apart from other studies. First, a large volume of research has explored the employment status of people with disabilities and provides descriptive statistics on the extent to which people are working or not working, with some qualitative analysis of factors that help explain why that situation prevails. However, very little attention has been payed to the nature of disabled people's jobs. This dissertation discusses critiques that focus on the low quality of work available to disabled people who manage to find any work at all. The present research focuses on people who have obtained "decent work". The

methodology is informed by criteria that the International Labour Organization (ILO, 2012) has developed, and compares the situation of disabled people who have managed to obtain decent work to the situation of disabled people who are not working at all. I adopted this approach in order to identify factors that would help inform public policy and program efforts to improve the employment situation of disabled people while meeting other human rights obligations. These include security (continuance) of employment, equality and fairness of remuneration, adequate standard of living and human dignity (e.g., UN, 1995, Art. 7; UN, 2008, Arts. 1, 3, 27, 28).

The research is also different than most studies because it focuses on people who have said they are limited in the amount or kind of work they could do. The research refers to people with disabilities who are not working at all as the main comparator group, the vast majority of whom also believe they would be limited in the amount or kind of work they could do if employed. In contrast, research on employment and disability typically adopts a more diffuse focus which fails to distinguish between people who do and do not consider themselves limited in the amount or kind of work they can do. This dissertation will show that the employment prospects are actually very good for individuals who do not consider themselves limited at work. For those who consider themselves limited at work because of disability, however, the employment prospects are quite poor. Arguably those who consider themselves limited at work because of disability are in direst need of policy and programmatic support from governments, employment agencies, and employers, who have obligations under the UN Convention on the Rights of Persons with Disabilities (CRPD, 2008, Preamble j) to “promote and protect the human rights of all persons with disabilities, including those who require more intensive support”.

Likewise, this research sets to one side people who were retained in employment with their present employers after the advent of work-limiting disabilities and focuses instead on

people who obtained decent work after they began experiencing such limitations. In many cases people retained in employment experience work limitations only after years in jobs where they first had opportunities to acquire work experience, developed their job skills, network, and obtain recognition for their efforts. Many of these people did not have a disability at all while acquiring these skills, contacts, and credentials. However, research studies typically overlook this detail and deal with all disabled people who have jobs as “employed”, without much discussion about the differences between the subgroups. The present research avoids this oversimplification by recognizing that people retained in employment are also, like those without work limitations, somewhat privileged among working-age people with disabilities and comprise quite a different population than those who, with work-related disabilities, successfully navigate job interviews with new employers or successfully start their own businesses. The present research enquires into the factors that help explain how these people successfully obtained decent employment instead of remaining or becoming jobless. Achieving such results has long been an underlying aim of public-sector and private-sector policy and programming.

In focusing on people who obtained decent work after the advent of work-limiting disability, this research includes many people with early onset impairments, such as those associated with developmental disabilities, childhood illnesses, and accidents that occur early in the lifespan. However, the research also includes people with later onset impairments who managed to obtain decent work, even though they would be limited at work once they obtained it. Their disabilities stem from diverse causes such as work injuries, motor vehicle accidents, adult illnesses, and diseases associated with aging. Therefore this research has a different relevance to public policy and program design than single-issue studies of early onset disabilities, whose program implications may be difficult to scale up and generalize to people

who, despite their different diagnostic “labels”, may share similar difficulties at work because of disability.

The present research is also unique in that it disentangles many factors that other research has associated with the employment of disabled people. These factors fall on both sides of the divide between the “Individual Model” and “Social Model” of disability. The working hypothesis was that factors on both sides of this divide help explain how people with work-limiting disabilities manage to obtain decent employment instead of having no work at all. Individual-level factors that may have significant influence on people’s employment status, and less to do with disability, include: age, gender, visible minority, and Aboriginal person status. However, disability-specific characteristics that inhere in individuals are also salient and include: functional limitations in the areas of mobility, agility, hearing, seeing, cognition, mental health, and pain; combinations of such impairment effects; and variations in the severity of these effects. Individual-level factors specific to disability also include whether people need various supports for employment, such as: accessible built environmental features, accessible technologies, human assistance, flexible work hours, and various other arrangements. In contrast to and interacting with individual factors are social factors which may be only tangentially related to disability but strongly associated with people’s employment, such as: people’s geographic location, living arrangements, and whether they are caring for young children. Social factors more specific to disability include: whether employers have met, or failed to meet, individuals’ needs for employment supports; whether accessible transportation is available; and whether people have been recently attached to one or more disability income support programs. Some factors straddle the divide between the Individual and Social models of disability because individual characteristics are sometimes the direct result of social factors, such as people’s level

of formal education and whether their disability was caused by factors at work or by other accidents. The sheer multiplicity of potentially relevant explanatory factors is a conundrum for policy and program development because policies and programs must target finite human and financial resources to answer a diverse range of issues. If it is not feasible to anticipate and invest up front in every conceivable issue that may be relevant to all people with disabilities, where does it make sense to target efforts to maximize the likelihood of achieving good results for many people overall, while also allowing that, within such a framework, some individuals and groups will probably require specialized and even individualized efforts? The present research identifies the main considerations that a robust policy and program framework should include in the interests of furthering good outcomes for many people, while leaving the door open for further efforts that target specific groups and needs.

This research is also unusual in attempting to answer the question about where to prioritize policy and program efforts. It does so by enquiring into which factors are statistically significant and most strongly predict the likelihood that people will obtain decent work after the advent of work-limiting disability. Accordingly, all factors held constant, this research enquires into the relative predictive powers of gender, age, type of disability, needs for job accommodations that have been met or unmet, and a variety of other factors on both sides of the Individual Model vs. Social Model divide. The research then ranks these factors from most to least predictive. It shows the factors that most strongly predict the likelihood of people with work-limiting disability obtaining decent work vs. no work. The research also calls attention to the factors that are most likely to impede that outcome.

Further potential uses for the analytical model developed for this research are explained in more detail in the concluding chapter. Briefly, the model is versatile in that, sample size

permitting and with some modifications that will depend on the specific lines of enquiry, the model lends itself to focusing on a variety of other employment outcomes. These include, for example: the likelihood of people with work-limiting disability being retained in employment rather than having no work; the likelihood of people with work-limiting disability having less-than-decent work instead of decent work; the likelihood of people of having less-than-decent work instead of no work at all. It also lends itself to use with selected sub-populations, such as: people with mobility impairments, mental health issues, or cognitive disabilities; people who received social assistance in the past year; young people; women; and many others.

The present research makes no attempt to estimate how many more people with disabilities would ideally be working. Philip Connolly, Policy and Communications Manager at Disability Rights UK, has said that, "*not all disabled people can work* [emphasis added]", even if "those who do gain employment are less likely to be living in poverty" (Disability Rights UK, 2014). Well-known disability theorist and researcher, Colin Barnes (1998), has said that, because "not all disabled people can work *at the same pace* [emphasis added]" as their non-disabled counterparts, job accommodations are more widely needed, for which provision should be made in law. Birkhauser and Daly (2011) have pointed to the longstanding belief held by some that, "*many more – if not most –* [emphasis added] people with disabilities can work" (p. 116). Till, Leonard, Yeung, and Nicholls (2015) writing for Statistics Canada have conservatively estimated that over 400,000 more disabled people who are not working can be considered "potential workers" because they are either looking for work, or intend to look for work in the next 12 months, or are attending school and will soon be ready for work, or have some work experience and are not retired. Together such views suggest that a great many more disabled people are capable of doing some kind of work. In Canada, however, nearly 1.3 million working-age people

with disabilities are not working. This study focuses on disabled people who, instead of remaining or becoming jobless, have obtained decent work after the advent of work-limiting disability. With a view to increasing that number of people, Chapter IX suggests some approaches to setting targets.

On a more personal note, I adopted the present focus and methodology because of my own professional and personal experiences. Over many years I have been privileged to conduct research and speak with disabled people on a wide range of issues that include education, income security, poverty, personal safety and security, and the use and impacts of various social and health services. The discussions and analysis have frequently turned to employment because, given the way society and the economy are organized in Canada, and in most other countries of "the developed north", employment is like a passport to a great many other social and economic goods. Without work, disabled people continue to be disproportionately poor, on social assistance, living in sub-standard housing, subject to poorer health, maltreated, and subjected to many other ills. I have also had the privilege of conducting a significant body of research on employment and disability, and have attended countless conferences and other gatherings that have been either dedicated to the employment of people with disabilities or which have had that subject matter as a content stream. In attendance have been people with disabilities who did not have jobs and who wanted to be working. These have often been people whose significant levels of disability would likely present some difficulties for employers in terms of physical access and mobility issues at work, task allocation, problem-solving, time management, the use of technologies, interactions with co-workers and other work-related activities. At these conferences, seminars, and workshops, disabled people have not usually been working and worried about what needs to be done so they can keep their jobs and progress up the career

ladder. Nor have they often been highly educated, well-connected people with specialized technical knowledge who know how to “work a room” while concealing evidence of disability. Instead, these have been ordinary people from a variety of backgrounds who present significant outward signs of various disabilities, who were not working and who wished they had jobs. Many were receiving provincial social assistance or some other form of income support, so they were well-acquainted with poverty and with the major differences a job would have made to their own quality of life and that of their families. Often these gatherings have had an air of discouragement. Participants have listed – yet again – their difficulties, and strategized – yet again – how to undo the knots created by the countless obstacles that have bound them at the sidelines of their communities, blocking them from doing something meaningful with their time, for which they would ideally be bringing home a decent pay cheque like most other citizens. In response to and in support of these people, the present research pinpoints the conditions that explain how a sizeable number of people with significant disabilities are managing to obtain decent work, despite all the obstacles. My hope is that the research will contribute to the design of a policy and program system that will help untangle the knots and more widely realize a vision of fuller employment in decent jobs for people with disabilities which, for too many people, remains an elusive dream.

The terms “disabled people” and “people with disabilities” are used interchangeably throughout this dissertation unless otherwise indicated, understanding the semantic issues involved in the use of both terms and that the very notion of “disability” is fraught with conceptual difficulties and politics. On the one hand, some social constructionists have framed “disability” as the disadvantages that accrue as a result of people with impairments’ interactions with capitalist society (e.g., Oliver, 1990a). On the other hand, individual models situate

disability in the bodies and minds of individuals, equating disability with functional limitations that stem from impairments (e.g., Bury, 1997). While acknowledging the impact of social factors, theorists such as Susan Wendell (1996a; 1996b) and Carol Thomas (1999) have argued such experiences of impairment are highly relevant and also need to be taken into account – "impairment effects" in Thomas' words. Other theorists such as Margrit Shildrick (e.g., 2012) argue that clear-cut binary distinctions are over-simplistic and even illusory. At the interface between the social and individual binaries, however, most people who reported some level of impairment or functional limitation in Statistics Canada's Participation and Activity Limitation Survey (PALS) of 2001, which was a major survey on disability, also said they felt disadvantaged at home, school, work, or other activities such as transportation or leisure.[1]

Given the large overlap between impairment and disadvantage, "disability" can be flexibly defined as, "limitations in carrying out activities of daily living and to participating in the social, economic, political and cultural life of the community. Such limitations may arise from: a physical, sensory, intellectual, emotional or other personal condition such as a long term health problem; societal stereotypes about such human conditions; or ways of organising social, economic and built environments that, in their effects, exclude or impede the participation [of] people with such conditions" (Roeher Institute, 2002, p. 5). It is in that sense that the terms "people with disabilities" and "disabled people" are generally used in the present document.

Chapter II of this discussion draws from the research and scholarly literature to provide details about the scope of joblessness among Canadians with disabilities. The chapter lays out some rationales for why this problem warrants attention and points to the only modest

[1] Cross-tabulations were performed using PALS 2001. The questions on disadvantage in section B of PALS 2001 were not asked in PALS 2006 or the 2012 Canadian Survey on Disability (CSD). There is no published material based on the questions from PALS 2001.

improvements – if any – that have been achieved on this front over the past decade or so. The discussion then turns in to how low employment and joblessness play out across multiple lines of difference. Some of that discussion looks at general socio-demographic characteristics associated with disadvantage irrespective of disability. These include age, gender, visible minority and Aboriginal person status, geographic location, level of education, and whether people have taken job training. The discussion also explores the relationship between employment and characteristics that are specific to disability, such as type and degree of disability, the need for job accommodations, attachment to the disability income "system" and other disability-specific factors. Chapter II informs the present research with evidence that supports the underlying hypothesis that a combination of general and disability-specific factors associated with having (or not having) a job are layered and interact with one another to produce multiple disadvantages in employment. The layers of disadvantage affect sub-populations of people with disabilities in different ways, depending on the specific factors at play for those people. These disadvantaging factors, in turn, have a bearing on whether people are able to obtain decent work after the advent of work-limiting disability or whether they will have no work at all.

The discussion shifts in Chapter II to the issue of employer worries, stereotypes, and discrimination. A separate section has been dedicated to this issue because what employers do – or fail to do – has a crucial bearing on whether people obtain jobs. While people with disabilities face many challenges in the labour market, employment discrimination on the basis of disability has long been the single largest caseload facing human rights commissions and tribunals across Canada (e.g., Crawford 2004; Ontario Human Rights Commission, 2008; Roeher Institute, 1993b. See also Pinto, 2012). As such, coverage is provided in this chapter about why employers may be less inclined to hire and retain people with disabilities.

Chapter III delves a little more deeply into the widespread joblessness of people with disabilities. The discussion shows how even the very low levels of employment that are routinely reported for people with disabilities may actually present a somewhat “rosy” picture. The discussion looks at the direr situation that becomes clearer when a focus is placed on people who indicate that their disability actually affects the amount or kind of activity they can do at work.

Chapter IV explores various theories of disability, mainly but not exclusively from the realm of critical disability theory. It aims to shed light on why low employment among people with disabilities has been such a longstanding feature of Canadian society and other societies in the northern hemisphere, primarily the United States and United Kingdom. It draws from theoretical approaches to disability formulated on grounds of political economy, cultural analysis, and the intersection of these two approaches. Such theories often use people’s employment status to highlight the situation of people with disabilities in society. The discussion in Chapter IV, however, also draws attention to how theory needs to take into account “impairment effects”, as well as issues of domination, control, and punishment, reflecting epistemic sensitivity to the lived experiences and voices of disabled people themselves. Without attention to such details across lines of intersectional difference such as age, gender, race, and ethnicity, it is difficult to make sense of the employment and broader societal situation of disabled people.

Chapter V provides a descriptive analysis of features of the present system around the employment of people with disabilities in Canada. The discussion focuses on features of that system which are consistent with a human rights approach to thinking about and addressing the high level of joblessness among disabled people. This focus has been adopted because Canada has international obligations under the UN Convention on the Rights of Persons with Disabilities

and under other international covenants and treaties to address the low employment that affects disproportionate numbers of disabled people and to ensure that conditions necessary for making progress on this front are in place. If Canada's expansive aspirations are reflected in the spirit of domestic human rights law and public policy, the discussion in Chapter V shows how, on a practical level, a fairly parsimonious understanding of the "right to employment" informs Canadian law, policy and programs. The discussion explores anti-discrimination measures, the issue of job accommodations, affirmative action initiatives and the involvement of people with disabilities in the policy process. The research has included the discussion of rights-oriented features of the employment system around disabled people because those instruments comprise the essential tool kit for addressing the low employment that affects disabled people.

Chapters II through V help set the stage for the central work of the present research, which is to draw to the fore the factors that help explain how, despite all the challenges and barriers they experience, some people nonetheless manage to obtain decent work after the advent of work-limiting disability. Chapter VI describes the statistical data sources that were used to answer the central research question, in particular the Canadian Survey on Disability (CSD) from which the research draws heavily. The discussion in Chapter VI also explains how key concepts were statistically operationalized, including how the target and comparator groups were operationally defined. The chapter provides an overview of how the methodological approach was applied to the demographic analysis that is featured in Chapter VII and the regression analysis that is central to Chapter VIII.

The demographic analysis in Chapter VII places a focus on people in the "target group" for the present research, who obtained decent work after they first experienced work-limiting disability. It provides descriptive analysis of these people's characteristics v*is á vis* the

characteristics of people in the comparator group, which consisted of people with disabilities who were not working when the CSD was conducted. For people in both groups who were working or who had recently worked, the chapter provides information about the nature of their jobs and their other general socio-demographic and disability-specific characteristics. The analysis was informed by the theoretical approach put forward in Chapter IV, i.e. that a mixture of social, cultural, general socio-demographic and impairment-related factors together can help to explain why people with disabilities might find themselves in the target group or the comparator group. The lines of enquiry that the review of the literature pursued in Chapter II informed the lines of enquiry that the demographic analysis pursued with specific reference to people in the target and comparator groups.

The demographic analysis helped bring to foreground the factors for inclusion in the regression model for the present research. The regression analysis is discussed in Chapter VIII and asks, of the multitude of factors that might plausibly help explain why people obtain decent work after the advent of work-limiting disability, which are the statistically relevant factors that most strongly predict this outcome?

Based on the results reported in Chapter VIII, Chapter IX suggests a few key implications for policy and programming. That discussion is based on the assumption that there is at present a limited appetite for major spending initiatives among governments and private-sector employers in Canada. Accordingly, the focus was placed on what can be done by employers and with the present array of policy and program instruments so present resources can be better used to achieve higher levels of employment among people with work-related limitations who are presently jobless.

Chapter X concludes the research. References and detailed Appendices can be found in at the end. The latter include the data tables to which the present document refers throughout.

Chapter Two: Views from the literature

The low employment of people with disabilities plays out differently across the fault lines of gender, age, visible minority status, Aboriginal person status, the state of the economy, geographic location, level of education, and whether people have participated in work-related training. Disability-specific factors also affect the chances of employment and include among others: type and severity of disability, its cause and age at onset, the need, met or unmet, for job accommodations, attachment to the disability income system and the need, met or unmet, for general "disability supports." The personal and other characteristics that people with disabilities bring to the labour force and that are associated with reduced levels of employment may be several layers deep, resulting in multiple employment disadvantages that an intersectional analytic lens helps reveal. Among the external difficulties that interact with the socio-demographic factors are systemic factors such as the effects of the income security system and employers' worries, concerns, and stereotypes about disability, which can result in discriminatory employment practices.

Aside from research on the employment of people with early onset conditions such as developmental disabilities, other disabilities before school-leaving, and job acquisition after incurring work-related injuries, very little research places a focus on the employment situation of people with work-limiting disability that is present before they obtain new employment. Nor has much research been conducted on the quality of work that these people obtain. Accordingly, the review of literature that follows is based on the premise that general socio-demographic factors, disability-related factors, employer practices, and systemic issues that the general research

literature has explored may have some relevance to the likelihood of people obtaining decent work after they first experience work-limiting disability. Informed by the general research, subsequent chapters provide more detailed analyses of the extent to which these factors are actually relevant to whether people with work-limiting disability obtain decent work. The discussion begins with a view of the general employment situation of people with disabilities.

A. Marginalization of disabled people from paid employment

The employment rate of people with disabilities has remained significantly below that of people without disabilities for many years (e.g., Roeher Institute, 1993b; Statistics Canada, 1993, 2003, 2006, 2008b, 2008c; Turcotte, 2014), despite some modest improvements in recent years (e.g., Ministry of Community and Social Services (MCSS), 2005, 2010a, 2012; Statistics Canada, 2008c). Not surprisingly, the poverty rate is considerably higher among working-age people with disabilities than others – twice that of their non-disabled counterparts on average and higher still in some provinces (Crawford, 2010; Galarneau & Radulescu, 2009). As a result, people with disabilities are much more likely than their non-disabled counterparts to rely on provincial/territorial social assistance as their key source of income (Crawford, 2013; Johner, Maslany, Jeffery, & Gingrich, 2009; Stapleton, 2013).

People with disabilities have long recognized employment as fundamental to their well-being and to the exercise of their human rights (e.g., Canadian Association for Community Living (CACL), 2006, 2009; CACL & People First of Canada, 2013a; Council of Canadians with Disabilities (CCD), 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2013; Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities,

2013). Indeed, employment contributes to the prevention and reduction of poverty that is widespread among people with disabilities (Crawford, 2013; Organization for Economic Cooperation and Development (OECD), 2009; UN Secretary-General, 2005) and some of the adverse social and economic conditions associated with poverty. These include disproportionate victimization by violence and abuse (Taylor-Butts, 2009), unsuitable housing (Hoeppner, 2010), poor physical health and mental illness (Canadian Mental Health Association, Ontario, 2010; Dunn, Wewiorski & Rogers, 2008; Mikkonen & Raphael, 2010). Employment helps people pay the bills for themselves and their families even where they are not living in poverty, helps confer and reflect human dignity among those who have jobs, provides opportunities for developing and expressing human capacities (Pope Francis, 2014) and provides opportunities for people to enter into and maintain valued friendships (Branje, Laninga-Wijnen, Yu, & Meeus, 2014). Employment is a vehicle for contributing to the pensions and other retirement income that become particularly important as people get older and as the likelihood of disability increases (ESDC, 2015). As a Canadian mental health advocate has said, “a home, a job and a friend” are essential conditions of mental health (Capponi in Simmie & Nunes, 2002: 314).

Employment has increasingly become the *sine qua non* of respectable citizenship in the age of the neo-liberal self-sufficiency agenda; there is a sense that, without it, people are “takers” rather than “givers” – even “welfare scroungers,” as they have been called by politicians, press, and TV personalities in the UK (Shildrick, 2012b). There is a multitude of other reasons why people value employment. Internationally, the UN Economic and Social Council (ESC) has observed that employment is “essential for realizing other rights and forms an inseparable and inherent part of human dignity…. [It] contributes at the same time to the survival of the

individual and his/her family, and … to his/her development and recognition within the community" (ESC, 2006, Art. 1).

Also from a neoliberal economic perspective, low employment among people with disabilities costs the people of Canada a small fortune in terms of foregone productivity and taxes each year. For instance, Health Canada (2002) estimated that the opportunity costs, i.e., the total foregone economic value of the non-employment of people with long-term disabilities, amounted to $32.2 billion in 1998, which works out to $44.9 billion in 2015 dollars (Bank of Canada, 2015). More recently the Public Health Agency of Canada (2014) adopted a much narrower focus, looking only at the "friction costs" of lost production to employers. Even that conservative approach yielded costs that ran to $18.2 billion in 2010, or $19.9 billion in 2015 dollars (Bank of Canada, 2015).

Although major population surveys each use their own methods for flagging people as having a disability (discussed briefly in Chapter VI on methodology), the picture of persistently low employment among people with disabilities has been a consistent pattern across the surveys. Figure 1 (below) shows the pattern based on the Canadian Survey of Disability (CSD) of 2012, the Participation and Activity Limitation Survey (PALS) of 2001 and 2006, and the Survey of Labour and Income Dynamics (SLID) of 2002 and 2010.[2] Depending on the survey, the relative employment-population ratio (REPR) for people with disabilities to people without disabilities ranges from about 2:3 to just under 3:4. The REPR is calculated by dividing the employment rate for people with disabilities by the employment rate for people without disabilities.

[2] Reports based on many surveys often take people aged 15 to 64 years as the "working-age' population. However, the youngest age captured in SLID is 16 years.

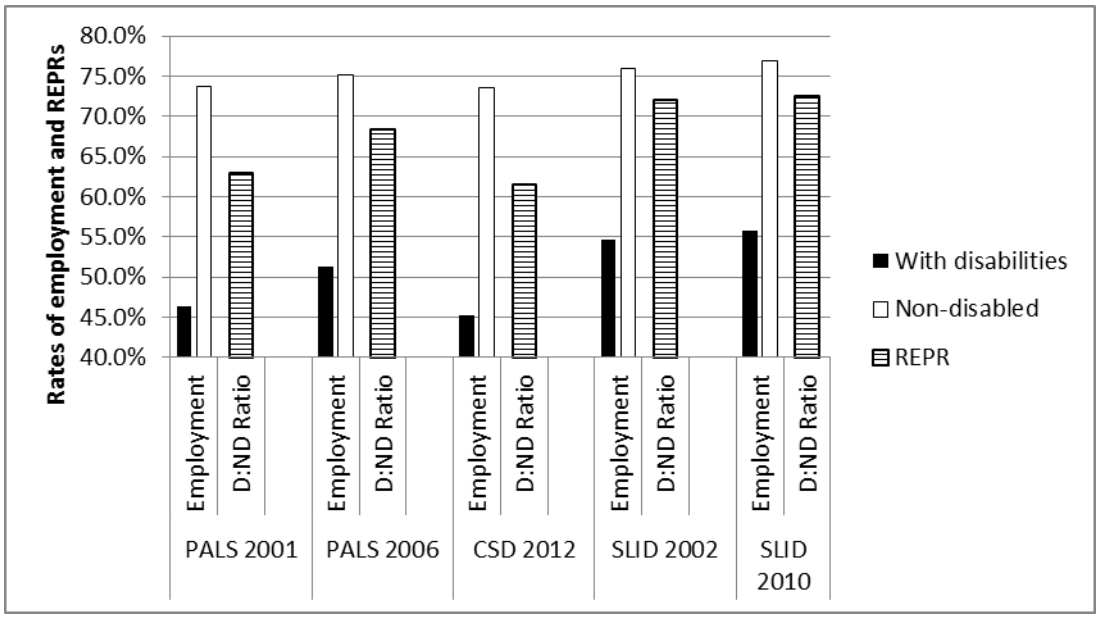

Figure 1.
Employment rates and relative employment-population ratios (REPRs) of working-age disabled (D) and non-disabled (ND) people. From PALS 2001, 2006; CSD 2012, SLID 2002, 2010.

SLID data for full-year, full-time employment are shown in Figure 2 and reveal a similar, fairly stable employment gap between people with and without disabilities over nearly a decade, despite modest year-over-year improvements across some years (MCSS, 2004 - 2012).

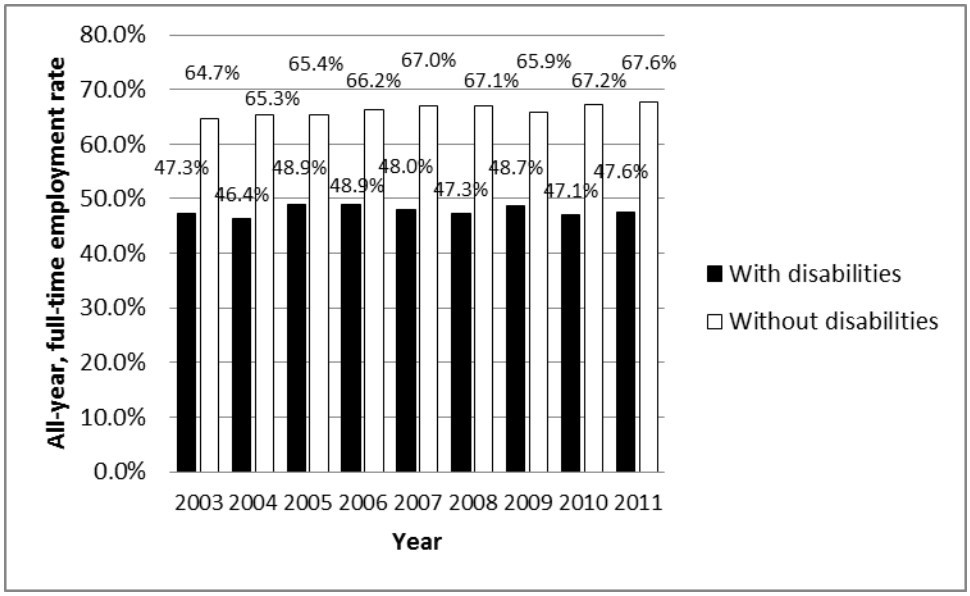

Figure 2.
Rates of full-year, full-time employment, people with and without disabilities, 2003 – 2011, Canada
From Ontario MCSS 2003 - 2011, based on SLID

B. General socio-demographic characteristics

A variety of general socio-demographic factors have been associated in the research literature with the low employment of people with disabilities. For example, due at least in part to the childrearing and elder care responsibilities that fall disproportionately to women (Johnson & Sasso, 2006; Sinha, 2013; Timpson, 2001), women are generally less likely to be employed than men (Brooks, 2005; Statistics Canada, 2008b). The employment rate of women 25 years and older in May 2013 was 58.4% compared with 68.1% among men. The part-time employment rates were 21.6% vs. 7.6% respectively (Statistics Canada, 2013b). There is a gendered employment gap regardless of disability: the labour market participation rate of non-disabled working-age women was 75.4% in 2006 vs. 85% among non-disabled men, rates that were

consistently lower for working-age women than men across various age groupings (Statistics Canada, 2008d).

It is fairly common for caregivers involved in intensive levels of care provision – who tend to be women – to become ill (Sinha, 2013; Statistics Canada, 2008b). Illness along with the other stresses associated with caregiving can in turn be a factor that negatively affects women's employment.

Issues that women with disabilities face in particular have a further bearing on their employment and include: more limited opportunities for stable and high-paying jobs, greater tendency to live as lone parents, and limited access to assistance with household tasks that would otherwise enable women with disabilities to be more involved in employment (Fawcett, 2000).

Age also has a bearing. As a group, people with disabilities tend to be older than people without disabilities due to the increasing prevalence of disability across the working years (Statistics Canada, 2007a & 2013b). People of "core" working age with disabilities (i.e., 25 to 54 years) are more likely than disabled youths (15 to 24 years) and older adults with disabilities (54 to 64 years) to have jobs (Human Resources Development Canada (HRDC), 2003; Statistics Canada, 2008b, 2008c).

While the labour force participation rate for visible minorities (or racialized individuals) is similar to that of other Canadians (Samuel & Basavarajappa, 2006), visible minorities are more likely to work in lower paid, precarious employment and are more likely to be unemployed, i.e., available for and looking for work. The earnings gap between visible minority women and non-minority men is large (Block & Galabuzi, 2011), with the gap in earnings between visible minorities and others is most pronounced in private sector vs. public sector (i.e., government) employment (Hou & Coloumbe, 2010).

Tompa, Scott, Trevithick, and Bhattacharyya (2006) have found that the all-year employment and labour force participation rates are similar for visible minorities and non-visible minorities with disabilities. The authors suggest that anti-discrimination legislation may be serving to shield visible minorities with disabilities from additional incremental disadvantage relative to non-visible minorities with disabilities. (See also Crawford & Furrie, 2010). Programmatic attention to issues of ethnicity and culture has been associated with effective labour force interventions, particularly where age and gender are also taken into account (Hogansen, Powers, Geenen, Gill-Kashiwabara, & Powers, 2008).

Job prospects are generally poorer for Aboriginal persons than for others. Part II of the *Constitution Act* defines Aboriginal persons as "Indians", Inuit, and Métis (S. 35), which is essentially the definition that Statistics Canada (2010a) has operationalized as "Aboriginal identity" for the purposes of its population surveys. Statistics Canada has estimated the employment rate for Aboriginal people living off reserve at 57.0% in 2009 compared with 61.8% for non-Aboriginal people (Statistics Canada, 2011, Chapter 1). However, the First Nations Centre has estimated an Aboriginal employment rate of 47.2% for people living on reserve (First Nations Governance Centre, 2011).

Aboriginal people with disabilities fare even poorer: they are about two-thirds as likely as their non-disabled counterparts to be employed. They are also less likely to have full-year, full-time employment (21 percent vs. 35 percent) and are more likely to work part-time or part of the year (31 percent vs. 40 percent – Canada. Office for Disability Issues, 2004). Effective interventions to increase the employment of Aboriginal people with disabilities would ideally nurture relationships that build their trust and confidence (HRDC, 2002; National Council on Disability and Social Security Administration, 2000; Wolf Spirit Services Inc., 2011).

The low employment of people with disabilities is also due in part to the general condition of the economy and economic differences across geographic regions. Tal (2012), for instance, has observed in recent years a mismatch between job skills and the demand for labour. Jobs in high-skilled occupations are falling vacant, such as in health care professions, mining, engineering, and science. Meanwhile, labour surpluses have been growing in lower-skilled sectors such as butchering, baking, tailoring, manufacturing, office management, and clerical services. Surpluses have also been growing among secondary and elementary school teachers. Where employed, people with disabilities have historically been more likely than others to have jobs in lower-skilled occupations (Kaye, 2009).

Geographical differences in employment rates are due in part to the general state of the economy, which plays out differently across geographic regions. For instance, given the job losses in the manufacturing sector in recent years, there was a recent general decline in the employment rate in Ontario, especially during and immediately following the recession of 2008-2009. The decline was particularly sharp among people with disabilities in that province (MCSS, 2007, 2008, 2010a, 2010b, 2011, 2012). Overall, the lowest employment rates among people with disabilities are found from Quebec eastwards (Roeher Institute, 1993b, 2004; Statistics Canada, 2008c, 2013e). As well, employment rates tend to be lower in rural rather than urban communities (Bollman, 2013), particularly among women (Status of Women Canada, 2012).

Bourdieu (1986, p. 48) has observed that “the economic and social yield of the educational qualification depends on the social capital, again inherited, which can be used to back it up.” That said, the level of educational attainment itself has significant implications for employment: those with lower than college-level certification are less likely to be employed than people with college diplomas or university degrees (Council of Ministers of Education, 2013,

Table E.3.2; HRDC, 2003), a pattern that also prevails for people with disabilities (Human Resources and Skills Development Canada (HRSDC), 2011b). Work-related training is also a key factor that improves the employment prospects of people with disabilities. The Manitoba government has found that “problems with training” were barriers for significant numbers of people with disabilities seeking employment (Government of Manitoba, 2001). The Conference Board of Canada (2001), the Canadian Centre on Disability Studies (CCDS, 2002), WCG International Consultants Ltd. (WCG, 2004 & 2006) and research commissioned by the Canadian Abilities Foundation (CAF, 2004) have all found much the same. Yet the education level of people with disabilities lags behind that of their non-disabled counterparts (HRSDC, 2009c), despite improvements in recent years (Figure 3, below). People with disabilities are also much less likely than others to be involved in mainstream employment training programs such as those available to Employment Insurance (EI) recipients (Canada Employment Insurance Commission, 2013).

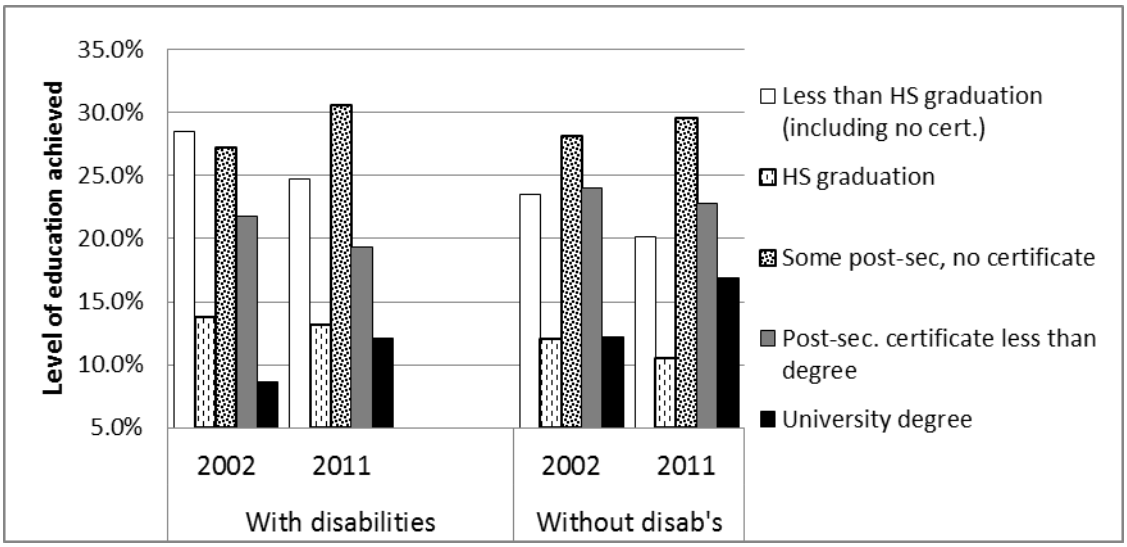

Figure 3.
Highest levels of education of people 16 - 29 years, with and without disabilities, Canada, 2002 and 2011.
From SLID 2002 and 2011

C. Disability-specific characteristics

Disability-specific factors also affect the chances of employment. These include: type and severity of disability, its cause and age when first experienced, the met and unmet need for job accommodations, attachment to the disability income system and the need, met and unmet, for general "disability supports." For example, employment rates vary considerably by type of disability (e.g., Roeher Institute, 1993b, 2004; Statistics Canada, 2008b, 2008c, 2014c). According to PALS, people with disabilities in the areas of pain, mobility, agility and hearing have fared comparatively better in terms of employment than people with various "cognitive" disabilities (learning, developmental/intellectual, memory, psychological) and people with disabilities in the areas of spoken communication and seeing (Statistics Canada, 2008b, 2008c).

Research has shown that the greater the severity of disability the lower the likelihood of employment (Roeher Institute, 1993, 2004; Statistics Canada, 1993, 2008d). People with more

severe levels of disability tend to require more complex “packages” of job supports (OECD, 2010) and are most likely to be bypassed by present employment service arrangements (Crawford, 2004, 2012a; Dale, 2010). They are also less likely to attend and complete post-secondary education, are more likely to have difficulties participating in community activities and are more likely to need help with activities or assistive technologies and income support because of disability (HRSDC, 2010b; Statistics Canada, 2008a, 2008f, 2010b).

Some of the research on disability and employment focuses on particular conditions, e.g., mental illness, intellectual/developmental disability. However, a few studies point to how differences across causes of disability are also associated with different employment trajectories. Bordieri and Drehmer (1986), for instance, cited research in the US that featured how employers were more inclined to hire people with paralysis stemming from war-related injuries than from other causes of spinal cord damage. Fawcett (1996) has pointed to how people disabled from work-related injuries are more likely to be employed than people with disabilities arising from illnesses/diseases or from multiple causes.

Fawcett (1996) also found that people who acquire disability early in life are more likely to be employed than people who become disabled later in life. Loprest and Maag (2007) found much the same, after controlling for disability benefit receipt and other factors. The latter researchers have speculated that people with earlier onset disability may be better able than people with later onset disability to adjust to the demands of the labor market through workplace accommodations or other support arrangements. They conclude that some labour market interventions should focus on fostering educational achievement to further the employment chances of youth with disabilities, while traditional return-to-work interventions may be more appropriate for people with later onset disabilities.

Working-age people with disabilities who are unemployed or not in the labour force are more likely than employed individuals to need job accommodations; regardless of whether the need is met, the need for job accommodations may alone help account for why many people do not have jobs (Statistics Canada, 2008c). This need varies by severity of disability, age and gender (Statistics Canada, 2008c). The low level of employment among people with disabilities is also attributable in part to the *unmet* need for job accommodations: people who lack jobs or have other poor employment outcomes are more likely to have such unmet needs (Gignac, Cao, & McAlpine, 2015; Statistics Canada, 2008c).

Several major distinctions can be drawn in the area of job accommodations. On the one hand, the *means of access* to employment are not available to many disabled people. For instance, research informed by critical disability theory (CDT) has shed light on transportation systems that are not designed to enable disabled people to travel locally (e.g., Blais & El-Geneidy, 2014; Malhotra, 2009) and from one region to another (Baker, 2005; CCD, 2005). Other CDT-informed research touches upon issues of physical access to workplaces or places of learning (e.g., Gilles, 2012; Low, 2009). In other cases, CDT-informed research and political activity draws attention to how the *means of participation* are not effectively available. As a result, individuals have difficulties participating on par with others or in a manner consistent with their own potential once they gain access to a given situation. Wilson (2003), and Edwards and Boxall (2010) focus on the reorganization of tasks and the modified work hours required by many people who have managed to gain access to employment. Borg and Kristiansen (2008) point to the importance of human factors on the job, such as flexibility and mutual supportiveness. Wilson-Kovacs, Ryan, Haslam, and Rabinovich. (2008) explore a variety of

supports required for job retention and career progression which, if not available, can result in job loss or under-performance regardless of whatever equal opportunity policies may be in place.

The blurring of conceptual lines in some CDT-informed research about the difficulties people experience with the means of access and the means of participation is understandable because for some people these supports are the same. For example, a hearing aid, service animal, or accessible built environmental feature may be needed for all aspects of a person's involvement in a given job. However, where an organization makes available the means of access it does not necessarily follow that it will also make available the means of participation: about a third of working-age people with disabilities who receive the accessible parking or elevators they need at work lack the modified work hours or modified job duties that they also require.[3] People most at risk of not working are those who need modified hours or duties (Statistics Canada, 2008c, Table 7), which are supports for participation instead of for basic access. There is value in keeping such distinctions clear in theory, research, analysis, and policy development when such work focuses on the most pressing difficulties that people are facing.

The prospects of employment also look very different depending on whether people with disabilities happen to be attached to one of the programs that make up the disability income "system" in Canada. The OECD (2010), Mustard, Dickie, and Chan (2007), Mendelson, Battle, Torjman, and Lightman (2010), and others have observed that this "system" is a costly and poorly coordinated assemblage of federal, provincial/territorial, quasi-governmental, and private insurance programs. The comparative likelihood of people with disabilities making the transition to employment from various programs that make up the income support system has received

[3] These data were retrieved from PALS 2006 microdata. Published material could not be found on the interplay between supports received for some work-related needs but not received for other work-related needs.

scant research attention, and major statistical surveys shed only partial light on the matter. Campolieti, Gomez, and Gunderson (2009), however, have pointed to significantly different program features that create inconsistent work-related incentives and disincentives across the programs. Chapter VII on demographics shows that people in receipt of provincial, territorial or municipal social assistance or Canada Pension Plan benefits are particularly unlikely to make the transition to decent employment. Barriers include concern about losing income security, housing subsidies, or drug plans (Statistics Canada, 2008b) that are often attached to eligibility for income programs, particularly social assistance.

Some people need various disability supports to assist with functioning across a range of situations, including school, leisure, transportation, and work; the availability of such supports has a bearing on people's employment status. Disability supports have been defined as goods, services, and environmental adaptations that assist people with disabilities to overcome limitations in carrying out activities of daily living and in the broader social, economic, political and cultural life of the community and include personal help, and aids, devices, and services to assist with hearing, speaking, seeing, mobility, and agility across a range of settings (Crawford, Burke, & Bach, 2002). Some research (e.g., Crawford, 2004) has found that employment rates are highest where people do not need such general disability supports at all, are fairly high where such supports are needed and received, and are very low where the supports are needed but not received.

Some research has placed a focus on difficulties that disabled people experience due to systemic factors at the interface between programs and activities across life domains. For instance, a person who lacks access to the transportation they require could very well experience difficulties gaining access to other domains, such as employment (Malhotra, 2009). System

fragmentation, poor coordination, and lack of knowledge transfer between key stakeholders are longstanding characteristics of disability support systems (e.g., Will, 1983) and can generate difficulties not only for people attempting to make the transition across life domains, such as from school to work (E.g., Cobb & Alwell, 2009), but even within life domains, such as from one system of education to another (e.g., Crawford, 2012b). There is some evidence that students who participate in measures that are designed specifically to address system fragmentation and program coordination issues have better experiences making transitions, such as the transition from high school to post-secondary education (McCloy & DeClou, 2013).

Eligibility and participation requirements in one domain can also restrict access to other domains and their activities. For instance, in-kind health and other ancillary supports may be available to people on social assistance provided that they not lose eligibility for the Canada Pension Plan Disability benefit, or work beyond a certain number of hours, or earn more than a certain amount of money. Yet their prospective employer may require more hours on the job than what the CPP rules allow or may not provide a benefit package for vitally necessary medications that would be as adequate as the coverage available on social assistance (Stapleton, Procyk, & Kochen, 2011). All such conundrums are even further complicated by employer discrimination and other difficulties that people experience while attempting to secure the means of access and participation. Thus, obstructed transitions of various kinds have been significant causes of disabled people's discontents and have generated a large amount of CDT-informed research attention (e.g., Crawford, 2012b; McConkey, 2005; Morris, 1999; Stewart et al., 2010).

Given the complexity and interconnectedness of the issues, it is not surprising that CDT-informed theory and research literature tends to blur distinctions between obstacles to getting into and participating in employment. For example, Gilles (2012) frames as forms of

discrimination the transportation-related, architectural, and other barriers that present difficulties and disincentives for new university graduates with disabilities to get into and successfully through job interviews. Lindsay (2011) examines a range of barriers to the employment of disabled youth that include: employer discrimination in hiring; factors in the income security system that may result in loss of health-related, housing, and other benefits; discouragement from family and friends; lack of training; inaccessible transportation; and inaccessible information.

D. Intersectionality

Personal characteristics and other issues that are associated with reduced levels of employment can interact to result in multiple employment disadvantages (Anderson, Fawcett, Rexe, Smith, & Tsoukala, 2003; Jones, 1997 citing others). As Aylward (2010), citing Eaton, has pointed out, the "intersectional oppression [that] arises out of the combination of various oppressions … together, produce something unique and distinct from any one form of discrimination standing alone" (p. 9). The research is thin on how those factors affect employer decisions about the recruitment, hiring, retention, promotion, remuneration and termination of people with disabilities. However, it is reasonable to infer they do have some influence. The Ontario Human Rights Commission (2001b) has argued that an intersectional approach to the analysis of discrimination is required. Although research on such factors has been conducted largely in conceptual silos (Meekosha, 2006), key characteristics distinct from disability that also influence employer decision-making include:

- Age (e.g., Lindsay, 2011; Lindstrom, Kahn, & Lindsey, 2013; Moore, Konrad, Yang, Ng, & Doherty, 2011; Ren, Paetzold, & Colella, 2008).

- Race/ethnicity/visible minority status (e.g., Anderson et al., 2003; Dovidio, Pagotto, & Hebl, 2011; Feist, Saladin, & Hansman, 2013 on Hispanic women with disabilities; Walton, 2011 on black women with disabilities).
- Aboriginal person status (Anderson et al., 2003; First Nations Centre, 2005).
- Gender (Pilling, 2013; Smith & Alston, 2008; Vick & Lightman, 2011).
- Caregiver status where there is likely to be increased absenteeism and decreased productivity, e.g., caring for children (Simpson, 2009) – particularly children with a disability (Statistics Canada, 2008b, 2008e) – or caring a spouse, parent or other family member (Turcotte, 2013).

E. Disability-based discrimination in employment

> Employers [are] focused on attaining flexibility, maintaining productivity, lowering their costs and increasing profit margins and taken together these concerns inform … their quest to find the best person for the job or someone who 'could do the job' (Davidson, 2011, p. 4).

Those words based on Davidson's (2011) qualitative research with employers summarize the basic aims of probably most employers when seeking job candidates to fill vacant positions. And overall, employers seem to be satisfied with the people they hire, irrespective of disability. For instance, a nationwide survey of employers in the US by Smith, Webber, Graffam, & Wilson, (2004) found that employers were equally satisfied with workers with and without disabilities. Chi and Qu's (2003) large statewide survey of 70 foodservice employers also found

that employers with firsthand experience with employees with disabilities were generally satisfied with them.

Despite these and other examples of positive employer experiences with workers with disabilities, the employment rate of people with disabilities has been well below that of other people for many years. Some have argued that their low employment is not due to their unemployability (Federal/Provincial/Territorial Ministers Responsible for Social Services, 1998), reluctance to work, or vastly different job preferences than those of people without disabilities (Ali, Schur, & Blanck, 2011). Indeed, as previously discussed in this chapter, a great many structural barriers and other issues help explain the poor employment prospects. (See also Canadian Abilities Foundation [CAF], 2004; Crawford, 2004; Public Service Commission of Canada, 2011; Statistics Canada, 2008b). Together, these issues interact and translate to the significant disadvantages that many experience in employment, income, and in other domains of life, which people may experience as systemic discrimination. The Canadian Human Rights Commission (2013b) defines systemic discrimination as:

> … the creation, perpetuation or reinforcement of persistent patterns of inequality among disadvantaged groups. It is usually the result of seemingly neutral legislation, policies, procedures, practices, or organizational structures. The effect is to create barriers to full participation in society.

Among those barriers are the worries, concerns, and stereotypes about disability held by employers themselves, which in turn can result in discriminatory employment practices.

Overtly discriminatory employer practices, however, make only limited contributions to the low employment of people with disabilities. For example, Turcotte (2014) found that only 12% of people with disabilities 25 to 64 years, who worked at some point in the five years before

the CSD was conducted, said in that survey that an employer had refused them a job interview, a job, or a promotion because of disability. However, employer discrimination is a significant issue, particularly for some people: among young men 25 to 34 years without jobs and who have a severe to very severe level of disability, nearly two-thirds (62%) have experienced such employer discrimination. (Turcotte, 2014. See also Statistics Canada, 2008c, Table 8; Thornton & Lunt, 1997, for earlier statistics). In 2009-2010, employment was the single largest social area of complaints under the *Ontario Human Rights Code* (Human Rights Tribunal of Ontario, 2011) and disability was the most widely-reported prohibited ground of discrimination. Disability was also the most widely reported prohibited ground of discrimination that the federal human rights system mediated in 2012 (Canadian Human Rights Tribunal, 2012). Discrimination in employment against people with disabilities has been a longstanding issue for statutory human rights agencies in Canada (e.g. Ontario Human Rights Commission, 2001a, 2008; Roeher Institute, 1993b).

F. Employers' concerns and stereotypes

This section brings to the foreground some of the more frequently occurring employment-related concerns and stereotypes about disability that can be found in the research literature, mainly from 2000 to the present. As some of those materials referred to earlier studies that seemed pertinent, the review was broadened to include selected earlier sources as well. Particularly helpful in furthering the present discussion was the research conducted by Hernandez, Keys, and Balcazar, (2000), Unger (2002), Morgan and Alexander (2005), and Ju, Roberts, and Zhang (2013). A recent review by Burke, et al. (2013) draws attention to many older studies as well.

The online Oxford Dictionary defines a “stereotype” as “a widely held but fixed and oversimplified image or idea of a particular type of person or thing”. Colella (1996) points to some positive stereotypes of people with disabilities in employment. These include that they are courageous, even tempered, easy to get along with, and unlikely to get angry (Schur, Kruse, & Blanck, 2005). However, Stone and Colella (1996) have highlighted negative characteristics that are more typical as stereotypes, including among others that people with disabilities are less capable than others, warrant special treatment, and are “embittered … quiet, withdrawn, depressed, unsociable, insecure” (in Schur et al., 2005). Such stereotypes are resistant to change (Edwards, Rentschler, Fujimoto, & Huong, 2010). Stereotypes may reflect employer concerns that stem from ignorance, fear and prejudice. But employer concerns may also be driven by firsthand experience of employing someone with a disability. In all probability employer concerns are in many cases driven by a mix of both, including hyper-vigilance about the performance of people with disabilities (Smith et al., 2004).

The research seems scarcer on employer perceptions in decisions about retaining employees who become disabled and more plentiful on the hiring and retention of newly recruited individuals. Schur et al. (2005) point out how newly-recruited people with disabilities are more likely than established employees who become disabled to face co-worker resistance to job accommodations. The authors also cite Gunderson and Hyatt’s (1996) research that shows how the wages of injured workers held constant after returning to their pre-injury employers with job accommodations, but decreased among workers who found jobs with other employers, even with accommodations. If employer concerns and stereotypes look somewhat different for people already in the workplace than for potential employees, the research is uncertain at this level of detail.

Some of the employer concerns and stereotypes that affect the employment of people with disabilities reflect broader societal stereotypes about disability that are not limited to the employment domain. Hannon (2006), Prince (2009), and Nario-Redmond (2010) provide helpful discussions that are not examined here. Many employer concerns, however, tend to revolve around the potential impacts of people with disabilities on the workplace. Concerns include: direct and indirect cost, workplace morale and culture, production standards and product quality, organizational reputation, and employer legal liabilities. Employer perceptions and concerns can vary depending on type of disability, whether the employer has any firsthand experience with disabled employees, and organizational factors such as the firm's size and location. Intersectional issues can create additional layers of employment disadvantages associated with age, gender and ethnicity and race.

Cost. Employer concerns that an employee with a disability will cost the organization too much in terms of direct financial outlays tend to be grouped according to costs of accommodations and costs of insurance premiums for health benefits and workers compensation. Recently, Ju et al. (2013) found that such concerns seem to be subsiding of late compared with the pattern in the previous decade. However, some studies conducted in the decade following the passage of the Americans with Disabilities Act (ADA), such as those by Moore and Crimando (1995), Walters and Baker (1996) and Hernandez et al. (2000) , point to employer concerns about accommodation costs. In the Canadian context, findings based on employer surveys by WCG International are also equivocal. On the one hand, employers in British Columbia – particularly smaller employers – cited the anticipated cost of accommodations as a key reason for their not hiring people with disabilities (WCG 2004) whereas employers in Ontario rated accommodation costs as a negligible concern (WCG 2006). In the United States, a recent employer survey among

“ADA-recalcitrant employers” conducted by Kay, Jans, and Jones, (2011) placed worries about the costs of job accommodations at the top of employers’ ranked reasons for not hiring people with disabilities. Similarly, a recent employer survey of American employers by Moon and Baker (2012) found that employer reluctance to pay for accommodation costs is a major issue. A nationally representative survey of employers funded by the Office of Disability and Employment Policy (ODEP) under the United States Department of Labour found much the same (Domzal, Houtenville & Sharma, 2008), although the concerns about costs are more evident among small to mid-sized employers than large employers, and among employers that do not actively recruit people with disabilities.

Employers also frequently operate under the impression that employees with disabilities will involve additional costs in the form of increased workers’ compensation and health insurance costs (e.g. Jasper & Waldhart, 2012; Kaye et al., 2011; Lengnick-Hall, Gaunt, & Brooks, n.d). Bjelland et al. (2010) have flagged employers’ fears about increased health care premium costs as a result of retaining older workers, who are at increased risk of illness and disability. Small and mid-sized employers (Jasper & Waldhart, 2013), especially those that do not recruit people with disabilities, seem to be particularly swayed by these concerns (Domzal et al., 2008). Other researchers have drawn attention to how employers continue in many cases to perceive people with disabilities as likely to increase the rates of workplace injury, despite a considerable volume of research literature to the contrary (e.g., Morgan & Alexander, 2005; Panel on Labour Market Opportunities for Persons with Disabilities, 2013; Siperstein, Romano, Mohlera, & Parker, 2006). Davidson (2011) has reported that employers in the UK context might welcome state assistance to help offset insurance premium costs. Livermore and Goodman (2009) discuss recent initiatives in the US to enhance state-funded insurance for otherwise non-

insured costs of disability as means to incentivize and support the employment of people with disabilities.

In terms of indirect costs, research on employer concerns about people with disabilities frequently points to them as anticipated drivers of lower productivity (e.g., Davidson, 2011; Ju et al., 2013; Licona, 2001; Morgan & Alexander, 2005; Peck & Kirkbride, 2001; Public Service Commission of Canada, 2011; Smith et al., 2004). A particular concern is the *lower speed of performance* often associated with workers with disabilities (e.g., Australian Safety and Compensation Council [ASCC], 2007; Davidson, 2011; Graffam, Smith, Kaye, Shinkfield, & Polzin, 2002; Smith et al., 2004; Stewart, Ricci, Chee, Hahn, & Morganstein, 2003; Wang et al., 2004). Some of the research points to reduced productivity of coworkers, who must divert time from regular work tasks to attend to workers with disabilities (Blanck, 2005; Colella, 2001).

Employer fears about lost productivity may also stem from the perception of *increased absenteeism* of employees with disabilities (e.g., Edwards et al., 2010; Hernandez et al., 2000; Kaye et al., 2011; Kessler & Frank, 1997; Kessler et al., 2006). Episodic or fluctuating disability may be particularly troublesome for some employers (Davidson, 2011).

Another employer concern about indirect cost revolves around their worries about the possibility of *lower sales revenue/profit* (e.g., Davidson, 2011; Fraser, Ajzen et al., 2011; Fraser, Johnson et al., 2010; Lengnick-Hall et al., n.d.). Claims that people with disabilities can contribute significantly to sales and profits have been contested in terms of financial cost-benefit analysis (e.g., Graffam et al., 2002).

Workplace morale and culture. Smith et al. (2004) found that the 656 employers they surveyed had a less positive view of the impact of workers with disabilities than their non-disabled counterparts on the overall “climate” of the workplace, i.e., employees’ general morale

and group productivity. Colella (2001) reported that employers will often not hire people with disabilities where they judge that co-worker morale will be negatively affected. Employers surveyed by Kaye et al. (2011) indicated widespread concern about the *extra time and effort* that may be required by supervisors and coworkers to provide job-related supports to the worker with disabilities. Colella, DeNisi, and Varma (1998) have noted this kind of employer concern as well.

Employer concerns about *disruptiveness* revolve around issues such as the perceived potential for a person with a neurological condition to seizure (Hernandez et al., 2000; Shier, Graham, & Jones,2009) or for someone (e.g., with mental illness) to engage in unpredictable or socially inappropriate behaviours (e.g., Davidson, 2011; Hand & Tryssenaar, 2006; Ju et al., 2013; Tsang et al., 2007; Unger, 2002). Aside from making coworkers feel uncomfortable, these employer concerns about safety are attributable in part to the presumed potential of disabled workers to disrupt service/production.

Employer concern about co-worker *resentment* stems in part from coworkers' perceptions that disabled employees do not have a *bona fide* disability (Colella, 2001), are being given preferential treatment (Colella, 2001; Colella & Stone, 2005; Edwards et al., 2010; Kaye et al., 2011; Paretzold et al., 2008), or corkers' general *discomfort* in the presence of employees with disabilities (Schur et al., 2005), particularly employees with mental health difficulties (Panel on Labour Market Opportunities for Persons with Disabilities, 2013). Employers may also be concerned that coworkers will hold negative attitudes about disabled employees for other reasons (Jasper & Waldhart, 2012).

Production processes and quality standards. Employer concerns about the absenteeism and the impacts of disabled workers on the morale and culture of the workplace are to some

extent traceable to employer concerns about maintaining the integrity and efficiency of production processes (ASCC, 2007; Davidson, 2011). Naturally, they are also concerned whether workers with disabilities will be able to contribute effectively to maintaining quality standards (Smith et al., 2004; WCG International, 2006).

An issue not directly touched upon in the research consulted for the present study is the perceived potential for a new recruit with a disability to drive up the sometimes considerable indirect cost of downtime. Such downtime costs are part and parcel of the disrupted work processes that occur when someone is injured on the job (Paez et al., 2006; Public Health Agency of Canada, 2014; Rivers, 2006). Indirect costs of downtime include lost value to the organization due to underutilized machinery and the value of time lost due to supervisory and other workers being diverted from their regular responsibilities. Those costs need to be added together with the short-term doubling up on direct wage costs for replacement workers. This aspect of employer concern about potential disruptions may inform employer decisions about the recruitment, hiring, and retention of people with disabilities.

Employer's reputation. Employers and their hiring personnel are as susceptible to feeling uncomfortable in the presence of people with disabilities as others in society. Employers in some industries have expressed a lack of comfort when it comes to hiring people with disabilities (Jasper and Waldhart, 2013); the public is less sanguine when it comes to people with mental illness and intellectual disabilities in particular (Environics Research Group, 2004). Employers may harbour concerns that the hiring of such people would be off-putting to customers (e.g., Davidson, 2011; Hernandez et al., 2000; Jasper and Waldhart, 2012).

Employer's legal liabilities. Legal fees, case settlement costs and bad publicity (David, Gibsom & Hindle, 2010) stemming from lawsuits in the event of wrongful dismissal and other

discrimination claims are concerns that can hinder employers from hiring and retaining people with disabilities in the first place (Kaye et al., 2011; Lengnik-Hall, n.d.; Panel on Labour Market Opportunities for Persons with Disabilities, 2013).

Permutations on these themes. While the themes discussed above surface regularly in the literature, there are some variations based on types of disability, employer experience with the recruitment, hiring, retention, and promotion of people with disabilities, organizational factors, location, and intersectional issues.

Some of the research focuses on employer attitudes with a view to disability in general or to various kinds of functional limitation (e.g., Grouvier, Sytsma-Jordan, & Mayville, 2013). Other research, however, focuses on people with particular impairments. Some looks at positive employer attitudes towards particular disabilities, such as, for instance, intellectual disability (e.g., Olson, Cioffi, Yovanoff, & Mank, 2001), psychiatric disabilities (e.g., Hand & Tryssenaar, 2006), and people with disabilities who rely on augmentative and alternative communication (e.g., Bryen, Potts, & Carey, 2007). Gilbride, Stensrud, Ehlers, Evans, and Paterson (2000) found that employers tend to be more favourably disposed towards hiring people with various physical disabilities that do not involve major mobility issues, such as those stemming from respiratory and heart impairments, cancer, and HIV. Employers are reportedly less well-disposed towards severe intellectual disability, blindness, brain injury and mobility impairment. As discussed earlier in this chapter, Bordieri and Drehmer (1986), have cited research on how US employers were more inclined to hire people with paralysis stemming from war-related injuries than from other causes of spinal cord damage.

Indeed, researchers have explored negative employer views of people with specific impairments such as seizure disorder, schizophrenia, and legal blindness (Benoit, Jansson,

Jansenberger, & Phillips, 2013; Bricout & Bentley, 2000). Bricout & Bentley found that employers rate the employability of applicants with psychiatric disabilities significantly lower than that of applicants with physical disabilities; Hernandez et al. (2000), Unger (2002), Baldwin and Marcus (2011), Schultz, Duplassie, Hanson and Winter (2013) and Ju et al. (2013) have also explored employment discrimination against people with mental illness. The research findings are consistent with negative perceptions of mental illness more broadly in society (Environics Research Group, 2004).

Some researchers have found that employers with first-hand experience with disabled people have more favourable attitudes towards their employment than employers who lack this experience (Bricout & Bentley, 2000; Chi & Qu, 2008; Gilbride et al., 2000; Hand & Tryssenaar, 2006; Hernandez et al., 2000; Kaye et al., 2004; Morgan & Alexander, 2005; Unger, 2002). Even where the type of disability has proven problematic to employers, their views tend to be more positive where they have prior experience with such disabilities.

Several organizational factors have been found to have a bearing on employer attitudes towards people with disabilities when it comes to their employment. These include:

- Size of employer, with larger firms tending to have fewer concerns than small and mid-sized firms (e.g., Domzal et al., 2008; Houtenville & Kalargyrou, 2012; Jasper and Waldhart, 2012; Levy, Jessop, Rimmerman, & Levy, 1992; Morgan & Alexander, 2005; Nietupski, Hamre-Nietupski, Vanderhart, & Fishback, 1996; Unger, 2002). Research by Chi and Qu (2003) in the foodservice industry, however, contradicts such claims.
- The type of industry and occupation (e.g., Bjelland et al., 2010; Davidson, 2011; Hand & Tryssenaar, 2006; Jasper & Waldhart, 2013; Morgan & Alexander, 2005; Nietupski et al.,

1996; Rumrill & Fitzgerald, 2010; Shier et al., 2009;), although the research on this issue is spotty.

- Geographic location (e.g., Morgan & Alexander, 2005; Rumrill & Fitzgerald, 2010).
- Organizational culture (Kirsh & Gewurtz, 2011; Schur, Kruse, Blasi, & Blanck, 2009).

This chapter has drawn attention to literature that sheds light on the layers of disadvantaging factors that can reduce the employment chances of people with disabilities. Little research, however, has been conducted on how employers' attitudes in recruiting, hiring, and retaining people with disability are shaped and attenuated by the interactions between such factors.

G. Potential benefits for employers and workplaces

Countering these negative worries and stereotypes, other research has presented more positive views of people with disabilities and employment (Ju et al., 2013). Edwards et al. (2010) have commented that accurate information about costs of accommodations needs to be more effectively communicated, the absence of which feeds into the intractability of employer perceptions about such costs despite a wealth of contrary research evidence about such "myths." Indeed, several researchers have found that accommodations tend to cost little (e.g., Hartnett, Stuart, Thurman, Loy, & Batiste, 2011; Hernandez, McDonald, Divilbiss, Horin, Velcoff, & Donoso, 2008; Olson et al., 2001). Graffam et al.'s research (2002) involving 643 Australian employers found that employer-reported benefits were greater than the costs associated with accommodations. Kaye et al. (2011) found that employers are often presented in the research literature as having favourable views about the job accommodation process, its beneficial effects and its overall costs. That said, relatively little research has been conducted into the costs of

specific accommodations (Schartz, Hendricks, & Blank, 2006), which may help explain why employer perceptions of high costs have persisted.

In her review of the literature, which included large internal surveys of DuPont's supervisors, Unger (2002) found that the factual bases for employer concerns about people with disabilities driving up workers' compensation and health insurance premium costs were weak. Similarly, based on a review of the research literature and data from a large statistical survey, the ASCC found that workers with disabilities have *fewer* occupational health and safety incidents than other employees and that costs for workers' compensation and other health and safety issues for employees with disabilities are actually much *lower* than for other employees (ASCC, 2007). Olson et al. (2001) and earlier researchers referenced by Unger (2002) have found that there are no significant increases for health-related insurance costs for employees with intellectual disabilities. Graffam et al. (2002) have pointed to better-than-average safety records of workers with disabilities with over 600 Australian employers. Schur et al. (2009) have pointed out that employees with disabilities are less likely than non-disabled employees to receive employer-provided health insurance and pension benefits, though this may simply reflect employees with disabilities' lack of coverage for such benefits in the first place.

Despite employer worries about reduced productivity, some researchers have found that people with disabilities are at least as productive as other workers (ASCC, 2007; Hernandez et al., 2000). That said, very little research seems to be dedicated to the quality of work performed by people with disabilities that is not also preoccupied largely with absenteeism and work efficiency. Unger (2002) has reported that employers seem prepared to sacrifice some quality in exchange for worker dependability. Indeed, Graffam et al. (2002) cite research that calls into question the value of various financial incentives for employers, pointing instead to the ability of

people with disabilities to perform their jobs and their low risk of absenteeism as more powerful predictors of their having jobs.

Various studies (e.g., ASCC, 2007; Hartnett et al., 2011; Hernandez et al., 2008) counter employer concerns about absenteeism. Some researchers have argued that people with intellectual disabilities have particularly strong attendance records (Morgan & Alexander, 2005). Davidson (2011) points out that the concern about episodic disability and unpredictable absences may be less problematic in occupations where employers can call upon a reserve bank of shift workers.

With respect to worries about profitability, some researchers have argued that greater sensitivity to issues of disability can increase profitability (e.g., Bjelland et al, 2010; Faria, Silva, & Rerreira, 2012; Hartnett et al., 2011; Poria, Reichel, & Brandt, 2011) and that employees with disabilities can significantly contribute to greater profitability (Hartnett et al., 2002). Jasper and Waldart (2013) argue that, at the very least, the issue requires further study.

In contrast to employer concerns about potentially adverse effects of disabled people on workplace culture and morale, Murfitt (2006) found that organisational morale and productivity actually *improved* in workplaces where professionals with disabilities were employed and that coworkers have had positive experiences working with such colleagues. Other researchers have pointed to the capacity of people with intellectual disabilities to help promote positive workplace culture (Lin, 2008). The Environics Research Group (2004) found in a Canadian national survey that 73% of people in workplaces that employ people with disabilities strongly agree that workers with disabilities are contributing as much as others to the workplace.

Concerning worries about the company's reputation with customers and the broader public, the Environics Research Group (2004) found in the Canadian context that the public

generally seems to feel comfortable in the presence of people with physical disabilities and are supportive of their employment. Other research has begun to show that the public has also become more supportive in recent years of the presence of workers with mental disabilities in places of commerce (Burge, Ouellette-Kuntz & Lysaght, 2007; Davidson, 2011; Jasper & Waldhart, 2013; Olson et al., 2001; Siperstein et al., 2006;).

Concerning employer worries about legal fees, case settlement costs and bad publicity stemming from lawsuits in the event of wrongful dismissal and other discrimination claims, Allbright (2011) has shown that US courts have historically ruled almost all such cases in favour of employers under the *Americans with Disabilities Act*. A synopsis of similar case rulings is not available for Canada.

In addition to research that focuses on positive employer attitudes towards the people with disabilities irrespective of the kind of functional limitation at issue (e.g., Hernandez et al., 2000; Ju et al., 2013), some research focuses on employer attitudes towards people with specific impairments. For instance, some researchers have pointed to positive employer perspectives on intellectual disability (Olson et al., 2001), psychiatric disabilities (Hand & Tryssenaar, 2006), and people with disabilities who rely on augmentative and alternative communication (Bryen et al., 2007).

These studies and others underscore the potential benefits to employers were they to tap more effectively into the pool of under-utilized labour that people with disabilities represent. According to the 2013 report of the expert Panel on Labour Market Opportunities for Persons with Disabilities (2013) that the Government of Canada appointed in 2012, nearly 800,000 working-aged Canadians without jobs are not prevented by their disability from working, among whom almost half have post-secondary education.

H. Summary

The employment rate of people with disabilities has been considerably lower than that of their non-disabled counterparts for many years. The general research literature on employment and disability makes that point clear and has also highlighted several socio-demographic characteristics that help account for the situation. For instance, disabled people in 25 to 54 years of age are more likely to be employed than youth or older working-age adults. Disabled women are less likely than men to be employed, especially if they have caregiving responsibilities. While there is not much research on visible minorities or Aboriginal persons with disabilities, the extant research suggests that visible minorities with disabilities are more likely than others to be precariously employed and that Aboriginal persons are less likely than others to have any work at all. Sectors of the economy and geographic region are also salient: jobs are disappearing in lower-skilled industries where people with disabilities have tended to hold jobs, and jobs for people with disabilities are particularly scarce in rural communities and from Quebec eastwards. If people with higher levels of education and job training are more likely to be employed than people with lower personal capital, people with disabilities are often less likely than others to have such capital.

The research literature also shows that disability-specific factors are salient. People with disabilities in the cognitive and emotional domains, or in the areas of seeing or spoken communication, are least likely of all to be employed, as are people with more severe levels of disability. People whose disabilities are caused by war or work injuries seem to fare better in terms of employment than people whose disabilities are caused by other factors. People with

early onset disabilities seem to fare better than people who first experience disability later in life. People who are not working are more likely than those with jobs to need various supports for basic access to the workplace and for ongoing participation at work. People are less likely to be employed where their needs for supports for job access and participation have not been met. Evidence suggests that people who recently received income from social assistance or the Canada Pension plan fare poorer in terms of obtaining employment than people whose income is from other sources. People with unmet needs for human support or for aids/devices for activities beyond work are less likely to have jobs than people who have no such needs or whose needs have been fully met.

From an intersectional perspective, multiple layers of disadvantage can aggravate the poor employment prospects of disabled people. Research on this issue has placed some focus on disability with attention to age, gender, race/ethnicity, Aboriginal identity and caregiver status.

Employer stereotypes and concerns revolve around: direct and indirect costs, which include concerns about the presumed impact of disability on workplace morale and culture, production standards and product quality, organizational reputation, and the employer's legal liabilities. Employer perceptions and concerns can vary depending on type of disability, whether the employer has any firsthand experience with disabled employees, and organizational factors such as a firm's size and location. "Intersectional" issues can create additional layers of employment disadvantages associated with age, gender and ethnicity and race. It would be simplistic to suggest that employer stereotypes and concerns are the only things or the main things that need to be addressed in order to improve the employment prospects of people with disabilities. (See, for example, Crawford, 2004; Unger & Kregel, 2003). Yet those aiming to improve the situation do need to make employers a significant focus, as observed by Canada's

Panel on Labour Market Opportunities for Persons with Disabilities (2013) and the Australian Government's National Centre for Vocational Education Research (NCVER) (Waterhouse, Kimberley, Jonas, & Glover, 2010, p. 6). Efforts to raise employer awareness about disability and stereotypes in the workplace would go some distance towards counteracting myths on disability and employment that not only abide but that continue to prove so intractable (Edwards et al., 2010).

More precise statistical views of the issues touched upon in the research literature are provided in the demographic analysis in Chapter VII. That discussion focuses on the extent to which the issues raised in the present chapter are associated with decent jobs vs. joblessness among people who have indicated that they are limited at work because of disability. Chapter VIII follows up by establishing which factors most powerfully predict the likelihood that people with work-limiting disability will obtain decent jobs rather than being jobless.

Chapter Three: Issues often overlooked

Much of the policy-oriented research on disability and employment shows that about half of working-age people with disabilities have jobs compared to about three-quarters of their non-disabled counterparts. Differences across general socio-demographic lines such as age, gender and visible minority or Aboriginal person status, have received less attention. Similarly, differences across lines that are specific to disability, such as type and cause of disability, and issues in the area of job accommodations and other supports for employment are often overlooked. The present research contends that, in addition to the disadvantaging factors discussed in the previous chapter, another layer of difference even further depresses the employment situation of working-age people with disabilities: whether people consider themselves limited in the amount or kind of work they can do because of disability. The magnitude of that factor's impact is highlighted in the present chapter. The discussion also contends that greater research attention needs to be placed on the quality of the work held by people with disabilities and on the nature and quality of the accommodations and other supports they require for employment – if they receive any such accommodations at all.

A. Disability and the experience of limitations at work

The CSD asked people who were working, not working but available (i.e., unemployed), not in the labour force, or involuntarily retired whether they felt limited in the amount or kind of activity they could do because of their condition. People who were not in the labour force or involuntarily retired were also asked whether they felt completely prevented from working because of their condition. As Figure 4 shows, people who said that they were not work-limited because of disability were even more likely to have jobs than people without disabilities (84.1%

vs. 73.6%). Those who said they were not limited at work because of disability made up over half (54.1%) of the 1.05 million working-age people with disabilities who had jobs in 2012 and more than a quarter (29.1%) of all working-age people with disabilities that year. Although the sampling methodology was a little different in PALS 2006, that survey showed a similar pattern for 2006: 80.8% of working-age people with disabilities who did not feel work-limited because of disability had jobs that year, compared with 75.1% of working-age people without disabilities; 55.6% of the 1.04 million people with disabilities who had jobs that year were not limited in the amount or kind of work they could do. Despite whatever difficulties that disabled individuals who do not feel they are (or would be) limited at work may be experiencing in the labour market, it would appear that the system of policy, programs, job opportunities, and related measures may be working about as well for them as it is for people without disabilities and may not be in dire need of attention.

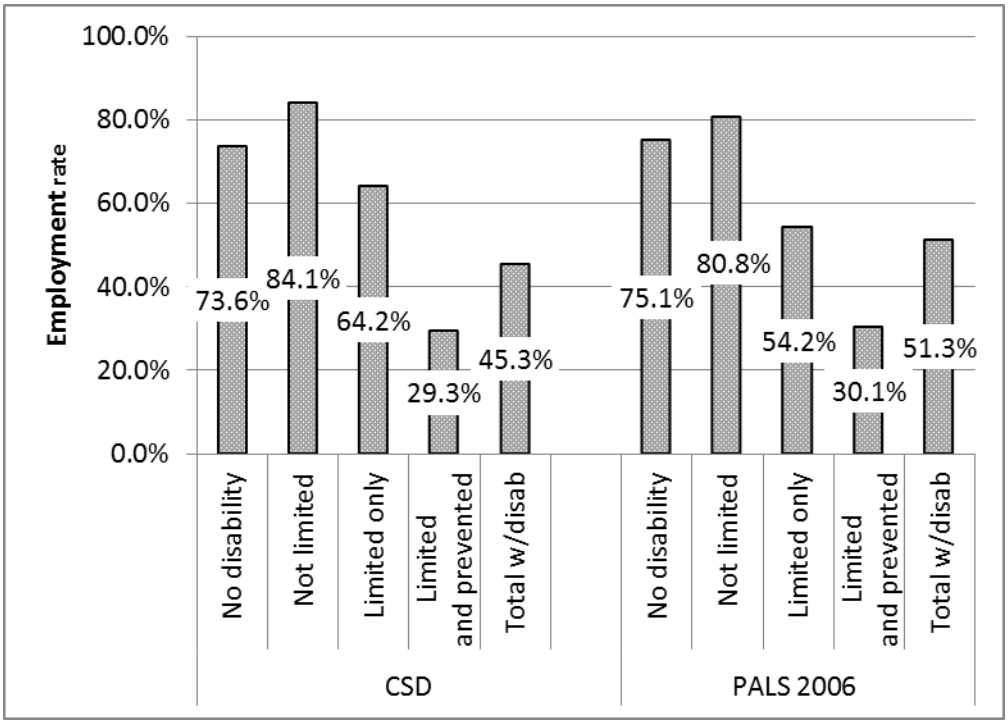

Figure 4.
Employment rates by whether working-age people consider themselves limited at work because of disability, in the CSD 2012 and PALS 2006
From the Canadian Survey on Disability, 2012, and the Participation and Activity Limitation Survey, 2006.

Indeed, people with disabilities' low rate of employment is, so to speak, "inflated" by the employment of more than half a million people who may have disabilities, but who do not seem to be significantly limited by disability when it comes to employment. As Figure 4 shows, if those people were removed from the equation for a moment, and if the focus were to be placed instead on people who say that they are limited at work (or would be limited if working) but not completely prevented from working because of disability, the employment rate drops significantly to 64.2%. The rate plunges to a mere 29.3% if people who say their condition completely prevents them from working are factored into the mix. However, even among the 598,370 people captured by the CSD who considered themselves completely prevented from

working because of disability, more than a third (34.8% or 208,320 people) indicated that perhaps a workplace arrangement or modification could have enabled them to work. Was the issue, then, impairment (or functional disability)? Or was the issue that the barriers people encountered, and not having the supports they needed for work because of impairment/disability, engendered the sense that people were completely "prevented" from working? Either way, the size of the "prevented" group could perhaps be reduced if barriers were less widely experienced and if needed supports were more widely available.

B. Disability and the quality of work

Some CDT-informed research and political attention has focused on the quality of the employment options that are available to people with disabilities. For example, disabled people and their representative organizations have long called for "Real Work for Real Pay" and other markers of good jobs (e.g., CCD, 2012; Rattai, 2013; Schaufelburger et al., 2008). Accordingly, some research has focused on segregated vs. "mainstream" work. As Wheman (2006) and many others have pointed out, people with disabilities are in many cases not content with segregated options, which are often punitive, degrading (e.g., National Disability Rights Network, 2011), stigmatizing (e.g., Holmqvist, 2009) and which evoke images of Foucault's professional "gaze," hegemonic power and control (Foucault, 1973). Indeed, there is a need for more of the inclusive and self-determining options that disabled people would prefer (e.g., Migliore, Mank, Grossi, & Rogan, 2007; Wehman, 2011). Similarly, some research has flagged situations where people with disabilities are largely isolated from co-workers in mainstream jobs, such as people in work enclaves and in other special work arrangements, there (e.g., Jahoda, Kemp, Riddle, & Banks, 2008; Wilson, 2003).

Other CDT-informed research has drawn attention to the dubious quality of the work of people with disabilities by shedding light on the low pay, low skilled, and precarious jobs of those who have any work at all (e.g., Hiranandani, Kumar, & Sonpal, 2014; Tompa et al., 2006; Wilton, 2006). While this issue may in some instances reflect systemic and adverse effect discrimination (Northwest Territories Human Rights Commission, n.d.), it remains unclear to what extent such jobs are, either disproportionately *the lot* of disabled people, or indeed the *causes of impairment and disability* among people who are disadvantaged before the advent of disability due to factors such as low educational attainment and limited economic opportunities (e.g., Breslin et al., 2008; Elwan, 1999; Worksafe BC, 2013;); either way, the employees in such situations are considered disabled in much of the research literature.

Nor has the research shed much light on the extent to which part-time work is necessarily an undesirable thing for disabled people. In her Royal Commission report on *Equality in Employment*, Rosalie Abella, J. (1985) urged that better data be captured on the representation of individuals from disadvantaged groups in various dimensions of federally regulated employment, including part-time work. The need for modified hours of work is one of disabled people's most widely needed job accommodations (Statistics Canada, 2008c; Till, Leonard, Yeung, & Nicholls, 2015) and has been associated with the well-being of workers with disabilities (Konrad, Moore, Ng, & Doherty. 2013; Schur, 2003; Statistics Canada, 2008c). Yet very little research seems to have been conducted on the extent to which people with disabilities are actually over-represented in part-time work after their need for modified work hours has been factored into the picture and on the extent to which that need has been met. Shuey and Jovic (2013) have touched upon the issue, recently finding that workers with disabilities in part-time jobs who have union protections

are more likely than non-protected workers in non-standardized jobs to receive the job accommodations they require.

As well, some research has looked at the occupational patterns of disabled people, but not much work has been done in this area other than to point out that disabled people tend to be more involved in low-skilled jobs and less involved in management and technical jobs (e.g., HRSDC, 2010a, 2011c). Nor do we have much research into specific differences in employment due to type of impairment, such as the significant over-representation of people with intellectual disabilities in low-skilled jobs in the retail and service sectors (e.g., Crawford, 2011; Wilton, 2006). There is some evidence that people with disabilities are marginally more likely than others to be working in unionized workplaces or in workplaces covered by union agreements (Hall & Wilton, 2011), but if and why there are differentials by type of impairment, industry or occupation, has not received much attention.

Overall, then, CDT-informed research has suggested that the quality of work opportunities available to disabled people are inferior to those available to other people. Much CDT-informed research frames activity options across life domains, such as employment, as unacceptable where they are inferior to those typically available to non-disabled people or when they are inconsistent with broad human rights norms that would ideally apply irrespective of disability. Further, being hampered from participating in options that may look quite different than what most people might prefer, yet that are not consistent with broad human rights principles and values, also draws criticism from CDT-informed scholars and activists. In the area of deaf education or sexuality and personal relationships, for instance, not all people with disabilities are looking for involvement in the same kinds of activity patterns in school or the same relationships as people operating on the basis of heteronormative ableism (e.g., Artschuler,

2011; McRuer, 2006). Butcher and Wilton (2008) have advocated for something like work activity programs outside of regular employment for people with intellectual disabilities. Irrespective of such considerations, people generally do not want to be in situations and relationships – whether at work or elsewhere – that are abusive, violent, exploitive or oppressive, either (e.g., Cook, Swain & French, 2001; Liddiard, 2013; Roeher Institute, 1995; Ryan 2009, Ch. 15).

The CRPD (UN, 2008) lays out some of the key principles and values that would ideally characterize the full suite of activities in which disabled people like other citizens would be able to engage across the life domains, including employment, i.e. they would be able to pursue their own vision of a good life and participate in relationships with trusted others, with reasonable safety and security, as socially included, valued and respected, equal, and free, self-determining citizens. The CRPD also proscribes the antitheses that stem from derogatory understandings of disabled people: exclusion, exploitation, cruelty, degradation, violence, and abuse.

While the parameters of "decent work" are contested (Burgess, Connell, & Dochery, 2013), the ILO (2012) has laid out several key criteria similar to those found in the CRPD and the UN International Covenant on Economic, Social and Cultural Rights (1966) that are arguably more robust than Wheman's (2006) call that the work be "integrated" and "self-determining." Arguably, more CDT-informed research is required that uses these or similar criteria to assess the comparative quality of work options that are available to people with disabilities. This issue is addressed in Chapter VI on methodology and Appendix C.

C. The quality of accommodations and other supports for employment

In addition to the features that would ideally characterize work options, described above, the conditions on which the means of access and participation are made available and their inherent characteristics, would ideally be consistent with over-riding principles and values of equality, self-determination, social inclusion and freedom from degradation as well. Where this is not the case, CDT-informed research has drawn attention to the issue. For instance, if a person with disabilities can get into school and is welcomed by fellow students and instructors there, it is not acceptable if s/he has to use the service elevator in order to get in and out, if s/he is bullied by his/her classmates, has to deal with an adversarial administration, or has to use computer and other technology that fails to perform according to his/her needs and reasonable expectations (e.g., Hibbs & Pothier, 2006; Low, 2009; Mishna, 2003; OHRC, 2000). Where procedures for obtaining job accommodations and the general culture of the workplace are fraught with potential for reprisals and other adverse attention, there can be disincentives for people with disabilities to disclose their need for accommodations (e.g., Linkow, Barrington, Bruyère, Ivelys, & Wright, 2013). Such individuals may even feel impelled to engage in strategies to prevent and manage resentments and other concerns among supervisors and coworkers (e.g., Church, Frazee, Panitch, & Luciani, 2006). In contrast, research points to relatively high job satisfaction and productivity among individuals who perceive that they are respectfully treated and adequately supported at work (Villotti, Corbière, Zaniboni, & Fraccaroli, 2012).

Similarly, individual choice and self-determination also make a difference. Arrangements have been criticized in research and advocacy where professionals determine which services or items will be provided without disabled users having much say in the matter (e.g., Barnes & Cotterell, 2012; Johnson & Moxon, 1998), particularly where disabled people have to trade away

their legal status and self-determination in exchange for personal assistance or other supports (e.g., Bach, 2009). Where the means of access and participation are not consistent with the superordinate human rights principles that would ideally prevail, disabled people have expressed discontent and have sought alternative approaches more consistent with the CRPD. These alternatives have begun to proliferate in recent years (e.g., Department of Health, 2006; Prime Minister's Strategy Unit, 2005, Chapter 4), including self-directed employment supports (Munn-Huff, & Farnon-Molfenter, 2012; Victoria Human Services, 2015) and other measures that aim to pay due attention to the interests and needs of people with disabilities and ensure their participation in decision-making (e.g., Barnes & Mercer, 2006; Department of Work and Pensions (DWP), 2013; Fernandez, Kendall, Davey, & Knapp, 2007; Finlay, Walton, & Antaki, 2008; Gibson, Brooks, DeMatteo, & King, 2009; Harris, 2010; Office for Disability Employment Policy [ODEP], 2015; Pearson, 2004; Renshaw, 2008; Riddell et al., 2006). That said, research on the quality of job supports available to people with disabilities is under-researched and very little such research is available on the issue in Canada.

Chapter IV: Towards an explanatory model

Social constructionist theories of disability, that have had significant influence in the past few decades, cite social factors rather than biological impairment as the most salient reasons for the disadvantages and even "disabilities" that people experience in society. Selectively drawing from a few prominent theorists, the following discussion explores two general approaches from the realm of political economy, namely the "Social Model" and the "Socio-Political Model" of disability. The discussion then briefly examines cultural approaches to theorizing about disability and the nexus between political economy and cultural approaches. In examining the interaction between political economy and culture, the discussion points out the importance of incorporating experiences of "impairment effects" if disability theory is to be fully relevant to the challenges people with disabilities face in employment. The discussion in the present chapter also draws attention to the issue of "governmentality" and various abuses which, in one form or another, are ever-present concerns in the lives of many disabled people. These concerns can affect the nature of the job options that are available to people with disabilities, and the supports for access and participation with which disabled people often have to contend. Dealing with those issues requires attention to the epistemic implications of people's voices in decision-making. These voices frequently come to the foreground in political work and research informed by critical disability theory, and need to be taken seriously in efforts to improve the employment situation of people with disabilities. Those voices and the experience that give rise to them sound a little different depending on people's social and economic circumstances, functional impairments and the other dimensions of intersectionality.

A. Models from political economy: the "Social Model" and "Socio-Political Model" of disability

As an understanding of disability as an issue of political economy, the Social Model of Disability (SMD) was originally devised by Vick Finkelstein, Paul Hunt, and others involved with the Union of the Physically Impaired Against Segregation (UPIAS) in the UK in the 1970s. The original ideas have been further developed by Colin Barnes, Michael Oliver, and others in the UK. Their focus is the neo-conservative manifestations of capitalism as scrutinized and explained by materialist (Marxist) analysis. The SMD locates the causes of disability at the societal level and seeks amelioration through political action and social change. In contrast, the Individual Model of disability locates disability in the individual with impairments (e.g., Bury, 1996, 1997). Interventions can include therapeutic and other treatments to "cure" the disability, i.e., the "Medical Model" of disability, and personal and organizational largesse in response to the individual "tragedy" of disability, i.e., the "pity" or "charity" approaches to disability (e.g., Rioux & Valentine, 2006). According to Oliver the Individual Model of disability and the Social Model need not operate in opposition to one another (Oliver, 1990a, 1990b), though they are often presented as diametric opposites.

According to the basic logic of the SMD, the capitalist economic regime requires efficient workers who will labour for as little as the owners of business can get away with paying. In the process the economic system disables some people through occupational injury and disease and others less directly through environmental degradation, lack of proper nutrition, disease and other issues that ensue from low wages and extensive poverty. Regardless of the specific causes of impairment, a large cadre of people with impairments are not working or only marginally employed because of the ways in which capitalism operates. Business and other

moneyed interests require that medically-trained gatekeepers sort genuinely disabled people from "malingerers" for access to the limited largesse reluctantly made available to people displaced from the economy. The entire design of society, heavily influenced as it is by the needs of business in capitalist countries, caters in its built environments, modes of communication and other processes to the needs of people who meet the requirements of business and who can afford the benefits of citizenship. Those who find it difficult to meet the requirements of the social and economic system, because of difficulties related to their impairments, are disadvantaged at every turn and in that sense are "disabled" by society. In this way, according to Oliver, capitalism produces disability as a commodity, "no different from the production of motor cars or hamburgers", with its own industry and workforce that has "a vested interest in producing their product in particular ways and in exerting as much control over the process of production as possible" (Oliver, 1999b, p. 2). Because the labour market and social institutions are at base exclusionary by design, nothing short of a complete overhaul of the economic order is required in order to make the labour market and society more broadly inclusive (e.g., Barnes, 2000; Oliver, 1990a, 1990b; Malhotra, 2008; Roulstone, 2002; Russell, 2002).

The "minority rights" model of disability that originated in the US employs a "Socio-Political Model" (SPM) for defining disability, which like the SMD locates the most potent causes of disability in economic and other factors beyond the individual, i.e., "from the failure of a structured social environment to adjust to the needs and aspirations of disabled citizens rather than from the inability of a disabled individual to adapt to the demands of society. Hence, disabled people can be viewed as a minority group just as other ethnic or racial minorities." The disadvantages associated with disability are thus framed as a "manifestation of external deficiencies in the social and economic order rather than as an indication of internal or individual

deficits" (Hahn, 1982, p. 386). As Rioux (1996) has put it, disability can be viewed as a social pathology instead of an individual pathology. Like the SMD, the SPM recognizes that disabled people are disproportionately more likely than others to be without paid work and that the workings of capitalism are partly to blame. However, the SPM points to broader societal attitudes and values, as well as policies, built environments, and other factors that need to be taken into account as significant drivers of the wide scale, apartheid-like segregation experienced by disabled people. These problems faced by disabled people play out in the area of employment as well as in education, housing, transportation, and public services.

According to the SPM, some of the societal factors that help account for racism, sexism, and other forms of inequality also shape the experiences of people with disabilities. In this regard the SPM employs an economic and cultural critique, following a line of analysis similar to that advanced by Max Horkheimer and his long-time colleague, Theodor Adorno, in their early analysis of the interplay between culture and the political economy in reinforcing social inequalities and compliance with oppression (Adorno & Horkheimer, 1944). However, according to Hahn, specific cultural factors are at work with respect to disability. The rise of the consumer economy and the proliferation of images and messages in the mass media about ideal physical appearances have centred on youth and beauty. They have also accompanied a lack of positive media impressions about disabled people, and negative images and messages about their lack of productivity and their passive reception of medical attention. Together, this culture has had wide-scale impacts in shaping discriminatory public attitudes, values and practices. The SPM takes up a "socially transformative" agenda, which echoes the early critical theory of Horkheimer and Adorno and supporters of the SMD in the UK. The social agenda involves pursuing civil rights, the more vigorous application of anti-discrimination laws, barrier removal, coalition building

among disadvantaged minorities, and the celebration of human differences as means of pushing back against hegemonic economic and cultural forces (Hahn, 1985, 1997).

In terms of employment, the SMD and SPM help shed light on how work processes and workplaces have been designed to function as if people with disabilities would not be present. The approach also helps illuminate how the lack of accommodations that may be needed can bar entry to and participation in employment and in that sense disadvantage and "disable" people (e.g., Slorach, 2011). Chapters VII and VIII explore the relationship between obtaining decent employment after the advent of work-limiting disability and whether people have general socio-demographic characteristics in addition to disability that are associated with difficulties in employment, such as whether people are able to obtain the disability-specific means they require for access to and participation in employment.

B. Models from cultural approaches

Similar to SPM theorists, some analysts who have contributed much to the literature on the SMD in the UK have shown keen interest in counteracting negative cultural portrayals that perpetuate the inferior social place and status of disabled people and the disadvantages that they experience (e.g., Barnes, 1997, 2008; Morrison & Finkelstein, 1991). American cultural analyst Rosemarie Garland-Thomson has taken up some of these sociocultural themes in her 1997 book entitled, *Extraordinary Bodies*. Garland-Thomson's analysis points to how societal understandings of the disabled body evoke feelings of anxiety, like Aristotle's conception of female bodies as mutilated male bodies. She weaves this approach together with the stigma theory of Irving Goffman and Mary Douglas' conceptualization of "social dirt" to arrive at a conception of stigma associated with disability as social dirt. Garland-Thomson reminds her

readers of how Goffman pinpointed the processes through which society ascribes negative valence to various physical traits that include disability, behaviours (e.g., addictions, unpredictability, lack of education or manners, some sexual habits) and selected socio-demographic characteristics (e.g., race, religion, ethnicity, gender), thereby legitimizing the status quo and seeming to render socially constructed attributions of inferiority and superiority natural or inherent (Goffman, 1963). Douglas' social dirt metaphor evokes the dichotomizing of social groups into absolute categories (disabled vs. non-disabled), the elimination of the inferior (through eugenics), avoidance (through segregation), labelling (as dangerous), and ritualization (through public displays that draw attention to those deemed inferior). Garland-Thomson also draws from Foucault's observations of modern society's normalizing tendencies to measure, classify, and regulate human bodies into "docile bodies" through forms of discipline and punishment, as well as drawing attention to societal anxieties in North America about the potential for invalid dependency vs. the normative imperative for citizens to function as self-reliant, autonomous individuals. At the juncture between culture and political economy, Garland-Thomson applies these and other cultural stereotypes of disability to the domain of work to underscore the presumptive moral failures of "malingerers" that society cannot clearly distinguish from those who are genuine "cripples" (Garland-Thomson, 1997, p. 49).

Many other researcher-analysts working in the realm of cultural theory echo themes and understandings of disability similar to those illuminated by Garland-Thomson (e.g., Barnes, 1997, 2008; Shildrick, 2012; Titchkosky, 2008; various contributors to the Journal of Literary & Cultural Disability Studies). Some have observed that disabled–nondisabled binaries do not hold up under scrutiny (e.g., Shildrick, 2012) and that such dichotomized understandings are in any event being transgressed and may be undergoing transformation (e.g., Smit, 2014; Garland-

Thomson, 2002;). This is an outcome pursued by activists in the disability culture movement (e.g., Abbas, Church, Frazee, & Panitch, 2004).

In terms of practical applications, the early "normalization" efforts of Nirje (1970) and particularly Wolfensberger (1972, 1998; Wolfensberger & Tullman, 1982) to carry cultural analysis into practice contributed to the closure of large congregated institutions and to changing cultures and practices within community service-agencies. Normalization has been widely criticized, however, for leaving the socio-economic status quo largely unchallenged, thus failing to address the root causes of the exclusion and stigma faced by people with disabilities (e.g., Culham & Nind, 2003; Oliver, 1999). Some critical disability theorists have also questioned the practical and political utility of newer approaches to cultural analyses (e.g., Barnes, 2012). Shildrick, a leader among those who employ postmodernist methods of cultural analysis of disability, makes no claim to clarity about practical applications, other than that there is an ethical obligation for all people to engage with corporeal differences, to queer norms of embodiment, value differences, recognize common human vulnerability, and deconstruct "the apparent stability of distinct and bounded categories" that form the parameters of normalcy which are, at base, illusory (Shildrick, 2012a: 40).

Regardless of whether cultural analysis leads to ready solutions to disabled people's low level of employment, it can help draw attention to unwelcoming and even hostile perceptions of and attitudes towards people with disabilities in workplaces, which can manifest as harassment, segregation or ostracism on the job, workplace cultures that create disincentives for people to disclose disability or their need for job accommodations, and discriminatory practices in recruitment, hiring, professional development, and job promotion. The Canadian Survey on Disability has some information about such issues, which are discussed in Chapters VII and VIII.

C. A model from multi-dimensional cultural political economy

As adherents to the SMD, SPM, and cultural approaches to theorizing disability have demonstrated, culture and political economy are difficult to separate from one another. Best and Paterson (2010) have discussed conceptual and methodological difficulties involved in disentangling the two and argue for an integrated approach that takes both spheres into account, i.e., "cultural political economy." Drawing from her understanding of the interconnections, critical theorist Nancy Fraser (1997) frames within an inclusive social justice lens three imperatives: *recognition* of minority identities and rights; *(re)distribution* of public resources; and people's *representation* in governance structures and decision-making procedures (Dahl, Stoltz, & Willig, 2004). For Fraser there can be "no emancipation without some new synthesis of marketization and social protection" (Fraser, 2013, p. 132). It remains to be seen how the politics of disability and the cultural, political, and economic situation of disabled people will play out in the presently complex political and economic environment of Canada. Neil Crowther of the UK Equality and Human Rights Commission, however, seems to have used Fraser's analytical approach in his portrayal of the relatively isolated and marginal political situation into which minority identity politics and a kind of isolationism has led disabled people in that country (Crowther, 2007a, 2007b; see also Morris, 2011). Prince (2004, 2009) singles out structural issues as well, arguing that the misrecognition of disabled people that is evident at the interpersonal level is due in part to ineffective administrative practices that deny disabled people the means of gaining access to and participating in the public policy process, which in turn bars them from shaping the design of public policy and programming that directly affects them (See also European Disability Forum, 2014).

CDT-informed research has pointed out that culture and political economy are multi-dimensional in that they operate not only on a broad macro-societal level but permeate down into activities in concrete local sites such workplaces, schools and other settings (e.g., Ainscow & Sandill, 2010; Bruyère, & von Schrader, 2014; Crawford & Porter, 2004; Kirsh & Gewurtz, 2011; Schur, Kruse & Blanck, 2009; Skrtic, 2005; Zollers, Ramanathan & Yu, 1999). Culture and political economy even reach into the substance of identity formation (Galer, 2012; van Hal, Meershoek, de Rijk, & Nijhuis, 2012) and can, in the absence of supportive conditions, leave individuals feeling alienated, as less than citizens (Devlin & Pothier, 2006) and lead them to internalize external oppression (Campbell, 2008).

D. Other salient approaches

1. Recognition of impairment effects

With a view to the individual in concrete situations, critical theorist Axel Honneth, a director of the Institute for Social research founded by Max Horkheimer, counters Nancy Fraser's political approach with a proposal that would place priority on the development and social expressions of individual identity. This would occur in the context of a conception of social justice that is rooted in love reflected in recognition of need, equality reflected in equal treatment in law, and social esteem based on people's merit and contributions to society (Honneth, 2004). Such appreciative recognition, equality, and social esteem would all emerge in a process of gradual, asymmetrical "moral progress" in each of these spheres. Several critical disability theorists have agreed with Honneth that personal development and interpersonal relations need to be better taken into account in theorizing about disability (Danermark & Gellerstedt, 2004; Goodldey, 2011; Shakespeare, 2006). It is difficult to imagine how unique

individual persons are to be fully recognized, and treated with esteem as valued equals by others unless their impairments and other characteristics are acknowledged, welcomed, and supported.

Theorists such as Wendell (1996a, 1996b) and Thomas (1999) have argued that experiences of impairment are highly relevant and need to be encompassed by robust disability theory. In that light, discrimination in employment can be viewed as an issue in which political economy, workplace culture, experiences of disablement, employer beliefs, stereotypes, and attitudes about impairment all come together. Accordingly, researchers have attended to the implications of discrimination for people with specific impairments, underscoring the relevance of this human characteristic. Employment discrimination towards people with specific disabilities is discussed in Chapter II.

2. Intersectionality

In addition, there are intersectional issues of age, gender, sex, race, and ethnicity that interact with impairment effects. Baldwin and Johnson (1995), for instance, have conducted research on women with disabilities, as has Hansen (2002a, 2002b), but with view to women with disabilities across various geographic spaces. Bjelland et al. (2010) have looked at discrimination as it affects the employment of older people with disabilities, while Lindstrom et al. (2013) have focused on young adults with disabilities. Berthoud (2008) has looked at on intersections between disability, gender and ethnicity. Chapter II on employer worries, stereotypes, and discrimination provides other examples.

3. Factoring in the issues of domination, control, and punishment

While the cultural, political, and economic marginalization of disabled men and women in general and with particular impairments are major concerns, so are the domination, control

and, punishment that Foucault has examined in some depth (e.g., Foucault, 2006) and which CDT-informed theorists and researchers have taken up (e.g., Tremain, 2005). Disabled people's lack of input at the policy level is reflected in their disempowerment at the programmatic level concerning services to individuals, all of which helped fuel the emergence of the Independent Living and disability rights movement in the US, Canada, and UK (e.g., Martinez, 2003). The concerns also helped fuel other concepts that have become increasingly widespread in recent years such as individualized or direct funding, various permutations of "person centred planning" and direct control by users and their trusted supporters in the management of disability-related supports to individuals and in service-agency governance arrangements (e.g., Hutchison, Arai, Pedlar, Lord, & Yuen, 2007; Rioux & Crawford, 1983; Roeher Institute, 1991, 1993a; Salisbury, Dickey & Crawford, 1987).

Large-scale statistical information sheds only limited light on the suitability of the means of access to and participation in employment in relation to disabled people's personal choices and agency. For instance, the data include little evidence about whether people have much say in the selection of the supports, personal control over their use, or levels of personal satisfaction with the supports available. However, the data do indicate whether people need some selected supports, and, for those who do, whether they have received the level of support they require. That issue is taken up in Chapters VII and VIII.

4. Epistemic issues

The repression, abuses, and violence that have frequently characterized services for disabled people, over which they have had little control themselves, have often been cloaked in the guise of therapeutic treatment and have thrived where victims have been socially isolated and

silenced (Roeher Institute, 1988, 1995). Those at the receiving end of the harms have typically had few formal credentials or other markers of status, and their supporters – often women – tend to be devalued in the informal system of social support around disability (e.g., Fraser, 1987; Roeher Institute, 2000; Ryan & Runswick-Cole, 2008). These arrangements and their outcomes raise epistemic issues which are too complex to examine here, but which involve questions of "whose knowledge matters?" and "on what basis?" Those questions need to be answered in the contexts of disability community catchphrases such as "Nothing about us without us" and "We are the experts" (e.g., Charlton, J.I., 2000; European Platform of Self Advocates, 2013; Jurgens, 2008; Knox, Mok, & Parmenter, 2000; Roulstone, 2014; United Nations, 2004; Wight-Felske, 1990).

Again, large-scale data such as those available from the CSD do not indicate whether people have much say in decisions about which supports they need for employment or whether such supports are going to be made available. However, the data do indicate whether people feel comfortable telling their employers about those requirements, which in turn points towards workplace cultures and practices that either encourage or inhibit such disclosure. Based on the CSD, about a quarter (27%) of persons with disabilities who were employed indicated that their employer was not aware of their work limitation (Arim, 2015). Based on data extracted for the present research, of the nearly 112,000 employed people with disabilities who did not have the job accommodations or other supports for employment that they needed in 2012, only 36% were with employers that knew about those needs. These details suggest problems within the workplace cultures that leave many people with disabilities feeling reluctant to talk about issues of disability and accommodations with their employers. That is, present arrangements leave many people without much voice.

E. Summary

This chapter has articulated an approach to thinking about critical disability theory and CDT-informed research that encompasses a wide range of work, including theories of disability mediated through the lenses of political economy and culture at a broad societal level down into the operations of culture and political economy in workplaces as these affect people with particular impairments. The discussion has drawn attention to some underlying values and assumptions that serve as guide posts for much of the research and theory development that is occurring and that are reflected in the CRDP. Much of the research and theory development focuses on the difficulties that people experience in their efforts to overcome interpersonal discrimination, and in efforts to get into and participate in employment and other life domains on par with non-disabled citizens. CDT-informed research attention has been placed on the difficulties people experience in their efforts to obtain the disability-related means of access and participation for working and for living as free, equal and valued citizens. It has also studied the systemic obstacles that impede transitions within and between work and other life domains, such as education and income support. CDT-informed research is drawing attention to these matters with attention to intersections that take into account people's age, gender, sexual orientation, type and severity of disability, ethno-racial and Aboriginal person status, geographic location, and other markers of diversity.

Arguably, issues of personal and social capital development or "personal enhancement" (Wolff & De-Shalit, 2007) need further attention in critical disability theory and the research it generates, as do the positive conditions that are making it possible for disabled people to take their place as valued equals at work (e.g., Bruyère & Young, 2014), as well as at school, in recreation, shops, the media, and in other situations. Meanwhile, theories of disability from the

realms of culture and political economy, with attention to impairment effects, governmentality, and people's voice and agency, help draw attention to the troubling situation in which disabled people find themselves. Frequently-occurring "messages" are that disabled people are incapable, dependent and unproductive burdens who are costly for their families, employers and the state to deal with. State-financed supports for access and participation are often insufficient, costly for individuals yet framed largely as private responsibilities for individuals and families – read "women" – to deal with (e.g., Crawford, Burke & Bach, 2002; Dobby, 2005; Home, 2002; Land & Himmelweit, 2010; Statistics Canada, 2008b, 2010b). In pushing back against such powerful messages, disabled people and advocacy organizations have crafted innumerable counter-messages about the "business case" for hiring disabled people (e.g., CACL & People First of Canada, 2013b; Canadian Working Group on HIV Rehabilitation, n.d.; Skills Training Partnerships, 2014;). With her attention turned to political advocacy and public policy, Nancy Fraser (2013) has recently argued that greater common cause is required between advocates of social protection, emancipation, *and* neoliberalism in the interests of securing individual rights, freedoms, solidarity, and the legitimate claims of disadvantaged groups for support from the state. Such common cause, she argues, could help check disadvantaged people's exploitation by unbridled markets and the oppression characteristic of hegemonic state bureaucracies, which disabled analysts have written about (e.g., Chouinard & Crooks, 2005; Frazee, Gilmour & Mykitiuk, 2006).

On a more practical level, if it would be optimistic to think that workplaces are likely to become welcoming oases of friendship and personal development for people with disabilities anytime soon, it is reasonable to look for them to be accessible, healthy, safe and ready to make available the supports that qualified individuals with disabilities need so they can contribute as

valued equals in all their diversity. It is also reasonable to expect that workplaces would remunerate people fairly and that the workplaces would be free from discriminatory practices and other denigrating treatment. Large-scale statistical sources such as the CSD can help shed at least some light on the extent to which such conditions prevail. Taken to its logical end, the approach of critical realists, which calls for a multi-level approach to conceptualizing and responding to the issues that disabled people face (e.g., Bhaskar & Danermark, 2006; Goodley, 2011; Gruber, Titze, & Zapfel, 2014; Honneth, 2004), would take into account the multidimensionality of culture and political economy, incorporating impairment effects (e.g., Thomas, 1999; Wendell, 1996), all with a view to societal and other factors (e.g., geography, age, race, and ethnicity) that may impose additional layers of disadvantage and which all affect the place and participation of people with disabilities in the labour market. Such a theoretical position has informed the work set forth in Chapters VII and VIII.

Chapter Five: Improving employment as a matter of rights – Law, policy, and program instruments

Chapter II has provided context for of the present research: historically persistent and disproportionately low levels of employment among people with disabilities. It also explored factors that help account for the difficulties disabled people experience in the labour market. Chapter III drew more pointed attention to people who face further difficulties associated with being limited in the amount or kind of activity they can do at work because of disability. Chapter IV looked at ways of conceptualizing disability and provides a basis for framing the employment of people with disabilities, and the layers of disadvantage to be addressed, as issues of social justice and human rights. The present chapter provides a brief descriptive analysis of elements of the "system" around the employment of people with disabilities in Canada and how those system elements interact with human rights. An underlying hypothesis is that, because people with work-limiting disability are disadvantaged in employment as a result of a multitude of factors, methods to improve their employment situation must be multidimensional in scope. The international human rights regime around employment provides a robust, coherent, and alternative vision to the conditions that result in social and economic marginalization for a great many working-age people with disabilities, and indicates some key avenues for intervening to address this situation.

A. Employment: A right for all?

A cluster of employment-related rights are key features of the international human rights system and are set out in Art. 23 of the Universal Declaration of Human Rights (UDHR). They are to apply to all people irrespective of "race, colour, sex, language, religion, political or other

opinion, national or social origin, property, birth or other status", which includes disability (UDHR, Art. 2; UN High Commissioner for Human Rights (UNHCHR), 1994). Employment rights include the right to work in freely chosen employment, economic protection from unemployment, "just and favourable" working conditions, adequate remuneration, and the right to form and join trade unions. Such rights are given more detailed treatment in the International Covenant on Economic, Social and Cultural Rights (ICESCR) (1966, Arts. 6-9) and in status-specific instruments. These include the Declaration on the Rights of Indigenous People (DRIP) (Arts. 17 and 21.1), the Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities (DRPM) (Arts. 2.2 and 4.5), the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) (Arts. 5 e(ii) and (iii)), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (Art. 11) and the Convention on the Rights of Persons with Disabilities (CRDP) (Art. 27). Canada is a signatory to these treaties except for the DRIP and the CPRD's Optional Protocol. The international instruments also place a focus on the right to post-secondary education and vocational training (e.g., CRPD Art. 24 and 27.d), which are important preconditions of employment for many people irrespective of disability.

While the list of UN employment-related rights is broad and impressive, none guarantee the right to a job *per se.* And like other states parties to the UN human rights system, Canada does not guarantee the right to employment for people without jobs either. Instead, employment rights in Canada and elsewhere under the UN system focus on *equality of access to jobs that are available* and rights *at work* for those who manage to secure employment (Sarkin & Koenig, 2011).

Uniquely, the CRPD further articulates rights to disability-specific supports (or

facilitators) for participating in employment (Art. 27.i) and in a range of other situations and activities which can contribute to employment. The supports include personal assistance services for life and inclusion in the community (Arts. 19.b & 20.b), affordable information and communication technologies, mobility aids and assistive devices (Arts. 4.h & 26.3), accessible transportation (Art. 9.1.a), a range of universally designed products, environments, programs, and services (Arts. 2, 9.h & 21.c), widely accessible community services and facilities for people with disabilities and the general public (Art. 19.c & 21.c), and accommodations for disability-related requirements in education (Art. 24.c). As with employment, however, "entitlements" to such supports are unclear and problematic in Canada, as discussed below.

B. Employment rights in the Canadian context

In the Canadian context, a range of employment-related rights are entrenched in law, regulation, and policy. Some employment rights are "negative" in the sense that they protect human rights by prohibiting the state and third parties from interference (ESC, 2006, p. 25). Such measures include Section 15(1) of the *Canadian Charter of Rights and Freedoms,* which accords equality before and under the law and "the right to the equal protection and equal benefit of the law without discrimination … based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability." Federal and provincial anti-discrimination measures are further instances of negative human rights guarantees. In addition to the equality provisions of Section 15, Section 25 of the *Charter* further upholds Aboriginal, treaty, and other rights and freedoms, including those recognized by the Royal Proclamation of October 7, 1763 and rights pursuant to Aboriginal land claims.

"Positive" human rights measures include those that aim to facilitate the enjoyment of

equal rights (ESC, 2006, p. 27). In the Canadian context these measures would include equalization payments (Department of Finance, 2011) to achieve “reasonably comparable levels of public services at reasonably comparable levels of taxation” and access to equality of economic opportunity per section 36 of the *Constitution Act* (1982). Other measures include occupational health, safety, and labour standards that regulate the conditions of work and pay and that govern compensation in the event of work-related injury, disability, or disease. Some provincial workers’ compensation programs in Canada provide for the right to be re-employed and/or to be accommodated in employment following work injury (Association of Workers' Compensation Boards of Canada (AWCBC), 2015a), and all such programs assist in covering the costs of various job accommodations, rehabilitation services, and other supports for re-employment (AWCBC, 2015b). Workers’ compensation measures in Canada comprise a separate system that is beyond the scope of the present paper.

Fredman (2008) has observed that the distinction between negative and positive rights is somewhat arbitrary and that all rights involve positive state duties. Nickel (2013) has made a similar observation, pointing to positive state duties to protect rights by establishing effective systems of criminal law and legal property rights. In the Canadian employment context, the state and third parties have a positive “duty to accommodate” (Barnet, Nichol & Walker, 2012). Another expression of positive duties includes the provinces’ and territories’ system of human rights commissions and tribunals, which receive and respond to complaints of discrimination in employment and in other areas protected by human rights law.

1. Anti-discrimination measures

The *Canadian Human Rights Act* (CHRA) prohibits discrimination in the federal and

federally-regulated workforce, and in the areas of goods, services, facilities, and accommodation that fall within the federal jurisdiction. Disability is one of the prohibited grounds of discrimination, along with "race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, family status … and conviction for which a pardon has been granted" (CHRA, s. 3 & 7–11). Similar prohibited grounds are embedded in provincial and territorial human rights legislation (e.g., *Ontario Human Rights Code* (OHRC), s. 5(1); Quebec *Charter,* s. 10). These instruments cover industries and firms that fall within provincial and territorial jurisdiction, or about 94% of the Canadian workforce aside from public administration (HRSDC, 2011a).

2. Accommodations

Legal anti-discrimination measures impose the duty for the employer to accommodate qualified people, including people with disabilities, in employment-related matters (e.g., promotion, hiring, retention, promotion, termination) up to the point of undue hardship to the employer (e.g., CHRA, s. 15(2); Canadian Human Rights Commission, 2013a; OHRC, s. 11(2) & 17(2–3); Ontario Human Rights Commission, 2000). The Supreme Court of Canada has clarified the scope of the duty to accommodate in two key cases: *Meiorin*[4] and *Grismer*[5]. In *Meiorin,* the Supreme Court ruled that, in designing workplace standards, employers must make reasonable provision for the differences between individuals. Employers must "build conceptions

[4] *British Columbia (Superintendent of Motor Vehicles) v. British Columbia (Council of Human Rights),* [1999] 3 s.C.R. 868.

[5] *British Columbia (Public Service Employee Relations Commission) v. British Columbia Government and Service Employees' Union (B.C.G.s.E.U.),* [1999] 3 s.C.R. 3.

of equality into workplace standards … to provide for individual accommodation, if reasonably possible" (Meiorin, Para. 68). In *Grismer,* the Supreme Court further ruled that workplace standards are required, in all cases, to accommodate the characteristics of affected groups but that each person is to be assessed according to her or his own personal abilities (Grismer, Para. 19). In *Meiorin* and *Grismer*, the Supreme Court applied tests for determining whether *bona fide* occupational requirements or justifications for differential treatment exist. Essentially those tests place the onus on the employer or service provider to show that the standard, policy, or practice at issue is rationally connected to the work or service to be rendered, has been made in good faith, and is reasonably necessary (Canadian Human Rights Commission (CHRC), 2003).

The discussion in Chapter II has explored the perceived cost of job accommodations as a major deterrent for some employers to hire people with disabilities and the intractability of such beliefs, despite contrary evidence. Lord and Brown (2010) have argued that state provision of needed job accommodations can be construed as a positive state duty that helps people to exercise their right to employment. Disability organizations have called for governments to take up such a duty with respect to a range of "disability supports," as shown in documents such as the "Community Consultation" section of *Pathway to Integration,* AKA, the Mainstream 1992 final report (FPT Ministers Responsible for Social Services, 1993; Rioux & Crawford, 1993), *In Unison* (FPT Ministers Responsible for Social Services, 1998), the Council of Canadians with Disabilities' National Action Plans (e.g., CCD, 2004, 2007) and other documents (e.g., Crawford, Burke, & Bach, 2002). Although not typically articulated at the level of explicit formal theory, disability organizations have adopted an implicit model of human rights and job accommodations that has been well-summarized by Bickenbach (2001):

> …sometimes one's capacity to participate requires assistance or accommodation

> of some sort, the absence of which is a barrier to opportunities. Because equality demands that social roles and positions be open to everyone, where full participation is limited by artificial social barriers, including the failure to assist or accommodate difference, these must be addressed to fulfill the mandate of human rights. (p. 585)

While systematic data on the issue are not available for Canada, historical data from the US show that courts tend to rule in favour of employers in cases where job accommodations are contested (Allbright, 2011). In the *Gosselin* case at the Supreme Court of Canada (*Gosselin v Quebec*, 2002 SCC 84, [2002] 4 SCR 84), Justice MacLachlin wrote in support of the majority decision that the state is under no obligation to provide for an adequate standard of living by making available to welfare recipients a level of income higher than deep poverty. Instead the state has a negative duty not to deprive its citizens of life, liberty, and security of the person under S. 7 of the *Charter*. It will be remembered that lack of employment is the main reason for poverty and reliance on welfare, that people who receive welfare tend to have incomes well below the poverty line (National Council of Welfare, 2010) and that people with disabilities are twice as likely as others to live in poverty (Crawford, 2010). However, Justice MacLachlin left the door open for the state to exercise a positive duty in this regard. While the Canadian state has not as yet made wide provision for the job accommodations needed by people with disabilities who work for small and mid-sized employers beyond the public sector, former Supreme Court Justice F. Iacobucci (2010-2012) has drawn attention to the possibility of state action and its potential obligations in furthering citizens' standard of living. It follows that greater state involvement in ensuring the provision of job accommodations could help bring about improved

living standards for people with disabilities. That said, Ontario's cancellation of the Employment Accommodation Fund for the government's public servants in 2011 signalled that government's less-than-fulsome approach towards state support for disability accommodation. Soon after, the Accessibility for Ontarians with Disabilities Act (AODA) Alliance expressed its opposition to the move, and the government reversed its decision (AODA Alliance, 2011).

3. Affirmative action measures

The *Employment Equity Act* (S.C. 1995, c. 44), its *Regulations* (2013, s. 3(a)) and the Federal Contractors Program for large firms that conduct business with the federal government (Labour Program, 2013) aim to achieve equality in employment for historically disadvantaged people through *affirmative action*. These "designated groups" in the federal and federally-regulated workforce include women, visible minorities, Aboriginal people, and people with disabilities. Such affirmative action requires obligated employers to identify and remove barriers that prevent qualified individuals from working and for employers to implement positive measures to accommodate differences. These elements of the Employment Equity (EE) program have had mixed results. People with disabilities comprised 5.6% of the federal public service in 2011, which was above their 4.9% availability among suitably qualified individuals in the broader Canadian labour force. Yet, while the representation of people with disabilities increased marginally in the federally-regulated private sector from 2.3% to 2.6% from 2001 to 2010, it remained well below their 4.9% availability in 2011. (All data from HRSDC, 2012, p. 5; Treasury Board of Canada Secretariat [TBS], 2012, Appendix I.) A fairly recent and troubling development was the change in requirements for the Federal Contractors Program under EE as of June 27, 2013. Now only those contractors with at least 100 employees that bid on contracts

worth $1 million or more in federal funds are required to meet EE obligations (Labour Program, 2013). Previously this policy applied to contractors with 100 or more employees bidding on contracts worth $200,000 or more in federal funds. Some compliance measures have also been relaxed (Treasury Board of Canada Secretariat, 2013).

In order to *identify, remove, and prevent barriers* to employment, Ontario's *Integrated Accessibility Standard* (Ontario Regulation 191/11) under the *Accessibility for Ontarians with Disabilities Act* (2005) imposes duties on public and private sector employers to advise job applicants about the availability of job accommodations (S. 22). Depending on the size of the employer the *Standard* imposes various other employment-related obligations. Other provinces have affirmative action programs to increase the hiring of people with disabilities in the public and private sectors; a listing and analysis of these initiatives is beyond the scope of the present paper. It is too early to tell what impact, if any, the *AODA* is having on the employment of people with disabilities. Somewhat ominously, however, there was a disproportionately large reduction in the rate of all-year employment among people with disabilities in Ontario in recent years: it dipped to 42% in 2012 from 48.8% in 2007, compared with 66.3% vs. 67.5% for people without disabilities (Ontario MCSS, 2008, 2012). The recent legislative review of the *AODA* also indicated that the Act had made "little difference on the employment front" (Moran, 2014, 24).

Provinces have considerable discretion to foster greater participation by people with disabilities and other disadvantaged groups in work-related programs. For instance, provinces have discretion to construct their own responses to labour market difficulties faced by disabled people under Labour Market Development Agreements (LMDAs), Labour Market Agreements (LMAs), Labour Market Agreements for Persons with Disabilities (LMAPDs), and other disability-specific employment programs. Variations in such arrangements are allowed under

Section 6(4) of the Canadian *Charter* and Section 86 of the Quebec *Charter*, both of which protect provincial and territorial programs that aim to ameliorate social and economic inequality. The reasoning behind allowing such discretion to the provinces was the federal aim of restoring harmony in federal-provincial relations in the employment program sector, which Wood and Klassen (2011) argue has been a "very significant accomplishment" (p. 8). However, the policy and program arrangements leave it up to each jurisdiction to protect human rights and prevent discrimination in programming, and leave it up to individuals to use their respective human rights laws, commissions, tribunals, and courts to contest issues of discrimination that may arise.

While not affirmative action programs in the strict sense of the term, employment programs that operationalize LMDAs under Part II of the *Employment Insurance Act* (EI) and which are administered by the provinces, do have some characteristics similar to affirmative action programs. The programs are subordinate to the provisions of provincial human rights codes (e.g., Canadian Human Rights Reporter, 2013; OHRC, s. 9) and are therefore prohibited from discriminating on the basis of disability and other prohibited grounds. EI Part II programs, or "Employment Benefits and Support Measures" (EBSMs), are implemented through LMDAs between the federal government and the provinces and through the Aboriginal Skills and Employment Training Strategy (ASETS) agreements between the federal government and Aboriginal agreement holders (Employment and Social Development Canada (ESDC), 2013c). While mentioned in the preambles of LMDAs, people with disabilities are not a major focus of attention (Crawford, 2006). Participation rates generally declined in recent years for designated groups in training and other work-related Employment Benefits for insured individuals in the EI system. The participation of people with disabilities did increase from 2.5% in 2005-06 to 3.5% in 2011-12 (Canada Employment Insurance Commission [CEIC], 2007, Annex 3, 2013, Annex

3). But the rate was 2.1% in 2010-2011 (CEIC, 2012, Annex 4) and the following year's increase was due largely to increases in participation in Targeted Wage Subsidies in Quebec and Skills Development (Regular) in the Yukon.

Not to be confused with Labour Market Development Agreements, Labour Market Agreements (LMAs), which the federal government began to implement with the provinces and territories in 2007, were intended in part to address some of the shortcomings of LMDA-funded programs, which are usually available only to people who fail to qualify for EI. In contrast, LMA-funded programs were intended to serve people who have been under-represented in the EI system precisely because they are under-represented in the labour market (Employment and Social Development Canada, 2013b). Such people include, among others, low skilled workers and members of designated groups who do not fall within the federal jurisdiction. There was no commonly agreed-upon reporting framework for LMA programs, no regular national-level report (Wood & Klassen, 2011), and finding information about participation rates and outcomes under LMAs was a fraught and time-consuming undertaking beyond the scope of the present research.

In their 2013 budget the then-Conservative federal government introduced the Canada Job Grant, which earmarked $300 million of the $500 million per year LMA funding for individual training grants (CACL, 2013). More recently, however, an ESDC website has said of the new Liberal federal government that it is "renewing and transforming the Labour Market Agreements with provinces and territories into new Canada Job Fund [CJF] agreements, which include the Canada Job Grant [CJG]. These new six-year agreements will ensure greater employer involvement in training decisions" (ESDC, 2016a). That website is a portal to the Canada Job Grant (CJG) Agreements with each of the provinces and territories. A review of

those agreements was undertaken for the present research. It found that the Agreement with Quebec was the only one that specifically mentions people with disabilities, and here simply as people who among others are eligible for that province's CJG funding. Sidebars at the websites for the Agreements between the federal government and other provinces and territories draw attention to Labour Market Agreements for Persons with Disabilities (LMAPDs) for information about disability. The ESDC website for federal information about the Canada Job Grant also directs people to the LMAPDs and to the Opportunities Fund (OF) (ESDC, 2016b). It does not appear as if the CJF or CJG are intended to place major emphasis on the employment of people with disabilities.

Labour market programming that specifically targets people with disabilities is cost-shared under federal-provincial LMAPDs. Some programming is federally funded under the OF. LMAPDs fund a range of initiatives (ESDC, 2013a) and replaced previous federal-provincial agreements under the Employability Assistance for Persons with Disabilities (EAPD) and Vocational Rehabilitation of Disabled Persons (VRDP) programs (Crawford, 2004). In contrast, the OF is managed by the federal government and is a relatively small fund (about $30 million) delivered through contract arrangements with private and not-for-profit organizations and individuals to provide employment-related services to people with disabilities who do not qualify for EI (Service Canada, 2013). As with LMAs, there is a lack of coherent, timely, comparable and complete information about participation and outcomes for LMAPD and OF programming (Wood & Klassen, 2011).

Prince (2009) has pointed out that it is crucial for people with disabilities to be actively engaged in public policy and program design for issues of disability to be properly addressed. Access to and participation in public policy priority setting, decision-making, planning,

implementation, and evaluation is ostensibly a right according to the ICESCR (Committee on Economic, Social and Cultural Rights (CESCR), 1995, para. 26, 2006, paras. 38 and 42). The need for access is also consistent with the approach to social justice advocated by Nancy Fraser (Dahl et al., 2004), who has argued that, without representation in the policy process, the recognition and redistribution that are essential conditions of justice for disabled people are unlikely to be fulfilled. Timely, reliable, and accurate information is not presently available on the extent and forms of participation by people with disabilities and their organizations in the design of public policy and programs in the area of employment. Nor is information readily available about the involvement of people with disabilities in private-sector policy and practice development.

C. Summary

This chapter has described Canadian human rights provisions to prevent discrimination and help improve the access of people with disabilities to jobs and to important conditions of employment such as education, training, and job accommodations. These are useful antidotes to low employment but have had mixed and modest results. Issues of discrimination on the basis of disability in employment continue to make up among the largest caseloads facing human rights commissions and tribunals across the country. The research literature has indicated that the presumed cost of accommodations deters smaller and mid-sized employers from hiring more people with disabilities and a recent ruling by the Supreme Court of Canada would seem to suggest that, presently at least, the state is under no positive obligation to address that issue. Though there have been some improvements in the employment rates of people with disabilities in private-sector firms regulated by Employment Equity, the results fall short of ideal levels

given the availability of qualified people with disabilities in the labour force and in any event Employment Equity covers a fairly small percentage of the Canadian workforce; there are reasons for concern that even some of these gains could be lost as amendments to the Federal Contractors Program become more widely experienced. It is too early to tell what impact, if any, the *AODA* will have, but recent employment figures for people with disabilities in Ontario and recent findings of the recent Legislative Review of the AODA are not promising signs.

Measures to address people with disabilities' participation in mainstream training programs are left up to the provinces and territories to work out and generally the participation levels of people with disabilities remain quite low. Information has not been available for formulating a clear picture of people's level of access to disability-specific employment programs. Such information that is available is not specific to people's type of functional limitation. Nor is the information clear or regular about the results delivered by the varied programs. Further, it is unknown to all but those directly involved whether, to what extent, and how people with disabilities are involved in the design of employment-related policy and programs. Some elements of a human rights approach, then, are scattered through the "system" around employment and disability in Canada. But these arrangements are neither coordinated nor robust and have had only modest positive impacts.

Chapter Six: Statistical methodology

A. The focus and rationale for the statistical research

Much of the remainder of the present study focuses on discerning the factors that most strongly predict the likelihood that people will obtain decent work after the advent of a disabling condition that limits the amount or kind of work that they can do. The statistical methodology aims to untangle some of the complex knots that bind many disabled people to joblessness.

This approach has been adopted for several reasons. First, it focuses on *decent work* because, as discussed in Chapter III, some scholarly literature has supported the experiences of individuals and organizations who have found that the kinds of jobs available to people with disabilities are often not as good as the jobs available to their non-disabled counterparts. A relevant policy and program issue, then, is not just how people with disabilities can obtain any work at all, but how they can obtain jobs that are consistent with reasonably credible formulations of "decent work." As discussed in more detail in the present chapter and in Appendix 3, the present research has drawn from the ILO's recent articulation of key characteristics of decent work.

Second, the present research focuses on people who said in the 2012 CSD that they were *limited in the amount or kind of activity they can (or could) do at work* because of their disability. This focus has been adopted because, as Chapter III has shown, people who do not consider themselves limited in the amount or kind of work they can do seem to be faring at least as well as – even better than – people without disabilities in terms of their level of employment. Those with work-limiting disabilities, however, are much less likely to have jobs and are more

likely to present significant issues for public policy and programs to address, not to mention for employers.

Third, the research focuses on people who *obtained work after the advent of work-limiting disability*. This tack was taken because many people –19.5% with disabilities who have jobs – first experienced work-related limitations due to disability *while with* their present employer, i.e., they were retained by their employers after the advent of work-limiting disability. As Appendix Table 1 shows, nearly 8 in 10 of disabled people who have been retained in decent work (defined below) have been with their present employers for 5 years or more. Without diminishing the importance of retaining people in good jobs after they become work-disabled, the policies and programs aimed to foster job retention after the advent of work-limiting disability must involve a somewhat different set of considerations than policies and programs aimed to encourage hiring people with conditions that would limit their work activities once on the job. For the employer, retention involves continuing a relationship with someone who was a known quantity before the impacts of disability began to be felt in the workplace. Such a person may be highly skilled, well-attuned to the needs of the firm, and valued for many years as a non-disabled employee. It may make compelling financial, emotional, and social sense for the employer to try to find ways of accommodating that person so they can remain at work. In contrast, as Chapter II has shown, the prospect of hiring someone who is unknown along with being limited at work may evoke employer worries about occupational hazards and future liabilities, upholding productivity goals, and meeting the "bottom line", all while maintaining positive workplace morale for employees and an emotionally comfortable sales/service climate for customers. Yet, despite these potential difficulties, over 200,000 people have managed to obtain decent work after the advent of work-limiting disability. It is relevant to policy and

program developers aiming to increase the hiring of people with disabilities to understand the factors that help explain such successes.

Fourth, people who would be *limited at work but who are without jobs* are among the people most likely to go to government and non-government agencies for assistance finding work or obtaining income support. Even when looking for work, such disabled people are likely to find themselves competing against other job seekers, including people without disabilities and people who may have some level of disability but not so pronounced that it affects their activities at work. There is some evidence that employment agencies are most likely to opt to serve people whose disabilities will not significantly impact their work activities. Such people are comparatively easy to serve and provide good results which justify agency funding from governments and private-sector funders (Crawford, 2004; Dale, 2010). In contrast, those who are likely to be limited at work are further disadvantaged in the job search process by employment agencies' lack of interest, ability or will to serve them. Yet employment agencies, like other services, are required under human rights law not to discriminate on the basis of disability or other prohibited grounds. The situation of people with work limitations, then, is policy relevant if for no other reason than on human rights grounds.

B. Statistical data sources: The CSD, NHS, PALS, and SLID.

The statistical analyses in this paper draw from the Statistics Canada Master File of the 2012 Canadian Survey on Disability (CSD). When the present research was conducted, the CSD Master File was the most recent and comprehensive source of statistical data available on disability in Canada. A Master File is the most complete electronic version of the data that Statistics Canada generates for each of its surveys for use by external researchers. The CSD was

conducted from September 24, 2012 to January 13, 2013. I accessed the CSD Master File through Statistics Canada's Research Data Centre at the University of Toronto's Robarts Library.

Aside from a wealth of information about disability, the CSD contains basic socio-demographic information that was taken from the National Household Survey (NHS). The NHS was conducted on May 10, 2011 as a component of the 2011 Census and was similar in design to the old Long Form Census.[6] The NHS provides data that Statistics Canada used to construct a sampling frame for the CSD and, relevant to the present research, contains information about people's age, gender, labour force status, occupation, industry, province/territory of residence, and income. As this information is available for people with and without disabilities on the CSD Master File, that data file allows for some limited comparisons to be drawn between people with and without disabilities. However, there was a time lag of 16 to 20 months between when the NHS and the CSD were conducted. Some of the labour force information from the CSD is therefore out of sync with data from the NHS. That said, the NHS and CSD were the most comprehensive and up-to-date tools that were available for exploring employment issues among people with disabilities when the present research was conducted.

Where the CSD did not have information that seemed relevant to this research, the present study referred to the 2006 Participation and Activity Limitation Survey (PALS) and the 2011 Survey of Labour and Income Dynamics (SLID). PALS was the forerunner of the CSD, was similar in design, but was not identical in terms of how it operationalized disability. While PALS is not strictly comparable with the CSD, in the absence of CSD information it served to illustrate a few broad points. The Government of Canada cancelled PALS in 2010.

[6] However, the NHS was voluntary whereas the Long Form had been obligatory for those selected to complete it.

SLID was a comprehensive source of information on the employment, education, and income of working-age Canadians. It had a few high-level questions that allowed for the flagging of broadly defined disability, and which therefore allowed for high-level comparisons to be drawn between people with and without disability. However, SLID did not include detailed information about disability, such as type, cause, severity, duration, and whether supports were needed or available in employment because of disability. For the present research, SLID had more detailed information than the CSD about some sources of income for people with and without disabilities and, because it used a consistent approach to operationalizing disability since 1999, it was more possible to use this source than the CSD to show patterns in employment over time. The Government of Canada cancelled SLID in 2012. The Canadian Income Survey (CIS) is the successor to SLID, but was not yet available when the bulk of the present research was conducted.[7]

More information is available from sources listed in the references for the CSD (Statistics Canada, 2014b), the NHS (Statistics Canada, 2013d), PALS (Statistics Canada, 2007b), SLID (Statistics Canada, 2013e) and the CIS (Statistics Canada, 2013a).

C. Data selection

1. Working-age people

The statistical chapters in this research all focus on working-age people. These are operationally defined here as people 15 to 64 years of age in the CSD, an age grouping that Statistics Canada has widely used in its reports on disability and employment. As the youngest

[7] CIS Data for 2012 were scheduled for release beginning in July, 2015 (Statistics Canada, 2014d).

person about whom SLID gathered work-related information was 16 years of age, age 16 to 64 years was used as the working-age group in that survey.

2. "Disability"

The introductory chapter of this research explains how the term *disability* has been used flexibly throughout the present document. However, for the statistical components of the discussion that follows, the present research has followed the operational definitions of various disabilities as used in the CSD. Disabilities are defined in the CSD as functional difficulties that sometimes, often, or always limit a person's daily activities. The CSD also classifies a person as disabled if the impacts of functional limitations on daily activities are rare but associated with "a lot" of difficulty or so much difficulty that the person cannot do the function at all. The broad functional domains of activity and disability in the CSD are: seeing, hearing, mobility, flexibility, dexterity, pain, learning, developmental, mental/psychological, and memory (Statistics Canada, 2014a). In the present research, such activity limitations are sometimes referred to as impairment effects. As well, the CSD captured unspecified other disabilities, which are classified in the Master File as "unknown" disabilities.

3. People in the "Employment Modifications Module"

The need for job accommodations and other supports for employment. The present research focused largely on people who were included in the CSD's Employment Modifications Module (EMO). This module asked whether people needed and received various job accommodations and other supports for employment. Job accommodations that are typically provided by employers and are needed for basic access to places of work include accessible built-environmental features such as handrails, ramps, widened doorways, or hallways, and

accessible parking. Accessible public transportation is another key support for basic access, but is typically provided by local transportation authorities. Supports usually provided by employers that are required to enable people's participation on the job include a range of accommodations such as job redesign or telework, modified or reduced hours or days of work, human support (e.g., reader, sign language interpreter, job coach, personal assistant), various technological supports (e.g., technical aids/devices, a computer or laptop with specialized software), communication aids (e.g., voice synthesizer, a TTY, an infrared system, portable note-taker), and ergonomic features (e.g., ergonomic workspace or specialized chair or back rest).

The present research placed a focus on people in the EMO because the literature review shows that the need for job accommodations, and whether people receive the accommodations they require, is associated with the likelihood of employment. People included in the EMO were the only people about whom the CSD gathered information about job accommodations and other supports for employment. Those who were not included in the EMO were only asked about a range of more general socio-demographic details.

1,593,770 of the total of about 2.3 million working-age people with disabilities (68.2%) were included in the EMO. Those at the focus of the EMO questions were people with disabilities who were either:

- Employed (estimated 1,057,080 people);
- Unemployed (125,690 people);
- Not in the labour force (330,830 people) who worked at some point from 2007 to 2012. Many of these people (208,320) said that, while they felt completely prevented from working because of their condition, they did not rule out the possibility that a "workplace adaptation or modification" (i.e., an accommodation) would have enabled them to work

at a paid job or business (i.e., variable NDE_12 <>2). Such accommodations would have included modified or different duties, or technical aids. The remainder felt that their condition did not limit them at work, or it limited them but did not completely prevent them from working.; or

- Involuntarily retired people (variable RET_03<>1) who retired for the first time at some point from 2007 through 2012 (80,180 people).

It cannot be simply assumed that the 741,740 people who were not asked the EMO questions had no need of accommodations or other supports for employment. However, as no information is available about their needs for such supports, they have generally been set to one side in the present research. These people were:

- Not in the labour force and last worked before 2007 or, if they worked more recently, felt completely prevented from working because of disability and did not indicate that a workplace arrangement or modification would have enabled them to work (350,840 people); or
- Voluntarily retired five years or more before the CSD was conducted (390,900 people).

Appendix B provides more details about people included in the EMO who were at the focus of the present research. Briefly, however, those included in the EMO were more likely than those not included to be from western Canada or the north, younger, visible minorities or immigrants, to have a mild or moderate level of disability, and to be dealing with issues of hearing, pain, or some undefined disability. Those included in the EMO were less likely than the

people excluded to be very severely disabled, to have multiple disabilities, and to have difficulties with mobility, memory, or dexterity.

Receipt of the employment supports needed. After the CSD captured information about whether respondents needed various supports for employment (in the EMO_01AA – EMO_01AO and EMO_01BA – EMO_01BO batteries of questions), it followed up with a battery of questions (EMO_02A – EMO_02O) about whether those needs for support had been met. People who did not indicate a "yes" to any of the EMO_01A… or EMO_01B… questions were excluded from the EMO_02 follow-up module. For instance, if an employed person said in response to EMO_01A they needed modified or reduced hours or days of work, they were asked the follow-up question in EMO_02 about whether they received that accommodation. However, some people who indicated a need for a support for employment were excluded from the follow-up questions about whether they received that support. People who were *included* in the EMO_02B questions were those who had corresponding need in EMO_01A or EMO_01B batteries and who were:

- Employed;
- Unemployed and had worked at some point from 2007 through 2012;
- Not in the labour force, but who indicated that a workplace arrangement or modification may have made it possible for them to work (NDE_12 <>2) and who worked at some point from 2007 through 2012; or
- Involuntarily retired people, but who worked at some point from 2007 through 2012.

A key difference in terms of those asked only about their needs for employment supports and those who were asked whether those needs had been met, then, was that to be asked whether

their need(s) had been met, people who were unemployed or not in the labour force had to have worked at some point from 2007 through 2012. Chapter VII on demographics discusses how people whose needs had been met were more likely to be in the target group rather than comparator group, which suggests that the supports for employment are important conditions of employment for many people. The people who needed accommodations or other supports for employment who Statistics Canada *excluded* from the EMO were people who last worked sometime before 2007. The present research has inferred that if a person indicated a need, but did not work at some point from 2007 through 2012, the need by definition was not met from 2007 through 2012 even though the person was not asked directly about the matter.

4. The target group

Central to the present research are the factors that most strongly predict whether people will be among those who obtain decent work after the advent of work-limitations because of disability. Several variables were derived and combined to construct that "target group" who obtained decent work after the advent of work-limiting disability. The source variables captured: a) people with "decent work"; and b) people with work-limiting disability who obtained their present job after they first experienced work-limiting disability.

People flagged as having "decent work". The literature review for the present research found little research that explores the quality of work options in which people with disabilities participate. Indeed, much of the research on employment and disability seems based on the underlying assumption that any work at all is satisfactory for people with disabilities. Perhaps this is the case because of the very high rates of unemployment and labour force non-participation that disabled people experience. That said, some of the research discussed in the

literature review has identified that the jobs to which people with disabilities have access are more likely to be precarious (i.e., short-term contract work with no benefits), low skilled, and low paid. Sometimes the work is in special programs segregated from the broader labour force, such as in sheltered workshops. In contrast, the present research drew from a recent publication by the ILO (2012) on decent work in order to statistically operationalize that concept. The purpose was to delineate people who obtained decent work from people whose work fell short of that standard. Appendix 3 provides a detailed discussion.

The research initially used the following indicators from the CSD in order to operationalize decent work, but settled on fewer indicators for reasons discussed in Appendix C:

- The person's employment was permanent;
- The person's annual employment income was at least two-thirds the median earned income of that amongst people without disabilities;
- The person's family income was above the poverty line;
- The person had a job with an employer or was self-employed rather than working without pay in a family business;
- The person received classroom-based, on-the-job, or some other form of training in the past year;
- The person worked from 1 to 48 hours in the reference week;
- The person had not been refused a job, a job interview, or a promotion at work because of disability in the past five years, i.e., they did not feel they had been discriminated against in employment because of disability;

- The person did not feel that discrimination (stigma) based on their condition, or potential difficulties obtaining needed job accommodations, made it difficult to change jobs or advance at their present job;
- The person was a member of a union or was covered by a collective agreement.

Based on these CSD indicators, virtually all employed people with disabilities had jobs that met at least one of the ILO criteria. However, to have claimed that virtually everyone with a disability and a job had decent work would have been counter-intuitive and inconsistent with what people with disabilities often report. At the same time, only a handful of people with disabilities had jobs that met *all* of the ILO criteria that could be operationalized with the CSD. The research explored several middle courses between these extremes in an effort to operationalize an indicator of decent work that contained a few of the key ILO criteria and that would yield an adequate sample size for conducting basic socio-demographic analysis and binary logistic regression. After several tests the conclusion was drawn that that people's work could be considered decent if it met, at the very least, either of the following two conditions:

1. The work was permanent, with an employer; or
2. The work provided earnings at or above two thirds the median earnings of people without disabilities.

Appendix 3 provides reasons why the other criteria were not selected.

People captured by the first criterion were those who said "yes" to EDE_12, which asked, "Is your job a permanent job?" The people who were asked that question first had to indicate on EDE_04 that they were employees working for employers. Unfortunately, the CSD does not have similar information about the job permanency of working people without disabilities so

comparisons could not be drawn about the extent of decent employment among working people with and without disabilities.

Some individuals prefer to work as self-employed individuals. Indeed people with disabilities are more likely to be self-employed than their non-disabled counterparts (11.4% vs. 9.8%). Self-employed people were included in the present research as having decent work, but only if they also had decent earnings, which is discussed below.

One of the response options for EDE_04 is that the person was, “Working in a family business without pay”. The present research operationally excluded such people from having decent work. As this was a very small number of people with disabilities their removal from the decent work category had no major effect on sample size.

The measure for decent earnings was designed to take into account the fact that, irrespective of disability, women typically work fewer hours than men in a given reference period and are less likely to work for a full year. For instance, 59.8% of non-disabled men with jobs worked full-time for 49 or more weeks in 2010 compared with 48.9% of non-disabled working women. A similar pattern prevailed amongst men and women with disabilities: 51.5% of working men with disabilities worked full-time for 49 weeks or more compared with 43.9% of working women with disabilities. Further, where working at all, people with disabilities often work fewer hours per week than their non-disabled counterparts and are less likely to work for a full year. In part this pattern reflects the fact that people with disabilities’ most widely-needed job accommodation is for modified hours or days of work (Statistics Canada, 2015). This need helps to explain why 23.4% of people with disabilities who worked in 2010 worked mainly part-time, compared with 17.6% of working people without disabilities. Part-time work is defined as less than 30 hours per week (Statistics Canada, 2015). Similarly, only 47.6% of working people

with disabilities worked full time for 49 to 52 weeks in 2010 compared with 54.6% of working people without disabilities. Accordingly, many people with disabilities would earn less than people without disabilities even if paid exactly the same hourly rate of pay.

The method for developing the measure of decent earnings took into account these differences between men and women and whether they had disabilities. It took as the baseline the number of weeks worked full-time or part-time, respectively, by men and women *without disabilities*, and found the median earnings in several increments of work time in 2010, e.g., 1-13 weeks full time, 1-13 weeks part time; 49-52 weeks full time, 49-52 weeks part time; various increments in between. Two-thirds of the median earnings for, respectively, men and women without disabilities were calculated in each of the work-time increments. Men and women with disabilities, respectively, who a given number of weeks part-time or full-time were flagged as having decent earnings if their earnings were at least two-thirds as high as the median earnings of their non-disabled counterparts with the same number full-time or part-time weeks of work. People who were not working in 2010 were coded as having $0 in earnings. Appendix C and Appendix Table A.15 provide more detail.

Based on these two derivations that captured permanent work with an employer and/or reasonably good earnings, 886,370 employed people with disabilities, or 38% of all working-age people with disabilities, had decent work when the CSD was conducted.

People with work-limiting disability before obtaining their present employment. The research used CSD variable EDE_16 to capture people who had a work-limiting disability before they obtained their present jobs. Some of these people became work-limited while employed, then looked for new work and eventually obtained the job with their then-present employer (or in

self-employment) when the CSD was conducted. These people were captured by EDE_16=2, i.e., they were working “somewhere else” when they first experienced work limitations.

Some people in the target group were not working when they first experienced work limitations and were picked up by EDE_16=3. Some of these people never had jobs before their present ones, such as young people who had disabilities before finding their first jobs. Still others would have had jobs as non-disabled persons or perhaps as disabled people not limited at work because of disability, then experienced one or more spells of not working, then experienced the advent of a work-limiting condition while not working, and subsequently obtained their jobs as people with work-limiting disabilities when the CSD was conducted.

It was beyond the scope of the present research to obtain greater precision about the work histories of people in the target group categorized as EDE_16= 2 or 3. However, all of these people had in common that they were dealing with work-limiting disabilities before they began working with the employers or in the self-employment they had when the CSD was conducted.

Target group summary: People who met both criteria. The people who comprised the target group of 216,170 people for the present research are people who met the criteria of obtaining decent work but after the advent of work-limiting disability as discussed above. Figure 5 provides a summary of some of their key job characteristics and the adequacy of their earnings. Generally the present research speaks about these people as a single group. However, the group comprises two major sub-groups. The largest is represented by the grey parts of the columns on Figure 5 and comprises 181,790 people who were working somewhere other than their present job when they first experienced work limitations. The smaller subgroup is represented by the

unshaded elements of Figure 5 and consists of 34,370 people[8] who were not working at all when they first experienced work limitations. The present research combined these two subgroups because, if they had been dealt with separately, the analysis throughout this research would have become quite cumbersome and because those who were not working before obtaining their present jobs comprised a fairly small group of people. In order to meet Statistics Canada's confidentiality and other requirements, that number could have resulted in many cell suppressions in the data tables for the present research. Even with the cases joined into one group representing 216,170 people, data suppression issues still required attention.

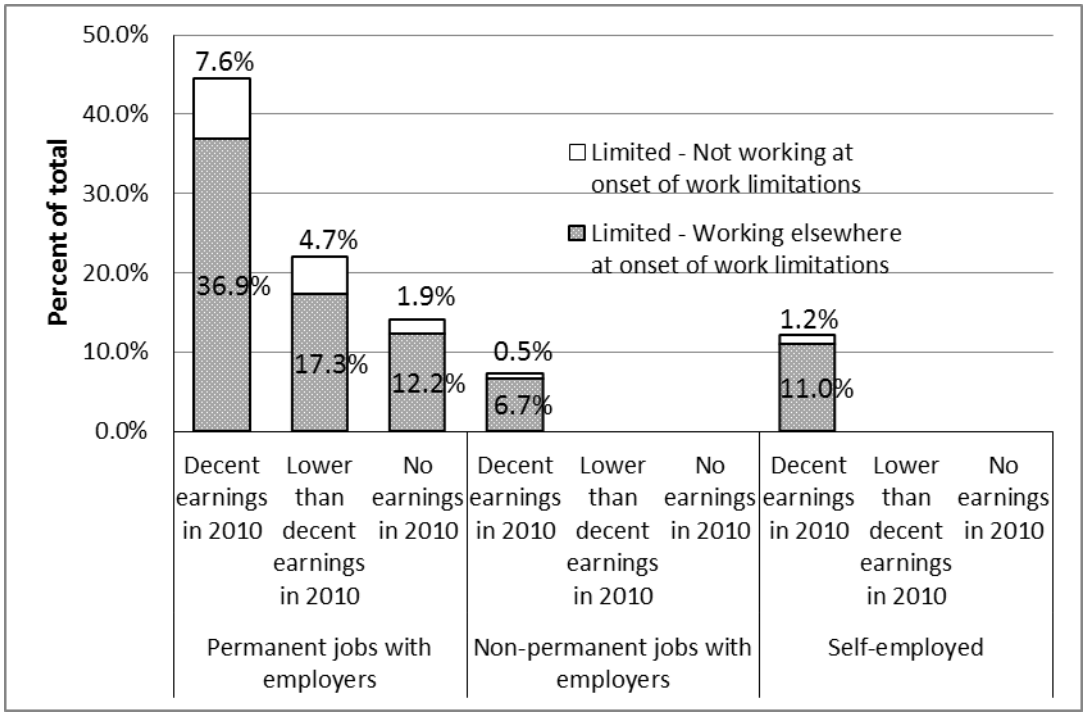

Figure 5.
Target group overview: People who obtained decent employment after the advent of work limiting disability
N = 216,170
From the Canadian Survey on Disability, 2012

[8] The counts do not add exactly to 216,170 because of rounding.

5. The comparator group

A key aim of the present research was to pinpoint the factors that help account for why some people managed to obtain decent work after the advent of work-limiting disability. The comparator group consisted of 536,700 people with disabilities who were not working at all when the CSD was conducted. These are people who were included in the Employment Modifications Module, as discussed above, who were either:

- Unemployed, i.e., presently seeking or available for work (125,690 people);
- Not in the labour force, i.e., neither seeking nor available for work (330,830 people); or
- Involuntarily retired and recently worked at some point from 2007 through 2012 (80,180 people).

Figure 6 provides two views of people in the comparator group, one by whether they felt limited at work or completely prevented from working because of disability and another by whether they had decent earnings in 2010. Those in the comparator group who had any earnings at all would have been people who worked at some point in 2010 but dropped out of employment sometime that year or afterwards and were no longer working when the CSD was conducted.

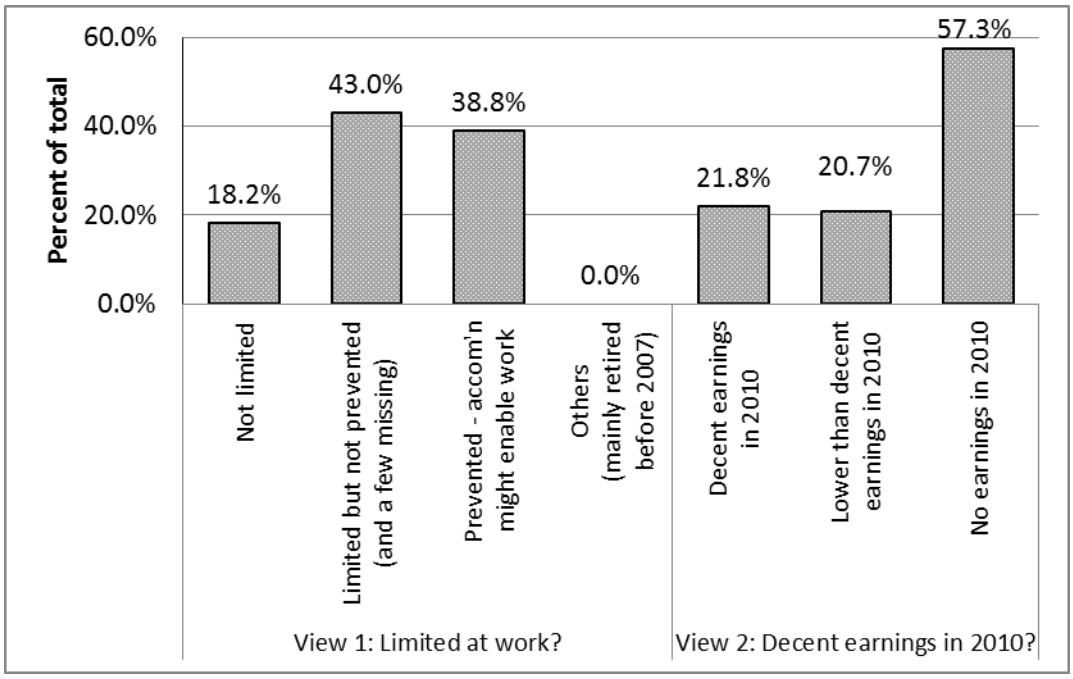

Figure 6.
Comparator group overview: Showing whether they felt limited at work and whether they had decent earnings in 2010
N = 536,700
From the Canadian Survey on Disability, 2012

6. Other sub-populations

Several other groups of people with disabilities were delineated from one another because they were significantly different from one another; it would not have been appropriate to class them all together for the present research. These people reflected various combinations of feeling limited or not limited at work, having decent earnings, less-than-decent earnings, or no earnings at all in 2010, having permanent vs. non-permanent jobs with employers, or working as self-employed people. The main groups that the research delineated were:

- Disabled people with decent work as defined above who first experienced work limitations while with their present employer, i.e., they were retained by their present

employer after the advent of work-limitations with that employer (decent work and EDE_16 = 1). This group comprises 175,470 people. Appendix Figure E.2 provides a visual breakdown of some of their key characteristics.

- Disabled people with decent work as defined above who did not feel limited in the amount or kind of work they could do as a result of their condition (decent work and EDE_15 = 2). This group comprises the 494,740 people for which Appendix Figure E.3 provides details.

- All other disabled people with jobs. Most of these people were self-employed or working for employers in non-permanent jobs. None of these people had decent earnings as discussed above. This group comprises 170,700 people, shown in more detail in Appendix Figure E.4.

Nearly three-quarters of a million working-age people with disabilities (741,740 people) were outside of the labour force or retired and were not included in the EMO as discussed above in this chapter. Most either felt entirely prevented from working because of their disability (52.6%) and did not consider that a workplace arrangement or modification would have enabled them to work, or had been retired since before 2007 (40.7%) and were not asked the questions about work limitations. Very few of the people in the group excluded from the EMO felt that they were not limited at work (1.4%) or that they were limited but not prevented from working because of disability (5.2%). Appendix Figure E.5 provides two views of the people who were not included in the EMO, one by whether these people felt limited at work, or completely prevented from working, or retired sometime before 2007. The other view is by whether people in this group had decent earnings in 2010. Those who had any earnings at all would have been

people who were working at some point in 2010 but dropped out of employment sometime that year or afterwards and were no longer working when the CSD was conducted.

In addition, the present research has subdivided people without disabilities into two broad groups based on NHS data:

- Non-disabled people who were employed (15,346,890 people); and
- Non-disabled people who did not have jobs (5,495,680 people).

7. Frequencies for all the populations

Text Table 1 shows the weighted frequencies of the populations discussed in this research.

Text Table 1.

Numbers of working-age people with and without disabilities, across labour force situations

Labour force status	In the Employment Modifications Module (EMO)					Disabled-Not working and not in EMO	Total with disabilities
	Target group	Other employed people with disabilities			Comparator group		
	Decent work – Hired after advent of work limitation	Decent work - Retained after advent of work limitation	Decent work - Not limited at work bcs of disability	All others w/ disabilities and employed	Disabled - Not working but In the EMO		
Employed	216,170	175,470	494,740	170,700	-	-	1,057,080
Unemployed	-	-	-	-	125,690	-	125,690
Not in the labour force	-	-	-	-			681,670
- Prevented and could not work with an accommod'n						350,840	
- Not limited or limited but not prvt'd					122,510		
- Prvt'd could work with an accommod'n					208,320		
Retired (mainly)	-	-	-	-	80,180	390,900	471,080
Total	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520

From the Canadian Survey on Disability, 2012

D. Statistical methodology for the demographic and regression analyses

1. Demographic analysis

The specific lines of enquiry and data that the research selected for inclusion in the demographic analysis are consistent with the literature's views about the factors that contribute to and detract from the employment of people with disabilities, e.g., sex, age, Aboriginal person status, education and training, and a range of factors specific to disability. Chapter VII on demographics places a more pointed focus on how those issues were associated with people in the target group and comparator group. A variable was constructed that included the target and comparator groups, as well the other groups as discussed in the previous section. This variable was cross-tabulated with a wide range of other variables and the results are discussed in Chapter VII. Appendix Tables A.1 through A.11 provide supporting evidence for that chapter.

2. Regression analysis

Logistic regression was also used to identify the factors that most strongly predicted membership in the target group vs. comparator group. Statistics Canada has succinctly defined regression as "[a] statistical method which tries to predict the value of a characteristic by studying its relationship with one or more other characteristics. This relationship is expressed through the means of a regression equation." Statistics Canada has defined logistic regression as "[a] form of regression analysis used when the response variable is a binary variable (a variable having two possible values)" (Statistics Canada, 2014a, 65-66).

The present research used binary logistic regression instead of linear regression because of difficulties conceptualizing a linear measure of decent work that would have been meaningful and for which information was available in the CSD. In contrast, the binary logistic procedure

can be used to calculate the “odds” of people being in the target group rather than jobless. These odds can be shown in relation to a range of personal characteristics and other factors that fall on both sides of the divide between the Individual Model and Social Model of disability. The relationships between these predictors and people being in decent work are the “odds ratios” of people being in the target group when a given predictor applies.

Although “odds” and “probability” are often used interchangeably in everyday speech (Fulton, Mendez, Bastian & Musal, 2012),), the statistical software for the present research operates on specific understandings of the two terms. The Merriam-Webster Online Dictionary gives a definition of “probability” as “the chance that a given event will occur” (Merriam-Webster Incorporated, 2015). In the present context, an estimated total of 752,870 people in the regression model comprised 216,170 people in the target group and 536,700 in the comparator group. Therefore, 28.7% of the people in the model (216,170 ÷ 752,870 = 28.7%) were in the target group. This is the same as saying that there was a 28.7% probability that people in the model would be in the target group. Conversely, there was a 71.3% probability that people would not be in the target group because they would be in the comparator instead (536,700 ÷ 752,870 = 71.3%).

In contrast, Merriam-Webster defines “odds” as “the chance that one thing will happen instead of a different thing” (Merriam-Webster Incorporated, 2015). In the present context, the “odds” of being in a group are the probability of being in a group divided by the probability of not being in the group. (See also Fulton et al., 2012.) The odds of being in the target group without consideration of any other factors were, therefore, 28.7% ÷ 71.3% = 40.3%.

However, a key aim of the research was to determine the odds of being in the target group when taking into account intervening factors that the scholarly literature has suggested

may be relevant. Taking gender for example, 112,700 men were in the target group and 232,510 were in the comparator group, for a total of 345,210 men in the model. The probability that men would be in the target group was 112,700 ÷ 345,210 = 32.6%, and the probability that they would not be in the target group was 232,510 ÷ 345,210 = 67.4%. The odds of men being in the target group were therefore 32.6% ÷ 67.4% = 48.5%.[9] Among women, 103,470 were in the target group and 304,190 were in the comparator group, for a total of 407,660 women in the model. The probability of women being in the target group was 103,470 ÷ 407,660 = 25.4% and probability that they would not be in the target group was 304,190 ÷ 407,660 = 74.6%. The odds that women would be in the target group was therefore 25.4% ÷ 74.6% = 34%.[10] The *ratio* between the odds of men vs. women being in the target group was, then, 48.5% to 34%. This relationship is the "odds ratio" of men as compared to women being in the target group. In the present example, the odds ratio of men as compared to women being in the target group was 48.5% ÷ 34% = 1.425. In other words, men were 1.425 times more likely than women to be in the target group, or, more colloquially, men were 42.5% more likely than women to be in the target group.

As the demographic analysis in Chapter VII will show, the age distributions of men and women in the target vs. comparator groups were different. No doubt the educational distributions of men and women in the target and comparator groups would have been different, too, had the demographic research cross-tabulated the CSD data for gender and education and analyzed the data for patterns. But the demographic analysis has not looked directly for that pattern. Further differences would have been found if the education levels of men and women of various ages

[9] The same result can be achieved by using the respective numbers instead of percentages of men who were in and not in the target group: 112,700 ÷ 232,510 = .4847 = 48.5%.

[10] This result can also be achieved by using the respective numbers for women who were in and not in the target group: 103,470 ÷ 304,190 = .3401 = 34%.

were crossed by visible minority status, geographic location, whether the job accommodations that people needed were available vs. not available, and so on. The present research set out to explore the magnitude of the impacts of such factors on the odds that people with disabilities would be in the target group, and the relative contributions of each of the predictors to that outcome. The software programs that were used for the regression analysis (SAS and SPSS) are designed to produce such calculations for each predictor, while holding constant the contributions of all other predictors. The results of the procedure, attenuated by bootstrap weights (discussed below), are featured in Chapter VIII on the regression analysis.

3. Predictors

The regression analysis looked for statistically significant predictors of whether people would be in the target group vs. comparator group. Chapter VIII provides a fairly detailed description of the predictors that were selected and the rationales for selecting them. Briefly, however, they fell within the following conceptual groupings:

- General socio-demographic characteristics;
- Personal and social capital;
- Impairment-related characteristics;
- Availability of supports needed for access to and participation in the workplace;
- Discrimination;
- Recent reliance on the disability-income system;
- Availability of supports needed generally for disability.

E. Weighting

SPSS, which is a widely-used statistical software program, was used for standard statistical procedures in this research, such as frequency counts and cross-tabulations. The CSD Master File's person weight variable (WTPM) was applied for all such procedures. However, for complex statistical procedures such as binary logistic regression analysis, the research adhered to Statistics Canada's caution that users of the CSD should use bootstrap weights for accurate estimates of variance and statistical significance (e.g., Statistics Canada, 2014b). As the CSD is a sample survey, it is subject to sampling error. Sampling error refers to the variation in results that are obtained when a subset of the population is surveyed (sampled) rather than the entire population. In an effort to improve the accuracy of results for various components of the CSD, Statistics Canada has provided 1,000 "bootstrap" weights in addition to the basic weight for each case in in the survey. Bootstrap weighting is a highly technical discussion which is beyond this study's scope. Basically, however, the technique allows the processing of a single survey to emulate the results of processing multiple identical surveys or the same survey but with a larger sample, thus bringing CSD results more closely into line with what would have been obtained had the entire population been surveyed rather than sampled. Statistics Canada has cautioned in the User Manual for Master File of the CSD (Statistics Canada, 2014a, 2014b) that users *must* use the bootstrap weights with the CSD in order to obtain accurate measures of sampling error, variance, and related details in regression and other complex statistical procedures. Survey users must also apply the "Fay adjustment factor" (of .75) to take proper account of steps that Statistics Canada has taken to correct slight overestimates of variance that may arise when the bootstrap

weights are applied. The present research followed those precautions. The results are featured in Chapter VIII on the regression analysis.

Because SPSS does not support procedures involving bootstrap weights, [11] the research used SAS for the logistic regression analysis. SAS is a major statistical software package that Statistics Canada often uses and which can process bootstrap weights.

[11] SPSS can emulate wide-scale sampling by calculating bootstrap *estimates* of means, medians, and other measures. However, SPSS does not presently support the use of bootstrap *weights*, which is a different procedure.

Chapter VII: Demographic Analysis

This chapter provides a demographic analysis of people in the target group and those in the main comparator group. The former are people with decent work who were hired after the advent of work-limiting disability. The latter are people who were not working when the CSD was conducted but who worked in the previous five years and about whom information was collected about their needs for job accommodations and other supports for employment. Chapter VI on methodology provides more information about these groups. The lines of enquiry pursued in the present chapter are consistent with the literature review's findings about factors that contribute to and detract from the employment of people with disabilities broadly defined. However, the present chapter focuses on people who had work-limiting disability before they obtained decent work. Factors that stood out for attention in the demographic analysis informed the selection of predictors for regression analysis, which is discussed in Chapter VIII.

The issues examined in the present chapter revolve around major themes briefly described in the review of literature in Chapter II on how the issue of employment plays out across demographic differences. Most of the data to which this chapter refers can be found in the detailed Appendix Tables A.1 – A.11. In addition to a demographic analysis specific to the target and comparator groups, numbers and selected analysis are also provided for context in the present chapter and in Appendix Tables A.1 – A.11 concerning:

- People with decent work who were retained in employment by their employer after the advent of work-limiting disability;
- Disabled people with decent work who did not feel limited in the amount or kind or work activities they could do;

- Other people with disabilities who were working when the CSD was conducted. As the discussion in Chapter VI on methodology showed, these tended to be people with temporary work with employers or people with self-employment and comparatively low earnings;
- Disabled people who were not working when the CSD was conducted and about whom the CSD did not capture information about their needs for job accommodations or other supports for employment;
- People without disabilities who were working when the NHS was conducted; and
- People without disabilities who were not working when the NHS was conducted, i.e., they were either unemployed or not in the labour force.

It would have been beyond the scope of the present research to have provided a detailed analysis of how the demographic issues play across all of these sub-populations. However, it was quite feasible during the course of the present research into the target and comparator groups to gather and present the information about the other groups as shown on Appendix Tables A.1 – A.11. It seemed useful to capture this information and to provide selected analysis where comparative patterns seemed unusual and warranted some attention. For ease of reference, in Appendix Tables A.1 – A.11, columns have been shaded in grey for the two key groups at the focus of the discussion. A summary of demographic findings is provided at the end of this chapter.

A. Labour force status and job characteristics

Unless otherwise indicated, the discussion in this chapter generally draws from the CSD. However, the NHS was the only source of information across the two surveys about some details for people with and without disabilities. Such details include the industry sectors and occupations of people who were working in 2010, their age, gender, visible minority, immigrant and Aboriginal person status, incomes, and a few other details. Accordingly, some information was also drawn from the NHS. As a year or more separates these two surveys, some people who were in the target and comparator groups based on 2011-2012 data from the CSD (and other groups of people with disabilities shown on Appendix Tables A.1 – A.11) would not have been in those groups in 2010. In contrast, some who were in those groups when the NHS was conducted in 2010 would no longer have been in those groups when the CSD was conducted. As well, people who were working in 2012 may not have been in the same job 2010 or in any job at all. Unfortunately, there is no way to reduce these differences between the two surveys.

The target group and the other groups of disabled people represented in the three columns to the right of the target group on Appendix Table A.1 were all employed when the CSD was conducted. Accordingly, all the rows for these columns show that 100% of them were employed. Among the comparator group, 24.4% were unemployed (i.e., not working but available for work), nearly two-thirds (61.6%) were not retired and not active in the labour force and another 14.9% were involuntarily retired. In contrast, among those who had been out of work for five years or more – and about whom the CSD did not collect information about job accommodations – nearly half (47.3%) were not in the labour force and did not consider that a workplace

arrangement or modification would have enabled them to work. The rest (52.7%) were voluntarily retired.

Looking back in time, data shown on Appendix Table A.1 indicate that there was considerable movement into the target and comparator groups. For instance, by definition, all people in the target group were employed when the CSD was conducted, i.e., 100%. However, only 78.8% were employed when the NHS was conducted in 2010. Many people – 21.2% or nearly 46,000 people – in the target group, then, moved into decent employment for people with work-limiting disability from when the NHS was conducted to the time of the CSD. In contrast, among those in the comparator group, none were working when the CSD was conducted. However, 20.8%, or nearly 112,000 of those people, were working when the NHS was conducted in 2010 (Appendix Table A.1).

Appendix Table A.1 shows that 63.9% of people in the target group had earnings in 2010 that were at least two-thirds the median earned by people without disabilities and who worked about the same number of hours and weeks as non-disabled people did that year; Chapter VI and Appendix 3 provide more details about how the median earnings benchmark was established. Among those in the comparator group, only 21.9% had earnings in this range based on their employment in 2010. Interestingly, 75% of people with decent work who were retained by an employer after the advent of work-limiting disability had earnings in this range, as did 75.3% of disabled people with decent jobs and no work limitations because of disability. 70.4% of people without disabilities who were working when the NHS was conducted had earnings in this range as well. If people without earnings in 2010 are dropped from the analysis, Appendix Table A.1 shows that that people in the target group with any earnings were more likely than those in the comparator group to have earnings at or above the two-thirds the median earnings of people

without disabilities (74.4% vs. 51.3%). To be expected, a very high proportion of people in the target population (80.6%) had permanent jobs with employers (Appendix Table A.1).

Somewhat surprisingly, only about one in five people in the target group (19.8%) had union jobs with employers or were covered by a collective agreement. Only about a third (33.7%) of people with disabilities who were not limited at work had such protection. In contrast, 43.6% who were retained in employment after the advent of work-limiting disability had union jobs or collective agreement coverage. The latter point suggests that such protection can serve as a buttress against job loss. In fairly stark contrast, less than one in ten disabled workers in non-decent jobs (7.7%) had such union protection. Data were not available from the CSD-NHS data files on union protections for workers without disabilities.

Appendix Table A.1 shows that nearly three-quarters of people in the target group (72.6%) were working full time (i.e., 30 or more hours per week) in the reference week when the CSD was conducted. This proportion was slightly lower than among people who had been retained in employment after the advent of work-limitations (75.6%) but substantially lower than among employed people without work limitations (85.2%). As shown on Appendix Table A.7, very few people who were not limited at work needed reduced hours or days of work (6.9%) as compared with people in the target group (37.8%). Among people whose work did not meet the standards of decent employment as defined here, only 58.2% were working full-time (Appendix Table A.1). Looking back to 2010 based on the NHS, 54.9% of the target group worked mainly full-time weeks that year, which was about twice the rate for people in the comparator group (26.8%). Those in the target group also were more likely than people who were working in less-than-decent jobs (45.1%) to have worked mainly full-time in 2010.

The overall picture that emerges concerning the duration of people's jobs is that most people in the target group were fairly new to those situations. The same was the case for people with less-than-decent jobs. For instance, Appendix Table A.1 shows that only about one-third of people in the target group (35.8%) began working at their present job sometime before 2007, as did about the same share of disabled people whose work was less-than-decent (34.9%). In other words, about two-thirds of the people in both groups began their jobs within five years of when the CSD was conducted. A quarter (25.3%) of people in the target group started their present job in 2012 as did about the same share of people with less-than-decent work (23.8%). In contrast, more than three-quarters of people who had been retained in decent employment after the advent of work limitations (77.9%) started in their present job before 2007, as did about half (51.2%) of disabled workers without work limitations who had decent jobs.

Contrary to what has been reported in some research literature (see Chapter II), small employers with less than 20 employees seem to be much more likely to attract work-limited people into decent work than larger firms. A third (33.1%) of those in the target group were working for such small employers when the CSD was conducted. In contrast, about one in five people who were retained in decent employment after the advent of work limitations (20.5%) were with small employers, as were just over a quarter (27.4%) of disabled people without work limitations who had decent jobs. Only about one in eight disabled workers whose employment was less-than-decent (13.2%) were with small employers, while another two-thirds (67.9%) were not working for employers at all, i.e., they were mostly self-employed (Appendix Table A.1).

The gist of those findings is that people in the target group were more likely to find decent work with small employers that have fewer than 20 co-workers. When those who were not working for employers are excluded, the basic pattern can be more clearly seen: 38.9% of the

target group who were working for employers were with small employers with fewer than 20 workers. The same was the case for 24.2% of those retained by their employers in decent jobs after the advent of work limitations and 30.6% of disabled people without work limitations in decent jobs. However, 44.6% of people with employers whose work was less-than-decent were with small employers. A job with a small employer, then, is no guarantee of decent work.

As the CSD did not ask people who were not working about the number of co-workers at their last place of employment, it is not possible to compare patterns in the size of firms for disabled people with and without jobs. Nor was this kind of information captured in the NHS about people without disabilities. However, the NHS *did* capture information about the types of industries in which people with and without disabilities worked in 2010. For people with several jobs, the information gathered is about the job where they worked the most hours. The information is based on the North American Industry Classification System (NAICS) of 2007 and is presented in the bottom half of Appendix Table A.1.

Appendix D provides more detail about how the results in this section of the research were obtained. Focusing on those who had work in 2010 (Appendix Table A.2), the research found that people in the target group were substantially (≥ 1.2 times) more likely than those in the comparator group who had jobs in 2010 to be working in educational services (6.0% of the target group vs. 2.4% of the comparator group) and public administration (4.7% vs. 3.4%). People in the target group were also substantially more likely than those in the comparator group who were working in 2010 to have jobs in construction (10.9% vs. 7.6%) and in retail (22% vs. 15%). They were even more likely than employed people without disabilities to have jobs in these latter two sectors (i.e., 1.5 times more likely than non-disabled workers to have jobs in construction and 1.9 times more likely in retail).

People in the target group were a little (from 1.1 - 1.2 times) more likely than those in the comparator group who had jobs in 2010 to have jobs in accommodation and food services (7.5% vs. 6.7%) and health and social assistance (12.1% vs. 11.4%). Those in the target group were a little less likely than those in the comparator group to have jobs in other services (5.7% vs. 6.5%), with the exception of public administration. However, people in the target group were substantially more likely than employed people without disabilities to have jobs in accommodation and food services (1.2 times more likely), and various other non-public administration jobs (1.3 times more likely) (Appendix Table A.2).

Generally, the sectors where people in the target group were substantially less likely to have jobs than those in the comparator group in 2010 were the same sectors where people in the target group were also substantially less likely to have jobs than people without disabilities. There were some exceptions, however. People in the target group were substantially more likely than those in the comparator group to have jobs in education (6% vs. 2.4%) and public administration 2010 (4.7% vs. 3.4%). However, they were considerably *less* likely than non-disabled working people to have jobs in these sectors (0.8 and 0.7 times as likely, respectively).

Perhaps such patterns help account for the public perception that people with disabilities looking for work are either dealing with work injuries (e.g., many who look for decent jobs find them in construction) or are over-represented in semi-skilled service jobs such as in the retail trade, accommodation and food services, and various other service sectors. Sectors that are associated with a lower probability of disabled job seekers finding decent work are: manufacturing; finance and insurance; real estate, rental, and leasing; information and cultural industries; arts, entertainment, and recreation; primary industries (agriculture, forestry, fishing and hunting, mining, quarrying, and oil and gas extraction); utilities; administration and support;

waste management and remediation services; professional, scientific, and technical services; and the management of companies and enterprises.

Some broad public sector jobs (e.g., in public administration and education) may provide some protection against disabled job seekers being shut out of decent work. As well, disabled job seekers have marginally better luck than non-disabled working people landing decent work in the health care and social assistance sectors, and in the wholesale, warehousing, and transportation sectors.

Appendix Table A.1 presents the distribution of people with and without disabilities across the occupations they held in 2010. The table includes people without jobs, who were not flagged as having an occupation that year. Similar to the analytical approach that was used for industry sectors above, people who did not report an occupation in 2010 were removed from the table and the pared results are presented on Appendix Table A.2. The occupation-related sections of both tables are based on the National Occupational Classification (NOC) of 2011. The NOC consists of ten broad occupational categories that represent 40 major groups, 140 minor groups, and 500 occupational units. The latter are formed by taking into account the education, training, or skill level required to do the job, as well as the tasks, duties, and responsibilities the occupation requires (Statistics Canada, 2014b). Appendix D provides details about the results reported in this section of the research. Essentially, however, people in the target group were substantially (≥ 1.2 times) more likely than people with jobs in the comparator group in 2010 to be in: health occupations (5.8% vs. 3.2% or 1.8 times more likely); trades, transport, and equipment operators and related occupations (16.6% vs. 11.6%, or 1.4 times); management occupations (10.3% vs. 8.1%, or 1.3 times); occupations in education, law, social, community, and government services (11.2% vs. 9.6%, or 1.2 times more likely).

People in the target group were considerably *less* likely (≤ 0.8 times) than people in the comparator group to be in occupations in: art, culture, recreation, and sport (2.0% vs. 2.6%, or 0.8 times as likely); manufacturing and utilities (5.0% vs. 6.4%, or 0.8 times); natural and applied sciences and related occupations (2.3% vs. 3.4%, or 0.7 times); and natural resources, agriculture, and related production occupations (0.5% vs. 5.0%, or 0.1 times as likely). Less dramatically, people in the target group were about 0.9 times as likely as those in the comparator group to be in business, finance, and administration occupations (16.1% vs. 17.2%) or in sales and service occupations (30.2% vs. 32.8%).

B. General socio-demographic characteristics

The following discussion explores the characteristics of people in the target and comparator groups in terms of their age, gender, visible minority, immigrant and Aboriginal person status, official language(s) spoken, province of residence, living arrangements, and marital status.

As Appendix Table A.3 shows, people in the target group were about a third more likely than those the in comparator group (48.1% vs. 35.7%) to be in the middle working years (30 to 49 years of age) and only about half as likely to be youth 15 to 29 years of age (12.2% vs. 24.6%). Those in the target group and the comparator group were as likely, however, to be in the older (50 to 64) working years (39.8% and 39.7%, respectively). Overall, age seemed to be related to whether people were in the target group, with youth less likely and middle-aged people more likely to be in the target group than in the comparator group.

Appendix Table A.3 shows that people in the target group were slightly more likely to be men than women (52.1% vs. 47.9%), whereas those in the comparator group were considerably

more likely to be women than men (56.7% vs 43.3%). Overall, gender seemed salient as to whether people were in the target vs. comparator group, but the difference on the basis of gender alone was not huge.

The gender patterns are more complex when crossed by age. Appendix Table A.3 shows that the age distribution of people with disabilities overall was like an inclined plane: progressively higher proportions of people with disabilities were in the older age groups than the youngest age group. This pattern held overall regardless of gender. That pattern also held regardless of gender in the comparator group. However, while that pattern prevailed for men in the target group, the age distribution among women in that group was "curvilinear", i.e., the highest proportion of women was in the 30-49 age group (28%), with much lower proportions in the youngest and oldest age groups (6.1% and 13.8%, respectively).

Figure 7 below is based on Appendix Table A.3 and shows the patterns graphically. It strongly suggests that the interaction of age and gender was salient to whether people were in the target vs. comparator group: men became progressively more likely to be in the target group as they reached retirement age, but women's involvement in the target group peaked before they were 50 years of age then dropped off.

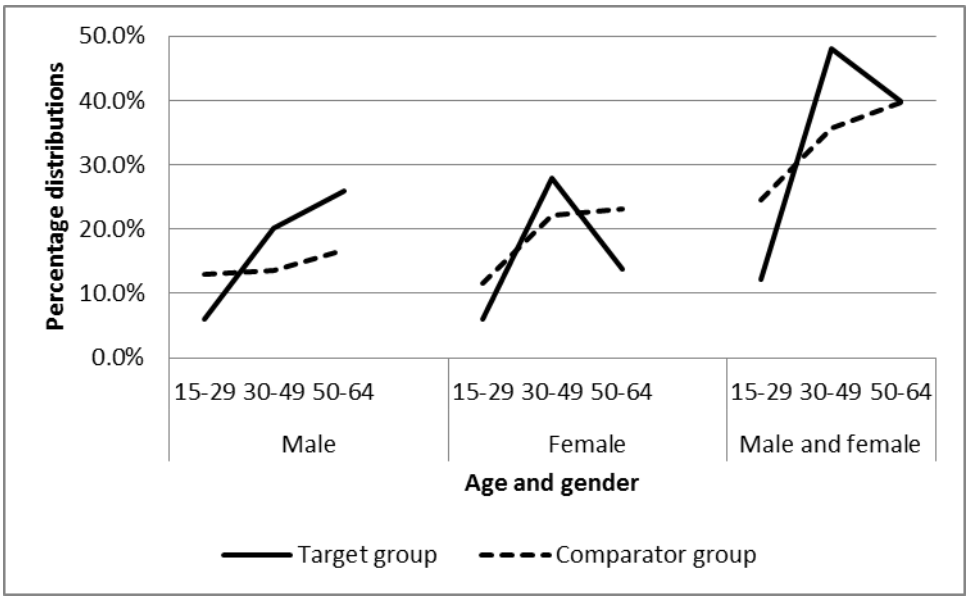

Figure 7.
Gender and age distribution of people in the target and comparator group.
From the Canadian Survey on Disability, 2012

The questions that were asked about unpaid caregiving on the 2006 Census Long Form were not asked on the 2011 NHS. One of the 2006 questions had asked about informal help provided to seniors. Accordingly, it was not possible to use the NHS and CSD to ascertain the extent to which those in the target and comparator groups were providing unpaid help to seniors. This would have been a relevant line of enquiry because, as Sinha (2013) has reported for Statistics Canada, caregivers tend to be 45 years and older, many recipients of informal care are the parents of the care providers and, on average, women are more involved than men in providing informal support. Perhaps older women with disabilities were more likely to be found in the comparator group than their male counterparts in part because they were on average more intensively involved in providing informal care to ill and disabled spouses and parents. People with disabilities in many cases do provide such informal support to family members (Crawford, Burke, & Bach, 2002).

Appendix Table A.3 shows that people in the target group were about half as likely as those in the comparator group to be visible minorities (8.5% vs. 16.9%). Visible minorities with disabilities were less likely to be in the target group than in any of the other labour force situations indicated on Appendix Table A.3. That pattern highlights the difficulties that people facing multiple disadvantages encounter in their efforts to secure decent work. The pattern also suggests that visible minority status may have been relevant to the regression analysis of whether people were in the target vs. comparator group.

As stated in the Data Dictionary for the CSD (Statistics Canada, 2014b), "visible minority" refers to whether a person belongs to a visible minority group as defined by the Employment Equity Act (s.3), which are "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." The visible minority population in Canada consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean, and Japanese. A general flag was derived for the present research that captured whether the CSD respondents were from any of these visible minority sub-groups. As the counts were quite low even when this general flag was used, the research did not attempt to use the more detailed information.

Interestingly, 24.1% of disabled people whose employment fell short of meeting the criteria for decent work were from visible minorities. This is higher than the share of visible minorities in the general working-age population (20%).

Immigrants made up a lower share of people in the target group than the comparator group (13.6% vs. 19.4%, Appendix Table A.3). The CSD Data Dictionary (Statistics Canada, 2014b) defines immigrants as people who are or ever have been landed immigrants or permanent residents granted the right by immigration authorities to live permanently in Canada. Some

immigrants have lived in Canada for years while others arrived only recently. The lower share of immigrants in the target group may to some extent reflect the fact that many immigrants are visible minorities, who were under-represented in the target group. Aside from visible minority status, recognition of foreign credentials and work experience are other difficulties that immigrants face in their efforts to secure work (Ministry of Training, Colleges and Universities, 2016). Whether people with disabilities are newcomers to Canada, then, seemed relevant to whether they obtained decent work after the advent of work-limiting disability. For the reasons given in Chapter VIII, however, this line of enquiry was dropped from the regression analysis.

Appendix Table A.3 shows that those in the target group were slightly more likely to be Aboriginal persons than those in the comparator group (7% vs 6.4%, respectively). The CSD contains a variable (ABIDENT) which classifies respondents as either First Nations single identity, Métis single identity, Inuk (Inuit) single identity, Multiple Aboriginal identities, or Aboriginal identities not included elsewhere. A more general variable (ABDERR) flags whether respondents have been classified under any of these Aboriginal identities (Statistics Canada, 2014b). As cell counts were low for disabled people classified as falling within the detailed Aboriginal identities, the present research used the general Aboriginal identity flag. The present research has adopted the same language as that used by Statistics Canada in its coding of Aboriginal identity. Accordingly, the term “Aboriginal” is used in the present document understanding that “Indigenous” is preferred by some First Nation and Inuit groups and has become more widely used in recent years (Kesler, 2009; Marks, 2014). Given the only slight differences in the prevalence of Aboriginal persons within the target and comparator groups, it was not clear based on Appendix Table A.3 whether Aboriginal person status was a factor that could be used to predict the likelihood of people being in the target rather comparator group. It

was surmised, however, that Aboriginal person status might prove salient if other factors were held constant.

Interestingly, Aboriginal persons with disabilities comprised a greater share of the target group and a greater share of the comparator group than they did within any of the other groups shown on Appendix Table A.3, including the general population. Overall, Aboriginal persons captured by the CSD made up only 3.1% of the total working-age population.

The percentages of people who spoke only English were similar across the groups of people with disabilities shown on Appendix Table A.3. However, people in the target group were less likely than those in the comparator group to speak only French (5.4% vs. 8.9%) and more likely to speak both English and French (19% vs. 13.3%). Perhaps bilingual capability helps give people with work-limiting disabilities an edge when approaching an employer for decent work. As a side note, people with disabilities were more likely than those without disabilities overall to speak only English (75.1% vs. 67.7%) and were considerably less likely to speak both English and French (14.3% vs 20.8%). Owing to the high degree of overlap between languages spoken and geographic location, the regression analysis did not pursue whether language was a strong stand-alone predictor of the likelihood of people being in the target group.

The chances of being in the target group were lower east of Ontario than elsewhere in the country and higher west of Manitoba (Appendix Table A.3). For instance, only 1.2% of the target group resided in Newfoundland or Labrador compared with 2.3% of the comparator group. Some 1.9% of the target group lived in New Brunswick, compared with 3.2% of the comparator group. Only 12.2% of the target group lived in Quebec compared with 15.9% of the comparator group. People in the other eastern provinces comprised consistently lower shares of the target group than they did within the comparator group. In contrast, 3.8% of the target group lived in

Saskatchewan compared with only 2.8% of the comparator group, and 13.3% of the target group resided in Alberta compared with 10.4% of the comparator group. The relative share of the target group was also slightly higher in BC (14.7% vs. 13.3% of the comparator group). When the NHS and CSD were conducted, perhaps the oil and other commodities sectors and the spin-off industries were helping to improve the chances of disabled people obtaining decent work in the western provinces as compared with other parts of the country. Whatever the reasons, location did seem relevant to whether people with work-limiting disability obtained decent employment, with people in provinces east of Ontario faring poorer in terms of being in the target group, and people in the provinces west of Manitoba faring comparatively better.

The distribution of people in the target group across some of the living arrangements shown on Appendix Table A.4 looks similar to the distribution of people in the comparator group. For instance, 46.6% of the former lived as members of couples as did 46.7% of the latter. There were some notable differences, however. For instance, those in the target group were slightly more likely to be in couples with children (26.2% vs 23.1%) while those in the comparator group were more likely to be in couples without children (23.6% vs. 20.4%). People in the target group were about half as likely as those in the comparator group to be adult sons or daughters living with one or both parents (10.6% vs. 21.3%, respectively) and about twice as likely (27.2% vs. 14.1%) to be living alone as people unattached to others in the household by marriage or other family ties. While the counts were not large and should be treated with caution, those in the target group were also more likely than those in the comparator group to be separated, divorced, or widowed (18.3% vs. 13.8%). Of all the groups shown on Appendix Table A.4, those most likely of all to be separated, divorced, or widowed (23.5%) were people with

disabilities who had been out of work for five years or more and about whom the CSD did not gather information about their job-support requirements.

Overall, then, living arrangements seemed relevant as to whether people were in the target group vs. comparator group. Arrangements that stand out for attention are where people lived as adult sons/daughters with one or both parents, whether or not people had children, and whether people lived as “unattached” individuals.

Text Table 2 provides a summary of the information discussed above as drawn from Appendix Tables A.3 and A.4.

Text Table 2.

Basic socio-demographic characteristics of working-age people in the target and comparator group, and people without disabilities

	With disabilities			**Without disabilities**		
	Decent work - Hired after advent of work limitations	Disabled - Not working but In EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities
Age group						
Male and female						
15-29	12.2%	24.6%	13.1%	26.3%	44.8%	31.2%
30-49	48.1%	35.7%	34.0%	47.3%	26.3%	41.8%
50-64	39.8%	39.7%	52.9%	26.4%	28.9%	27.0%
Gender						
Male	52.1%	43.3%	46.9%	52.8%	43.8%	50.4%
Female	47.9%	56.7%	53.1%	47.2%	56.2%	49.6%
Ethno-racial diversity						
Visible minorities	8.5%	16.9%	14.6%	18.5%	26.2%	20.6%
Aboriginal Identity	7.0%	6.4%	5.1%	2.6%	3.9%	2.9%

Text Table 2.

Basic socio-demographic characteristics of working-age people in the target and comparator group, and people without disabilities

	With disabilities			**Without disabilities**		
	Decent work - Hired after advent of work limitations	Disabled - Not working but In EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities
Living Arrangements						
Couples - No children	20.4%	23.6%	28.2%	21.9%	19.0%	21.1%
Couples - With children	26.2%	23.1%	26.4%	40.2%	24.3%	36.0%
Lone parents	9.0%	7.7%	7.8%	4.6%	4.3%	4.5%
Sons/daughters	10.6%	21.3%	12.3%	15.2%	36.2%	20.8%
Other family members	1.9%	6.3%	3.8%	2.8%	4.4%	3.2%
Unattached - Alone	27.2%	14.1%	17.9%	11.1%	7.5%	10.1%
Unattached - With others	4.6%	3.9%	3.6%	4.3%	4.2%	4.3%
Total number	216,170	536,700	2,335,520	15,346,890	5,495,680	20,842,570

From the Canadian Survey on Disability, 2012 (National Household Survey content)

C. Personal (cultural) and social capital

This part of the discussion explores the comparative situation of people in the target and comparator groups in terms of their personal capital development, specifically, their highest level of educational certification, the education-related challenges people have experienced, and

whether or not they have received work-related training. The discussion also touches upon social capital in the form of informal relationships with family members, friends, and neighbours.

People in the target group attained a comparatively high level of formal educational certification. For instance, they were more likely than any of the other groups of people with disabilities shown on Appendix Table A.5 to have achieved some form of post-secondary certification and were 1.6 times more likely to have achieved this level of education than people in the comparator group (63.8% vs. 39.8%). By that standard, people in the target group had the same level of formal educational attainment as people without disabilities who were working when the NHS was conducted of whom 63.9% had some post-secondary certification. However, taken as an entire group, people with disabilities were considerably less likely overall to have post-secondary certificates than their non-disabled counterparts (46.3% vs. 57.5%)

A finer look at Appendix Table A.5 reveals that those in the target group were nearly twice as likely as those in the comparator group to have a degree or some other form of university certification (17.1% vs. 9.7%), and were about twice as likely to have a trades/apprenticeship certificate (17.4% vs. 8.7%). They were also more likely (1.4 times) to have a college, CEGEP, or technical institute certificate, (29.3% vs. 21.2%). Those in the target group were much less likely than people in the comparator group to be completely without any educational certificate, even a high school diploma (10.6% vs. 28.8%).

Notably, at 17.1%, those in the target group were about 3-4% less likely than the other working people with disabilities represented on Appendix Table A.5 to have a university degree or other university certificate. However, they were much less likely than working people without disabilities to have this level of formal education (30.6%).

It seemed clear that having post-secondary education was an important factor behind whether people with disabilities were likely to be found in the target group rather than the comparator group.

Appendix Table A.5 provides a view of the difficulties and other differences in the formal educational process that people in the target and comparator groups have experienced. A difference of at least ±0.2 times or more in the percentages was taken to indicate substantial differences between the groups. As context, people in the target group were about as likely as those in the comparator group to have acquired their disability before completing their formal education (54.8% and 56.4%, respectively). The general picture from the findings is that those in the target group were more likely than those in the comparator group to have returned to school, and to have incurred expenses for their education. People in the target group were less likely to have faced various disruptions such as having to start school later than their age peers, having their education interrupted, having to go somewhere other than their home community to finish their school, and to having to change schools because of their disability. However, they were slightly more likely to have faced bullying and exclusion at school and to have taken correspondence courses, home study, or special education.

For instance, those in the target group were substantially more likely than those in the comparator group to have: gone back to school for retraining (25.5% vs. 16.9%, or 1.5 times more likely); had additional expenses for schooling (12.4% vs. 9.1%, or 1.4 times more likely); changed choice of courses or careers because of their disability (36.7% vs. 29.0%, or 1.3 times more likely); taken fewer courses/subjects (29.4% vs. 24.9%, or 1.2 times more); and/or to have experienced bullying at school (21.6% vs. 18.2%, or 1.2 times more).

Less glaringly, those in the target group were slightly (1.1 times) more likely than those in the comparator group to have: been avoided or excluded by others at school (26.4% vs. 23.0%); changed their course of studies because of their disability (21.7% vs. 19.2%); taken courses by correspondence or home study because of their disability (10.3% vs. 9.5%); and/or attended special education school or special education classes in a regular school (6.1% vs. 15.0%).

In contrast, those in the target group were substantially less likely than those in the comparator group to have: begun school later than other people their age (6.4% vs. 8.1%, or 0.8 times as likely); left their community to attend school (5.7% vs. 8.2%, or 0.7 times); or to have experienced interruptions in their education for long periods (15.2% vs. 20.6%, or 0.7 times). Those in the target group were slightly less (0.9 times as) likely to have: changed schools (12.1% vs. 13.0%), or taken longer to achieve their present level of schooling (22.4% vs. 26.0%).

Combining several of these variables, those in the target group were slightly less (0.9 times) likely than those in the comparator group to have changed school *or* left their community *or* attended special education *or* to have taken correspondence/home study (28.6% vs. 32.9%). However, they were substantially (1.1 times) more likely to have been avoided/excluded *or* bullied at school (29.9% vs. 26.5%).

Across many of these indicators of difficulties in education, fairly small numbers of people in the target group and comparator group were affected, and the differences in the extents to which people in the target group vs. comparator group were affected were also fairly minor. That said, it was conjectured that perhaps having had to change schools, leave their community, attend special education, or take home schooling or correspondence courses made a difference to whether people were in the target vs. comparator group.. It was also conjectured that whether

people had been bullied or excluded at school may have made a difference in terms of whether they were in the target vs. comparator group.

People with disabilities who responded personally to the CSD (i.e., not by proxy) were asked about work-related training if they were employed or if they had been employed at some point in the previous five years *and* were either available for work (i.e., unemployed) or not in the labour force *but* not retired. Accordingly, many people were not asked the questions about training. Appendix Table A.5 shows that those in the target group were much more likely than those in the comparator group to have participated in classroom training (31.2% vs. 11.9%) or on-the-job training (38.2% vs. 19.5%) during the previous 12 months. Their employers paid for or provided such training. Those in the target group were also more likely to indicate that they had taken part in some other form of training in the previous 12 months that their employer did not pay for (13.5% vs. 2.8%). It was surmised that training may have been a determinant of whether people were in the target group vs. comparator group.

Appendix Table A.5 shows that less than a quarter (22.5%) of people in the comparator group did not take training and were asked and then answered whether they wanted to take some training. In contrast, nearly half (43.2%) of those in the target group did not take training and were asked and answered this question. Uncertain though the information may be, 25.5% of the target group indicated that they wanted to take some training vs. 31.5% of the comparator group. These findings, together with the comparatively low percentage of people in the comparator group who indicated that they had taken training (discussed above), suggest that there was not only a training gap for people in the comparator group, but that their demand for training may have exceeded its availability or accessibility. The CSD counts that could potentially help shed

light on why people did not taken the training they wanted were very low for the comparator group. Obtaining and interpreting those numbers was beyond the scope of the present research.

Some research (e.g., Canadian Abilities Foundation, 2004; Vorhies, Davis, Frounfelker, & Kaiser, 2012) has found that the informal support of friends and others is an important means of enabling disabled people to obtain employment. Indeed, family members and friends do comprise the backbone of the "system" of support for people with disabilities in Canada, which is largely an informal one (Crawford, Burke, & Bach, 2002). The only information available in the CSD about the involvement of family members, friends, and neighbours in the lives of people with disabilities is about their involvement in helping with various activities of everyday living because of the receivers' disabilities. Appendix Table A.5 shows that the differences were not large in the extent to which family members, friends or neighbours provided such help to people in the target and comparator groups. Accordingly, the present research did not hypothesize that the availability of informal help would have been a major contributor to whether people were in the target group vs. comparator group. However, the discussion in Section I of this chapter, on "The need for general disability supports," does explore more broadly whether being in the target and comparator groups seemed associated with whether people received some, none, or all the help they needed, regardless of whether it was obtained from formal or informal providers.

D. Impairment-related characteristics

Looking at some of the larger differences in terms of people's reported impairments, Appendix Table A.6 shows that those most likely to be in the target rather than comparator group were people with disabilities in the areas of manual dexterity (29.9% vs. 23.8%) and vision

(21.8% vs. 18.3%). Pain-related disability was also more common in the target group, but was widely present among people in both the target and comparator groups (82.9% vs. 70.8%). People least likely to be in the target rather than comparator group were people with disabilities in the areas of mobility (37.3% vs. 46.1%), learning (21.7% vs. 29.6%), memory (17.6% vs., 23.6%) and people with intellectual/developmental disability (5.5% vs. 8.7%).

Text Table 3 (below) shows their distribution across rather than within the same labour force situations as shown on Appendix Table A.6. Text Table 3 shows that people with disabilities in the areas of hearing or pain were about as likely as people with disabilities overall to have some kind of employment. All the other specific groups of people with disabilities fell below that benchmark, particularly people with intellectual disabilities, who were only about half as likely to have any work as people with disabilities overall (24.2% vs 45.3%). The people whose disabilities were in the areas of dexterity (28.5%), learning (28%) or memory (26.8%) were only about .6 times as likely as people with disabilities overall to have jobs. These findings suggested that the type of impairment/disability may have been a significant contributor to the likelihood of people being in the target group vs. comparator group.

Text Table 3.

Distribution of people with disabilities across labour force situations by type of impairment

	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities
Type of impairment effects							
Any disability	9.3%	7.5%	21.2%	7.3%	23.0%	31.8%	100.0%
Mobility	7.4%	7.5%	11.6%	6.0%	22.8%	44.7%	100.0%
Flexibility	9.2%	7.9%	12.0%	7.5%	23.0%	40.4%	100.0%
Dexterity	11.3%	5.9%	6.2%	5.1%	22.3%	49.3%	100.0%
Pain	10.5%	8.5%	17.8%	6.6%	22.3%	34.3%	100.0%
Hearing	9.3%	6.6%	23.3%	7.0%	21.7%	32.1%	100.0%
Vision	10.0%	6.5%	15.6%	7.6%	20.8%	39.5%	100.0%
Learning	9.6%	4.5%	8.1%	5.8%	32.5%	39.4%	100.0%
Intellectual	8.4%	2.3%	6.4%	7.1%	33.3%	42.5%	100.0%
Emotional / psychological	11.0%	5.5%	11.1%	5.2%	29.2%	38.0%	100.0%
Memory	9.3%	4.7%	6.6%	6.2%	30.9%	42.2%	100.0%
Unknown	3.1%	5.1%	40.2%	9.7%	25.1%	16.7%	100.0%

From the Canadian Survey on Disability, 2012

Statistics Canada (2014a) has derived a scale that groups people according to the degree or severity of their disability. The more severe a person's disability, the more likely it is that s/he

will experience difficulties across several broad domains of functioning (e.g., mobility, seeing, learning), greater or more frequent difficulty in a particular domain, or some combination of pervasiveness, extent, and frequency of difficulty. Appendix Table A.6 shows that people in the target group were about 1.2 times more likely than those in the comparator group to have a "mild" level of disability (29.5% vs. 25.7%) or "moderate" level of disability (20.1% vs. 16.9%) and were about .8 times as likely to have a "severe" level of disability (23% vs., 29.2%) They were nearly as likely to have a "very severe" level of disability (27.4% vs. 28.3%) but overall those in the target group were less severely disabled on average than those in the comparator group.

Text Table 4 (below) shows the distribution of people across rather than within the labour force situations shown on Appendix Table A.6, by the severity of their disabilities. Perhaps most telling is that people with a very severe level of disability were the most likely of all those shown on the table to be jobless and to be excluded from the Employment Modifications Module (EMO). Those excluded from the EMO had been out of work for more than 5 years. More than half (52.5%) of people with a very severe level of disability were in that situation compared with only 15.6% of people with a mild level of disability. Those with a mild level of disability were more likely than people with the other degrees of severity to indicate that they had decent work and were not limited in their work activities (40.8%).

Text Table 4. **Distribution of people with disabilities across employment situations, by degree of impairment**							
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities
Degree of impairment							
Mild	8.7%	7.2%	40.8%	9.0%	18.7%	15.6%	100.0%
Moderate	9.6%	8.2%	25.8%	8.0%	20.0%	28.4%	100.0%
Severe	9.2%	9.0%	10.8%	8.6%	28.9%	33.4%	100.0%
Very severe	9.8%	6.0%	3.0%	3.5%	25.1%	52.5%	100.0%
Total	**9.3%**	**7.5%**	**21.2%**	**7.3%**	**23.0%**	**31.8%**	**100.0%**

From the Canadian Survey on Disability, 2012

Text Table 5 (below) shows the distribution of working-age people with disabilities by all degrees of severity and all labour force situations at the focus of the present research. The cumulative total of the percentages in the cells bounded by the row and column subtotals adds to 100%. The table shows that the largest "concentration" of people with disabilities is in the cell representing people with a very severe level of disability who were not working, had been outside of work for 5 years or more and were excluded from the Employment Modifications Module (13.6% of the total). The next-most common situation was the cell representing people with mild disabilities who did not consider themselves limited in their work activities and who

had decent work (12.9% of the total). These findings suggested that severity of disability may have an effect on why people were in the target group rather than the comparator group.

Text Table 5.

Distribution of all working-age people with disabilities across all employment situations, by degree of impairment (cells add to 100%)

	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	**All labour force situations**
Degree of impairment							
Mild	2.7%	2.3%	12.9%	2.8%	5.9%	4.9%	**31.6%**
Moderate	1.9%	1.6%	5.0%	1.6%	3.9%	5.5%	**19.4%**
Severe	2.1%	2.1%	2.5%	2.0%	6.7%	7.7%	**23.2%**
Very severe	2.5%	1.6%	0.8%	0.9%	6.5%	13.6%	**25.9%**
All degrees	**9.3%**	**7.5%**	**21.2%**	**7.3%**	**23.0%**	**31.8%**	**100.0%**

From the Canadian Survey on Disability, 2012

Appendix Table A.6 also shows that people in the target group were slightly less likely than people in the comparator group (18.3% vs 20.5%) to have a disability in only one broad domain of functioning, e.g., mobility *or* vision *or* learning. They were only slightly more likely than people in the comparator group to indicate disability in two or three areas of functioning (40.5% vs. 37.1%) and were nearly as likely to indicate more than three types of disability (41.2% vs. 42.4%). The relationship was not clear-cut, then, between the number of people's impairments and the likelihood of whether people were in the target group rather than in the comparator group.

The advent of the disabilities of more than half of the people in both the target group (54.8%) and the comparator group (56.4%) occurred fairly early in life, i.e., before the completion of formal schooling. However, the average duration of disability among those in the target group was longer than in the comparator group at 19.6 vs. 15.2 years (Appendix Table A.6). These were not huge differences but tend to echo the research by Loprest and Maag (2007), who found that people who acquire disability earlier in life tend to do better than those disabled later in terms of their employment prospects. Only 24.9% of those who were retained in employment after the advent of work-limiting disability first experienced disability before completing their formal education; the average duration of their disabilities was 10.9 years. In light of these findings, the research conjectured that when disability occurred in the lifespan may have been associated with whether people were in the target vs. comparator group.

One of the CSD questions asked about the causes of CSD respondents' main disabilities. As shown on Appendix Table A.6, the main disabilities of about one in seven people in both the target and comparator groups were due to factors present at birth (14.5% and 14.8%, respectively). That finding, together with the finding that just over half of the people in both groups first experienced disability before completing their formal education, suggests that about 4 out of 10 in both groups experienced disability sometime in childhood or early adulthood. That said, people in the target group were considerably more likely than those in the comparator group to indicate that a work-related issue, such as a work accident or injury, had been the cause of their disability (25.4 % vs. 17.2 %, respectively). Those in the target group were also more likely to indicate that non-work accidents or injuries were causes (20.4% vs 15.2%). They were slightly less likely to indicate that aging was a cause (8.1% vs. 10.2%), which was consistent with their younger age profile than people in the comparator group. Those in the target group were also less

likely to indicate that various diseases or illnesses had caused their disability (10.3% vs 15.9%). While cause of disability is a fairly complex picture, the research proceeded on the basis that cause of disability may have been associated with whether people were in the target vs. comparator group.

Appendix Table A.6 shows the extent to which people considered that their disability limited their activities at work. By definition, all those in the target group and all those who were retained in decent employment after the advent of work-limiting disability felt limited in the amount or kind of work that they could do because of disability. By definition, no one felt limited at work because of disability in the group of people who were working in decent jobs and who did not report work limitations. Among those in the comparator group, 81.8% felt either limited (43%) or completely prevented from working (38.8%) because of disability. The latter, however, did not rule out the possibility that a workplace arrangement or modification could have enabled them to work. Among others who were not working, i.e., people not in the EMO, almost none said they were not limited (only 1.4%). Instead they indicated that they either felt limited (5.2%) or completely prevented from working because of disability (52.6%), or they were not asked (40.7%) because the last time they worked was sometime before 2007 or they had retired voluntarily since then. People who were not included in the EMO and who felt completely prevented from working did not indicate that a workplace arrangement or modification might have enabled them to work.

E. Need of supports for employment

As discussed in more detail in the chapter on statistical methodology (Chapter VI), the CSD asked whether nearly 1.6 million working-age people with disabilities needed various job

accommodations or other supports for employment. This works out to 68.2% of the total of about 2.3 million working-age people with disabilities. Those at the focus of the questions were either: a) employed; b) unemployed; c) not in the labour force and did not rule out the possibility that a workplace arrangement or modification could have enabled them to work; or d) retired involuntarily and last worked at some point from 2007 through 2012.

Leaving aside for a moment the issue of whether people's needs for job accommodations and other supports for employment had been met, which is dealt with later in the present chapter, people in the target group were slightly more likely than those in the comparator group to require any of the job accommodations and employment supports captured by the CSD (Appendix Table A.7). Respectively, 57.3% vs. 52.4% needed at least one of these supports. However, there were some departures from that general pattern in specific sub-clusters of needs.

1. Supports for initial and ongoing access to employment

The present research draws a distinction between, the supports needed to gain initial and ongoing access to the workplace, and the supports needed so people could participate at work once they managed to gain basic access. The research took accessible built environmental features (such as handrails, ramps, widened doorways and hallways, and accessible parking, elevators, and washrooms) and accessible transportation as supports for initial and ongoing access. Accessible transportation is not usually considered a job accommodation *per se* because a public or quasi-public authority rather than the employer is usually responsible for making it available. The phrase, "initial and ongoing access" has been used in the present discussion because, typically, the supports that people need in order to get to or into a workplace for the very first time will likely be needed on an ongoing basis once employment is secured. Many of

the other items listed on Appendix Table A.7 have been framed as “supports for participation in the workplace” because they become relevant supports for employment only once basic access to a job and to the workplace has been obtained. Such supports typically fall to the employer to address and are understood here as “job accommodations” in the commonly-understood sense of the term. These include, for instance, the need for modified work hours or days of work, modified work routines, the need for human support at work, and various technological supports so people can do their jobs.

Focusing on supports needed for gaining initial and ongoing access to the workplace, people in the target group were considerably less likely than those in the comparator group to require any built environmental features (9.3% vs. 15.7%) and, except for accessible parking (needed by 7.2% of both groups), people in the target group were consistently less likely than people in the comparator group to need any of the specific accessible built environmental features shown on Appendix Table A.7. People in the target group were also less likely than those in the comparator group to need accessible transportation (1.4% vs. 7.8%). These findings suggest that the need for supports for initial and ongoing access may play a role in filtering people out of decent work, regardless of whether their needs are met.

Notably, only a very low number of working-age people with disabilities captured by the CSD reportedly needed accessible transportation for work – about 53,600 overall. Of these people, about 42,000 were not in the labour force or were involuntarily retired. To capture many of the latter people, Statistics Canada used question NDE_12 together with several other criteria to filter people who were not in the labour force into the Employment Modifications Module. NDE_12 asked, “Is there some type of workplace arrangement/ modification that would enable you to work at a paid job/business, such as modified/different duties/technical aids?” People

needed to answer something other than “no” in order to be included in the EMO. It may be possible that some people who were not in the labour force and who needed accessible transportation did not consider it a “workplace arrangement/modification” as defined in NDE_12 but rather a community-level support. Those who indicated “no” to the question would not have been asked the questions in the Employment Modifications (EMO) module. However, Statistics Canada (2015) recently reported that 28% of the 3,775,910 adults with disabilities per the CSD regularly used regular public transit (20%) or specialized transit (8%). Simple arithmetic (28% x 3,775,910) suggests that more than a million adults with disabilities (1,057,255) regularly used such services. It seems reasonable to speculate that more than 53,600 (or only about 5%) of these people would have been working-age people who needed accessible transportation for work. How many of these people perhaps *should* have been included in the EMO is a complex issue that is beyond the scope of the present research.

2. Supports for ongoing participation once access has been obtained

Concerning the need for supports for participation once basic access to the workplace has been secured, Appendix Table A.7 shows that people in the target group were slightly more likely than people in the comparator group to require modified hours or days of work, or reduced work hours (37.8% vs. 35%). They were also slightly more likely to require an ergonomic workspace, specialized chair or back rest (26.3% vs. 24.5%) and various and sundry “other” supports (7.8% vs. 4.6%) that are not specifically listed on Appendix Table A.7. In contrast, people in the target group were consistently less likely to need any of the specific supports that

are shown on that table, with the exception of Braille and large print reading material and recording equipment; 5.7% had such needs vs. 3.6% in the comparator group.

F. *Availability* of supports needed for workplace access and participation

After the CSD captured information about whether respondents needed the supports for employment shown on Appendix Table A.7, it followed up with the EMO_02 battery of questions about whether those needs for support had been met. Chapter VI on methodology provides details about the people who were excluded from the EMO_02 questions even though they indicated needs for employment supports in the EMO_01 questions.

Appendix Table A.8 shows percentages of those who did not indicate any need for employment supports, and the "yes" and "no" responses to whether those who needed supports received what they required. It also shows the percentages of those who indicated that they had various needs but were not asked whether they received the supports they required. The present research interprets the latter to be equivalent to "no" because they were people who had not worked in the previous five years and were therefore not in a position to receive whatever supports in those years that they said they needed. These cases are classified as "Need – Unmet # 2" on Table 8.

The basic pattern in Appendix Table A.8, is that for all the broad groupings of employment supports and for all of the specific supports shown on the table except for handrails, ramps, and widened doorways or hallways, people in the target group were more likely to have had their needs met than people in the comparator group. Even in the case of handrails, ramps, and widened doorways or hallways as a general category, those in the target group were *as likely* as those in the comparator group to have had their needs met.

Interestingly, that pattern prevails despite the fact that those in the target group were less likely than people in the comparator group to need employment supports in the first place, such as accessible built environmental features, accessible transportation, job redesign or telework, and technological supports with the exception of communication aids. That is, even where they stood in relatively lower need, people in the target group were more likely than those in the comparator group to be people whose needs had been met. The need for communication aids was an exception to the pattern. Some 5.4% of the target group were people with unmet needs in this area compared with 0.8% of the comparator group and another 2.7% whose needs had not been met in the previous five years because they had not worked in that timeframe and were therefore not asked about whether their needs had been met.

These findings suggest that the availability of supports needed for access and participation were positively associated with the likelihood that people with disabilities would be in the target group rather than in the comparator group. While the CSD captured some limited information about why people did not receive the supports they needed for employment, detailed examination of that issue was beyond the scope of the present research. However, Till et al. (2015) found that many people lack the supports they require because their employers are not aware of the need. Employees often feel uncomfortable asking or fear a negative outcome.

G. Employment discrimination because of disability

Chapter II discusses how employer attitudes and behaviors can reflect workplace cultures and practices that have a bearing on the employment situation of people with disabilities. The CSD asked whether respondents felt that, because of their condition, they had been refused a job interview, a job, or a job promotion in the past 5 years. The questions were only asked of people

who were working or, if unemployed or not in the labour force, had worked at some point from 2008 through 2012. The timeframe was therefore a year shorter than the timeframe that was used to screen people into the questions about employment supports (i.e., 2007 to 2012). Retired people were not asked these questions, regardless of whether they had retired involuntarily or when they had last worked.

Appendix Table A.9 shows that those in the target group were more likely than people in the comparator group to indicate that they had experienced all three forms of discrimination in the past few years. For instance, people in the target group were more likely to have experienced being refused a job interview (13.3% vs. 8.5%) and employer refusal to hire them (20.3% vs. 11.7%) (Appendix Table A.9). This pattern is perhaps understandable because about two-thirds of people in the target group obtained work sometime after 2007 (Appendix Table A.1 – Job tenure) and simply had more opportunities to encounter employer resistance than people in the comparator group, among whom none were working and about six in ten had not worked since 2009 or before (Appendix Table A.1 – Hours and weeks in 2010). An even more pervasive experience among people in the target group than in the comparator group was being refused a job promotion (17.8% vs. 6.2%, respectively). Again, the explanation for the difference may be that people in the target group were more likely to have been working and were therefore more likely to have been in a position to experience this problem.

Given that people in the target group were more likely than those in the comparator group to feel discriminated against in employment because of their disability, it is perhaps no surprise that they were also more likely to feel disadvantaged in employment because of disability (54.6% vs. 29.8%), as shown on Appendix Table A.9. The more extensive experience of discrimination in the target group, however, does not account for the much greater perception of

disadvantage in that group. They were, after all, generally less likely than people in the comparator group to need various job accommodations and, if they had such needs, were more likely to have had them met.

Similarly, those in the target group were also much more likely (54.1% vs. 26.4%) to believe that their present employer or some other employer was likely to consider them disadvantaged in employment. Perhaps for many in the comparator group the unlikely prospect of obtaining a job rendered any consideration of being disadvantaged in employment a distant and abstract possibility.

H. Reliance on the disability income support system

Appendix Table A.10 shows that people in the target group were about three times more likely than those in the comparator group to have received income in the previous year from wages or salaries (76.9% vs. 24.9%) or from self-employment (23.7% vs. 8.5%). This is understandable given that, as Appendix Table A.1 shows, people in the target group were much more likely to have worked full-time or part time in the previous year.

That said, there are some differences between the groups in terms of the particular programs from which people did and did not receive income support. For instance, 9.5% of those in the target group received income from workers' compensation programs while the same was the case for only 7.9% of those in the comparator group (Appendix Table A.10). Workers' compensation programs typically have program elements that attempt to encourage and support people who become injured or sick as a result of workplace factors to return to work. Indeed, based on analysis of SLID 2011, fewer than half (43.5%) of working-age people with disabilities who received workers compensation income were outside of the labour force for all of 2011.

That is, most workers' compensation recipients with disabilities were active in the labour force at some point in the year.

In contrast, analysis based on SLID 2011 found that two-thirds (69.7%) of working-age C/QPP beneficiaries with disabilities were completely outside of the active labour force for the entire year. Little wonder that Appendix Table A.10 shows only 11.5% in the target group as receiving income from the Canada Pension Plan disability program in the previous year compared with 17.9% of those in the comparator group. The CPP disability program has stringent eligibility features that make it difficult for people with anything but severely limited work capacity to receive benefits. It does, however, have some incentives and support for people to re-enter employment without completely jeopardizing future eligibility. Interestingly, 8.8% of the target group received the Quebec Pension Plan (QPP) disability benefit compared with only 5.4% of those in the comparator group, yet the QPP disability program's eligibility requirements and other features are similar to those of the CPP's disability program. Despite whatever incentives and support the C/QPP disability programs may offer, most people who are involved with these programs have little or no involvement with employment.

In even starker contrast, only 7.4% of those in the target group received social assistance (welfare) compared with 23% of the comparator group (Appendix Table A.10). While social assistance may be intended as short-term, "last resort" programming, most people who receive it are people with some level of disability (Crawford, 2013) and, based on SLID 2011, two-thirds of working-age disabled people (67.6%) who received social assistance in 2011 were outside of the labour market all year. The likelihood of moving from social assistance into decent employment as defined in the present research, then, is quite low.

These findings suggested that there was an inverse relationship between receiving income from any of these sources and being in the target group. However, it was also surmised that perhaps the negative association between decent work and income support programs may be less pronounced for people involved with Workers' Compensation programs than for people involved with social assistance programs or the C/QPP-D programs.

Concerning programs that account for smaller numbers of people, Appendix Table A.10 shows that 5.3% in the target group received private disability insurance vs. 9.9% of the comparator group. The numbers of people who received motor vehicle insurance were very small for people in the target and comparator groups (1.8% and 1.9%, respectively), and the numbers of veterans' pension recipients were too small to report.

I. The need for general disability supports

Aside from asking about whether people required and received technical aids or devices in order to function at work, the CSD also asked whether people required such aids/devices more generally. Wheel chairs and hearing aids are examples of devices that tend to be needed irrespective of situational boundaries. The range of aids/devices explored in the CSD is quite extensive and includes those needed to assist with mobility, agility, pain management, seeing, hearing, and learning.

Whether people had the aids/devices they required seemed to be associated with their employment situation. For instance, people in the target group were considerably more likely than those in the comparator group (83.1% vs. 74.1%) to require at least one aid/device to assist with disability (Appendix Table A.11). This finding is a little surprising given the tendency of those in the target group to have a comparatively milder severity of disability and to have an

overall lower need of various technological supports in the workplace (see Appendix Table A.7 and the discussion above). However, despite their comparatively greater need for aids/devices for life in general, those in the target group were also considerably more likely than those in the comparator group to be people whose needs were fully met (53.5%, vs. 42.8%). That finding is consistent with the wider receipt of needed workplace supports among those in the target group, discussed in Section F of this chapter. Looking only at those who required aids/devices, 64.4% of the target group who needed any of these had all the aids/devices they required vs. 57.8% of those in the comparator group.

The CSD also asked about the help that people needed with everyday activities because of disability. This includes help with meal preparation, heavy or light household chores, running errands, moving about at home, or personal care. Again, somewhat surprisingly given their overall milder degree of impairment and lesser need for human support at work, those in the target group were about as likely as those in the comparator group (77.8% and 77.7%, respectively) to need help from someone because of disability (Appendix Table A.11). Unlike the situation with aids/devices, however, those in the target group were somewhat *less* likely than those in the comparator group to be people whose needs had been fully met (23.9% vs. 26.5%). Looking only at those who needed help and leaving others entirely out of the analysis, 30.7% of those in the target group received all the help they needed compared with 34.1% of people in the comparator group, and 15.6% of the target group who needed any help received none compared with only 9.3% of their counterparts in the comparator group.

People in the target group were slightly less likely than those in the comparator group to receive help informally from family, friends, or neighbours (59.7% vs 66.7%, respectively). Looking only at those who received some help with everyday activities, however, the vast

majority of those in the target *and* comparator groups received some or all of that help from informal providers (90.9% and 94.6%, respectively). This finding points to the importance of informal social capital for people with disabilities as an instrumental support for everyday living. However, informal social capital of the variety captured by the CSD did not seem to be substantially more or less available to people in the target or comparator groups. Accordingly, the research surmised that perhaps the availability or non-availability of help – regardless of who provides it – may interact with other factors (e.g., education level, type of disability, unmet need for job accommodations) to have a bearing on people's employment situation.

J. Summary

The present chapter has shown that there was a fairly large inflow of people into the target group from 2010 to 2012. Indeed, only about a third had been employed since before 2007 and about 46,000 newly entered that group between when the NHS and CSD were conducted. There was, however, an even larger outflow from employment into the comparator group from 2010 through 2012 of about 112,000 people. As a point of interest, people in the target group had shorter job tenure on average than people who had been retained in employment after the advent of work-limiting disability and people whose disability did not limit their work activities.

The vast majority of people in the target group were working for employers, although there was a slight increase from 2010 through 2012 in the proportion of people in the target group who were self-employed. Most people in jobs that fell short of the standard of "decent work" as here defined were self-employed.

Most people in the target group had decent earnings as defined in the present research. That said, the proportion in the target group with such earnings was lower than among people

retained in employment after the advent of work-limiting disability, employed people whose disabilities did not limit their work activities, and employed people without disabilities. A high proportion of people in the target group had permanent jobs with employers. However, relatively few were members of unions or otherwise covered by collective agreements. Most worked full-time, but that proportion was slightly lower than among people retained in employment after the advent of work-limiting disability and among working people whose disabilities did not limit them at work. In contrast, the proportion of people in the target group who worked full-time was higher than among people with jobs that were less-than-decent as here defined. About a third of people in the target group were in small workplaces, i.e., with about 20 or fewer employees. Among people with disabilities and any jobs with employers, those in the target group were most likely to be in small workplaces, with the exception of people with less-than-decent work.

People in the target group were more likely than those in the comparator group who previously held jobs to have jobs in educational services, public administration, construction, and the retail trade. They were also considerably more likely than employed people without disabilities to be working in construction, retail, and the accommodation and food services industries. People in the target group were more likely than those in the comparator group who had been working to have occupations in: health, trade/transport, equipment operation and related occupations, management, and in a broad cluster of occupations related to education, law, social services, community services, and government services. The occupations of people in the target group were considerably less likely than those of the comparator group who had been working to be in: art, culture, recreation, and sport; manufacturing and utilities; natural and applied sciences and related occupations; and natural resources, agriculture, and related occupations.

In terms of personal characteristics, people in the target group were more likely than those in the comparator group to be men 50 to 64 years of age. Young people 15 to 29 years were unlikely to be in the target group, regardless of gender. Those in the target group were much less likely than those in the comparator group to be visible minorities and immigrants, and slightly more likely to be Aboriginal persons. They were more likely to speak both official languages.

People in the target group were less likely than those in the comparator group to be from provinces east of Ontario and were more likely to be from provinces west of Manitoba. They were more likely to be living as members of couples with children or to be living as “unattached” people, and they were much less likely to be living as adult “children” with one or both parents.

People in the target group had a relatively high level of formal education, were more likely to have gone back to school for retraining, more likely to have incurred expenses related to their education, and more likely to have selected their courses and program options in light of their condition. They were less likely to have started school later than their age peers, to have left their community to attend school, or to have experienced long interruptions in their education. People in the target group were also much more likely than those in the comparator group to have taken employer-sponsored classroom training, on-the-job training, and other training not paid for by their employer.

In terms of impairment and related issues, those in the target group were more likely than those in the comparator group to be dealing with issues of manual dexterity or vision. They were less likely to be dealing with issues of mobility, learning, memory, or developmental/intellectual disability. While people in the target group were more likely to have pain-related disabilities, pain was ubiquitous among both groups. Those in the target group were more likely to have a

mild or moderate degree of disability, less likely to have a severe level of disability, but about as likely to have a very severe level of disability. All told, people in the target group were on average less severely disabled. Those in the target group were slightly less likely to report only one broad type of disability, but the relationship was not clear-cut between the number of people's impairments and whether they were in the target rather than comparator group. The differences between the target and comparator group in terms of age at disability advent and duration of disability were not major. However, those in the target group were more likely to have disabilities caused by work-related factors, and less likely to have disabilities caused by aging, illness, or disease.

In terms of the implications of disability for work, those in the target group were all, by definition, limited at work because of their condition. Among those in the comparator group, most felt limited or completely prevented from working because of their condition. Those who felt prevented, however, did not rule out the possibility that a workplace arrangement or modification might have enabled them to work. Those in the target group were less likely to require supports for basic access to employment, such as accessible built environmental features or accessible transportation. With the exception of modified or reduced hours or days of work, ergonomic measures, and various support requirements not specifically enquired about in the CSD, those in the target group were also generally less likely than those in the comparator group to need any supports for participation at work once they had access to the workplace. Where supports *were* required for basic access or participation at work, however, people in the target group were generally more likely than those in the comparator group to have had those needs met. They were also more likely than people in the comparator group to have experienced various forms of employer discrimination – perhaps because they were more likely than people

in the comparator group to have actively looked for work or a job promotion in recent years and were therefore more likely to have been in the "line of fire."

People in the target group were less likely to have relied on the disability-income support system in the previous year. However, where they had relied on such programs they were more likely to have received benefits from Workers' Compensation programs and, curiously, the Quebec Pension Plan Disability program. They were considerably less likely to have received income from the Canada Pension Plan Disability program or other CPP benefits, or social assistance from provincial, territorial or municipal governments.

People in the target group were more likely than those in the comparator group to need various aids/devices for life beyond the scope of employment and were more likely to have needs that were completely met in this area. In contrast, while those in the target group were about as likely as those in the comparator group to need help with everyday activities because of disability, they were less likely to have all their needs met in this area.

The research explored in Chapter II points to numerous general socio-demographic and disability-specific issues that are implicated in whether people with disabilities have jobs. These factors are implicated on both sides of the divide between the Individual and Social models of disability. The present chapter has shown that most of those issues are also relevant to whether people are likely to find decent employment after the advent of work limiting disability. If the issues were of no particular relevance, the figures for people in the target and comparator groups would look much the same. The analysis in this chapter has shown, however, that the many differences between people in the target and comparator groups are sizable. As the research on intersectionality has found, factors that place people at a disadvantage in employment interact on several layers. Conversely, factors that advantage people are also interactive and layered. What

the present chapter and most other demographic studies on employment and disability has not done, is attempt to sort through the myriad of possibly-relevant factors to identify the ones that most strongly predict whether people are likely to obtain decent jobs after the advent of work-limiting disability. The following chapter on the regression analysis takes the research that further step.

Chapter Eight: Factors that matter most: An application of binary logistic regression

Many of the issues examined in previous chapters are amenable to framing employment and disability from a Social Model of disability perspective. While the Social Model is useful, the impairment-related dimensions of disability are also significant. If that were not the case, the employment situations of people with various different impairments would look much the same. But, as shown in Chapter VII, employment rates are quite different across types of impairment. If research is to contribute to a policy and program system on disability that will be able to deal with some of the complexities of disability and employment, a more nuanced approach is required. It needs to be one that takes into account the effects of various impairments and disability-specific needs, as well as the effects of social, economic, built-environmental, and other contextual factors that create further obstacles to employment that people without functional impairments typically do not face (Shakespeare, 2006; Thomas, 1999; Wendell, 1996; World Health Organization (WHO), 2001). This more integrated approach informs the understanding of disability as reflected in the UN Convention on the Rights of Persons with Disabilities and the present research. However, even a more integrative way of thinking about disability runs the risk of overlooking key socio-demographic factors that are also in play irrespective of disability. These include geographic location, age, gender, ethno-racial identity, Aboriginal person status, level of education, and whether people have taken work-related training.

All such factors interact, are associated with disadvantage and discrimination (Anderson et al., 2003; Jones, 1997 citing others), and are often layered. Together they can produce difficulties that are more complex than the simple aggregation of difficulties taken in isolation

from one other (Eaton in Aylward, 2010, p. 9). An intersectional approach to analysing the low employment of people with disabilities can shed fuller light on these issues (OHRC, 2001b), which in turn can help frame policy and program responses to the difficulties in employment that disabled people experience.

The present research, then, is based on the hypothesis that the complex, interrelated factors that affect the employment prospects of people with disabilities require a multifaceted, integrated and intersectional approach. Such an approach is consistent with a human rights approach to employment and disability articulated by the UN. If human rights are indivisible, and the right to employment and its necessary conditions are to apply irrespective of disability or any other status, it makes sense to proceed in research, policy, and program design as if disability-specific and other factors associated with disadvantage all need to be addressed in efforts to realize disabled people's employment rights.

However, in view of the socio-economic heterogeneity at play among people with disabilities, and the many factors having a bearing on their employment situation, where are the designers of public policy and programs to focus the efforts? Which factors matter most for policies and programs that aim to support the movement of people with work-limiting disabilities into decent work? What are the overarching considerations that should be included in any robust approach that intends to maximize good employment outcomes for significant numbers of people, understanding that, in addition, more customized efforts will probably be required by specific individuals and sub-groups? Are there particular avenues of attention and investment that are more likely than others to yield positive results? In order to begin answering these questions, the present research used binary logistic regression. The objective was to assess the impacts of selected factors on the likelihood that disabled people surveyed by the CSD would

obtain decent new work after the advent of work limitations rather than remain jobless.

Logistic regression has become more widely used in recent years in the social sciences and educational research (Peng, Lee & Ingersoll, 2002). As discussed in Chapter VI on methodology, Statistics Canada has defined regression as "[a] statistical method which tries to predict the value of a characteristic by studying its relationship with one or more other characteristics" and logistic regression as "[a] form of regression analysis used when the response variable is a binary variable (a variable having two possible values)" (Statistics Canada, 2014a, 65-66). The logistic regression for the present research estimated odds ratios for people being in the target vs. comparator group in light of characteristics explored in the demographic analysis and as reflected in 84 predictor variables. A discussion of odds and odds ratios is also provided in Chapter VI. Bootstrap weights were applied and 1,000 iterations of the logistic regression were run in SAS software. As with the demographic analysis, the regression procedure focused on CSD respondents who were 15 to 64 years of age.

A. Target and comparator groups

Based on the approach outlined in Chapter VI on statistical methodology, people with disabilities who obtained decent work after they first experienced work-related limitations were coded "1" on the binary variable that was used for the logistic regression. The regression did not include within the target population disabled people without work limitations, or people retained by their present employer after the advent of work limitations with that employer, or people engaged in employment that fell short of decent work as defined in this research. Some 216,170 people (weighted estimated) were coded "1".

The base or comparator group were disabled people who were not working when the CSD was conducted and about whom information was gathered about their need for job accommodations. These people were coded “0” on the target variable. Key characteristics of these 536,700 people are described in Chapter VI. Essentially, they were unemployed, or not in the labour force and were either not limited at work or did not rule out the possibility that a workplace accommodation could have enabled them to work, or they were involuntarily retired and had worked in the previous 5 years. Other jobless people with disabilities were excluded from the comparator group because the CSD did not gather information about their needs for job accommodations or other employment supports.

Slightly over 5,300 unweighted cases underlay the weighted estimate of 753,400 people who were represented in the regression analysis.

B. Predictors and working hypotheses

Drawing from the literature review and the demographic analysis, the regression analysis tested whether and to what extent 84 predictors in the following broad theme areas contributed to the likelihood (odds) of people with disabilities obtaining decent employment after the advent of work limitations because of disability. Working hypotheses are provided below, which guided the selection of predictors in each of the broad theme areas.

1. General socio-demographic characteristics

Hypothesis 1: Age. It seems clear on the basis of the literature review that age makes a difference as to whether people with disabilities have jobs. The demographic analysis also showed that age makes a difference as to whether people are in the target vs. comparator group. The present research hypothesized that the odds of being in the target group would be lower

among younger people (15 to 29 years) with disabilities than among those in the “core working years” (30 to 49 years – the reference category). It was also conjectured that perhaps there would be some falling away from participation in decent work as disabled people approach the retirement years. (Ha: β [Age 15 – 29 and 50 - 64] < 0.)

Hypothesis 2: Gender. It was hypothesized that gender also makes a difference and specifically that men with disabilities would be more likely than women with disabilities (the reference category) to be in the target group. (Ha: β [Men] > 0.)

Hypothesis 3: Visible minority and Aboriginal person status. Due in part to the historical disadvantages they have faced in employment, it was hypothesized that visible minority and Aboriginal people with disabilities would be less likely than others to be in the target group. All others with disabilities were held constant as the reference group. (Ha: β [Visible minorities] < 0; Ha: β [Aboriginal persons] < 0.)

Hypothesis 4: Living arrangements. It was hypothesized that, due in part to natural incentives for them to try to garner enough income to support their children, disabled parents of children (i.e., members of couples with children and lone parents) would be more likely than members of couples without children to be in the target group. (Ha: β [Members of couples with children] > 0; Ha: β [Lone parents] > 0.) It was also hypothesized that unattached people with disabilities would fare better than members of couples without children because the former are more likely to be freer of family ties that could otherwise inhibit their pursuit of decent employment wherever it might happen to be available. (Ha: β [Unattached people] > 0.)

2. Living arrangements

Hypothesis 5. Care of young children. It was hypothesized that, other factors held constant, disabled parents responsible for the care of young children would be less likely than others with disabilities to be in the target group. It was surmised that the comparatively greater attention that children require in their earlier years prevent many parents – mainly mothers – from working. (Ha: β [Membership in households with children younger than 15 years, by people who are not themselves children in this age group] < 0.)

3. Geographic location and mobility

Hypothesis 6: Geographic location. Based on the demographic analysis, Appendix Table A.2, and the literature review it seemed likely that disabled people's province/territory of residence has some bearing on whether they obtain decent work. For the present research it was hypothesized that disabled people in the Atlantic provinces, Quebec, and the three territories would be less likely than people in Ontario (the reference category) to be in the target group, whereas those with disabilities west of Ontario would fare relatively better. (Ha: β [Residing, respectively, in Newfoundland and Labrador, Prince Edward Island and Nova Scotia, New Brunswick, Quebec, or "the north"[12]] < 0; [Residing, respectively, in Manitoba, Saskatchewan, Alberta, or British Columbia > 0].)

Hypothesis 7: Geographic mobility. In view of the geographic movement of people in pursuit of employment that is fairly common in Canada, and the Constitutional protection of mobility rights, it was hypothesized that people's geographic mobility could affect their odds of

[12] Owing to small counts, cases representing people from Prince Edward Island and Nova Scotia were combined into a single variable. Another grouped variable was derived to indicate residents of the "north," i.e., of the Yukon, Northwest Territories, or Nunavut.

being in the target group. Specifically, it was hypothesized that the odds of having decent work would be higher among people with work-limiting disabilities who are geographically mobile vs. those who are not. (Ha: β [Movement from outside of the country, or from a dwelling in another Census district, to the present dwelling over the past five years] > 0.)

4. Personal capital

Hypothesis 8: Educational certification. In view of the findings of the demographic analysis that there were higher proportions of people in the target group as the level of educational certification rose (see also Appendix Table A.5), it was hypothesized that people who have obtained a high school graduation certificate or higher would be more likely to be in the target group than those with no certification, which included people without high school graduation (Ha: β [High school graduation certificate, college certificate or diploma, trades certificate, or university degree or certificate > 0].) The regression separately tested each of these levels of educational certification.

Hypothesis 9: Job training. It was conjectured that people who have recently received on-the-job training, classroom-based training, or some other form of job training would be more likely than people without such training to be in the target group. (Ha: β [On-the-job training, classroom-based training, or some other form of training for work > 0].) The regression tested each of these possibilities.

5. Impairment effects and causes

Hypothesis 10. Impairment effects. Given what the demographic analysis and Appendix Table 6 indicated, it was conjectured that the type of impairment effects (activity limitations) that people experience would be relevant predictors of the likelihood of their being in the target

group. While pain was widely evident in both groups, pain was the most widely reported disability among people in the target group and was more widely reported in that group than in the comparator group. Accordingly, it was hypothesized that, compared with people with pain-related disabilities, all others with disabilities would be less likely to be in the target group. (Ha: β [Any impairment effects except pain < 0].)

However, pain was often present with other impairment effects. In fact, pain is ubiquitous in the CSD. Most people in the target group (82.9%) and comparator group (70.8%) reported it, as did most working-age people with disabilities regardless of their labour force situation (73% overall).

Aside from pain, people often had combinations of impairment effects as well. For instance, there was much overlap between the relatively small group of people with developmental disability and the larger group of people with learning disability. The former were people who had been told by a doctor, psychologist, or other health care professional that they had a disability/disorder such as Down syndrome, autism, Asperger syndrome, a mental impairment due to lack of oxygen at birth, etc. The latter were people who had been told by a teacher, doctor, or other health care professional that they had a learning disability (Statistics Canada, 2014b). Similarly, there was considerable overlap between mobility impairments and other physical disabilities in the areas of flexibility and dexterity. In preliminary testing for the present research, fairly high correlations were confirmed across difficulties in the broad cognitive and physical-function domains. There are many possibilities for overlapping and stand-alone difficulties across the types of impairment in the CSD. In many instances the configurations overlap with pain.

Accordingly, several variables were derived in an effort to distinguish at least a few of the more dominant patterns. Separate new binary "yes/no" variables were derived to capture:

- People whose only functional difficulties were the result of pain (one variable);
- People with any difficulties in the areas of mobility, flexibility, or dexterity (one variable);
- People with learning disabilities but not developmental disability (one variable);
- People who had functional difficulty along *with pain* in each of the areas of hearing, memory, emotional well-being, physical functioning (the derived variable for mobility, flexibility, and/or dexterity), seeing, developmental disability, and learning disability without developmental difficulty (seven variables);
- People who had a functional difficulty but *without pain* in each of the seven areas of hearing, memory, emotional well-being, physical functioning (the derived variable for mobility, flexibility, and/or dexterity), seeing, developmental disability, and learning disability without developmental disability (seven variables); and
- People with an "unknown" disability (one variable). By definition, little is known about the specifics of the disabilities classified by Statistics Canada as unknown, except that, aside from the ones captured above, the people affected have some "other health problem or condition that has lasted or is expected to last for six months or more" (Statistics Canada, 2014a). The condition(s) limit(s) the daily activities of those affected. People with an unknown disability did not report pain. Appendix Table A.6 shows the percentages of people in the target and comparator groups who reported such permutations of impairment effects.

Hypothesis 11: Cause of impairment / disability. The demographic analysis and Appendix Table 6 show that cause of disability seemed to have some relationship with whether people were in the target vs. the comparator group, but that the pattern was uneven. For instance,

people in the target group were considerably more likely than those in the comparator group to have disabilities caused by work-related accident or injury (25.4% vs. 17.2%), somewhat less likely to have disabilities caused by aging (8.1% vs. 10.2%) and about as likely to have disabilities caused by factors at or before birth (14.5% vs. 14.8%). The research hypothesized that the odds of being the target group would be higher among those whose disabilities were caused by non-work accidents and work-related accidents, that the odds would be lower among those whose disabilities were caused by disease/illness, aging, and various "other" causes, and that the odds would be about the same among those whose disabilities were caused by factors before or at birth. Disabilities caused by "undetermined" factors were held constant as the reference. (Ha: β [Disability caused by non-work accidents and work-related accidents > 0]; Ha: β [Disability caused by aging and unspecified "other" causes < 0]; Ha: β [Disability caused by factors before or at birth ≈ 0].)

6. Met and unmet needs for supports for initial and ongoing *access* to employment

Hypothesis 12. Accessible transportation and built-environmental features. The demographic analysis and Appendix Table 8 show that those in the target group were generally more likely than those in the comparator group to have had their needs met for supports for gaining basic access to the workplace. Such supports in this research were accessible transportation to/from work and accessible built-environmental features at the workplace. The present research hypothesized that the availability of such supports may help predict the odds of target group membership. Those who did not indicate a need for any job accommodation or other support for employment were held constant as the reference. (Ha: β [Receipt of needed

accessible transportation for work > 0]; Ha: β [Receipt of needed built environmental features at the workplace > 0]).)

Hypothesis 13: Experience of employer refusal to interview or hire because of disability. It made intuitive sense to infer that, even if a person could get to and into the workplace, if they then experienced employer refusal to interview or hire them because they had a disability, perhaps their odds of obtaining decent work would be lower than among people who have not had such experiences. However, the demographic analysis and Appendix Table 9 show that, at least based on the CSD, those who have had such experiences were actually *more* likely to be in the target group than those who had not had the experiences. It was hypothesized that this pattern may have occurred because those in the target group were simply more likely than those in the comparator group to have looked for work over the preceding few years and to have encountered negative employer attitudes and behaviours in the process. It was hypothesized that people who experienced employer refusal to interview or hire them would also emerge in the regression research as more likely to be in the target group. The research held constant those who had not experienced any of the forms of employer discrimination probed in the CSD as the reference group. (Ha: β [Experience of employer *refusal to interview* based on the applicant's disability > 0]; Ha: β [Experience of employer *refusal to hire* based on the applicant's disability > 0].)

7. Met and unmet needs for supports for *ongoing participation* at work

Hypothesis 14: Met and unmet needs for personal job accommodations. The demographic analysis and Appendix Table 8 show that people in the target group were generally

more likely than those in the comparator group to have had their needs met for personal accommodations for participating in the workplace, once hired. It was hypothesized that this would also be the case in the regression model. Those who did not indicate a need for any job accommodation or other support for employment were held constant as the reference. (Ha: β [Needs met for job redesign or telework, modified hours or days of work or reduced hours, human support, technological supports, ergonomic workstation or specialized chair / back support, various other supports > 0].) Each of these accommodations/supports were tested separately.

Hypothesis 15. Experience of employer refusal to promote because of disability. The research hypothesized that, once a person had obtained decent work, employer discrimination may be implicated in whether s/he continues at work. The only indicator of employer discrimination against those at work was employer refusal of a job promotion based on disability. The demographic analysis and Appendix Table 9 show that the experience of such discrimination was more common among people in the target vs. comparator group. As those in the target group were all working when the CSD was conducted, it seemed reasonable to infer that they were simply more available than those in the comparator group, among whom none were working, to be considered for, and denied, a promotion. The present research hypothesized that the odds of being in the target group would be comparatively higher among people who had experienced employer refusal of a job promotion. Those who had not experienced any of the forms of employer discrimination probed in the CSD were held constant as the reference. (Ha: β [Experience of employer refusal to provide a job promotion based on the employee's disability > 0].)

8. Recent reliance on the disability-income system

Hypothesis 16. Recent reliance on one or more forms of disability-income support. The demographic analysis and Appendix Table 10 showed that whether people have been involved with various disability income support programs is implicated in whether they are in the target vs. comparator group. However, the pattern is uneven. For instance, 8.8% of those in the target group received the Quebec Pension Plan Disability benefit in the past year, compared with 5.4% among those in the comparator group. In contrast, only 7.4% of those in the target group received provincial, territorial, or municipal social assistance compared with 23% of those in the comparator group. Then again, about the same proportions in the target and comparator group had received motor vehicle disability insurance (1.8% vs. 1.9% respectively). It was hypothesized that the odds of being in the target group would be: higher among those who received the Quebec Pension Plan (QPP) Disability benefit, Employment Insurance or workers' compensation in the past year; lower among those who received the Canada Pension Plan (CPP) Disability benefit, other CPP income (excluding the Disability benefit), QPP excluding the Disability benefit, private long-term disability insurance, Veterans Affairs Disability pension benefit, or social assistance; and about the same if they received disability benefits from motor vehicle accident insurance. People with disabilities who received no income from any of those income sources were held constant as the reference. (Ha: β [QPP Disability, Employment Insurance or workers' compensation > 0]; Ha: β [CPP Disability benefit, CPP excluding the disability benefit, QPP excluding the disability benefit, private long-term disability insurance, Veterans Affairs disability benefit, or social assistance < 0]; Ha: β [Motor vehicle accident insurance or QPP Regular retirement ≈ 0].) The regression model tested each of these income sources separately.

9. General disability-related supports

Hypothesis 17: Need and unmet need for aids/devices. The demographic analysis and Appendix Table 11 show that people in the target group were more likely than those in the comparator group to need one or more aids/devices to assist with disability, and that those most likely to be in the target group were those whose needs had been fully met. It was hypothesized that the same general pattern would emerge in the regression analysis. The absence of need for any aids/devices was held constant as the reference. (Ha: β [All needs met for aids/devices > 0]; Ha: β [Some or no needs met for aids/devices < 0].)

Hypothesis 18: Need and unmet need for help with everyday activities. The demographic analysis and Appendix Table 11 present a less clear picture of the relationship between met and unmet needs for help with everyday activities. Here, people in the target group were somewhat less likely than those in the comparator group to have all their needs for help met. Counterintuitively, they were more likely to be people whose needs for help were completely unmet. The research hypothesized that this pattern may also be the case in the regression model. The research held constant the absence of any need for help with everyday activities because of disability as the reference category. (Ha: β [All needs met for help, and some needs met for help < 0]; Ha: β [No needs met for help > 0].)

10. Other considerations

It was initially conjectured that those with a *less severe (e.g., mild) degree of disability* would be more likely to be in the target group than those with more severe degrees of disability. However, Appendix Table 6 shows that some degrees of severity were represented fairly similarly within both the target and comparator groups. There were also fairly strong Kendall

Tau correlations between each of the degrees of disability and the types of impairments discussed above. Preliminary regression testing found that, given all the other factors in the model, the degrees of severity failed to add statistically significant results. Accordingly, severity of disability was dropped from the regression model.

Preliminary testing was also conducted to ascertain whether *the advent of disability fairly early in life*, i.e., before completion of formal education, affected the likelihood of being in the target vs. comparator group. However, Appendix Table 6 shows that similar proportions in the target and comparator groups had early onset disabilities, i.e., before completing their formal education. Fairly strong correlations were also found between the early onset indicator and other indicators, such as whether people were 15 to 29 years of age, or were adult "children" (i.e., older than 15) living with one or both parents, or had a disability caused by factors before or at birth. As the early onset flag added nothing new or statistically significant that could not be inferred from other results, that predictor was dropped from the regression model.

Variables were derived to explore the odds of obtaining decent work after the advent of work limitations if, because of disability, people: a) had changed school, had to leave their community to attend school, or attended special education, took home schooling, or studied by correspondence; or b) had been excluded or bullied at school. As discussed in the demographic analysis and as shown on Appendix Table 5, the differences between people in the target and comparator groups were not major across those indicators of educational difficulties. In preliminary regression tests that included these and several other variables in the model, there were no statistically significant differences between the odds of being in the target group by whether people had experienced such educational difficulties. Accordingly, these indicators of historical difficulties in education were dropped as predictors.

While immigrants surfaced in the demographic analysis as less likely to be found among those in the target group than in the comparator group, the same was also true for visible minorities. Many visible minorities are immigrants. However, immigrants could also include Caucasians from the United States, United Kingdom, Australia, New Zealand, and Central and Eastern Europe. As in many cases visible minority status would be a more apparent characteristic to employers than immigrant status and may serve as a more immediately palpable basis for discrimination, immigrant status was not included in the regression model.

Text Table 6 provides a summary of the hypotheses, showing how they fall most clearly within the Individual or Social Model of disability. Some factors, such as education, training, and some causes of disability, straddle both models. These factors produce person-level characteristics and therefore fit within the individual model, but only as a result of social processes.

Text Table 6.

Summary of hypotheses, grouped by correspondence with the Individual and Social Models of disability

Models of disability	H_a #	Predictors
Individual	**a. General socio-demographic characteristics**	
	1	Age
	2	Gender
	3	Visible minority status
		Aboriginal person status
	e. Impairment effects and causes (i)	
	10	Type of impairment / functional limitations
		Cause of disability: Factors at birth; aging; illness/disease
	f. No need and any need of one or more supports for initial and ongoing access to employment	
	g. No need and any need of one or more supports for ongoing participation at work	
	i. No need and any need of aids/devices or help with everyday activities because of disability	
Social	**b. Living arrangements**	
	4	Parents
		Unattached
	5	In household caring for younger child(ren)
	c. Geographic location and geographic mobility	
	6	Atlantic Canada and the north
		Prairies and BC
	7	Geographic mobility
	f. Met and unmet need for supports for initial and ongoing access to employment	
	12	Accessible built environmental features at work
		Accessible transportation for work
	13	Employer refusal to interview or hire because of the applicant's disability
	g. Met and unmet need for supports for ongoing participation at work	
	14	Job redesign or telework

Text Table 6.

Summary of hypotheses, grouped by correspondence with the Individual and Social Models of disability

Models of disability	H_a #	Predictors
		Modified hours or days of work or reduced hours
		Human support
		Technological supports
		Ergonomic workstation or specialized chair/back support
		Various other supports
	15	Employer refusal of a job promotion based on disability
	h. Recent reliance on the disability-income system	
	16	CPP Disability benefit
		CPP excluding the disability benefit
		QPP Disability benefit
		QPP excluding the disability benefit
		Private long-term disability insurance
		Veterans Affairs disability benefit
		Motor vehicle accident insurance
		Social assistance
	i. Met and unmet need for general disability supports	
	17	Met or unmet need for aids/devices because of disability
	18	Met or unmet need for help with everyday activities because of disability
Individual as mediated by social factors	**d. Level of personal capital development**	
	8	Highest educational certificate
	9	Type of job training (if any)
	e. Impairment effects and causes (ii)	
	11	Cause of impairment: work-related and other injuries / accidents

C. Findings

The full model correctly classified 84% of cases and explained between 34.9% (Cox & Snell R Square) and 50% (Nagelkerke R Square) of the variance in whether people obtained decent new work.[13]

Appendix Table A.12 shows that 31 of the 84 predictors were statistically significant. However, another 5 have been flagged with the "†" symbol as warranting attention because in all cases $p < .1$ and in 4 of those cases $p < .07$. That so many of the predictors were statistically significant tends to support the overall impression left by much of the research on issues of disability and employment: many factors do indeed matter.

As a point of interest, the statistically significant predictors shown on Appendix Table A.12 (and those on the borderline of statistical significance indicated by "†") have been extracted and placed in Appendix Table A.13. They have also been ranked in each thematic category on Table 13, from greatest to least in terms of the magnitude of the odds ratios. The table provides a quick way of finding the predictors that had the strongest positive effects in contributing to obtaining decent new work, and the predictors that had the strongest negative effects in detracting from decent new work. The most positively impactful predictor was the provision of modified or reduced hours or days of work to people who needed this accommodation. The strongest detractor from obtaining decent new work was recent reception of social assistance.

Appendix Table A.13 shows in positive and negative percentage terms the extent to which the odds ratios exceeded or fell short of 100%, which was the base rate for the reference

[13] The Cox & Snell and Nagelkerke R Square findings were obtained by running the model in SPSS.

categories expressed in percentage terms. The following discussion uses the percentages to discuss the relative contributions of the predictors to whether people obtained decent new work after the advent of work limitations. This approach has been followed because it seemed more to the point to say that men were 61% more likely than women to obtain decent new work after the advent of work-limiting disability than to say that men were 1.610 times more likely than women. Similarly, it seemed clearer to say that visible minorities were 43.7% less likely than people who were not members of visible minorities to obtain decent new work than to say that visible minorities were .563 times as likely.

As the focus of the analysis is on the factors that contributed to the odds of people with disabilities obtaining decent new work after the advent of work-limiting disability rather than having no work at all, the discussion has frequently abbreviated the phrasing to refer simply to whether people were more or less likely to obtain decent new work. The discussion also uses the terms “likely,” “likelihood,” and “odds” interchangeably.

Just because a predictor was not “statistically significant” does not mean that it was completely irrelevant. Statistical significance indicates that it was highly unlikely that a given result occurred by chance. For some predictors, such as those indicating whether needed job accommodations were actually received, results might have proven statistically significant had more people been asked the questions. The discussion in Chapter VII suggests that some people may have been filtered out of the Employment Modifications Module who perhaps should have been included, such as people who needed accessible transportation for work but did not see this as a workplace arrangement or modification.

1. General socio-demographic characteristics

Looking at the basic socio-demographic characteristics of CSD respondents, the research found that men were 61% more likely (p = .004) than women to obtain decent new work after the advent of work-limiting disability. It also found that members of visible minorities were 43.7% less likely (p = .027) than people who were not members of visible minorities, and that young adults (15 to 29 years) were 55.8% less likely (p = .001) than their counterparts in the core working years (30 to 49 years). Results were not statistically significant for Aboriginal persons or older people.

2. Living arrangements

Living arrangements had a bearing on the likelihood of obtaining decent new work after the advent of work-limiting disability. Compared with members of couples without children, lone parents were 203.9% more likely (p = .01) to obtain it. Unattached people, i.e., those living alone or with others but not with nuclear or extended family members, were 115.3% more likely (p = .001), and members of couples with children were also 81.4% more likely (p = .021).

In contrast, however, those living with children younger than 15 years were 58.6% less likely (p = .001) to obtain decent new work than people in households with no children or where the children were 15 or older.

3. Location of residence and geographic mobility

The research found that, compared with people who lived in Ontario, people in Newfoundland and Labrador were 60.1% less likely to obtain decent new work after the advent of work-limiting disability. The results approached statistical significance for people who lived in Quebec and New Brunswick, for whom the odds of obtaining decent new work were,

respectively, 40.9% lower (p = .066) and 41.3% lower (p = .054) than for people living in Ontario.

Compared with the situation among people who lived in Ontario and holding all other predictors constant in the model, any differences in the odds of obtaining decent new work were not statistically significant for people living west of Ontario or in the north.

In order to explore whether the people who were geographically more mobile than others were more likely to obtain decent employment, the research derived and applied a variable to capture people who had moved to Canada or from one census district to another in the previous 5 years. The result was not statistically significant.

4. Impairment effects and causes

Only one broad cause of impairment surfaced as a statistically significant predictor of the likelihood of people obtaining decent new work after the advent of work-limiting disability: people whose disability was caused by illness or disease were 39.9% less likely (p = .05) to obtain decent work than those whose disabilities resulted from undetermined causes. However, although not quite statistically significant, people with conditions present at birth were 52.7% *more* likely to obtain decent new work, (p = .063) than those with undetermined causes.

Three broad types of impairment effects were identified as statistically significant predictors – all in a negative direction. Taking those who only had impairments in the area of pain as the reference category, those with emotional/psychological disabilities but no pain-related impairment were 47.6% less likely (p = .026) to obtain decent new work. Those with difficulties in the area of mobility, dexterity, or flexibility but without pain were 59.1% less likely (p = .008), and those with an “unknown” disability were 74.9% less likely (p = .006).

While not quite statistically significant, it was noteworthy that people whose impairments were in the area of learning disability accompanied by pain, but not by intellectual/developmental disability, were 41.3% less likely ($p = .064$) than people with pain-only impairments to obtain decent new work after the advent of work-limiting disability. As well, those with seeing impairments and no pain-related impairments were 57.5% less likely ($p = .098$).

5. Personal capital

Six factors in the area of personal capital were statistically significant positive predictors of the likelihood of obtaining decent new work after the advent of work-limiting disability. Compared with those who had not taken any work-related training in the previous 12 months, people who took some kind of training that was not paid for by an employer were 250.6% more likely ($p < .0001$). People who took some form of classroom training paid for by an employer were 98% more likely ($p = .002$). On-the-job training was not a statistically significant predictor of the likelihood of obtaining decent new work, holding constant all other predictors in the model.

Looking at education more broadly, the research compared the situation of people with various levels of educational credentials against people who had none, which consisted mainly of people without a high school graduation diploma or its equivalent. People with a trade certificate or diploma were the most likely (210% more, $p < .0001$) to obtain decent new work after the advent of work-limiting disability. People with a university degree or other university certificate were 144.5% more likely ($p = .001$) than those without any educational certification. People with a college, CEGEP, or other non-university certificate or diploma excluding a trades certificate

were 126.3% more likely (p = .001). Even those with a high school diploma or equivalency certificate were 86% more likely (p = .006) than those without any educational certification.

6. Supports for initial and ongoing access to work

The research looked at several potential barriers and supports that can help and hinder people from obtaining basic access to work. Compared with those who had not experienced any of the forms of employer discrimination explored in the CSD, those who believe they were refused a job in the previous four years because of disability were twice as likely (100.7% more likely) (p = .034) to obtain decent new employment after the advent of work disability. As discussed earlier in this research, perhaps the active search for employment in the recent past rendered such people more susceptible than others to experiencing employer discrimination. Evidently, they were more likely than those who had not experienced this problem to work around it.

In contrast, assuming people could get to the workplace, those who needed but did not receive accessible built-environmental features were 63.8% less likely (p = .044) to obtain decent new work after the advent of disability than people who did not need any supports for employment. Other supports for basic access to workplaces were no doubt important for some people but were not statistically significant predictors overall, holding all other factors constant.

7. Supports for participation at work

Four barriers and supports for participation at work emerged as statistically significant predictors of the likelihood of obtaining decent new work after the advent of work-limiting disability. Compared with those who had not experienced employer discrimination in the previous four years, those who believe they were refused a job promotion were 164.8% more

likely (p = .001) to have obtained decent new work. Other factors held constant, perhaps simply being in the candidate pool for a promotion was a fairly good indicator that decent new work was about to be obtained, despite employer resistance.

Compared with those who did not need any job accommodations or other supports for employment, those who needed and received modified or reduced hours or days of work were 427.9% more likely (p < .0001) to obtain decent new work. In sharp contrast, those who needed and did not receive support in this area were 54.5% less likely (p = .001), and those who needed but did not receive modified job duties or telework were also 59% less likely (p = .001).

These findings point to the importance of employer attitudes, scheduling practices, human resource management and promotion policy in fostering decent work among people hired sometime after they first experience work-limiting disability. Other supports for participation (e.g., human support, specialized chair or back support, ergonomic workstations, or various "other" supports) did not yield statistically significant results holding all other factors constant. However, the general pattern was that people's odds of obtaining decent new work were greater where needed supports were available rather than not available, figures that may have yielded more statistically significant results had more people been asked the EMO questions. The only exception was in the area of assistive and communication technologies needed for work.

8. Recent reliance on the disability-income system

The demographic analysis showed that people who obtained decent new work as defined in the present research were unlikely to have received income from various public and private disability income support programs in the previous 12 months. The regression analysis took as the reference category people who had not received income from any of these sources in that

time frame. It found that, holding all other predictors in the model constant, one public plan was a statistically significant positive predictor of obtaining decent new work, while three public plans and one category of private plan were negative predictors.

The Quebec Pension Plan – Disability benefit stands out positively for reasons that are not immediately clear. Holding all other factors constant, recipients of income from this source were 197.8% more likely ($p = .005$) than non-receivers to obtain decent new work after the advent of work-limiting disability. In sharp contrast, recipients of private-sector long term disability insurance payouts were 55.7% less likely ($p = .012$) to obtain decent new work. Also much less likely were recipients of the Canada Pension Plan Disability benefit (65.4% less likely, $p < .0001$), other Canada Pension Plan income (71.8% less likely, $p < .001$) and provincial, territorial or municipal social assistance (80% less likely, $p < .0001$). Results were not statistically significant for the other income sources listed on Appendix Table A.12.

9. General disability supports

Compared with people who did not need any aids/devices because of disability, people who were not using any of the ones they needed were 106.9% more likely ($p = .038$) to obtain decent new work after the advent of work-limiting disability. But people who used all the aids/devices they required were also more likely (54.8% more likely) to obtain decent new work than people who did not need any aids/devices ($p = .029$). It is difficult to make sense of these seemingly discrepant findings.

Results were not statistically significant for people who were using only some of the aids/devices they needed. Neither were results statistically significant by whether people received all, some, or none of the help they needed with everyday activities because of disability.

D. Summary

The research found 31 statistically significant relationships between those in the target group and the 84 predictors that were selected for the regression analysis, and noteworthy relationships involving 5 additional predictors that fell slightly outside of the conventionally accepted threshold of statistical significance of $p \leq .05$. Focusing on statistically significant or borderline significant ("†") characteristics, among those *most* likely to be in the target group were men, lone parents, unattached persons, and members of couples with children. They were more likely than others to have taken classroom training or other training that was not paid for or provided by their employer. Holding all other factors constant, they were more likely to have had a trade certificate or diploma, followed next by a degree or other certificate from a university then a college/CEGEP or other non-university certificate or diploma. Even people with least a high school diploma or equivalency certificate were much more likely than people without educational credentials to be in the target group. The disabilities of people in the target group were more likely due to factors present at birth than other causes and unlikely to be the result of illness or disease. Typically, those in the target group believed they had been recently refused a job and/or a job promotion because of disability. However, they were likely to have received the modified hours/days/reduced work hours they needed. For reasons that are not immediately clear, people who had recently received the Quebec Pension Plan – Disability Benefit were among those most likely to be in the target group. Also among those most likely to be in the target group were people who needed aids/devices for a variety of purposes and who were using *all* the aids/devices they needed. However, another counterintuitive finding is that people who were *not using any* of the aids/devices they needed were also among those most likely to be in the target group.

The people *least likely* to be found in the target group were 15 to 29 years of age and members of Census families with child(ren) from birth to 14 years of age. People were unlikely to be in the target group if they resided in Newfoundland and Labrador, New Brunswick (†), or Quebec (†). They most typically had a disability caused by illness/disease (†). They were more likely than other people to have had any of the following disabilities, though without pain: learning disability without developmental disability (†); disability in the area or emotional/psychological well-being; seeing disability (†); disability in the area of mobility, dexterity, or flexibility; or an "unknown" disability. Those least likely to be in the target group needed and had not received accessible built-environmental features, modified or reduced hours or days of work, or modified job duties or telework. Others unlikely to be in the target group had received long-term disability benefits from a private plan in the past year, or from the Canada Pension Plan (i.e., its disability or other benefits), or from provincial, territorial, or municipal social assistance programs.

While the regression analysis helps to pinpoint factors most likely to support and hinder decent employment among people with work limiting disabilities, some of the key policy and program implications need to be teased out. That discussion is provided in the following chapter (IX).

Chapter Nine: Key policy and program implications

This chapter discusses policy and program implications that flow directly from the research findings. The discussion revolves around the actions that employers could take, and enhancements that could be made to existing public policy and program measures, without massive new investments.

A. The need for clearer policy and program focus

The present research indicates strongly that there is limited value in researchers and analysts dwelling on the low employment of people with disabilities as if it affects all people with disabilities in the same way or to the same extent. The general employment rate for people with disabilities and high-level information and analysis do have a useful place. But there is also a need to "drill down" to examine how specific sub-groups are directly affected by disability and the particular issues they face. For example, disabled people who do not consider themselves limited at work seem to be doing quite well on average, if their rate of employment against that of non-disabled people is to be taken as a gauge. No doubt there is still room for improvement on this front, and improvements for these people could perhaps move some of the 100,000 disabled people without work limitations who are jobless into decent work. However, unless efforts are focused specifically to address the very poor employment prospects of over a million other working-age people with disabilities who are jobless, measures to make a good situation better for a relative few will miss the heart of the matter. The present research has drawn attention to about half a million of these people. Most of them have substantial levels of disability and would face significant difficulties in employment if working. They have worked fairly recently and have not ruled out the possibility that some kind of workplace arrangement or modification could

enable them to work. Arguably, these people need to be brought more clearly into view in the public policy and program process.

Similarly, it would be a worthy policy goal to try to improve job retention among people who become disabled so they do not end up slipping into the world of the comparator group. Even worse, they could slip into the labour force hinterland of nearly three-quarters of a million other working-age people with disabilities who have been without jobs for a long time. As these people are largely beyond the scope of statistical instruments such as the CSD, very little is known about their employment-related needs and difficulties. As well, about 145,000 people with disabilities are in less-than-decent employment as defined in this research. Though all these people warrant greater research, policy, and program attention, it does not follow that they all need the same kind of attention. The methodology used in this research could be adapted to shed light on the specific needs and difficulties that each of these groups experience and that warrant policy and program attention.

Even among people who have obtained decent work there are important distinctions that need to be taken into account. What factors, for instance, most strongly predict whether people with work-related and intellectual disabilities are likely to obtain decent work? Are these the same factors that predict the likelihood of obtaining decent work for people with work-related disabilities and mental health difficulties, or mobility impairments, or episodic conditions? How would the policy and programmatic emphases for work-disabled youth differ from those required by disabled people returning to work after years outside of the labour force? What about middle-aged women vs. middle-aged men with work-limiting disabilities? What about work-limited people with disabilities who are social assistance recipients vs. disabled people with no jobs and no prior attachment to the disability income system? Many other populations may require

attention in policy research and development. With some adaptation, the methodology used in the present research could help unravel from the myriad of possible factors those most likely to foster positive employment outcomes and the factors most likely to impede realization of that goal.

As well, the analytical approach used here could help track whether the main obstacles to employment that disabled people are experiencing are ones that hamper basic access to workplaces, such as transportation or unaccommodating built environments, or whether the barriers are ones that would hamper people from participating effectively at work in the event they were to be hired, such as employer scheduling and task-allocation practices.

B. Setting general policy and program conditions, to be customized as needed

The literature review provided discussion of how employer stereotypes and concerns revolve around costs and related issues such as the presumed impact of disability on workplace morale and culture, production standards, product quality, organizational reputation, and the employer's legal liabilities. Employer perceptions and concerns can vary depending on type of disability, whether the employer has any firsthand experience with disabled employees, and organizational factors such as the firm's size and location.

Intersectional issues can create additional layers of employment disadvantages associated with age, gender, and ethnicity and race: the discussion of the literature showed how people in the core working years are most likely to have jobs, and that those least likely are women, visible minorities, Aboriginal persons, people living east of Ontario, and those with low education or no job training. Aggravating these difficulties, sectors of the economy and occupations where

disabled people have historically been most likely to find jobs have been undergoing profound changes and have been shedding large numbers of workers in recent years. Disability-specific issues add further complexity. Those most likely to be employed do not need job accommodations or, if they do, have usually had their accommodation requirements fully met, while significant numbers of other people lack the accommodations they require. People most likely to have jobs have disabilities in the physical domain rather than in the areas of cognition or emotional well-being, vision, or spoken communication. People with mild rather than severe levels of disability are most likely to be employed, as are people whose disabilities occurred earlier rather than later in life. Yet, people whose disabilities were caused by workplace factors and military service seem to fare better than people whose disabilities have been caused by illness or disease. People who have received income from the disability income system are less likely to have jobs than people who have not been attached to these programs. Even where people are able to obtain work, there are concerns about its quality. There are also concerns about whether people have much voice or control in making decisions about which jobs they should be seeking and about the supports they would require.

These are some of the complexities that adequate theory on disability and employment needs to be able to take into account, as discussed in Chapter IV. The issues that require attention fall on both sides of the divide between the Individual Model and Social Model of disability and are highly relevant from intersectional perspectives on both sides of that divide. The issues have important implications for the broad macro level of how societal systems, policies, laws, and funding commitments are organized down into to the micro level of how specific industries, occupations, and workplaces function.

The overall legislative and policy context for improving the employment prospects of people with disabilities is one in which finding even basic administrative information about the numbers and characteristics of program participants and program results is a fraught undertaking. Discrimination on the basis of disability in employment continues to make up one of the largest caseloads facing human rights commissions and tribunals across the country. Yet a recent ruling by the Supreme Court of Canada suggests that, presently at least, the state is under no positive obligation to make job accommodations and the associated funding more widely available to small and mid-sized employers, which are more likely than larger employers to have difficulties bearing such costs. There have been improvements in the employment rates of people with disabilities in private-sector firms regulated by Employment Equity, but the results fall short of ideal levels and in any event Employment Equity covers a relatively small percentage of the Canadian workforce. Although the *AODA* is still quite new, recent employment figures for people with disabilities in Ontario and recent findings of the recent Legislative Review of the *AODA* are not promising signs about the effectiveness of that piece of legislation. Important though the rights-oriented provisions of Canada's employment system are for people with disabilities, those provisions are neither coordinated nor robust and have had only modest positive impacts.

That said, federal and provincial/territorial law makers and policy developers have wide discretion to devise a more coherent and robust system as long as it does not run afoul of the *Charter* or human rights legislation. However, in view of the multi-dimensional diversity that must be accounted for to help people with work-limited disabilities move from joblessness into decent employment, a "one size fits all" approach is not likely to be very successful. By the same token, if a variegated approach is required, it would be difficult to devise a general policy and

program architecture that successfully takes into account every conceivable difference and need at once. The present research clearly indicates that several key features are likely to benefit many people. Further adjustments would then be required to take into account individual needs and circumstances.

The present research has looked at factors associated with why people were in the target group rather than in the comparator group when the CSD was conducted. The key focus of the research was on about 216,000 who obtained decent work after the advent of work-limiting disability and 537,000 disabled people who were jobless. Governments and employers need to reach a decision about whether that *status quo* is acceptable, and, if not, by how large a measure to attempt to improve it. For instance, should efforts be made to modify employers' current practices, and the public policy and program landscape, to encourage and support *everyone* in the comparator group to move into decent employment? Or should efforts strive for a more modest objective, e.g., a five percent per year shift of people from the comparator group into decent employment over several years running? The present research does not offer any definitive answers for those questions. Regardless of how they are answered, the present research *does* indicate that the policy and program approach should focus attention on several key issues to achieve best results.

For instance, the demographic analysis pointed to how people with unmet needs for accessible transportation are less likely to be in the target group than people whose needs in this area have been met. Holding a large number of other factors constant, the regression analysis was not able to confirm that pattern. However, the demographic analysis did point out how the CSD may not be reflecting the magnitude of fulfilled and unmet need among disabled people who need accessible transportation for work. The efforts of all levels of government to making

accessible transportation more widely available continue to be necessary. Better statistical information and research are needed to further that aim.

People with unmet needs for physically accessible premises are less likely to obtain decent work than people who do not need any job accommodations. Governments should continue to encourage and support employers to make their premises more accessible. This conclusion is consistent with the finding that people with impairments of mobility, flexibility, and dexterity who are not dealing with issues of pain are particularly unlikely to be in the target group. Despite what the literature has indicated about smaller and mid-sized employers' concerns over costs and other reasons for not hiring people with disabilities, the demographic analysis and Appendix Table A.1 suggest that small and mid-sized employers may already be doing their "fair share" when it comes to hiring people with work-limiting disabilities for decent employment. Larger employers should be more vigorously encouraged to enhance the physical accessibility of their premises. Such enhancements are likely to prove beneficial for customers as well as prospective employees with disabilities.

People whose needs have been met for modified hours or days of work are among those most likely to be in the target group. These people are likely with employers who understand how to make this accommodation available in ways that are consistent with customer satisfaction, worker productivity, and the employer's bottom line. Governments should identify employers that have instituted such practices and should engage such employers in providing peer mentoring and awareness-raising for other employers. Such employers could share insights about the practicalities and benefits of flexible work hours in terms of employee loyalty, turnover, job satisfaction, morale, and productivity.

The demographic analysis found that people whose needs have been met for modified job duties are more likely to be in the target group than in the comparator group. The regression analysis found a similar but mirror-image pattern: those who *do not* receive the modified job duties they require are *less likely* to be in the target group than people who do not need any job accommodations. Efforts should be expanded to increase employer awareness about the benefits and practicalities of providing modified job duties in ways consistent with employers' and disabled workers' needs. Such accommodations could look considerably different depending on people's functional impairments, e.g., intellectual disability vs. disability in the area of mobility or manual dexterity. The accommodations could also look quite different for employers and workers in manufacturing environments than in financial services, educational, or health-related service settings. A useful strategy would be to tap into a variety of employers' and disabled workers' experiences across industrial sectors. The experiences of workers who have *not* had opportunities to benefit from such practices are also relevant. They could be called upon in employer awareness-raising sessions to share the impacts that they and their employers have had to deal with where modified job duties have not been made available in a timely way.

The demographic analysis and Appendix Table A.5 showed that the education levels of work-limited people in obtained decent work lag behind the education levels of non-disabled people who are working. However, the research found that people in the target group have higher levels of formally-certified education than people in the comparator group and are more likely to have participated in job training. In fact, such personal capital is one of the strongest predictors of people obtaining decent work after the advent of work-limiting disability. A clear implication is that governments should redouble their efforts to help people with disabilities obtain the education and training they require so they can better move from joblessness into decent work.

Despite improvements that have occurred over the past decade or so, continued improvement is needed on this front. As other evidence discussed in this research has indicated, the job training system also needs to be rendered more open and accommodating for disabled trainees.

For people looking for work, the demographic and regression analyses strongly indicate that people in the target group are at increased risk of encountering employer discrimination. Statutory human rights agencies should enlist the support of employers and workers with disabilities to proactively engage with disabled college, trade-school, and university graduates in awareness-raising and job-search strategy sessions. Together they could explore tips for diffusing and navigating discriminatory recruitment, hiring, professional development, and job promotion practices. Managers should be encouraged to provide peer mentoring on how they have identified and addressed such practices in their own firms.

The demographic analysis found that small and mid-sized employers have been more successful than larger firms in facilitating the transition of work-limited people with disabilities into decent employment. That analysis found that firms in educational services, public administration, construction, and the retail trade, are doing particularly well, but that firms in the accommodation and food services industries are also achieving good results. Managers from small and mid-sized firms in all these industries, as well as disabled employees, and their non-disabled co-workers would be particularly useful as sources of information and insight. Governments should harness their expertise for peer mentoring and other awareness-raising efforts on effective, culturally-appropriate, gender-responsive, and disability-relevant job accommodation and discrimination management strategies.

The demographic research showed that sizeable shares of people in the comparator group have been recently involved with the CPP and with provincial/territorial social assistance

programs. Very few people in the target group were recently involved with those programs. People responsible for these programs should continue to review eligibility and benefits policies to ensure that disabled people who would like to make the transition from joblessness to decent work are encouraged and supported rather than discouraged and penalized. A province-by-province analysis of the extent to which social assistance and CPP recipients are in the target group vs. comparator group could help pinpoint where such programs have adverse impacts.

As people with work-limiting disabilities in Newfoundland and Labrador, New Brunswick, and Quebec fare worse than elsewhere in terms of obtaining decent work, a policy and program initiative to increase access to decent jobs could begin in those provinces. It should also include the other features discussed in this chapter.

Wherever it is implemented, the approach should to be sensitive to people's age, Youth are particularly unlikely to obtain decent work after the advent of work-limiting disability. Accordingly, youth employment initiatives need to take that detail into account. Further research of the kind provided in this dissertation, but with a focus specifically on young men *and* young women, could help pinpoint specific needs and issues that warrant attention.

Indeed, the policy and program approach should be sensitive to the particular issues that women face. These include the demands of caring for young children and other caregiving that most typically fall heaviest upon women. Although the regression analysis did not yield a statistically significant finding for older women in particular, the demographic analysis does suggest that they warrant attention. In this context, the disabling effects of illness and disease need to be taken into account, which become more common as people get older. Illness and disease also become more widespread among people who provide intensive levels of support to ill and/or disabled spouses or parents. Many people with disabilities, again, mostly women,

provide informal support to their spouses, parents, and children because of illnesses and disabilities (Crawford, Burke, & Bach, 2002). Ideally, future iterations of the NHS would gather information about Canadians who provide informal care to disabled spouses, parents, or children so that this information can be integrated with information from the CSD about the disability-specific characteristics of the caregivers. Such data would enable examination of the factors with which disabled women caregivers are contending and which may be undermining their employment.

Visible minorities are considerably less likely than others to obtain decent work after the advent of work-limiting disability. Wide-scale efforts to improve their situation will have to be culturally sensitive and relevant. More expansive efforts in this regard will be required by governments, community agencies, colleges, and universities to improve the capacities of job counsellors, post-secondary educators, job trainers, and employers.

The odds of successfully making the transition from joblessness into decent work are presently stacked against individuals dealing with various disabilities aside from pain. These include emotional and psychological difficulties, learning disabilities and mobility impairments. Yet some do manage to obtain decent work. Awareness-raising initiatives should capitalize on the successful employment of these people by engaging them to share with employers how adjustments to their hours, days, and duties of work have resulted in benefits for themselves, their employers and coworkers.

From a myriad of factors that are associated with why people with work-limiting disability manage to obtain decent work, the research has drawn into the foreground a manageable array of factors that most strongly predict this outcome and that warrant policy and program attention. In summary these include ensuring that people with disabilities have the

accessible transportation and built environmental features they require so they can get to and into the workplace. Once there, people should have the hours of work and the modified job duties that they need to so they can participate effectively on the job. The policy and program system should ensure that disabled people obtain the post-secondary education and job training they require so they will possess the necessary knowledge and skills when approaching employers. For people looking for work, the approach should proactively anticipate and counteract employer worries, myths, and other reasons for not hiring more people with disabilities. The policy and program approach should capitalize on the knowledge about job accommodations that employers, disabled workers, and co-workers are operationalizing where firms have successfully hired people with work-limiting disabilities for decent jobs. The approach should also tackle disincentives and other barriers to work that stem from the design of income support programs for people with disabilities. The approach could begin by dealing with these issues, at least initially, with a focus on disabled people without jobs in Newfoundland and Labrador, New Brunswick, and Quebec. Wherever it is implemented, the approach should be attuned to people's age, gender, race/ethnicity, and the particular functional limitations that require support on the job.

The rights-oriented features of Canada's system of laws and policies around the employment of people with disabilities have been largely *ad hoc* and only modestly effective. If there is much scope for a more coherent and bolder approach, it would build on the successes of nearly a quarter-million people with work-limiting disabilities who have obtained decent work, despite the obstacles they have encountered along the way.

Chapter Ten: Conclusion

This dissertation has identified factors that help people obtain decent work after the advent of work-limiting disability. The context is persistently low levels of employment for people with disabilities in Canada and the great difficulties that people experience in the labour force when their disability limits the amount or kind of work that they can do. Frequently-occurring messages in culture and in the economy are that people with disabilities are incapable, dependent, and unproductive burdens who are costly for their families, employers, and the state to deal with. Historically there has been an assumption that people with disabilities are incapable of working and that other systems will take care of their economic needs, even though those systems often leave them in poverty.

For people with disabilities who do seek employment, many have difficulties obtaining the supportive means of gaining access to jobs and the accommodations needed for participating effectively if hired. Responsibilities for making available the means of access to and participation in employment have been framed as employer responsibilities, but only up to the point of undue hardship. While systematic data on the issue are not available in Canada, disabled people in the United States have seldom been successful in human rights cases in which they have alleged that employers have fallen short of their duty to accommodate. Local authorities are responsible for providing access to the public transportation that many people need to get to and from work, but thousands of disabled people still face difficulties in this area. Where employers and local authorities fail to make available the means of access and participation for employment, responsibilities fall to individuals and their families; there are no clear legal entitlements to widely-available public programs that could help augment these private efforts.

The state-financed supports for access and participation that are unevenly available are often insufficient and often impose user fees. Even where people *are* able to obtain means of access and participation that might be helpful, the terms and conditions of their provision can leave individuals without much choice in these supports, or control over how, when or by whom, the supports are provided. Disabled people's lack of voice and the governmentality of disempowerment leave many without suitable supports that could further their social and economic inclusion and well-being.

The theoretical approach that has guided this research is consistent with an intersectional human rights approach along with that of critical realists, who have called for a multi-level approach to conceptualizing and responding to the issues that disabled people face. The approach is also consistent with the calls of some theorists for greater common cause between social protection, emancipation, and neoliberalism. Such common cause, it has been argued, could help check disadvantaged people's exploitation by unbridled markets and the oppression characteristic of hegemonic state bureaucracies. The guiding principles and specific provisions of the CRPD on employment, education, transportation, and a range of disability-related supports are intended to push back against hegemonies of disadvantage.

Using an intersectional human rights lens, the present research has operationalized a method of pinpointing the factors that most strongly predict the likelihood of people obtaining decent work after the advent of work-limiting disability. The approach takes into account numerous disability-specific and general socio-demographic factors on both sides of the divide between the individual model and social model of disability. The individual-level general factors that are common to people irrespective of disability are: age, gender, visible minority status, and Aboriginal person status. Disability-specific characteristics that inhere in individuals include:

functional limitations in the areas of mobility, agility, hearing, seeing, cognition, mental health, and pain; combinations of such impairment effects; and variations in the severity of these effects. Individual-level factors specific to disability also include whether people need various supports for employment, such as: accessible built environmental features, accessible technologies, human assistance, flexible work hours, and various other arrangements. In contrast to, and interacting with, individual factors are general social factors such as: people's geographic location, living arrangements, and whether people are caring for young children. Social factors more specific to disability include: whether employers have met, or failed to meet, individuals' needs for employment supports; whether accessible transportation is available; and whether people have been recently attached to one or more disability income support programs. Some factors straddle the divide between the Individual and Social Models of disability, such as people's level of formal education and whether their disability was caused by factors at work or by other accidents.

The present research has operationally defined "decent work" as jobs that are either permanent with employers or that pay at least two-thirds of the median income earned by people without disabilities, taking into account gender, the number of weeks that people work in the year, and whether that work is full-time or part-time. Based on this approach, and using the Canadian Survey on Disability of 2012, the research found that just over 216,000 working-age people with disabilities were in decent jobs that they had obtained sometime after the advent of work-limiting disability. These individuals comprised the target group for the present research. The comparator group consisted of nearly 537,000 jobless people with disabilities who faced poor job prospects. These people generally had substantial levels of disability and were either: looking for work, had worked fairly recently, or were not retired and had not altogether ruled out

the possibility that some kind of workplace arrangement or modification could enable them to work again.

Informed by a selective review of the scholarly and grey literature, the demographic analysis for the present research looked at a wide range of demographic factors that other researchers have associated with the employment of disabled people. It looked at those factors in relation to the target and comparator groups, as well as providing selected information and analysis about other disabled people with and without jobs. Based on that analysis, the research selected 84 predictors for use in binary logistic regression analysis to pinpoint the factors that contributed most powerfully to whether people with work-limiting disabilities were in the target group rather than the comparator group. The research found 31 statistically significant predictors ($p \leq .05$) and 5 noteworthy ones that were close to attaining statistical significance.

All factors held constant, the people who were most likely to be in the target group were those who received the modified hours or days, or reduced work hours, that they needed from their employers. Also among people who were very likely to be in the target group were those who had a trade certificate or diploma, a degree or other certificate from a university, a college/CEGEP or other non-university certificate or diploma, or classroom or other training that was not paid for or provided by their employer. Even people with a high school diploma or equivalency certificate were much more likely than people without educational credentials to be in the target group. Typically, those who believe they had recently been refused a job and/or a job promotion because of disability were among the people most likely to be in the target group, as were people who were using all the assistive aids/devices they needed for a variety of purposes.

People most likely to be in the target group were also men, lone parents, unattached persons, members of couples with children, and people whose disabilities were due to factors present at birth. For reasons that are not immediately clear, among those most likely to be in the target group were people who had received the Quebec Pension Plan – Disability Benefit in the previous year and people who were not using any of the aids/devices they needed. Results were not statistically significant for people who received only some of the aids/devices they needed.

Among those *least* likely to be in the target group were people who needed and had not received: accessible built-environmental features, modified or reduced hours or days of work, modified job duties, or telework. Young adults 15 to 29 years of age and working-age members of Census families with child(ren) from birth to 14 years of age were also among those least likely to be in the target group. So were people whose disabilities were caused by illnesses/disease and people whose disabilities were unknown or did not involve pain but were in the areas of: learning (without developmental disability), emotional/psychological well-being, seeing, or mobility, dexterity, or flexibility. People were less likely than others to be in the target group if they resided in Newfoundland and Labrador, New Brunswick, or Quebec. Also less likely to be in the target group were people who had received long-term disability benefits from a private plan, from the Canada Pension Plan, or from a provincial, territorial, or municipal social assistance program in the previous year.

If a “one size fits all” approach to dealing with such diversity is not likely to be very successful, neither is a general policy and program architecture that attempts to anticipate every conceivable difference and need. Based on the assumption that neither governments nor employers have much appetite for major spending initiatives, the present research strongly indicates that a policy and program approach that aims to improve the employment situation of

jobless people with work-limiting disability should focus on several key issues to have the best results. These include ensuring that people with disabilities have the accessible transportation and built environmental features they require so they can get to and into the workplace. Once there, people should have the hours of work and the modified job duties that they need to so they can participate effectively on the job. The policy and program system should vigorously pursue efforts to ensure that disabled people obtain the post-secondary education and job training they require so they will possess the necessary knowledge and skills when approaching employers. For people looking for work, the approach should counteract employer worries, myths and other groundless reasons for not hiring more people with disabilities. More positively, the approach should feature the practical knowledge about effective job accommodation processes that experienced employers, disabled workers, and co-workers are putting into action in firms that have successfully hired people with work-limiting disabilities for decent jobs. The approach should also tackle disincentives and other barriers to work that stem from the design of income support programs for people with disabilities. The approach could begin by dealing with these issues, at least initially, with a focus on disabled people without jobs in Newfoundland and Labrador, New Brunswick, and Quebec. Wherever it is implemented, however, the approach should be attuned to people's age, gender, race/ethnicity, and the particular functional limitations that require support on the job.

A clearer policy and program focus along these lines on jobless people with work-limiting disabilities, backed up by action, could help untie the knot that presently binds many people to joblessness instead of enabling them to move into decent work. Such work would remunerate people fairly and would be reasonably secure and free from discriminatory practices and other denigrating treatment. Such work would be accessible, healthy, and safe, for which

employers and the state would be active partners in making available the accommodations and other supports that qualified individuals need so they can participate effectively. If it is rare for people with disabilities to be in jobs where all such conditions prevail, over 200,000 with work-limiting disabilities have obtained jobs that are permanent or that pay reasonably well. Untying the knot and supporting the flow of more disabled people from joblessness into decent work would not only be the right thing to do, it is achievable, would make good economic sense and would be fully in line with Canada's international and domestic human rights commitments.

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Appendices

Appendix A: Appendix Tables

Appendix Table A.1
Labour force status and job characteristics of working-age people in the target, comparator and other groups

	With disabilities ... CSD data unless otherwise indicated							**Without disabilities ... NHS data**			All with and without disabilities
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	
Labour force status											
Employed	100.0%	100.0%	100.0%	100.0%	...	...	45.3%	...	...	...	...
Unemployed	...	...	...	...	23.4%	...	5.4%	...	...	...	...
Not in labour force	...	...	...	...	61.6%	47.3%	29.2%	...	...	...	...
Retired	...	...	...	...	14.9%	52.7%	20.2%	...	...	...	...
Labour force status, May 10, 2011 – NHS											
Employed	78.8%	89.2%	86.9%	63.1%	20.8%	6.8%	43.9%	100.0%	...	73.6%	70.6%
Unemployed	11.2%	1.9%	4.2%	7.4%	10.6%	2.6%	5.9%	...	21.5%	5.7%	5.7%
Not in labour force	8.9%	6.1%	7.1%	27.7%	56.7%	79.4%	43.1%	...	78.5%	20.7%	23.0%
Others	1.1%	2.9%	1.9%	1.8%	11.9%	11.1%	7.1%	...	...	...	0.7%
Class of worker – CSD											
Employee	87.8%	87.9%	94.4%	31.9%	...	...	81.9%	...	...	...	...
Self-employed	12.0%	11.8%	5.4%	65.9%	...	...	17.6%	...	...	...	...

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	With disabilities ... CSD data unless otherwise indicated							**Without disabilities ... NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Median earnings at least 2/3 the median for non-disabled workers in 2010? – NHS											
Yes	63.9%	75.0%	75.3%	0.7%	21.9%	12.1%	36.4%	70.4%	21.0%	57.4%	55.3%
No – Below	22.0%	17.6%	17.7%	62.9%	20.8%	7.4%	18.8%	26.9%	15.9%	24.0%	23.5%
Not applicable bcs no earnings in 2010 (median earnings = $0)	14.1%	7.4%	7.0%	36.4%	57.4%	80.5%	44.8%	2.7%	63.1%	18.6%	21.3%
Yes as a % of those with any earnings in 2010	74.4%	81.0%	81.0%	1.0%	51.3%	62.3%	65.9%	72.3%	56.9%	70.5%	70.2%
Job permanence and other protections											
Permanent job with employer	80.6%	84.0%	88.1%	0.7%	...	...	32.5%	...	...	...	...
Union member/ collective agreement coverage (if with employer)	19.8%	43.6%	33.7%	7.7%	...	...	12.8%	...	...	...	...
ILO 'decent work'?								...	...	...	...
Yes	100.0%	100.0%	100.0%	1.0%	...	...	38.0%	...	...	...	...
No – Other work	...	...	...	99.0%	...	...	7.2%	...	...	...	...
Not working	...	...	...	...	100.0%	100.0%	54.7%	...	...	...	...

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Labour force status and job characteristics of working-age people in the target, comparator and other groups

	With disabilities ... CSD data unless otherwise indicated							Without disabilities ... NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Work hours and weeks in 2010 – NHS											
Worked mainly full-time weeks in 2010	54.9%	72.3%	76.7%	45.1%	26.8%	13.3%	40.5%	80.2%	21.8%	64.8%	62.4%
Worked mainly part-time weeks in 2010	31.0%	20.3%	16.2%	18.4%	13.9%	5.6%	14.1%	17.1%	15.1%	16.6%	16.3%
Weekly hours of work – CSD											
Full-time	72.6%	75.6%	85.2%	58.2%	...	...	76.7%	...	...	...	...
Part-time	26.7%	23.9%	14.3%	36.3%	...	...	22.0%	...	...	...	...
Job tenure								...	...	...	...
Began working in 2012	25.3%	3.3%	15.2%	23.8%	...	...	7.6%	...	...	...	...
Began working in 2011	12.9%	2.9%	9.3%	10.6%	...	...	4.2%	...	...	...	...
Began working before 2011 but not before 2007	25.7%	14.9%	23.9%	21.5%	...	...	10.1%	...	...	...	...
Began working before 2007	35.8%	77.9%	51.2%	34.9%	...	...	22.6%	...	...	...	...
Not working	...	...	...	...	100.0%	100.0%	23.0%	...	...	...	...
Number of other employees											
Less than 20	33.1%	20.5%	27.4%	13.2%	...	...	11.4%	...	...	...	...
20 to 99	27.3%	27.1%	26.0%	8.6%	...	...	10.7%	...	...	...	...
100 to 500	16.7%	21.7%	22.1%	3.9%	...	...	8.1%	...	...	...	...
Over 500	8.0%	15.3%	14.1%	3.9%	...	...	5.2%	...	...	...	...
Not with employer	12.2%	12.0%	5.6%	67.9%	100.0%	100.0%	62.9%	...	...	...	...

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Labour force status and job characteristics of working-age people in the target, comparator and other groups

	With disabilities ... CSD data unless otherwise indicated							**Without disabilities ... NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Industry sectors, 2010-2011 (based on NAICS 2007) - NHS											
Agriculture, forestry, fishing and hunting; mining, quarrying, and oil and gas extraction	1.4%	2.7%	2.4%	4.4%	1.8%	0.9%	1.9%	3.4%	2.0%	3.0%	2.9%
Utilities; admin. and support/waste management and remediation services	3.5%	6.4%	6.2%	15.0%	5.4%	1.2%	4.8%	5.1%	2.4%	4.4%	4.5%
Construction	9.8%	5.1%	6.0%	3.6%	3.3%	0.7%	3.8%	7.0%	3.0%	6.0%	5.8%
Manufacturing	5.2%	7.6%	9.7%	2.5%	3.2%	1.5%	4.5%	9.7%	3.1%	8.0%	7.6%
Wholesale, warehousing and transportation	8.4%	6.3%	8.3%	6.5%	3.8%	2.0%	5.0%	8.8%	2.4%	7.1%	6.9%
Retail trade	19.7%	15.3%	10.5%	9.3%	6.5%	2.1%	8.0%	11.8%	5.5%	10.1%	9.9%
Information and cultural industries; arts, entertainment and recreation	2.3%	2.0%	3.5%	3.1%	1.9%	1.2%	2.1%	4.1%	2.6%	3.7%	3.6%
Finance and insurance; real estate, rental and leasing	3.6%	3.6%	4.9%	2.3%	2.4%	0.8%	2.6%	6.1%	1.7%	4.9%	4.7%
Professional, scientific & technical services; management of companies and enterprises	3.6%	2.2%	6.2%	4.7%	1.9%	0.9%	2.9%	7.2%	2.4%	5.9%	5.6%
Educational services	5.4%	8.7%	9.4%	6.5%	1.0%	1.6%	4.3%	7.5%	2.7%	6.2%	6.0%

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	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Health care and social assistance	10.8%	15.3%	12.2%	3.6%	5.0%	3.1%	7.1%	11.4%	2.9%	9.1%	8.9%
Accommodation and food services	6.7%	5.0%	4.9%	4.6%	2.9%	1.1%	3.4%	6.3%	3.7%	5.6%	5.4%
Other services (except public administration)	5.1%	2.5%	2.7%	4.1%	2.8%	1.0%	2.5%	4.5%	1.9%	3.8%	3.7%
Public administration	4.2%	11.8%	7.7%	4.3%	1.5%	2.2%	4.3%	7.0%	2.4%	5.8%	5.7%
Did not work in 2010 or 2011	10.3%	5.6%	5.4%	25.5%	54.7%	79.0%	42.0%	0.0%	61.2%	16.1%	18.8%
Occupation broad categories, 2010-2011 (based on the NOC 2011) - NHS											
Management occupations	9.2%	8.8%	6.7%	9.8%	3.5%	1.4%	4.9%	11.6%	1.7%	9.0%	8.6%
Business, finance and administration occupations	14.4%	12.3%	18.4%	7.6%	7.4%	4.9%	10.0%	16.2%	5.9%	13.5%	13.1%
Natural and applied sciences and related occupations	2.1%	5.8%	8.0%	1.6%	1.5%	1.5%	3.2%	7.7%	2.1%	6.3%	6.0%
Health occupations	5.2%	10.8%	6.9%	0.5%	1.4%	1.5%	3.6%	6.4%	1.2%	5.0%	4.9%
Occupations in education/law & social/community & government services	10.0%	12.1%	10.3%	8.8%	4.2%	1.8%	6.2%	11.8%	3.7%	9.7%	9.3%
Occupations in art, culture, recreation and sport	1.8%	1.4%	2.2%	6.0%	1.1%	0.6%	1.6%	3.0%	2.4%	2.8%	2.7%
Sales and service occupations	27.1%	27.2%	22.6%	27.5%	14.2%	4.8%	16.1%	22.3%	12.2%	19.6%	19.3%

Appendix Table A.1
Labour force status and job characteristics of working-age people in the target, comparator and other groups

	With disabilities ... CSD data unless otherwise indicated							**Without disabilities ... NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Trades/transport & equip. operators &related occupations	14.9%	10.8%	13.1%	9.2%	5.0%	2.9%	7.7%	14.5%	5.6%	12.2%	11.7%
Natural resources/agriculture & related production occupations	0.4%	1.4%	1.3%	1.6%	2.2%	0.3%	1.1%	1.8%	1.8%	1.8%	1.7%
Occupations in manufacturing and utilities	4.5%	4.1%	4.9%	1.9%	2.8%	0.7%	2.8%	4.7%	2.2%	4.0%	3.9%
Did not work in 2010 or 2011	10.3%	5.6%	5.4%	25.5%	54.7%	79.0%	42.0%	0.0%	61.2%	16.1%	18.8%
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… not available or not applicable
– zero
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Appendix Table A.2
Distribution of working-age people in the target, comparator and other groups who worked in 2010, by industry sectors and occupations

	With disabilities and worked in 2010 – NHS data							**Without disabilities and worked in 2010 – NHS data**			**All with and without disabilities and worked in 2010 – NHS data**
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	
WORKED in 2010											
Industry sectors, 2010-2011 (based on NAICS 2007) - NHS											
Agriculture, forestry, fishing and hunting; mining, quarrying, and oil and gas extraction	1.6%	2.9%	2.5%	5.9%	4.2%	4.6%	3.3%	3.4%	5.1%	3.6%	3.6%
Utilities; admin. and support/waste management and remediation services	3.9%	6.8%	6.5%	20.2%	12.4%	5.9%	8.4%	5.1%	6.2%	5.3%	5.5%
Construction	10.9%	5.4%	6.3%	4.8%	7.6%	3.5%	6.6%	7.0%	7.8%	7.1%	7.1%
Manufacturing	5.8%	8.0%	10.2%	3.4%	7.5%	7.5%	7.9%	9.7%	8.1%	9.5%	9.4%
Wholesale, warehousing and transportation	9.3%	6.6%	8.8%	8.8%	8.7%	9.8%	8.7%	8.8%	6.3%	8.5%	8.5%
Retail trade	22.0%	16.2%	11.1%	12.5%	15.0%	10.5%	14.0%	11.8%	14.2%	12.1%	12.2%
Information and cultural industries; arts, entertainment and recreation	2.6%	2.1%	3.7%	4.1%	4.3%	5.9%	3.7%	4.1%	6.7%	4.4%	4.4%
Finance and insurance; real estate, rental and leasing	4.0%	3.8%	5.2%	3.1%	5.6%	3.9%	4.6%	6.1%	4.4%	5.9%	5.8%

Appendix Table A.2
Distribution of working-age people in the target, comparator and other groups who worked in 2010, by industry sectors and occupations

	With disabilities and worked in 2010 – NHS data							**Without disabilities and worked in 2010 – NHS data**			**All with and without disabilities and worked in 2010 – NHS data**
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	
Professional, scientific & technical services; management of companies and enterprises	4.0%	2.3%	6.6%	6.2%	4.3%	4.4%	5.0%	7.2%	6.3%	7.1%	6.9%
Educational services	6.0%	9.3%	9.9%	8.7%	2.4%	7.6%	7.6%	7.5%	6.9%	7.4%	7.4%
Health care and social assistance	12.1%	16.2%	12.9%	4.8%	11.4%	15.2%	12.4%	11.4%	7.4%	10.9%	11.0%
Accommodation and food services	7.5%	5.3%	5.2%	6.2%	6.7%	5.5%	5.9%	6.3%	9.7%	6.7%	6.7%
Other services (except public administration)	5.7%	2.6%	2.8%	5.5%	6.5%	4.8%	4.3%	4.5%	4.9%	4.5%	4.5%
Public administration	4.7%	12.5%	8.2%	5.8%	3.4%	11.0%	7.5%	7.0%	6.2%	6.9%	7.0%
Occupation broad categories, 2010-2011 (based on the NOC 2011) - NHS											
Management occupations	10.3%	9.3%	7.0%	13.2%	8.1%	7.0%	8.6%	11.6%	4.5%	10.8%	10.6%
Business, finance and administration occupations	16.1%	13.0%	19.5%	10.2%	17.2%	24.2%	17.4%	16.2%	15.2%	16.0%	16.1%
Natural and applied sciences and related occupations	2.3%	6.1%	8.5%	2.1%	3.4%	7.1%	5.7%	7.7%	5.5%	7.5%	7.3%
Health occupations	5.8%	11.4%	7.3%	0.7%	3.2%	7.5%	6.3%	6.4%	3.2%	6.0%	6.0%

Appendix Table A.2
Distribution of working-age people in the target, comparator and other groups who worked in 2010, by industry sectors and occupations

	With disabilities and worked in 2010 – NHS data							**Without disabilities and worked in 2010 – NHS data**			**All with and without disabilities and worked in 2010 – NHS data**
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	
Occupations in education/law & social/community & government services	11.2%	12.8%	10.9%	11.8%	9.6%	8.7%	10.8%	11.8%	9.4%	11.5%	11.5%
Occupations in art, culture, recreation and sport	2.0%	1.4%	2.3%	8.1%	2.6%	2.9%	2.8%	3.0%	6.1%	3.4%	3.3%
Sales and service occupations	30.2%	28.8%	24.0%	36.9%	32.8%	23.3%	28.2%	22.3%	31.4%	23.4%	23.7%
Trades/transport & equipment operators & related occupations	16.6%	11.4%	13.9%	12.3%	11.6%	14.3%	13.5%	14.5%	14.5%	14.5%	14.5%
Natural resources/agriculture & related production occupations	0.5%	1.5%	1.4%	2.1%	5.0%	1.5%	2.0%	1.8%	4.6%	2.1%	2.1%
Occupations in manufacturing and utilities	5.0%	4.3%	5.2%	2.5%	6.4%	3.5%	4.8%	4.7%	5.6%	4.8%	4.8%
Total working	**193,970**	**165,700**	**467,470**	**127,260**	**232,370**	**151,420**	**1,338,190**	**15,346,900**	**2,131,160**	**17,478,060**	**18,816,210**

From the Canadian Survey on Disability, 2012
Key:
… not available or not applicable
– zero
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Appendix Table A.3
Basic socio-demographic characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Gender and age group – NHS											
Male and female											
15-29	12.2%	6.3%	14.6%	13.2%	24.6%	5.7%	13.1%	26.3%	44.8%	31.2%	29.4%
30-49	48.1%	37.3%	37.9%	41.5%	35.7%	23.5%	34.0%	47.3%	26.3%	41.8%	41.0%
50-64	39.8%	56.4%	47.5%	45.4%	39.7%	70.8%	52.9%	26.4%	28.9%	27.0%	29.7%
Total – All	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Male											
15-29	6.1%	2.3%	6.7%	6.2%	13.0%	3.9%	6.8%	13.5%	22.4%	15.8%	14.9%
30-49	20.0%	18.6%	19.1%	16.3%	13.6%	11.2%	15.2%	25.2%	9.5%	21.1%	20.5%
50-64	26.0%	25.3%	22.2%	26.6%	16.7%	31.8%	24.9%	14.0%	11.9%	13.5%	14.6%
Male sub-total	52.1%	46.2%	48.0%	49.1%	43.3%	46.9%	46.9%	52.8%	43.8%	50.4%	50.0%
Female											
15-29	6.1%	4.0%	7.9%	7.0%	11.6%	1.7%	6.3%	12.8%	22.5%	15.3%	14.4%
30-49	28.0%	18.7%	18.8%	25.1%	22.1%	12.3%	18.8%	22.1%	16.8%	20.7%	20.5%
50-64	13.8%	31.1%	25.3%	18.8%	23.0%	39.0%	28.1%	12.3%	17.0%	13.6%	15.0%
Female sub-total	47.9%	53.8%	52.0%	50.9%	56.7%	53.1%	53.1%	47.2%	56.2%	49.6%	50.0%

Appendix Table A.3
Basic socio-demographic characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Ethno-racial diversity – NHS											
Visible minorities	8.5%	11.0%	16.5%	24.1%	16.9%	12.0%	14.6%	18.5%	26.2%	20.6%	20.0%
Immigrants	13.6%	15.0%	20.2%	29.4%	19.4%	17.1%	18.7%	22.1%	25.8%	23.1%	22.6%
Aboriginal Identity	7.0%	4.0%	3.9%	3.0%	6.4%	5.1%	5.1%	2.6%	3.9%	2.9%	3.1%
Official languages spoken – NHS											
English only	75.5%	74.9%	75.4%	78.2%	75.0%	74.3%	75.1%	68.0%	67.0%	67.7%	68.5%
French only	5.4%	8.9%	5.4%	5.7%	8.9%	10.9%	8.2%	10.0%	11.5%	10.4%	10.2%
Both English and French	19.0%	15.8%	16.5%	12.0%	13.3%	12.5%	14.3%	21.3%	19.2%	20.8%	20.1%

Appendix Table A.3
Basic socio-demographic characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Province/Territory – NHS											
Newfoundland and Labrador	1.2%	1.0%	1.3%	0.9%	2.3%	2.1%	1.7%	1.3%	2.0%	1.5%	1.5%
Prince Edward Island	0.4%	0.7%	0.5%	0.5%	0.6%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%
Nova Scotia	3.2%	4.3%	3.9%	4.3%	3.8%	3.8%	3.8%	2.5%	2.7%	2.6%	2.7%
New Brunswick	1.9%	2.8%	1.9%	1.8%	3.2%	3.0%	2.6%	2.0%	2.3%	2.1%	2.2%
Quebec	12.2%	15.4%	14.1%	13.1%	15.9%	17.6%	15.5%	23.7%	24.6%	24.0%	23.1%
Ontario	45.4%	39.7%	44.4%	43.8%	44.0%	45.3%	44.3%	38.1%	39.7%	38.5%	39.1%
Manitoba	3.6%	5.0%	4.3%	3.6%	3.8%	3.1%	3.7%	3.5%	2.9%	3.3%	3.4%
Saskatchewan	3.8%	3.7%	3.1%	4.1%	2.6%	2.4%	2.9%	3.0%	2.3%	2.8%	2.8%
Alberta	13.3%	11.0%	12.7%	10.0%	10.4%	7.9%	10.4%	12.0%	9.1%	11.3%	11.2%
British Columbia	14.7%	16.1%	13.4%	17.6%	13.3%	14.4%	14.3%	13.0%	13.7%	13.2%	13.3%
Northern territories	0.2%	0.4%	0.3%	0.2%	0.3%	0.2%	0.3%	0.3%	0.4%	0.3%	0.3%
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
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– zero
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Appendix Table A.4
Living arrangements of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			All with and without disabilities
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	
Living Arrangements - NHS											
Couples - No children	20.4%	35.8%	27.9%	27.1%	23.6%	32.4%	28.2%	21.9%	19.0%	21.1%	21.8%
Couples - With children	26.2%	33.1%	33.5%	40.5%	23.1%	19.3%	26.4%	40.2%	24.3%	36.0%	35.0%
Lone parents	9.0%	7.4%	7.4%	3.7%	7.7%	8.8%	7.8%	4.6%	4.3%	4.5%	4.9%
Sons/daughters	10.6%	6.1%	10.6%	12.6%	21.3%	8.8%	12.3%	15.2%	36.2%	20.8%	19.9%
Other family members	1.9%	1.0%	2.5%	2.3%	6.3%	4.4%	3.8%	2.8%	4.4%	3.2%	3.3%
Unattached - Alone	27.2%	14.7%	15.1%	12.0%	14.1%	21.9%	17.9%	11.1%	7.5%	10.1%	10.9%
Unattached - With others	4.6%	1.9%	2.9%	1.8%	3.9%	4.3%	3.6%	4.3%	4.2%	4.3%	4.2%
Marital status - NHS											
Never legally married (and not living common law)	34.5%	14.4%	21.1%	20.6%	37.8%	23.7%	26.5%	27.7%	47.4%	32.9%	32.2%
Legally married (and not separated)	37.9%	57.0%	49.9%	59.3%	38.7%	44.6%	45.8%	48.9%	37.7%	45.9%	45.9%
Living common law	9.4%	12.6%	12.3%	10.7%	9.7%	8.2%	10.0%	15.3%	8.1%	13.4%	13.1%
Separated, divorced or widowed (and not living common law)	18.3%	16.0%	16.5%	9.4%	13.8%	23.5%	17.7%	8.2%	6.8%	7.8%	8.8%
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… not available or not applicable
– zero
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.5
Education, training and informal social capital of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Highest level of educational certification – NHS											
No certification	10.6%	11.3%	14.0%	17.1%	28.8%	29.2%	21.9%	10.3%	30.6%	15.7%	16.3%
High school certificate only	21.4%	25.0%	23.0%	31.2%	25.7%	29.5%	26.3%	25.7%	29.6%	26.7%	26.7%
Trades/ apprenticeship	17.4%	14.2%	13.3%	11.3%	8.7%	9.8%	11.4%	11.7%	7.3%	10.6%	10.6%
College, CEGEP, etc.	29.3%	27.0%	23.4%	12.0%	21.2%	15.5%	20.4%	21.6%	12.8%	19.3%	19.4%
University certificate or degree	17.1%	20.6%	21.4%	20.0%	9.7%	10.0%	14.5%	30.6%	19.6%	27.7%	26.4%
Highest level of educational certification – Summary (NHS)											
High school certificate or no certification	31.9%	36.3%	37.0%	48.3%	54.5%	58.8%	48.2%	36.0%	60.2%	42.4%	43.0%
Post-secondary certificate	63.8%	61.8%	58.1%	43.3%	39.6%	35.3%	46.3%	63.9%	39.7%	57.5%	56.4%
Education history											
Condition present before completing formal schooling	54.8%	24.9%	44.7%	48.2%	56.4%	26.2%	41.2%	…	…	…	…
Because of disability…								…	…	…	…
Began school later than age peers	6.4%	2.1%	5.5%	9.7%	8.1%	4.2%	5.8%	…	…	…	…
Ever changed course of studies	21.7%	3.8%	7.9%	12.9%	19.2%	5.4%	11.1%	…	…	…	…
Choice of courses/ careers was influenced	36.7%	10.8%	15.6%	23.4%	29.0%	11.9%	19.7%	…	…	…	…

Appendix Table A.5
Education, training and informal social capital of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Took fewer courses / subjects	29.4%	7.3%	9.7%	16.4%	24.9%	11.7%	16.0%	…	…	…	…
Took courses by correspondence / home study	10.3%	2.8%	4.7%	8.8%	9.5%	3.3%	6.0%	…	…	…	…
Changed schools	12.1%	2.0%	4.2%	5.5%	13.0%	4.7%	7.0%	…	…	…	…
Left community to attend school	5.7%	1.3%	3.9%	9.4%	8.2%	3.2%	5.0%	…	…	…	…
Attended special education school or special ed. classes in a regular school	16.1%	3.7%	6.0%	7.4%	15.0%	6.3%	9.0%	…	…	…	…
Education interrupted for long periods	15.2%	3.1%	6.8%	12.8%	20.6%	8.2%	11.4%	…	…	…	…
Ever went back to school for retraining	25.5%	7.7%	9.4%	15.5%	16.9%	10.1%	13.1%	…	…	…	…
Had additional expenses for schooling	12.4%	3.2%	4.4%	9.4%	9.1%	3.5%	6.2%	…	…	…	…
Took longer to achieve present level of education	22.4%	5.8%	10.5%	15.0%	26.0%	9.5%	14.8%	…	…	…	…
Were avoided or excluded at school	26.4%	3.9%	10.5%	12.6%	23.0%	11.8%	14.9%	…	…	…	…
Were bullied at school	21.6%	2.8%	8.4%	9.4%	18.2%	8.1%	11.4%	…	…	…	…
Changed school, left community, attended special education or took home/ correspondence study	28.6%	6.8%	14.4%	22.5%	32.9%	12.1%	19.2%	…	…	…	…

Appendix Table A.5
Education, training and informal social capital of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Were excluded or bullied at school	29.9%	4.6%	12.8%	14.3%	26.5%	13.5%	17.3%	…	…	…	…
Disability occurred after completing formal schooling	44.7%	74.0%	55.2%	51.1%	41.8%	73.2%	58.0%	…	…	…	…
Work-related training											
Classroom training	31.2%	31.2%	35.6%	16.3%	11.9%	2.8%	17.6%	…	…	…	…
OTJ training	38.2%	32.6%	40.9%	19.9%	19.5%	3.6%	21.7%	…	…	…	…
Some other training	13.5%	8.0%	8.2%	12.0%	2.8%	0.5%	5.2%	…	…	…	…
No training, were asked and answered whether they wanted to take training	43.2%	47.2%	35.7%	48.2%	22.2%	8.7%	26.5%	…	…	…	…
No training and wanted it	11.0%	8.9%	6.4%	6.6%	7.0%	0.9%	5.4%	…	…	…	…
No training and didn't want it	32.1%	38.3%	29.2%	41.6%	15.2%	7.9%	21.1%	…	…	…	…
Amongst the 100% of those who answered whether they wanted to take training…								…	…	…	…
No training and wanted it	25.5%	18.9%	18.0%	13.7%	31.5%	9.9%	20.5%	…	…	…	…
No training and did not want it	74.5%	81.1%	82.0%	86.3%	68.5%	90.1%	79.5%	…	…	…	…

Appendix Table A.5
Education, training and informal social capital of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Informal social capital as instrumental help with everyday activities											
Need any help (met or unmet) with everyday activities	77.8%	70.8%	47.9%	65.4%	77.7%	80.3%	70.8%	…	…	…	…
Family member(s), friend(s) or neighbour(s) provide help with everyday activities	59.7%	57.3%	35.3%	55.2%	66.7%	65.4%	57.4%	…	…	…	…
Relative extent of informal help received in relation to extent of help needed	76.7%	81.0%	73.6%	84.3%	85.8%	81.5%	81.1%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… *not available or not applicable*
– *zero*
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.6
Impairment-related characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Types of impairments											
Mobility	37.2%	46.1%	25.3%	38.0%	46.1%	65.3%	46.4%	…	…	…	…
Flexibility	53.1%	56.3%	30.1%	54.5%	53.3%	67.8%	53.3%	…	…	…	…
Dexterity	29.9%	19.2%	7.2%	17.3%	23.8%	38.1%	24.6%	…	…	…	…
Pain	82.9%	82.9%	61.2%	66.2%	70.8%	78.8%	73.0%	…	…	…	…
Hearing	18.4%	15.9%	20.0%	17.5%	17.1%	18.4%	18.2%	…	…	…	…
Vision	21.8%	17.4%	14.9%	20.9%	18.3%	25.1%	20.2%	…	…	…	…
Learning	21.7%	12.6%	8.0%	16.6%	29.6%	26.0%	20.9%	…	…	…	…
Intellectual /developmental	5.5%	1.9%	1.8%	5.8%	8.7%	8.1%	6.0%	…	…	…	…
Emotional / psychological	43.4%	26.7%	19.2%	26.0%	46.3%	43.6%	36.5%	…	…	…	…
Memory	17.6%	11.0%	5.5%	14.9%	23.6%	23.3%	17.5%	…	…	…	…
Unknown	0.7%	1.3%	3.7%	2.6%	2.1%	1.0%	1.9%	…	…	…	…

Appendix Table A.6
Impairment-related characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
With pain											
Pain only	9.7%	9.9%	19.1%	12.9%	5.6%	5.1%	9.5%				
Mobility, dexterity, flexibility	63.1%	63.9%	32.4%	46.9%	55.3%	69.5%	55.7%				
Hearing	15.6%	12.9%	9.6%	13.1%	13.4%	14.7%	13.1%				
Vision	19.9%	13.9%	6.8%	16.4%	13.8%	21.0%	15.4%				
Learning - No developmental	14.3%	10.1%	3.5%	7.7%	17.9%	17.6%	13.1%				
Intellectual / developmental	3.5%	1.1%	0.6%	3.9%	3.3%	3.8%	2.8%				
Emotional	35.3%	21.3%	10.0%	19.1%	33.5%	35.3%	27.3%				
Memory	15.0%	9.8%	3.5%	12.0%	19.1%	20.1%	14.5%				
No pain-related											
Mobility, dexterity, flexibility	4.4%	6.9%	10.2%	18.0%	10.2%	9.5%	9.8%				
Hearing	2.7%	3.0%	10.4%	4.4%	3.8%	3.6%	5.0%				
Vision	1.9%	3.6%	8.1%	4.5%	4.5%	4.1%	4.8%				
Learning - No developmental	4.8%	1.1%	3.6%	3.9%	5.9%	2.8%	3.8%				
Intellectual / developmental	2.0%	0.8%	1.2%	1.9%	5.4%	4.3%	3.2%				
Emotional	8.2%	5.4%	9.2%	6.9%	12.8%	8.2%	9.2%				
Memory	2.6%	1.3%	2.0%	2.8%	4.4%	3.1%	3.0%				
Unknown	0.7%	1.3%	3.7%	2.6%	2.1%	1.0%	1.9%				

Appendix Table A.6
Impairment-related characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Degree of impairment								…	…	…	…
Mild	29.5%	30.4%	60.9%	39.0%	25.7%	15.5%	31.6%	…	…	…	…
Moderate	20.1%	21.0%	23.6%	21.2%	16.9%	17.3%	19.4%	…	…	…	…
Severe	23.0%	27.8%	11.8%	27.4%	29.2%	24.4%	23.2%	…	…	…	…
Very severe	27.4%	20.8%	3.7%	12.4%	28.3%	42.8%	25.9%	…	…	…	…
Number of impairments / disabilities								…	…	…	…
Has one disability type	18.3%	21.0%	48.2%	32.0%	20.5%	15.1%	25.3%	…	…	…	…
Has two or three disability types	40.5%	49.3%	41.0%	39.0%	37.1%	30.0%	37.0%	…	…	…	…
Has more than three disability types	41.2%	29.7%	10.9%	29.0%	42.4%	54.9%	37.6%	…	…	…	…
Duration of disability								…	…	…	…
Duration in avg. years	19.6	10.9	15.6	16.2	15.2	18.3	16.4	…	…	…	…
Occurred before completing formal schooling	54.8%	24.9%	44.7%	48.2%	56.4%	26.2%	41.2%	…	…	…	…

Appendix Table A.6
Impairment-related characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Cause of impairment / disability								…	…	…	…
Existed at birth	14.5%	6.0%	11.4%	18.5%	14.8%	12.3%	12.9%	…	…	…	…
Disease / illness	10.3%	17.0%	11.6%	10.2%	15.9%	25.8%	17.3%	…	…	…	…
Non-work related accident/injury	20.4%	16.2%	15.7%	20.6%	15.1%	15.2%	16.3%	…	…	…	…
Work-related cause (e.g. accident, injury)	25.4%	37.1%	23.8%	22.3%	17.2%	19.1%	21.9%	…	…	…	…
Aging	8.1%	12.9%	13.9%	9.2%	10.2%	11.4%	11.3%	…	…	…	…
Undetermined	22.3%	24.5%	24.0%	20.4%	26.6%	23.4%	24.1%	…	…	…	…
Other	13.3%	6.8%	13.0%	14.2%	13.3%	11.2%	12.2%	…	…	…	…

Appendix Table A.6
Impairment-related characteristics of working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Impact on work								…	…	…	…
Do not feel limited in the amount or kind of work they can do because of their condition	…	…	100.0%	44.1%	18.2%	1.4%	29.0%	…	…	…	…
Feel limited in the amount or kind of work they can do but not prevented	100.0%	100.0%	…	55.9%	43.0%	5.2%	32.0%	…	…	…	…
Condition completely prevents from working											
- Workplace modification or adaptation might enable work	…	…	…	…	38.8%	…	8.9%	…	…	…	…
- Workplace modification or adaptation would not enable work	…	…	…	…	…	52.6%	16.7%				
Not asked if prevented, or data missing (mainly retired before 2007)	…	…	…	…	…	40.7%	13.3%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… *not available or not applicable*
– *zero*
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.7
Percentages of working-age people in the target, comparator and other groups who needed job accommodations or other supports for employment

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Need any job accommodations or other employment supports	57.3%	65.8%	25.7%	46.1%	52.4%	0.0%	31.1%	…	…	…	…
Supports for gaining initial and ongoing access to the workplace											
• Built-environmental features – summary (details below)	9.3%	13.5%	4.2%	7.0%	15.7%	0.0%	6.9%	…	…	…	…
– Handrails, ramps, widened doorways or hallways	6.2%	5.0%	0.7%	2.3%	9.0%	0.0%	3.3%	…	…	…	…
– Adapted/ accessible parking	7.2%	7.2%	2.3%	3.1%	7.2%	0.0%	3.6%	…	…	…	…
– Accessible elevator	6.4%	6.5%	1.8%	2.0%	10.4%	0.0%	4.0%	…	…	…	…
– Adapted washrooms	1.8%	2.1%	0.5%	3.6%	5.2%	0.0%	1.9%	…	…	…	…
• Specialized transportation	1.4%	2.4%	0.4%	1.4%	7.8%	0.0%	2.3%	…	…	…	…
Supports needed for participation in the workplace											
• Job redesign or telework – summary (details below)	23.1%	30.0%	4.2%	20.8%	31.2%	0.0%	14.0%	…	…	…	…
– Job redesign	20.8%	28.4%	3.1%	18.1%	27.2%	0.0%	12.3%	…	…	…	…
– Telework	4.3%	5.0%	1.5%	5.4%	13.9%	0.0%	4.7%	…	…	…	…

Appendix Table A.7
Percentages of working-age people in the target, comparator and other groups who needed job accommodations or other supports for employment

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
• Modified hours/ days or reduced work hours	37.8%	37.9%	6.9%	32.5%	35.0%	0.0%	18.2%	…	…	…	…
• Human support	8.4%	3.5%	1.1%	6.4%	10.1%	0.0%	4.1%	…	…	…	…
• Various technological supports – summary (details below)	9.5%	3.2%	2.4%	5.6%	11.3%	0.0%	4.6%	…	…	…	…
– Technical aids[14]	2.2%	1.5%	0.6%	1.5%	5.1%	0.0%	1.7%	…	…	…	…
– Computer/ laptop with specialized software/ adaptations	6.5%	2.3%	1.5%	3.2%	9.5%	0.0%	3.5%	…	…	…	…
– Communication aids[15]	5.7%	1.6%	0.5%	2.8%	3.6%	0.0%	1.8%	…	…	…	…
• Ergonomic workspace or chair/ back rest – summary (details below	26.3%	30.1%	13.9%	17.8%	24.5%	0.0%	14.6%	…	…	…	…
– Modified/ ergonomic workstation	18.8%	19.0%	8.7%	7.1%	16.1%	0.0%	9.2%	…	…	…	…
– Special chair /back support	23.6%	22.6%	12.2%	16.3%	21.4%	0.0%	12.6%	…	…	…	…
Various other supports											
• Other equipment, help or work arrangement	7.8%	8.6%	0.9%	3.6%	4.6%	0.0%	2.9%	…	…	…	…

[14] Technical aids include voice synthesizers, TTYs, infrared systems, and portable note-takers.

[15] Communication aids include Braille, large print reading materials, and recording equipment.

Appendix Table A.7
Percentages of working-age people in the target, comparator and other groups who needed job accommodations or other supports for employment

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Currently working AND need accommodation(s) AND the employer is aware of that need	5.5%	6.9%	1.9%	4.1%	–	–	3.8%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… *not available or not applicable*
– *zero*
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Supports for gaining initial and ongoing access to the workplace											
• Built-environmental features – summary (details below)											
Need - Met	3.0%	5.6%	3.0%	2.8%	2.3%	...	2.1%	…	…	…	…
Need - Unmet #1	6.2%	7.7%	1.2%	3.8%	4.3%	...	2.7%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	9.0%	...	2.1%	…	…	…	…
Do not need (and a few missing)	90.7%	86.5%	95.8%	93.0%	84.3%	...	93.1%	…	…	…	…
– Handrails, ramps, widened doorways or hallways											
Need - Met	1.9%	1.7%	0.6%	1.5%	1.9%	...	1.0%	…	…	…	…
Need - Unmet #1	4.3%	3.3%	x	x	1.8%	...	1.1%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	5.3%	...	1.3%	…	…	…	…
Do not need (and a few missing)	93.8%	95.0%	99.3%	97.6%	91.0%	...	96.7%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
– Adapted/ accessible parking											
Need - Met	1.8%	4.2%	1.7%	1.5%	0.8%	...	1.1%	…	…	…	…
Need - Unmet #1	5.3%	3.0%	0.6%	1.6%	2.6%	...	1.6%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	3.8%	...	0.9%	…	…	…	…
Do not need (and a few missing)	92.8%	92.8%	97.7%	96.9%	92.8%	...	96.4%	…	…	…	…
– Accessible elevator											
Need - Met	5.6%	3.6%	1.2%	x	0.8%	...	x	…	…	…	…
Need - Unmet #1	x	2.9%	0.6%	x	2.5%	...	x	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	7.1%	...	x	…	…	…	…
Do not need (and a few missing)	93.6%	93.5%	98.2%	98.0%	89.6%	...	x	…	…	…	…
– Adapted washrooms											
Need - Met	1.4%	1.2%	0.4%	1.3%	0.8%	...	0.6%	…	…	…	…
Need - Unmet #1	x	x	x	x	1.2%	...	0.5%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	3.3%	...	0.8%	…	…	…	…
Do not need (and a few missing)	98.2%	97.8%	99.5%	96.4%	94.8%	...	98.1%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
• Specialized transportation											
Need - Met	0.6%	1.4%	0.3%	0.9%	0.3%	...	0.4%	…	…	…	…
Need - Unmet #1	0.7%	x	x	0.5%	1.6%	...	0.6%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	5.9%	...	1.4%	…	…	…	…
Do not need (and a few missing)	98.6%	97.6%	99.6%	98.6%	92.2%	...	97.7%	…	…	…	…
Supports for participation in the workplace											
• Job redesign or telework – summary (details below)											
Need - Met	13.1%	20.7%	2.2%	14.1%	3.4%	...	5.1%	…	…	…	…
Need - Unmet #1	9.9%	9.1%	1.9%	6.5%	10.5%	...	4.9%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	17.4%	...	4.0%	…	…	…	…
Do not need (and a few missing)	76.9%	70.0%	95.8%	79.2%	68.8%	...	86.0%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
– Job redesign											
Need - Met	11.3%	20.1%	1.3%	12.0%	3.5%	...	4.5%	…	…	…	…
Need - Unmet #1	9.4%	8.1%	1.8%	5.9%	8.8%	...	4.3%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	14.9%	...	3.5%	…	…	…	…
Do not need (and a few missing)	79.2%	71.6%	96.9%	81.9%	72.8%	...	87.7%	…	…	…	…
– Telework											
Need - Met	2.4%	3.1%	1.3%	3.1%	0.6%	...	1.1%	…	…	…	…
Need - Unmet #1	1.9%	1.7%	0.2%	2.2%	5.5%	...	1.8%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	7.8%	...	1.8%	…	…	…	…
Do not need (and a few missing)	95.7%	95.0%	98.5%	94.6%	86.1%	...	95.3%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
• Modified hours/ days or reduced work hours											
Need - Met	24.9%	28.8%	5.5%	28.6%	4.3%	...	8.7%	…	…	…	…
Need - Unmet #1	12.9%	8.9%	1.5%	3.8%	12.2%	...	5.3%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	18.5%	...	4.3%	…	…	…	…
Do not need (and a few missing)	62.2%	62.1%	93.1%	67.5%	65.0%	...	81.8%	…	…	…	…
• Human support											
Need - Met	1.9%	2.1%	0.8%	3.6%	0.6%	...	0.9%	…	…	…	…
Need - Unmet #1	6.5%	1.2%	0.3%	2.8%	2.1%	...	1.4%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	7.4%	...	1.7%	…	…	…	…
Do not need (and a few missing)	91.6%	96.5%	98.9%	93.6%	89.9%	...	95.9%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
• Various technological supports – summary (details below)											
Need - Met	0.8%	1.6%	1.7%	1.4%	0.4%	...	0.7%	…	…	…	…
Need - Unmet #1	8.6%	1.6%	0.7%	4.2%	3.4%	...	2.1%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	7.5%	...	1.7%	…	…	…	…
Do not need (and a few missing)	90.5%	96.8%	97.6%	94.4%	88.7%	...	95.4%	…	…	…	…
– Technical aids[16]											
Need - Met	0.4%	0.7%	0.6%	0.7%	0.2%	...	0.3%	…	…	…	…
Need - Unmet #1	1.8%	0.8%	0.1%	0.8%	1.3%	...	0.6%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	3.6%	...	0.8%	…	…	…	…
Do not need (and a few missing)	97.8%	98.5%	99.4%	98.5%	94.9%	...	98.3%	…	…	…	…
– Computer/ laptop with specialized software/ adaptations											
Need - Met	0.9%	1.1%	1.2%	1.2%	0.4%	...	0.6%	…	…	…	…
Need - Unmet #1	5.6%	1.2%	0.3%	2.0%	2.7%	...	1.5%	…	…	…	…

[16] Technical aids include voice synthesizers, TTYs, infrared systems, and portable note-takers.

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	6.3%	...	1.5%	…	…	…	…
Do not need (and a few missing)	93.5%	97.7%	98.5%	96.8%	90.5%	...	96.5%	…	…	…	…
– Communication aids[17]											
Need - Met	0.3%	1.0%	x	x	x	...	0.2%	…	…	…	…
Need - Unmet #1	5.4%	x	x	2.2%	0.8%	...	1.0%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	2.7%	...	0.6%	…	…	…	…
Do not need (and a few missing)	94.3%	98.4%	99.5%	97.2%	96.4%	...	98.2%	…	…	…	…
• Ergonomic workspace or chair/ back rest – summary (details below											
Need - Met	8.9%	15.3%	9.2%	9.8%	2.2%	...	5.1%	…	…	…	…
Need - Unmet #1	17.4%	14.1%	4.5%	7.8%	8.3%	...	6.1%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	14.0%	...	3.3%	…	…	…	…
Do not need (and a few missing)	73.7%	69.9%	86.1%	82.2%	75.5%	...	85.4%	…	…	…	…

[17] Communication aids include Braille, large print reading materials, and recording equipment.

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
– Modified/ ergonomic workstation											
Need - Met	5.9%	9.0%	5.7%	4.0%	1.6%	...	3.1%	…	…	…	…
Need - Unmet #1	12.9%	9.8%	2.9%	3.0%	5.7%	...	4.1%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	8.9%	...	2.1%	…	…	…	…
Do not need (and a few missing)	81.2%	81.0%	91.3%	92.9%	83.9%	...	90.8%	…	…	…	…
– Special chair /back support											
Need - Met	8.3%	11.6%	8.5%	9.3%	2.9%	...	4.8%	…	…	…	…
Need - Unmet #1	15.3%	10.5%	3.5%	7.0%	6.3%	...	4.9%	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	12.1%	...	2.9%	…	…	…	…
Do not need (and a few missing)	76.4%	77.4%	87.8%	83.7%	78.6%	...	87.4%	…	…	…	…

Appendix Table A.8
Working-age people in the target, comparator and other groups by whether they have met, unmet or no needs for job accommodations or other supports for employment

	With disabilities – CSD data							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Various											
• Other equipment, help or work arrangement											
Need - Met	6.4%	5.2%	0.9%	1.8%	0.4%	...	1.4%	…	…	…	…
Need - Unmet #1	1.5%	3.2%	x	1.8%	1.0%	...	x	…	…	…	…
Need - Unmet #2 (not asked bcs not wkg 2007-2012)	…	…	…	…	3.2%	...	0.8%	…	…	…	…
Do not need (and a few missing)	92.2%	91.4%	99.1%	96.4%	95.4%	...	97.1%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… not available or not applicable
– zero
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.9
Perceived discrimination and disadvantage in employment among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Perceived discrimination on the basis of disability in the past 5 years											
Were refused a job interview	13.3%	5.3%	4.2%	6.8%	8.5%	1.8%	5.5%	…	…	…	…
Were refused a job	20.3%	8.6%	6.7%	11.4%	11.7%	2.9%	8.4%	…	…	…	…
Were refused a job promotion	17.8%	8.8%	4.7%	4.5%	6.2%	1.6%	5.6%	…	…	…	…
Perceived disadvantage											
Feel disadvantaged in employment because of their condition (disability)	54.6%	45.0%	15.6%	35.5%	29.8%	13.8%	25.5%	…	…	…	…
Feel an employer is likely to consider them disadvantaged in employment because of their condition (disability)	54.1%	48.4%	19.7%	32.2%	26.4%	13.6%	25.6%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
Key:
… *not available or not applicable*
– *zero*
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.10
Income sources and level of employment earnings among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Income sources in 2011 (CSD)											
Wages or salaries	76.9%	83.9%	90.8%	44.6%	24.9%	9.3%	44.6%	…	…	…	…
Self-employment	23.7%	15.6%	12.4%	53.2%	8.5%	1.9%	12.4%	…	…	…	…
CPP Disability	11.5%	6.4%	6.0%	7.8%	17.9%	38.2%	19.6%	…	…	…	…
CPP Regular Retirement	2.4%	7.4%	6.3%	10.9%	8.5%	16.7%	10.2%	…	…	…	…
QPP Disability	8.8%	4.6%	4.3%	3.0%	5.4%	8.7%	6.3%	…	…	…	…
QPP Regular Retirement	x	x	x	x	1.7%	4.2%	2.1%	…	…	…	…
EI Parental	13.8%	11.4%	11.0%	9.0%	8.8%	2.8%	8.0%	…	…	…	…
Private LTD	5.3%	13.0%	2.6%	5.3%	9.9%	16.9%	10.1%	…	…	…	…
Motor vehicle ins.	1.8%	2.1%	1.1%	3.0%	1.9%	1.9%	1.8%	…	…	…	…
Social assistance	7.4%	1.9%	2.2%	5.0%	23.0%	23.3%	14.3%	…	…	…	…
Veterans Affairs Disability	x	x	1.1%	x	0.4%	1.0%	0.8%	…	…	…	…
Workers' compensation	9.5%	13.7%	6.1%	7.4%	7.9%	7.0%	7.8%	…	…	…	…

Appendix Table A.10
Income sources and level of employment earnings among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities: Employed	Without disabilities: Not working	All without disabilities	All with and without disabilities
Earnings in 2010 (NHS)											
At least 2/3 median for non-disabled	63.9%	75.0%	75.2%	0.7%	21.8%	12.1%	36.4%	70.4%	21.0%	57.4%	55.3%
Less than 2/3 the median for non-disabled	22.0%	17.6%	17.7%	62.9%	20.7%	7.4%	18.8%	26.9%	15.9%	24.0%	23.5%
No earnings in 2010	14.1%	7.4%	7.0%	36.4%	57.3%	80.5%	44.7%	2.7%	63.1%	18.6%	21.3%
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

From the Canadian Survey on Disability, 2012
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Appendix Table A.11
The need for aids and devices and help with everyday activities because of disability among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities - Employed	Without disabilities -Not working	All without disabilities	All with and without disabilities
Aids and devices											
Do not use or need aids	14.3%	16.1%	30.2%	23.3%	22.6%	12.8%	19.9%	…	…	…	…
Need any aids/devices (summary)	83.1%	79.8%	67.9%	73.5%	74.1%	85.5%	77.6%				
Use aids - All needs met	53.5%	54.6%	50.6%	49.0%	42.8%	52.6%	49.9%	…	…	…	…
Use aids - Some unmet needs	26.7%	22.2%	14.0%	22.7%	28.5%	30.8%	25.1%	…	…	…	…
Do not use aids - Some unmet needs	2.9%	3.0%	3.3%	1.8%	2.8%	2.1%	2.6%	…	…	…	…
Others (i.e., unknown if need aids/devices)	2.6%	4.2%	1.7%	3.1%	3.2%	1.7%	2.4%	…	…	…	…
								…	…	…	…
Amongst those who use or need aids/ devices											
Use aids - All needs met	64.4%	68.4%	74.5%	66.7%	57.8%	61.5%	64.3%				
Use aids - Some unmet needs	32.1%	27.8%	20.6%	30.9%	38.5%	36.0%	32.3%				
Do not use aids - Some unmet needs	3.5%	3.8%	4.9%	2.4%	3.8%	2.5%	3.4%				

Appendix Table A.11
The need for aids and devices and help with everyday activities because of disability among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							**Without disabilities – NHS data**			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities - Employed	Without disabilities -Not working	All without disabilities	All with and without disabilities
Help with everyday activities								…	…	…	…
Do not need and do not receive help (incl. some unknown)	22.2%	29.2%	52.1%	34.6%	22.3%	19.7%	29.2%	…	…	…	…
Need any help (summary)	77.8%	70.8%	47.9%	65.4%	77.7%	80.3%	70.8%	…	…	…	…
Receive all the help needed	23.9%	31.6%	23.6%	29.6%	26.5%	28.6%	26.9%	…	…	…	…
Receive some of the help needed	41.8%	31.6%	16.0%	29.5%	44.0%	45.3%	36.3%	…	…	…	…
Receive none of the help needed	12.1%	7.6%	8.3%	6.3%	7.2%	6.4%	7.6%	…	…	…	…
Total number	216,170	175,470	494,740	170,700	536,700	741,740	2,335,520	15,346,890	5,495,680	20,842,570	23,178,070

Appendix Table A.11
The need for aids and devices and help with everyday activities because of disability among working-age people in the target, comparator and other groups

	With disabilities – CSD data unless otherwise indicated							Without disabilities – NHS data			
	Decent work - Hired after advent of work limitations	Decent work - Retained after advent of work limitations	Decent work - Not limited	All others w/ disabilities and employed	Disabled - Not working but In EMO	Disabled - Not working and not in EMO	All with disabilities	Without disabilities - Employed	Without disabilities -Not working	All without disabilities	All with and without disabilities
DETAIL											
Amongst those who receive or need help											
Receive all the help needed	30.7%	44.6%	49.3%	45.3%	34.1%	35.6%	38.0%	…	…	…	…
Receive some of the help needed	53.7%	44.6%	33.4%	45.1%	56.6%	56.4%	51.3%	…	…	…	…
Receive none of the help needed	15.6%	10.7%	17.3%	9.6%	9.3%	8.0%	10.7%	…	…	…	…
Helped by family, friend(s) or neighbour(s)	59.7%	57.3%	35.3%	55.2%	66.7%	65.4%	57.4%	…	…	…	…
Amongst those receiving any help, percentage receiving help from family, friend(s) or neighbour(s)	90.9%	90.7%	89.1%	93.4%	94.6%	88.5%	90.8%	…	…	…	…

From the Canadian Survey on Disability, 2012
Key:
… *not available or not applicable*
– *zero*
x suppressed to meet the confidentiality requirements of the Statistics Act

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Intercept	-1.663	0.394	-4.22	<.0001		0.190		
Basic socio-demographic characteristics								
Age 30 - 49 years (reference)								
Age 15 - 29 years	-0.817	0.242	-3.37	0.001	***	0.442	0.275	0.711
Age 50 - 64 years	-0.218	0.201	-1.08	0.279		0.804	0.542	1.194
Women (reference)								
Men	0.476	0.167	2.84	0.004	**	1.610	1.159	2.236
Not members of visible minorities (reference)								
Members of visible minorities	-0.575	0.260	-2.21	0.027	*	0.563	0.338	0.937
Not Aboriginal persons (reference)								
Aboriginal persons	-0.331	0.332	-1.00	0.318		0.718	0.374	1.377
Living Arrangements								
Members of couples with no children (reference)								
Members of couples with children	0.596	0.258	2.31	0.021	*	1.814	1.094	3.008
Sons/daughters 15 years and older living with one or both parents	0.192	0.303	0.63	0.526		1.211	0.668	2.195
Lone parents	1.112	0.433	2.57	0.010	**	3.039	1.301	7.102
Other economic family members	0.026	0.422	0.06	0.951		1.026	0.449	2.347
Unattached persons	0.767	0.233	3.29	0.001	***	2.153	1.362	3.404

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Not in Census families with child(ren) from birth to 14 years of age (reference)								
Members of Census families with child(ren) from birth to 14 years of age	-0.883	0.256	-3.45	0.001	***	0.414	0.250	0.683
Location of Residence and Geographic Mobility								
Ontario (reference)								
Newfoundland and Labrador	-0.918	0.375	-2.45	0.014	*	0.399	0.191	0.834
New Brunswick	-0.532	0.276	-1.93	0.054	†	0.587	0.341	1.010
Nova Scotia and Prince Edward Island	-0.135	0.246	-0.55	0.582		0.873	0.539	1.415
Quebec	-0.525	0.286	-1.84	0.066	†	0.591	0.337	1.037
Manitoba	0.168	0.280	0.60	0.548		1.183	0.683	2.049
Saskatchewan	0.250	0.247	1.01	0.312		1.283	0.791	2.082
Alberta	0.150	0.227	0.66	0.508		1.162	0.745	1.812
British Columbia	0.127	0.215	0.59	0.556		1.135	0.744	1.731
Northern territories (YU, NWT and NU)	-0.121	0.339	-0.36	0.721		0.886	0.455	1.724
Lived in same residence or Census District 5 years ago (reference)								
Lived in different Census District or out-of-country 5 years ago	0.283	0.207	1.36	0.172		1.327	0.884	1.992

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Impairment Effects								
Major areas of functional difficulty and activity limitation								
Pain only (reference)								
Hearing - with pain	0.194	0.297	0.65	0.514		1.213	0.678	2.171
Memory - with pain	-0.303	0.302	-1.00	0.316		0.739	0.408	1.337
Emotional - with pain	-0.060	0.195	-0.31	0.759		0.942	0.643	1.380
Developmental - with pain	-0.189	0.446	-0.42	0.671		0.828	0.345	1.986
Learning disability, no developmental disability - with pain	-0.534	0.288	-1.85	0.064	†	0.587	0.333	1.032
Mobility, dexterity, or flexibility - with pain	-0.178	0.207	-0.86	0.391		0.837	0.557	1.257
Seeing - with pain	0.155	0.242	0.64	0.520		1.168	0.727	1.876
Hearing - without pain	0.194	0.393	0.49	0.621		1.215	0.561	2.628
Memory - without pain	-0.118	0.418	-0.28	0.778		0.889	0.391	2.020
Emotional - without pain	-0.646	0.290	-2.23	0.026	*	0.524	0.297	0.925
Developmental - without pain	-0.031	0.339	-0.09	0.927		0.970	0.499	1.885
Learning disability, no developmental disability - without pain	0.142	0.371	0.38	0.702		1.152	0.556	2.385
Mobility, dexterity, or flexibility - without pain	-0.895	0.341	-2.63	0.008	**	0.409	0.209	0.797
Seeing - without pain	-0.856	0.517	-1.66	0.098	†	0.425	0.154	1.172
Unknown disability	-1.383	0.504	-2.74	0.006	**	0.251	0.093	0.675

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Cause of main condition (#1) responsible for the most difficulty/ limitation in activities								
Undetermined (reference)								
Caused at birth	0.423	0.227	1.86	0.063	†	1.527	0.977	2.386
Illness/disease	-0.508	0.259	-1.96	0.050	*	0.601	0.362	1.001
Non-work related accident/injury	0.259	0.264	0.98	0.325		1.296	0.772	2.175
Work-related cause (e.g. accident, injury)	0.200	0.270	0.74	0.458		1.222	0.719	2.075
Aging	-0.038	0.306	-0.12	0.900		0.963	0.528	1.755
Other cause	-0.249	0.293	-0.85	0.394		0.779	0.439	1.384
Personal Capital								
Highest Certificate, Diploma or Degree								
Less than high school graduation or equivalent (reference)								
High school diploma or equivalency certificate	0.621	0.229	2.71	0.006	**	1.860	1.187	2.914
College/CEGEP/other non-univ. certif. or dipl.(excl. trades)	0.817	0.257	3.18	0.001	***	2.263	1.367	3.748
Trade certificate or diploma	1.134	0.280	4.04	<.0001	***	3.106	1.792	5.384
University degree or other univ. certificate	0.894	0.285	3.14	0.001	***	2.445	1.397	4.279
Work-Related Training in the Previous 12 months								
Others (reference)								
Took classroom training	0.687	0.221	3.11	0.002	**	1.988	1.288	3.068
Had on-the-job training	0.054	0.188	0.29	0.775		1.055	0.730	1.526
Took other training not paid for or provided by the employer	1.255	0.307	4.09	<.0001	***	3.506	1.920	6.404

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Basic Access to Work - Barriers and Supports								
Employment Discrimination in Interview or Hiring in the Previous 4 Years								
Others (reference)								
(Believe were) refused a job interview because of disability	-0.493	0.393	-1.25	0.210		0.611	0.283	1.321
(Believe were) refused a job because of disability	0.697	0.329	2.12	0.034	*	2.007	1.052	3.829
Supports for Basic Access								
Need no job accommodations or other employment supports because of disability (reference)								
Need accessible built-environmental features - Received	-0.349	0.661	-0.53	0.597		0.705	0.193	2.582
Need accessible built-environmental features - Not received	-1.016	0.505	-2.01	0.044	*	0.362	0.134	0.974
Need accessible transportation - Received	0.328	1.280	0.26	0.797		1.388	0.113	17.097
Need accessible transportation - Not received	-0.334	0.562	-0.59	0.553		0.716	0.238	2.159
Participation at Work - Barriers and Supports								
Employment Discrimination in Job Promotion in the Previous 4 Years								
Others (reference)								
(Believe were) refused a job promotion because of disability	0.974	0.309	3.15	0.001	***	2.648	1.443	4.859

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Supports for Participation On-the-Job								
Need no job accommodations or other employment supports because of disability (reference)								
Need modified job duties or telework - Received	0.571	0.373	1.53	0.125		1.771	0.852	3.681
Need modified job duties or telework - Not received	-0.891	0.273	-3.26	0.001	***	0.410	0.240	0.701
Need modified hours/days/reduced work hours - Received	1.664	0.282	5.90	<.0001	***	5.279	3.037	9.178
Need modified hours/days/reduced work hours - Not received	-0.787	0.253	-3.11	0.001	***	0.455	0.277	0.748
Need human support - Received	1.100	0.680	1.62	0.106		3.004	0.791	11.414
Need human support - Not received	-0.011	0.412	-0.03	0.979		0.989	0.441	2.219
Need one or more assistive or communication technologies - Received	-1.546	1.027	-1.50	0.132		0.213	0.028	1.600
Need one or more assistive or communication technologies - Not received	0.201	0.443	0.45	0.650		1.223	0.512	2.917
Need specialized chair or back support - Received	0.584	0.457	1.28	0.201		1.793	0.732	4.393
Need specialized chair or back support - Not received	0.214	0.234	0.92	0.358		1.239	0.784	1.959
Need other support - Received	1.334	1.222	1.09	0.275		3.797	0.345	41.789
Need other support - Not received	-0.739	0.494	-1.50	0.134		0.478	0.181	1.258
Attachment to the Disability Income Support System								
Received none of the following forms of income in the past year (reference)								
Received the following in the past year…								
Canada Pension Plan - Disability Benefit	-1.063	0.239	-4.44	<.0001	***	0.346	0.216	0.552
Canada Pension Plan - Excluding disability benefits	-1.265	0.356	-3.55	<.001	***	0.282	0.140	0.568

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Quebec Pension Plan - Disability Benefit	1.091	0.390	2.80	0.005	**	2.978	1.386	6.397
Quebec Pension Plan - Excluding disability benefits	-0.299	0.768	-0.39	0.697		0.742	0.164	3.345
Employment Insurance/Quebec Parental Insurance	-0.321	0.242	-1.33	0.184		0.725	0.451	1.165
Long Term Disability Insurance (private plan)	-0.814	0.324	-2.51	0.012	*	0.443	0.235	0.838
Motor Vehicle Accident Insurance Disability Benefit	-0.277	0.518	-0.53	0.592		0.758	0.274	2.094
Provincial, territorial or municipal social assistance	-1.611	0.268	-6.02	<.0001	***	0.200	0.118	0.338
Veterans Affairs disability pension benefit	-0.727	0.546	-1.33	0.182		0.483	0.166	1.410
Workers' compensation	-0.305	0.368	-0.83	0.407		0.737	0.358	1.518
Disability Supports - General								
Help with Everyday Activities								
Do not need help (reference)								
Receive some of the help needed	0.258	0.225	1.15	0.250		1.295	0.833	2.012
Receive all of the help needed	0.125	0.209	0.60	0.550		1.133	0.752	1.706
Receive none of the help needed	0.232	0.329	0.70	0.481		1.261	0.661	2.403

Appendix Table A.12
Results of the regression model for isolating factors that predicted the odds that working-age people would be in the target group instead of the comparator group

						Odds Ratio Estimates		
Parameter	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**		**Exp (Est) / Point Estimates**	**95% Confidence Limits**	
Aids/Devices								
Do not need aids/devices (reference)								
Have some of the aids/devices needed	0.072	0.246	0.29	0.770		1.074	0.663	1.740
Use all of the aids/devices needed	0.437	0.201	2.18	0.029	*	1.548	1.044	2.297
Use none of the aids/devices needed	0.727	0.350	2.08	0.038	*	2.069	1.041	4.114

From the Canadian Survey on Disability, 2012

NOTE: The degrees of freedom for the t tests is 1000.

*** $p \leq .001$;
** $p \leq 0.01$;
* $p \leq 0.05$;
† $p \leq .1$

Appendix Table A.13
Rank-ordered factors that most strongly predicted whether working-age people with disabilities were in or were not in the target group

	Exp (β) / Point Estimates	*p*		**Percent higher (or lower) than the reference category for statistically significant differences**
General socio-demographic characteristics				
Men (women as reference)	1.610	0.004	**	61.0%
Members of visible minorities (all others as reference)	0.563	0.027	*	(43.7%)
Age 15 - 29 years (people 30 - 49 years as reference)	0.442	0.001	***	(55.8%)
Living arrangements (members of couples without children as reference)				
Lone parents	3.039	0.010	**	203.9%
Unattached persons	2.153	0.001	***	115.3%
Members of couples with children	1.814	0.021	*	81.4%
Members of Census families with child(ren) from birth to 14 years of age	0.414	0.001	***	(58.6%)
Province of residence (Ontario as reference)				
Quebec	0.591	0.066	†	(40.9%)
New Brunswick	0.587	0.054	†	(41.3%)
Newfoundland and Labrador	0.399	0.014	*	(60.1%)
Impairment effects and causes				
Causes of main condition (undetermined causes as reference)				
Caused at birth	1.527	0.063	†	52.7%
Illness/disease	0.601	0.050	*	(39.9%)

Appendix Table A.13
Rank-ordered factors that most strongly predicted whether working-age people with disabilities were in or were not in the target group

	Exp (β) / Point Estimates	*p*		**Percent higher (or lower) than the reference category for statistically significant differences**
Major areas of functional difficulty and activity limitation (pain only as reference)				
Learning disability, no developmental disability - with pain	0.587	0.064	†	(41.3%)
Emotional - without pain	0.524	0.026	*	(47.6%)
Seeing - without pain	0.425	0.098	†	(57.5%)
Mobility, dexterity, or flexibility - without pain	0.409	0.008	**	(59.1%)
Unknown disability	0.251	0.006	**	(74.9%)
Personal (cultural) capital				
Training (no training as reference)				
Took training neither paid for nor provided by the employer	3.506	<.0001	***	250.6%
Took classroom training	1.988	0.002	**	98.8%
Education (less than high school graduation as reference)				
Trade certificate or diploma	3.106	<.0001	***	210.6%
University degree or other university certificate	2.445	0.001	***	144.5%
College/CEGEP/or other non-university certif. or dipl.(excl. trades)	2.263	0.001	***	126.3%
High school diploma or equivalency certificate	1.860	0.006	**	86.0%

Appendix Table A.13
Rank-ordered factors that most strongly predicted whether working-age people with disabilities were in or were not in the target group

	Exp (β) / Point Estimates	*p*		**Percent higher (or lower) than the reference category for statistically significant differences**
Supports for and barriers to basic access to work (no need of accommodations/employment supports as reference)				
(Believe were) refused a job because of disability	2.007	0.034	*	100.7%
Need accessible built-environmental features - Not received	0.362	0.044	*	(63.8%)
Supports for and barriers to participation on-the-job (no need of accommodations/employment supports as reference)				
Need modified hours/days/reduced work hours - Received	5.279	<.0001	***	427.9%
(Believe were) refused a job promotion because of disability	2.648	0.001	***	164.8%
Need modified hours/days/reduced work hours - Not received	0.455	0.001	***	(54.5%)
Need modified job duties or telework - Not received	0.410	0.001	***	(59.0%)
Recent attachment to the disability income system (no support from public programs as reference)				
Quebec Pension Plan - Disability Benefit	2.978	0.005	**	197.8%
Long Term Disability (private plan)	0.443	0.012	*	(55.7%)
Canada Pension Plan - Disability Benefit	0.346	<.0001	***	(65.4%)
Canada Pension Plan - Excluding disability benefits	0.282	0.000	***	(71.8%)
Provincial, territorial or municipal social assistance	0.200	<.0001	***	(80.0%)

Appendix Table A.13
Rank-ordered factors that most strongly predicted whether working-age people with disabilities were in or were not in the target group

	Exp (β) / Point Estimates	*p*		**Percent higher (or lower) than the reference category for statistically significant differences**
Disability supports - general (no need of aids/devices or help with activities as reference)				
Use none of the aids/devices needed	2.069	0.038	*	106.9%
Use all of the aids/devices needed	1.548	0.029	*	54.8%

From the Canadian Survey on Disability, 2012

NOTE: The degrees of freedom for the t tests is 1000.

*** $p \leq .001$;
** $p \leq 0.01$;
* $p \leq 0.05$;
† $p \leq .1$

Appendix Table A.14

Selected characteristics of people who participated in and did not participate in the Employment Modifications Module (EMO)

	(A) In the EMO	(B) Not working and not in the EMO	A as a percentage greater than (or less than) B [(A-B) ÷ B]
Gender			
Male	46.9%	46.9%	0.0%
Female	53.1%	53.1%	0.0%
Age groups			
15-29	16.6%	5.7%	191.2% **
30-49	38.8%	23.5%	65.1% **
50-64	44.6%	70.8%	(37.0%) **
Ethno-racial diversity			
Visible minority	15.8%	12.0%	31.7% **
Immigrant	19.5%	17.1%	14.0% *
Aboriginal	5.1%	5.1%	0.0%
Province/ territory			
Newfoundland and Labrador	1.5%	2.1%	(28.6%) **
Prince Edward Island	0.5%	0.4%	25.0% **
Nova Scotia	3.9%	3.8%	2.6%
New Brunswick	2.4%	3.0%	(20.0%) *
Quebec	14.5%	17.6%	(17.6%) *
Ontario	43.8%	45.3%	(3.3%)

Appendix Table A.14

Selected characteristics of people who participated in and did not participate in the Employment Modifications Module (EMO)

	(A) In the EMO	(B) Not working and not in the EMO	A as a percentage greater than (or less than) B [(A-B) ÷ B]
Manitoba	4.0%	3.1%	29.0% **
Saskatchewan	3.2%	2.4%	33.3% **
Alberta	11.5%	7.9%	45.6% **
British Columbia	14.3%	14.4%	(0.7%)
Northern territories	0.3%	0.2%	50.0% **
Number of broad types of disability			
One	30.1%	15.1%	99.3% **
Two or three	40.3%	30.0%	34.3% **
More than three	29.6%	54.9%	(46.1%) **
Prevalence of impairment effects			
Intellectual	5.1%	8.1%	(37.0%) **
Dexterity	18.3%	38.1%	(52.0%) **
Emotional/psychological	33.1%	43.6%	(24.1%) **
Flexibility	46.5%	67.8%	(31.4%) **
Hearing	18.1%	18.4%	(1.6%)
Learning	18.6%	26.0%	(28.5%) **
Memory	14.8%	23.3%	(36.5%) **
Mobility	37.6%	65.3%	(42.4%) **
Pain	70.3%	78.8%	(10.8%) *
Vision	17.9%	25.1%	(28.7%) **

Appendix Table A.14

Selected characteristics of people who participated in and did not participate in the Employment Modifications Module (EMO)

	(A) In the EMO	**(B) Not working and not in the EMO**	**A as a percentage greater than (or less than) B [(A-B) ÷ B]**
Unknown	2.4%	1.0%	140.0% **
Total people with any disability	100.0%	100.0%	0.0%
Total of all prevalence rates	282.7%	395.4%	(28.5%) **
Recalculation of the prevalence rates above, based on the total of all prevalence rates in each column as the denominators for the calculations			
Intellectual	1.8%	2.0%	(10.0%) *
Dexterity	6.5%	9.6%	(32.3%) **
Emotional/psychological	11.7%	11.0%	6.4%
Flexibility	16.5%	17.1%	(3.5%)
Hearing	6.4%	4.6%	39.1% **
Learning	6.6%	6.6%	0.0%
Memory	5.2%	5.9%	(11.9%) *
Mobility	13.3%	16.5%	(19.4%) *
Pain	24.9%	19.9%	25.1% **
Vision	6.3%	6.4%	(1.6%)
Unknown	0.8%	0.3%	166.7% **
Recalculated total	100.0%	100.0%	0.0%

Appendix Table A.14

Selected characteristics of people who participated in and did not participate in the Employment Modifications Module (EMO)

	(A) In the EMO	**(B) Not working and not in the EMO**	**A as a percentage greater than (or less than) B [(A-B) ÷ B]**
Degree/severity of impairment			
Mild	39.1%	15.5%	152.3% **
Moderate	20.3%	17.3%	17.3% *
Severe	22.6%	24.4%	(7.4%)
Very severe	18.0%	42.8%	(57.9%) **

From the Canadian Survey on Disability, 2012

** indicates “much” difference of more than ±0.2 times;

* indicates a “substantial” difference from ±0.1 to 0.2 times.

Appendix Table A.15

Median earnings of working-age adults without disabilities in 2010, and .67 times those earnings, by gender, number of weeks worked, and whether people worked full-time or part-time during those weeks

	Median earnings		**.67 X median earnings (minimums for being flagged with "decent earnings")**	
Work activity, 2010	**Male**	**Female**	**Male**	**Female**
Didn't work in 2010, worked before 2010, or never worked	-	-	-	-
Didn't work in 2010, worked in 2011	-	-	-	-
Worked 1-13 weeks full time	$ 6,580.00	$7,981.00	$4,408.60	$5,347.27
Worked 1-13 weeks part time	$ 2,309.00	$2,595.00	$1,547.03	$1,738.65
Worked 14-26 weeks full time	$ 16,288.00	$ 12,102.00	$10,912.96	$8,108.34
Worked 14-26 weeks part time	$ 6,477.00	$5,809.00	$4,339.59	$3,892.03
Worked 27-39 weeks full time	$ 25,103.00	$ 23,452.00	$16,819.01	$15,712.84
Worked 27-39 weeks part time	$ 10,160.00	$9,454.00	$6,807.20	$6,334.18
Worked 40-48 weeks full time	$ 42,900.00	$ 36,240.00	$28,743.00	$24,280.80
Worked 40-48 weeks part time	$ 11,006.00	$ 13,663.00	$7,374.02	$9,154.21
Worked 49-52 weeks full time	$ 51,561.00	$ 40,688.00	$34,545.87	$27,260.96
Worked 49-52 weeks part time	$ 11,862.00	$ 13,993.00	$7,947.54	$9,375.31

From the Canadian Survey on Disability, 2012 (NHS content)

Appendix Table A.16

Demographic and other characteristics of disabled with and without "ILO decent" work

	ILO decent work	**Other work**
Women	51.4%	50.7%
15-29 years old	12.4%	13.0%
30-49 years old	40.3%	41.3%
50-64 years old	47.3%	45.7%
Aboriginal persons	4.6%	3.0%
Visible minorities	13.5%	24.2%
Mild level of disability	47.2%	39.0%
Moderate level of disability	22.2%	21.0%
Severe level of disability	17.7%	27.4%
Very severe level of disability	12.8%	12.6%
Have work limitations because of condition	43.9%	55.2%
(If limited) employer is aware of work limitation	73.8%	63.4%
With employer in permanent job	85.4%	0.0%
With employer in temporary or contract work	3.6%	17.5%
With employer in casual job	0.6%	5.6%
With employer in seasonal work	1.3%	4.2%
With employer in other non-permanent work	0.5%	3.1%
Self-employed	8.3%	66.4%
Earnings at or above 2/3 of the median for non-disabled	72.4%	0.0%
No earnings because not working in 2010	8.8%	36.7%
Working more than 48 hours/week (NHS)	10.5%	20.3%
Working part-time - less than 30 hours (NHS)	20.1%	32.2%

Appendix Table A.16

Demographic and other characteristics of disabled with and without "ILO decent" work

	ILO decent work	**Other work**
With employer - A union member or under a collective agreement	32.2%	7.8%
With employer and 100 to 500 employees at workplace	20.7%	3.9%
With employer and less than 20 employees at workplace	27.5%	12.9%
Received on-the-job training (in past year)	38.6%	19.7%
Received classroom training (in past year)	33.6%	16.3%
Received other training (in past year)	9.5%	11.8%
No training but wanted it (in past year)	8.1%	6.6%
Was refused a promotion because of disability in past 5 years	8.7%	4.4%
Was refused a job because of disability in past 5 years	10.4%	11.3%
Was refused a job interview because of disability in past 5 years	6.6%	6.8%
Feels disadvantaged in employment	30.9%	35.6%

From the Canadian Survey on Disability, 2012

Appendix Table A.17a

Correlation matrix for variables included in the regression model

Parameter	Intercept	RREF_AGE_15_29	RREF_AGE_50_64	R_Male	RVISMIN	RABDERR	R_CFKID_B_14	R_EFAM_CPL_KIDS	R_EFAM_SonsDaughters	R_EFAM_LoneParents	R_EFAM_OtherEfam	R_EFAM_Unattached	PROV_NL	PROV_NB	PROV_PEI_NS	PROV_QC	PROV_MB	PROV_SK
Intercept	1.000	-0.208	-0.264	-0.206	-0.164	-0.107	-0.102	-0.317	-0.277	-0.166	-0.315	-0.279	-0.220	-0.265	-0.322	-0.253	-0.314	-0.286
RREF_AGE_15_29	-0.208	1.000	0.147	0.160	0.082	0.116	-0.014	0.123	-0.458	-0.005	-0.085	-0.036	0.080	0.209	0.084	0.055	-0.010	0.061
RREF_AGE_50_64	-0.264	0.147	1.000	-0.055	0.106	0.036	0.227	-0.003	0.169	0.092	0.025	0.081	0.018	-0.034	-0.005	-0.048	0.028	-0.062
R_Male	-0.206	0.160	-0.055	1.000	-0.041	-0.053	0.058	-0.001	-0.287	-0.032	0.015	-0.100	-0.039	0.064	0.038	-0.008	0.056	-0.016
RVISMIN	-0.164	0.082	0.106	-0.041	1.000	0.108	0.025	-0.073	-0.075	0.068	-0.125	-0.010	0.202	0.242	0.215	0.275	0.163	0.189
RABDERR	-0.107	0.116	0.036	-0.053	0.108	1.000	-0.075	-0.008	-0.035	-0.117	-0.016	-0.163	0.016	0.111	0.090	0.014	-0.053	0.041
R_CFKID_B_14	-0.102	-0.014	0.227	0.058	0.025	-0.075	1.000	-0.528	-0.097	-0.360	-0.075	0.026	0.011	-0.045	-0.085	0.072	0.016	-0.132
R_EFAM_CPL_KIDS	-0.317	0.123	-0.003	-0.001	-0.073	-0.008	-0.528	1.000	0.355	0.460	0.287	0.392	-0.010	0.067	0.115	-0.032	0.046	0.120
R_EFAM_SonsDaughters	-0.277	-0.458	0.169	-0.287	-0.075	-0.035	-0.097	0.355	1.000	0.250	0.407	0.446	0.014	-0.096	0.046	-0.085	0.031	0.039
R_EFAM_LoneParents	-0.166	-0.005	0.092	-0.032	0.068	-0.117	-0.360	0.460	0.250	1.000	0.236	0.347	0.099	-0.054	-0.003	-0.016	-0.001	0.084
R_EFAM_OtherEfam	-0.315	-0.085	0.025	0.015	-0.125	-0.016	-0.075	0.287	0.407	0.236	1.000	0.267	0.049	0.039	0.076	-0.034	0.057	0.084
R_EFAM_Unattached	-0.279	-0.036	0.081	-0.100	-0.010	-0.163	0.026	0.392	0.446	0.347	0.267	1.000	0.038	-0.046	0.033	0.009	0.041	0.054
PROV_NL	-0.220	0.080	0.018	-0.039	0.202	0.016	0.011	-0.010	0.014	0.099	0.049	0.038	1.000	0.283	0.335	0.305	0.239	0.239
PROV_NB	-0.265	0.209	-0.034	0.064	0.242	0.111	-0.045	0.067	-0.096	-0.054	0.039	-0.046	0.283	1.000	0.458	0.268	0.337	0.379
PROV_PEI_NS	-0.322	0.084	-0.005	0.038	0.215	0.090	-0.085	0.115	0.046	-0.003	0.076	0.033	0.335	0.458	1.000	0.321	0.351	0.391
PROV_QC	-0.253	0.055	-0.048	-0.008	0.275	0.014	0.072	-0.032	-0.085	-0.016	-0.034	0.009	0.305	0.268	0.321	1.000	0.304	0.294
PROV_MB	-0.314	-0.010	0.028	0.056	0.163	-0.053	0.016	0.046	0.031	-0.001	0.057	0.041	0.239	0.337	0.351	0.304	1.000	0.326
PROV_SK	-0.286	0.061	-0.062	-0.016	0.189	0.041	-0.132	0.120	0.039	0.084	0.084	0.054	0.239	0.379	0.391	0.294	0.326	1.000
PROV_AB	-0.347	0.074	-0.086	-0.017	0.207	-0.005	-0.022	0.077	-0.013	0.105	0.053	0.015	0.362	0.389	0.424	0.455	0.400	0.385
PROV_BC	-0.184	0.059	0.004	0.094	0.145	0.017	-0.087	0.028	-0.044	0.010	-0.010	-0.020	0.246	0.416	0.399	0.413	0.377	0.376
PROV_NORTH	-0.208	0.039	-0.016	0.037	0.135	-0.367	0.001	-0.008	0.035	0.019	0.092	-0.004	0.242	0.250	0.274	0.301	0.277	0.262
R_MOB5_R	-0.124	-0.169	0.106	0.026	-0.136	0.145	-0.077	0.046	0.101	0.015	0.038	-0.096	0.037	0.028	0.028	-0.055	0.050	0.017
D_Hearing_WPAIN	-0.052	0.022	-0.089	-0.131	-0.019	0.059	0.016	0.063	-0.042	0.034	-0.049	0.045	0.085	0.027	-0.057	-0.074	0.116	-0.005
D_Memory_WPAIN	0.094	-0.127	-0.023	0.075	-0.115	-0.245	0.043	-0.106	0.114	-0.073	-0.020	0.074	-0.033	-0.125	-0.108	-0.136	-0.043	-0.066
D_Emotional_WPAIN	-0.138	0.056	-0.045	0.142	0.083	-0.065	0.052	0.029	-0.115	0.069	-0.048	-0.056	0.112	0.105	0.134	0.061	-0.002	0.061

Appendix Table A.17a

Correlation matrix for variables included in the regression model

Parameter	Intercept	RREF_AGE_15_29	RREF_AGE_50_64	R_Male	RVISMIN	RABDERR	R_CFKID_B_14	R_EFAM_CPL_KIDS	R_EFAM_SonsDaughters	R_EFAM_LoneParents	R_EFAM_OtherEfam	R_EFAM_Unattached	PROV_NL	PROV_NB	PROV_PEI_NS	PROV_QC	PROV_MB	PROV_SK
D_Developmental_WPAIN	-0.090	0.006	0.137	-0.069	-0.055	0.049	0.130	0.017	-0.018	0.029	0.037	-0.020	-0.072	-0.040	0.003	-0.023	-0.086	-0.057
D_Learning_NO_ID_WPAIN	-0.135	0.004	0.111	-0.036	0.098	0.139	-0.016	0.042	0.017	0.014	0.075	-0.115	0.112	0.099	0.189	0.071	0.214	0.090
D_Mob_dexflex_WPAIN	-0.256	0.116	-0.166	0.099	-0.018	0.124	0.077	0.019	-0.061	-0.206	0.026	0.023	-0.002	0.004	0.068	0.159	0.085	-0.009
D_Seeing_WPAIN	-0.068	0.095	-0.131	-0.016	0.041	0.005	-0.093	0.132	-0.018	0.077	0.049	-0.004	0.046	0.110	0.023	0.068	0.132	0.130
D_Hearing_NO_PAIN	-0.076	0.026	0.026	0.049	-0.018	0.010	0.076	-0.045	-0.114	-0.034	-0.029	-0.069	-0.128	-0.109	-0.097	-0.065	0.012	-0.072
D_Memory_NO_PAIN	-0.074	-0.139	-0.019	-0.014	-0.076	-0.072	0.011	0.046	0.159	0.052	0.071	0.077	0.076	-0.083	-0.027	0.015	0.032	-0.002
D_Emotional_NO_PAIN	-0.147	0.052	-0.066	0.020	0.039	0.023	0.010	0.018	-0.092	-0.064	-0.072	-0.080	0.002	0.071	0.032	0.034	-0.014	0.044
D_Developmental_NO_PAIN	-0.127	-0.041	0.004	-0.036	0.068	0.096	0.054	0.014	-0.167	-0.021	-0.100	-0.030	0.114	0.067	0.085	0.181	0.013	0.068
D_Learning_NO_ID_NO_PAIN	-0.101	0.112	0.044	0.021	0.106	0.107	0.028	0.010	-0.172	-0.042	-0.054	-0.049	0.025	0.086	0.077	0.063	0.039	0.057
D_Mob_dexflex_NO_PAIN	-0.106	0.136	-0.190	0.036	0.029	-0.023	-0.012	0.044	-0.041	0.050	0.128	0.080	0.053	0.054	0.033	0.001	0.011	0.044
D_Seeing_NO_PAIN	0.044	0.001	-0.103	-0.047	-0.020	-0.047	-0.041	0.024	-0.014	-0.009	0.000	0.044	0.074	-0.068	-0.023	0.066	0.023	-0.045
D_Unknown	-0.207	0.048	-0.024	-0.026	0.005	0.041	-0.005	0.050	0.006	0.000	0.037	-0.013	0.042	0.061	0.022	0.038	0.021	0.074
R_MAC_03AA	-0.176	-0.147	0.167	-0.037	0.026	-0.123	0.115	-0.046	0.018	0.097	0.077	-0.014	0.074	-0.072	-0.027	-0.004	0.194	-0.030
R_MAC_03AB	-0.026	0.045	0.029	-0.024	0.059	-0.031	0.089	-0.030	-0.047	-0.051	0.033	-0.041	0.074	-0.044	0.126	-0.044	0.000	-0.030
R_MAC_03AC	-0.130	-0.065	0.090	0.073	-0.111	-0.066	-0.023	-0.009	0.062	0.000	0.079	-0.050	0.024	-0.139	0.034	-0.106	-0.037	-0.055
R_MAC_03AD	-0.044	-0.027	0.009	-0.220	0.058	-0.037	0.054	-0.040	0.113	0.107	0.098	0.092	0.056	-0.085	0.009	-0.015	-0.052	-0.027
R_MAC_03AE	-0.032	0.026	-0.092	-0.075	-0.084	-0.144	0.051	-0.058	-0.046	0.056	-0.072	0.010	-0.038	-0.038	-0.119	0.040	-0.040	-0.036
R_MAC_03AG	-0.049	-0.077	0.007	-0.142	0.024	-0.007	-0.033	-0.013	0.063	0.066	0.082	0.002	0.034	-0.121	-0.017	-0.033	-0.020	0.000
RHLEVED_HIGHSCHL	-0.310	0.013	-0.051	0.054	-0.112	0.045	0.069	-0.028	0.051	-0.088	0.177	0.042	-0.077	-0.023	0.012	-0.048	-0.029	0.003
RHLEVED_COLLEGE	-0.292	0.041	-0.006	-0.023	-0.063	0.144	-0.029	0.119	0.145	-0.137	0.239	-0.030	-0.089	0.111	0.080	-0.072	-0.022	0.114
RHLEVED_TRADES	-0.324	0.008	-0.077	-0.054	-0.101	0.141	-0.097	0.130	0.225	-0.027	0.244	0.005	-0.078	0.060	0.079	-0.240	-0.002	0.055
RHLEVED_UNIV	-0.298	0.076	-0.078	0.015	-0.109	0.230	0.123	-0.001	0.050	-0.206	0.196	-0.051	-0.034	0.120	0.069	-0.034	-0.038	0.064
trn_class	-0.108	-0.074	0.034	-0.084	0.062	0.044	-0.062	0.024	0.127	0.012	0.015	0.006	0.031	0.033	0.057	0.052	0.170	0.056
trn_otj	-0.128	-0.058	0.138	0.079	0.055	0.028	0.195	-0.121	-0.023	-0.118	-0.036	-0.010	0.016	-0.072	-0.007	0.179	0.013	-0.069
trn_other	-0.070	0.167	0.059	0.039	-0.005	-0.072	-0.087	0.144	-0.059	0.059	0.022	0.018	0.039	0.053	0.002	-0.050	-0.003	0.003
REDI_01_Y	0.115	-0.042	0.005	-0.079	-0.132	-0.151	-0.091	-0.031	0.140	0.015	-0.011	0.082	0.003	-0.118	-0.111	-0.104	-0.076	-0.116
REDI_02_Y	0.075	-0.091	-0.045	0.029	0.017	0.078	0.146	-0.043	-0.092	0.006	-0.030	-0.050	-0.054	-0.014	-0.085	-0.023	-0.086	-0.039

Appendix Table A.17a

Correlation matrix for variables included in the regression model

Parameter	Intercept	RREF_AGE_15_29	RREF_AGE_50_64	R_Male	RVISMIN	RABDERR	R_CFKID_B_14	R_EFAM_CPL_KIDS	R_EFAM_SonsDaughters	R_EFAM_LoneParents	R_EFAM_OtherEfam	R_EFAM_Unattached	PROV_NL	PROV_NB	PROV_PEI_NS	PROV_QC	PROV_MB	PROV_SK
R_EMO_BuiltEnviro_N	0.042	0.016	0.118	-0.073	0.128	-0.056	0.135	-0.187	-0.037	-0.098	-0.051	-0.131	-0.104	0.043	-0.026	0.125	-0.031	-0.061
R_EMO_BuiltEnviro_Y	0.061	-0.067	0.025	0.118	-0.086	-0.114	0.118	-0.082	0.018	-0.007	0.008	0.045	-0.048	-0.103	-0.115	-0.014	-0.037	-0.107
R_EMO_Transport_N	-0.045	-0.003	-0.056	0.050	-0.126	0.025	-0.112	0.163	-0.028	0.079	-0.010	0.027	0.011	-0.043	-0.013	-0.053	0.009	0.016
R_EMO_Transport_Y	0.008	-0.019	0.033	0.037	0.023	-0.038	-0.039	0.058	0.106	-0.005	0.033	-0.054	-0.031	-0.030	-0.016	-0.021	-0.051	-0.090
REDI_03_Y	-0.110	0.022	0.130	0.062	-0.017	-0.047	-0.011	0.068	0.100	0.004	0.045	0.116	0.020	-0.051	0.071	-0.033	0.175	0.089
R_EMO_DutTele_Y	-0.129	0.157	0.073	0.138	0.015	-0.100	0.071	0.061	-0.016	0.013	0.031	0.191	0.004	0.004	0.007	-0.065	-0.156	0.040
R_EMO_DutTele_N	-0.023	0.032	0.063	0.031	-0.071	0.013	0.029	0.028	0.097	-0.006	-0.004	0.056	-0.029	-0.057	-0.151	-0.085	-0.187	-0.049
R_EMO_Hours_Y	0.064	0.036	-0.134	-0.002	0.110	-0.074	-0.029	0.018	-0.087	0.008	-0.048	-0.004	-0.004	-0.027	-0.050	0.079	0.120	-0.080
R_EMO_Hours_N	-0.003	0.011	-0.116	0.003	0.049	0.045	-0.249	0.185	-0.009	0.130	0.036	-0.098	0.097	0.041	0.082	0.007	0.075	0.059
R_EMO_Human_N	0.011	0.012	0.037	-0.070	-0.035	0.181	-0.063	0.000	0.062	-0.187	0.101	-0.122	0.033	0.176	0.252	-0.075	0.044	0.127
R_EMO_Human_Y	0.027	-0.060	0.085	-0.063	0.035	0.066	0.029	-0.072	-0.031	-0.047	0.012	-0.139	-0.180	-0.011	0.052	-0.019	-0.010	-0.025
R_EMO_Technologies_N	-0.045	-0.089	-0.120	-0.096	-0.031	-0.091	-0.108	0.044	0.043	0.177	0.036	0.005	0.058	-0.041	-0.003	0.014	-0.015	0.060
R_EMO_Technologies_Y	-0.034	0.053	0.072	-0.103	-0.062	0.066	0.000	0.049	0.020	0.108	-0.060	0.087	0.008	-0.082	-0.105	-0.037	-0.028	0.030
R_EMO_ChairBack_N	-0.028	-0.049	0.078	-0.142	-0.056	-0.015	0.072	-0.104	0.092	0.032	0.054	0.055	0.024	-0.051	0.039	0.009	0.012	0.023
R_EMO_ChairBack_Y	-0.022	-0.009	-0.059	0.042	-0.032	-0.101	-0.134	0.123	0.116	0.223	0.070	0.121	0.006	-0.183	-0.136	-0.011	-0.186	-0.004
R_EMO_Other_N	-0.002	-0.063	0.040	-0.062	0.019	-0.039	-0.042	0.006	0.108	-0.056	0.003	0.071	0.051	0.006	0.104	0.075	0.027	-0.017
R_EMO_Other_Y	0.090	0.086	-0.019	0.293	-0.101	-0.246	0.095	-0.050	-0.077	-0.004	-0.058	0.102	-0.070	-0.107	-0.151	-0.109	-0.151	-0.167
R_INC_CPP_D	-0.099	0.214	-0.127	0.032	0.093	0.090	-0.039	0.081	-0.074	0.008	-0.021	-0.027	0.032	0.114	0.023	0.133	-0.019	0.085
R_INC_QPP_D	-0.079	-0.043	-0.010	-0.001	-0.094	0.081	-0.059	0.060	0.128	-0.016	0.160	0.049	-0.009	0.020	0.068	-0.300	0.030	0.010
R_INC_QPP_Reg	0.071	0.014	-0.072	0.027	-0.062	-0.022	-0.006	0.051	0.009	-0.059	-0.012	-0.025	-0.057	-0.014	0.042	-0.211	-0.050	0.036
R_INC_CPP_Reg	-0.147	0.034	-0.173	0.051	-0.025	0.113	-0.125	0.130	0.082	0.077	0.091	0.081	0.032	0.038	0.105	0.079	0.022	0.084
R_INC_EI	0.005	-0.035	-0.058	-0.094	-0.069	-0.046	-0.110	0.154	0.043	0.116	0.076	0.039	-0.144	-0.090	-0.103	-0.007	0.046	0.029
R_INC_LTD_Pvt	0.044	-0.038	0.139	-0.006	-0.105	-0.073	-0.059	-0.040	0.132	0.046	0.038	-0.003	0.026	-0.105	0.031	-0.079	-0.068	-0.067
R_INC_MVI	0.015	-0.034	0.132	-0.075	0.121	0.086	-0.045	0.029	-0.105	0.054	-0.050	-0.065	-0.021	0.093	0.028	0.045	0.136	0.093
R_INC_SocAsst	-0.118	0.167	0.004	-0.068	0.011	0.028	-0.139	0.100	-0.018	-0.113	-0.080	-0.185	0.047	0.083	0.056	0.027	0.092	0.023
R_INC_Vets	0.052	0.024	0.016	0.009	-0.048	0.005	-0.045	0.028	-0.033	-0.103	-0.038	-0.103	-0.008	-0.042	-0.001	0.001	-0.047	-0.013
R_INC_WorkersComp	-0.038	-0.052	0.086	-0.040	-0.072	-0.113	0.000	0.022	-0.018	0.116	-0.042	-0.056	0.023	-0.009	-0.053	0.002	0.147	0.044

Appendix Table A.17a

Correlation matrix for variables included in the regression model

Parameter	Intercept	RREF_AGE_15_29	RREF_AGE_50_64	R_Male	RVISMIN	RABDERR	R_CFKID_B_14	R_EFAM_CPL_KIDS	R_EFAM_SonsDaughters	R_EFAM_LoneParents	R_EFAM_OtherEfam	R_EFAM_Unattached	PROV_NL	PROV_NB	PROV_PEI_NS	PROV_QC	PROV_MB	PROV_SK
R_Help_RcvSome	-0.025	0.062	0.070	0.057	0.073	0.027	0.002	-0.095	-0.111	-0.084	-0.159	-0.045	-0.083	0.066	-0.113	-0.017	-0.041	-0.005
R_Help_RcvAll	-0.144	-0.034	0.036	0.117	0.128	0.025	0.009	-0.059	-0.051	-0.025	-0.088	-0.023	-0.099	0.011	-0.122	-0.032	-0.044	0.020
R_Help_RcvNone	-0.113	0.075	0.036	0.051	0.121	0.041	-0.139	0.040	0.003	0.202	0.039	-0.036	0.002	0.059	-0.057	-0.134	-0.063	-0.008
R_Aids_RcvSome	-0.063	-0.059	0.044	0.076	-0.075	-0.015	0.043	-0.064	0.094	-0.097	-0.032	-0.009	-0.005	-0.020	0.002	0.023	-0.091	-0.025
R_Aids_RcvAll	-0.291	-0.023	0.045	-0.011	0.096	0.074	0.074	-0.026	0.075	0.059	0.021	0.033	0.076	0.076	0.071	0.127	0.092	0.025
R_Aids_RcvNone	-0.120	-0.042	-0.022	0.080	-0.051	-0.016	-0.019	-0.009	0.001	0.092	-0.010	-0.012	-0.027	0.008	-0.055	0.036	0.050	0.004

Appendix Table A.17b

Correlation matrix for variables included in the regression model

	PROV_AB	PROV_BC	PROV_NORTH	R_MOB5_R	D_Hearing_WPAIN	D_Memory_WPAIN	D_Emotional_WPAIN	D_Developmental_WPAIN	D_Learning_NO_ID_WPAIN	D_Mob_dexflex_WPAIN	D_Seeing_WPAIN	D_Hearing_NO_PAIN	D_Memory_NO_PAIN	D_Emotional_NO_PAIN	D_Developmental_NO_PAIN	D_Learning_NO_ID_NO_PAIN	D_Mob_dexflex_NO_PAIN	D_Seeing_NO_PAIN
Intercept	-0.347	-0.184	-0.208	-0.124	-0.052	0.094	-0.138	-0.090	-0.135	-0.256	-0.068	-0.076	-0.074	-0.147	-0.127	-0.101	-0.106	0.044
RREF_AGE_15_29	0.074	0.059	0.039	-0.169	0.022	-0.127	0.056	0.006	0.004	0.116	0.095	0.026	-0.139	0.052	-0.041	0.112	0.136	0.001
RREF_AGE_50_64	-0.086	0.004	-0.016	0.106	-0.089	-0.023	-0.045	0.137	0.111	-0.166	-0.131	0.026	-0.019	-0.066	0.004	0.044	-0.190	-0.103
R_Male	-0.017	0.094	0.037	0.026	-0.131	0.075	0.142	-0.069	-0.036	0.099	-0.016	0.049	-0.014	0.020	-0.036	0.021	0.036	-0.047
RVISMIN	0.207	0.145	0.135	-0.136	-0.019	-0.115	0.083	-0.055	0.098	-0.018	0.041	-0.018	-0.076	0.039	0.068	0.106	0.029	-0.020
RABDERR	-0.005	0.017	-0.367	0.145	0.059	-0.245	-0.065	0.049	0.139	0.124	0.005	0.010	-0.072	0.023	0.096	0.107	-0.023	-0.047
R_CFKID_B_14	-0.022	-0.087	0.001	-0.077	0.016	0.043	0.052	0.130	-0.016	0.077	-0.093	0.076	0.011	0.010	0.054	0.028	-0.012	-0.041
R_EFAM_CPL_KIDS	0.077	0.028	-0.008	0.046	0.063	-0.106	0.029	0.017	0.042	0.019	0.132	-0.045	0.046	0.018	0.014	0.010	0.044	0.024
R_EFAM_SonsDaughters	-0.013	-0.044	0.035	0.101	-0.042	0.114	-0.115	-0.018	0.017	-0.061	-0.018	-0.114	0.159	-0.092	-0.167	-0.172	-0.041	-0.014
R_EFAM_LoneParents	0.105	0.010	0.019	0.015	0.034	-0.073	0.069	0.029	0.014	-0.206	0.077	-0.034	0.052	-0.064	-0.021	-0.042	0.050	-0.009
R_EFAM_OtherEfam	0.053	-0.010	0.092	0.038	-0.049	-0.020	-0.048	0.037	0.075	0.026	0.049	-0.029	0.071	-0.072	-0.100	-0.054	0.128	0.000
R_EFAM_Unattached	0.015	-0.020	-0.004	-0.096	0.045	0.074	-0.056	-0.020	-0.115	0.023	-0.004	-0.069	0.077	-0.080	-0.030	-0.049	0.080	0.044
PROV_NL	0.362	0.246	0.242	0.037	0.085	-0.033	0.112	-0.072	0.112	-0.002	0.046	-0.128	0.076	0.002	0.114	0.025	0.053	0.074
PROV_NB	0.389	0.416	0.250	0.028	0.027	-0.125	0.105	-0.040	0.099	0.004	0.110	-0.109	-0.083	0.071	0.067	0.086	0.054	-0.068
PROV_PEI_NS	0.424	0.399	0.274	0.028	-0.057	-0.108	0.134	0.003	0.189	0.068	0.023	-0.097	-0.027	0.032	0.085	0.077	0.033	-0.023
PROV_QC	0.455	0.413	0.301	-0.055	-0.074	-0.136	0.061	-0.023	0.071	0.159	0.068	-0.065	0.015	0.034	0.181	0.063	0.001	0.066
PROV_MB	0.400	0.377	0.277	0.050	0.116	-0.043	-0.002	-0.086	0.214	0.085	0.132	0.012	0.032	-0.014	0.013	0.039	0.011	0.023
PROV_SK	0.385	0.376	0.262	0.017	-0.005	-0.066	0.061	-0.057	0.090	-0.009	0.130	-0.072	-0.002	0.044	0.068	0.057	0.044	-0.045
PROV_AB	1.000	0.420	0.351	0.009	-0.001	-0.151	0.124	-0.010	0.122	0.116	0.099	-0.066	0.032	0.040	0.083	-0.006	0.076	-0.013
PROV_BC	0.420	1.000	0.307	-0.013	-0.089	-0.073	0.025	-0.091	0.064	0.106	-0.009	-0.110	-0.039	0.000	0.058	0.073	0.018	0.051
PROV_NORTH	0.351	0.307	1.000	-0.040	-0.091	0.076	0.048	-0.116	0.060	0.000	0.095	-0.067	0.007	0.008	0.007	-0.032	0.033	0.020
R_MOB5_R	0.009	-0.013	-0.040	1.000	0.055	-0.201	-0.072	0.178	0.105	-0.064	0.058	0.035	0.079	0.112	0.028	0.009	-0.145	-0.007
D_Hearing_WPAIN	-0.001	-0.089	-0.091	0.055	1.000	-0.111	0.061	0.016	-0.063	0.049	0.149	0.081	0.021	0.084	0.051	0.081	0.109	0.060
D_Memory_WPAIN	-0.151	-0.073	0.076	-0.201	-0.111	1.000	-0.051	-0.277	-0.450	-0.046	-0.200	-0.039	-0.012	0.000	-0.125	-0.010	0.009	-0.011

Appendix Table A.17b

Correlation matrix for variables included in the regression model

	PROV_AB	PROV_BC	PROV_NORTH	R_MOB5_R	D_Hearing_WPAIN	D_Memory_WPAIN	D_Emotional_WPAIN	D_Developmental_WPAIN	D_Learning_NO_ID_WPAIN	D_Mob_dexflex_WPAIN	D_Seeing_WPAIN	D_Hearing_NO_PAIN	D_Memory_NO_PAIN	D_Emotional_NO_PAIN	D_Developmental_NO_PAIN	D_Learning_NO_ID_NO_PAIN	D_Mob_dexflex_NO_PAIN	D_Seeing_NO_PAIN
D_Emotional_WPAIN	0.124	0.025	0.048	-0.072	0.061	-0.051	1.000	-0.051	-0.244	-0.002	-0.057	0.053	0.043	0.118	0.179	0.102	0.158	-0.017
D_Developmental_WPAIN	-0.010	-0.091	-0.116	0.178	0.016	-0.277	-0.051	1.000	0.205	-0.026	-0.180	0.061	0.021	0.079	0.144	0.106	-0.054	0.005
D_Learning_NO_ID_WPAIN	0.122	0.064	0.060	0.105	-0.063	-0.450	-0.244	0.205	1.000	-0.005	-0.011	0.065	0.015	-0.035	0.091	0.033	-0.023	-0.019
D_Mob_dexflex_WPAIN	0.116	0.106	0.000	-0.064	0.049	-0.046	-0.002	-0.026	-0.005	1.000	0.022	0.133	0.070	0.229	0.209	0.081	0.275	0.121
D_Seeing_WPAIN	0.099	-0.009	0.095	0.058	0.149	-0.200	-0.057	-0.180	-0.011	0.022	1.000	0.072	0.013	0.019	0.007	-0.003	0.137	0.023
D_Hearing_NO_PAIN	-0.066	-0.110	-0.067	0.035	0.081	-0.039	0.053	0.061	0.065	0.133	0.072	1.000	-0.079	0.024	0.021	0.136	0.057	-0.193
D_Memory_NO_PAIN	0.032	-0.039	0.007	0.079	0.021	-0.012	0.043	0.021	0.015	0.070	0.013	-0.079	1.000	-0.252	-0.078	-0.265	0.002	0.037
D_Emotional_NO_PAIN	0.040	0.000	0.008	0.112	0.084	0.000	0.118	0.079	-0.035	0.229	0.019	0.024	-0.252	1.000	-0.114	0.027	-0.015	-0.055
D_Developmental_NO_PAIN	0.083	0.058	0.007	0.028	0.051	-0.125	0.179	0.144	0.091	0.209	0.007	0.021	-0.078	-0.114	1.000	0.284	0.040	0.117
D_Learning_NO_ID_NO_PAIN	-0.006	0.073	-0.032	0.009	0.081	-0.010	0.102	0.106	0.033	0.081	-0.003	0.136	-0.265	0.027	0.284	1.000	-0.006	-0.056
D_Mob_dexflex_NO_PAIN	0.076	0.018	0.033	-0.145	0.109	0.009	0.158	-0.054	-0.023	0.275	0.137	0.057	0.002	-0.015	0.040	-0.006	1.000	0.032
D_Seeing_NO_PAIN	-0.013	0.051	0.020	-0.007	0.060	-0.011	-0.017	0.005	-0.019	0.121	0.023	-0.193	0.037	-0.055	0.117	-0.056	0.032	1.000
D_Unknown	0.105	0.026	0.013	-0.056	0.111	0.046	0.111	0.007	-0.023	0.216	0.070	0.058	0.049	0.128	0.118	0.095	0.118	0.008
R_MAC_03AA	0.080	-0.055	0.088	0.057	0.036	-0.073	-0.009	0.001	0.133	-0.127	0.048	0.026	0.096	-0.082	-0.137	-0.158	-0.117	-0.045
R_MAC_03AB	-0.003	-0.098	-0.043	0.017	0.121	-0.147	0.031	0.054	0.118	-0.095	0.042	-0.020	-0.063	0.035	0.035	0.130	-0.026	-0.037
R_MAC_03AC	-0.068	-0.053	-0.081	0.106	0.003	-0.041	0.045	0.068	0.105	-0.123	-0.080	0.076	0.064	-0.026	0.030	0.062	-0.163	-0.035
R_MAC_03AD	-0.044	-0.119	0.035	-0.018	-0.079	-0.095	-0.003	0.111	0.133	-0.322	-0.061	-0.043	0.072	-0.098	-0.021	0.040	-0.088	-0.038
R_MAC_03AE	0.066	0.051	-0.011	-0.122	-0.109	-0.015	0.006	0.079	-0.133	-0.029	0.039	0.123	0.007	-0.037	0.008	-0.027	0.063	0.098
R_MAC_03AG	0.055	-0.113	-0.043	0.087	0.018	-0.192	-0.047	0.132	0.202	-0.167	-0.046	0.003	-0.006	-0.081	-0.023	-0.123	0.033	0.020
RHLEVED_HIGHSCHL	-0.005	-0.078	0.073	-0.088	-0.135	0.122	-0.019	-0.022	-0.032	0.133	-0.031	0.102	0.039	-0.019	0.037	-0.006	-0.034	-0.073
RHLEVED_COLLEGE	-0.003	-0.034	-0.016	-0.039	-0.114	0.058	0.021	0.058	0.059	0.070	-0.026	0.071	0.059	-0.031	0.074	0.026	-0.035	-0.071
RHLEVED_TRADES	0.020	-0.096	0.004	-0.014	0.015	0.082	-0.007	0.034	0.009	0.133	0.077	0.038	0.034	0.074	-0.029	-0.022	0.003	-0.042
RHLEVED_UNIV	-0.011	-0.103	0.010	-0.010	0.023	-0.044	0.073	0.051	0.078	0.144	0.052	0.060	0.035	0.038	0.095	0.057	0.022	-0.154
trn_class	0.056	0.079	0.076	0.050	0.139	0.033	-0.016	-0.153	-0.033	0.216	0.114	0.017	-0.008	0.073	-0.014	0.020	0.067	0.095
trn_otj	0.013	-0.010	0.022	0.034	-0.141	-0.055	-0.075	0.072	0.141	0.041	-0.103	-0.021	0.110	-0.097	0.083	-0.055	-0.042	-0.057
trn_other	-0.025	-0.080	0.051	-0.094	0.050	-0.057	0.103	0.078	-0.032	0.031	0.092	0.029	-0.020	0.084	0.052	0.000	0.046	-0.090

Appendix Table A.17b

Correlation matrix for variables included in the regression model

	PROV_AB	PROV_BC	PROV_NORTH	R_MOB5_R	D_Hearing_WPAIN	D_Memory_WPAIN	D_Emotional_WPAIN	D_Developmental_WPAIN	D_Learning_NO_ID_WPAIN	D_Mob_dexflex_WPAIN	D_Seeing_WPAIN	D_Hearing_NO_PAIN	D_Memory_NO_PAIN	D_Emotional_NO_PAIN	D_Developmental_NO_PAIN	D_Learning_NO_ID_NO_PAIN	D_Mob_dexflex_NO_PAIN	D_Seeing_NO_PAIN
REDI_01_Y	-0.100	-0.034	0.043	-0.136	0.037	0.261	0.022	-0.134	-0.282	-0.111	0.007	-0.180	0.018	-0.037	-0.145	0.012	-0.073	0.029
REDI_02_Y	0.020	-0.049	-0.090	0.087	-0.011	-0.087	-0.024	0.098	0.061	0.000	-0.081	0.144	0.008	-0.064	0.036	-0.090	0.146	-0.041
R_EMO_BuiltEnviro_N	-0.003	0.077	0.143	-0.081	-0.063	0.010	-0.181	0.068	0.012	0.080	-0.009	0.054	-0.042	0.083	0.015	0.090	-0.093	0.014
R_EMO_BuiltEnviro_Y	-0.073	0.042	0.016	-0.075	-0.225	0.141	0.063	0.046	-0.148	-0.133	-0.335	-0.027	0.007	-0.051	-0.059	-0.051	-0.250	0.047
R_EMO_Transport_N	-0.006	0.025	-0.039	0.096	-0.078	-0.097	0.106	-0.045	0.058	0.081	-0.131	0.000	0.109	0.044	0.135	-0.046	0.024	-0.055
R_EMO_Transport_Y	-0.091	-0.046	0.020	0.009	-0.058	-0.083	0.081	-0.002	0.048	0.032	0.015	-0.013	0.145	0.035	-0.019	-0.040	-0.035	-0.054
REDI_03_Y	-0.021	-0.011	-0.100	-0.020	-0.100	-0.049	-0.078	-0.024	0.140	-0.072	-0.034	0.069	-0.033	-0.048	-0.055	0.014	-0.199	-0.011
R_EMO_DutTele_Y	-0.030	0.003	-0.010	-0.094	-0.165	0.133	0.125	0.064	-0.160	-0.129	-0.077	-0.040	-0.043	0.062	-0.029	0.133	-0.066	0.026
R_EMO_DutTele_N	-0.139	-0.123	-0.049	-0.027	0.010	0.293	-0.049	-0.008	-0.222	-0.029	-0.033	-0.041	-0.093	0.170	-0.089	-0.027	0.032	-0.001
R_EMO_Hours_Y	0.001	0.001	-0.037	-0.089	0.152	-0.065	0.038	-0.010	0.006	0.131	0.085	0.100	0.056	-0.123	0.054	0.074	0.163	0.101
R_EMO_Hours_N	0.045	-0.040	0.030	0.080	0.212	-0.190	0.081	-0.129	0.099	0.023	0.256	-0.046	-0.020	0.021	0.010	-0.056	0.076	0.068
R_EMO_Human_N	0.020	0.128	-0.011	0.018	-0.101	-0.029	-0.113	0.056	0.209	-0.046	-0.047	-0.078	0.011	-0.215	-0.034	-0.023	-0.043	-0.045
R_EMO_Human_Y	-0.014	-0.080	0.015	0.040	-0.039	-0.130	-0.127	-0.052	0.160	0.023	0.077	0.066	-0.089	-0.018	-0.085	-0.078	-0.036	-0.078
R_EMO_Technologies_N	0.159	-0.060	0.003	0.044	0.095	0.058	0.128	-0.046	-0.115	-0.040	0.051	-0.037	0.053	0.044	-0.077	-0.100	0.137	-0.084
R_EMO_Technologies_Y	-0.044	-0.057	-0.232	0.102	0.119	-0.042	-0.091	0.037	-0.051	0.042	0.036	0.095	-0.043	0.046	0.068	0.042	0.022	-0.124
R_EMO_ChairBack_N	0.086	0.047	0.108	-0.034	-0.083	-0.022	-0.059	0.033	0.096	-0.067	-0.064	-0.005	0.064	-0.102	0.032	0.029	-0.034	0.094
R_EMO_ChairBack_Y	0.003	-0.097	-0.031	-0.188	-0.116	0.204	0.126	-0.140	-0.182	-0.055	0.033	-0.105	0.051	0.043	-0.062	-0.076	0.045	0.041
R_EMO_Other_N	-0.035	0.017	0.068	-0.070	-0.180	0.068	-0.045	-0.085	0.198	-0.083	-0.238	-0.067	0.065	-0.109	0.037	-0.013	-0.028	-0.013
R_EMO_Other_Y	-0.125	-0.028	0.026	-0.195	-0.270	0.264	0.141	-0.042	-0.282	-0.125	-0.264	-0.043	-0.018	0.001	-0.066	0.013	-0.123	-0.020
R_INC_CPP_D	0.101	-0.040	0.004	-0.004	0.000	-0.087	0.034	0.025	-0.098	0.050	0.108	0.027	-0.135	0.059	0.033	0.043	0.036	0.075
R_INC_QPP_D	-0.118	-0.057	-0.021	0.094	0.097	0.029	-0.129	0.065	0.126	-0.091	0.068	-0.020	0.085	0.089	-0.110	0.111	-0.101	-0.070
R_INC_QPP_Reg	0.005	-0.071	-0.065	0.019	-0.025	0.095	0.018	0.004	-0.082	-0.036	-0.024	-0.095	-0.042	0.056	-0.054	0.002	0.016	-0.030
R_INC_CPP_Reg	0.037	0.020	0.054	0.016	-0.148	-0.116	0.013	0.047	0.173	0.082	0.084	0.041	-0.017	-0.004	0.056	0.075	0.160	0.003
R_INC_EI	-0.008	-0.053	-0.021	-0.009	0.048	-0.168	-0.081	0.053	0.061	-0.012	0.067	0.011	-0.014	0.023	-0.017	-0.074	-0.025	-0.019
R_INC_LTD_Pvt	-0.128	-0.022	0.011	0.023	-0.158	0.087	-0.087	-0.008	0.068	-0.223	-0.124	-0.055	0.085	-0.116	-0.170	0.001	-0.041	-0.040
R_INC_MVI	0.090	0.062	-0.014	0.059	0.040	-0.132	-0.024	0.060	0.099	-0.082	-0.005	0.030	-0.094	-0.029	0.071	0.054	-0.026	-0.023

Appendix Table A.17b

Correlation matrix for variables included in the regression model

	PROV_AB	PROV_BC	PROV_NORTH	R_MOB5_R	D_Hearing_WPAIN	D_Memory_WPAIN	D_Emotional_WPAIN	D_Developmental_WPAIN	D_Learning_NO_ID_WPAIN	D_Mob_dexflex_WPAIN	D_Seeing_WPAIN	D_Hearing_NO_PAIN	D_Memory_NO_PAIN	D_Emotional_NO_PAIN	D_Developmental_NO_PAIN	D_Learning_NO_ID_NO_PAIN	D_Mob_dexflex_NO_PAIN	D_Seeing_NO_PAIN
R_INC_SocAsst	0.072	0.014	0.047	-0.026	0.138	-0.043	0.078	-0.210	-0.042	0.094	0.139	0.013	-0.080	0.158	-0.027	0.043	0.074	0.069
R_INC_Vets	-0.027	-0.040	-0.014	-0.072	-0.146	-0.020	0.031	0.022	0.002	-0.041	-0.026	-0.027	-0.053	0.010	-0.039	-0.018	-0.001	-0.055
R_INC_WorkersComp	0.147	0.138	0.063	0.144	0.180	-0.112	0.032	-0.053	-0.041	0.052	0.141	0.064	-0.008	0.010	0.060	-0.032	0.078	-0.018
R_Help_RcvSome	-0.068	-0.047	-0.032	0.053	-0.016	0.011	-0.279	0.020	-0.080	-0.200	-0.030	0.090	-0.161	0.033	-0.190	0.023	-0.153	-0.104
R_Help_RcvAll	-0.084	-0.040	-0.032	0.138	0.070	0.002	-0.142	0.040	-0.067	-0.123	-0.017	0.118	-0.102	0.072	-0.026	0.037	-0.089	-0.082
R_Help_RcvNone	-0.053	-0.095	-0.042	0.114	0.102	0.042	-0.156	0.059	-0.026	-0.169	-0.022	0.050	-0.103	0.107	-0.153	0.017	-0.047	-0.071
R_Aids_RcvSome	-0.039	0.085	0.000	0.032	-0.248	0.120	-0.014	0.018	-0.054	-0.129	-0.258	-0.257	0.064	-0.022	0.003	-0.055	-0.130	-0.008
R_Aids_RcvAll	0.056	0.000	0.023	0.068	0.089	0.037	0.054	0.002	0.007	-0.041	-0.086	-0.150	0.037	0.035	0.058	-0.089	-0.003	0.028
R_Aids_RcvNone	0.072	0.053	-0.009	0.025	-0.013	-0.054	0.123	-0.055	-0.021	-0.015	-0.032	-0.120	0.023	-0.089	0.021	-0.133	0.124	0.036

Appendix Table A.17c

Correlation matrix for variables included in the regression model

	D_Unknown	R_MAC_03AA	R_MAC_03AB	R_MAC_03AC	R_MAC_03AD	R_MAC_03AE	R_MAC_03AG	RHLEVED_HIGHSCHL	RHLEVED_COLLEGE	RHLEVED_TRADES	RHLEVED_UNIV	trn_class	trn_otj	trn_other	REDI_01_Y	REDI_02_Y	R_EMO_BuiltEnviro_N	R_EMO_BuiltEnviro_Y
Intercept	-0.207	-0.176	-0.026	-0.130	-0.044	-0.032	-0.049	-0.310	-0.292	-0.324	-0.298	-0.108	-0.128	-0.070	0.115	0.075	0.042	0.061
RREF_AGE_15_29	0.048	-0.147	0.045	-0.065	-0.027	0.026	-0.077	0.013	0.041	0.008	0.076	-0.074	-0.058	0.167	-0.042	-0.091	0.016	-0.067
RREF_AGE_50_64	-0.024	0.167	0.029	0.090	0.009	-0.092	0.007	-0.051	-0.006	-0.077	-0.078	0.034	0.138	0.059	0.005	-0.045	0.118	0.025
R_Male	-0.026	-0.037	-0.024	0.073	-0.220	-0.075	-0.142	0.054	-0.023	-0.054	0.015	-0.084	0.079	0.039	-0.079	0.029	-0.073	0.118
RVISMIN	0.005	0.026	0.059	-0.111	0.058	-0.084	0.024	-0.112	-0.063	-0.101	-0.109	0.062	0.055	-0.005	-0.132	0.017	0.128	-0.086
RABDERR	0.041	-0.123	-0.031	-0.066	-0.037	-0.144	-0.007	0.045	0.144	0.141	0.230	0.044	0.028	-0.072	-0.151	0.078	-0.056	-0.114
R_CFKID_B_14	-0.005	0.115	0.089	-0.023	0.054	0.051	-0.033	0.069	-0.029	-0.097	0.123	-0.062	0.195	-0.087	-0.091	0.146	0.135	0.118
R_EFAM_CPL_KIDS	0.050	-0.046	-0.030	-0.009	-0.040	-0.058	-0.013	-0.028	0.119	0.130	-0.001	0.024	-0.121	0.144	-0.031	-0.043	-0.187	-0.082
R_EFAM_SonsDaughters	0.006	0.018	-0.047	0.062	0.113	-0.046	0.063	0.051	0.145	0.225	0.050	0.127	-0.023	-0.059	0.140	-0.092	-0.037	0.018
R_EFAM_LoneParents	0.000	0.097	-0.051	0.000	0.107	0.056	0.066	-0.088	-0.137	-0.027	-0.206	0.012	-0.118	0.059	0.015	0.006	-0.098	-0.007
R_EFAM_OtherEfam	0.037	0.077	0.033	0.079	0.098	-0.072	0.082	0.177	0.239	0.244	0.196	0.015	-0.036	0.022	-0.011	-0.030	-0.051	0.008
R_EFAM_Unattached	-0.013	-0.014	-0.041	-0.050	0.092	0.010	0.002	0.042	-0.030	0.005	-0.051	0.006	-0.010	0.018	0.082	-0.050	-0.131	0.045
PROV_NL	0.042	0.074	0.074	0.024	0.056	-0.038	0.034	-0.077	-0.089	-0.078	-0.034	0.031	0.016	0.039	0.003	-0.054	-0.104	-0.048
PROV_NB	0.061	-0.072	-0.044	-0.139	-0.085	-0.038	-0.121	-0.023	0.111	0.060	0.120	0.033	-0.072	0.053	-0.118	-0.014	0.043	-0.103
PROV_PEI_NS	0.022	-0.027	0.126	0.034	0.009	-0.119	-0.017	0.012	0.080	0.079	0.069	0.057	-0.007	0.002	-0.111	-0.085	-0.026	-0.115
PROV_QC	0.038	-0.004	-0.044	-0.106	-0.015	0.040	-0.033	-0.048	-0.072	-0.240	-0.034	0.052	0.179	-0.050	-0.104	-0.023	0.125	-0.014
PROV_MB	0.021	0.194	0.000	-0.037	-0.052	-0.040	-0.020	-0.029	-0.022	-0.002	-0.038	0.170	0.013	-0.003	-0.076	-0.086	-0.031	-0.037
PROV_SK	0.074	-0.030	-0.030	-0.055	-0.027	-0.036	0.000	0.003	0.114	0.055	0.064	0.056	-0.069	0.003	-0.116	-0.039	-0.061	-0.107
PROV_AB	0.105	0.080	-0.003	-0.068	-0.044	0.066	0.055	-0.005	-0.003	0.020	-0.011	0.056	0.013	-0.025	-0.100	0.020	-0.003	-0.073
PROV_BC	0.026	-0.055	-0.098	-0.053	-0.119	0.051	-0.113	-0.078	-0.034	-0.096	-0.103	0.079	-0.010	-0.080	-0.034	-0.049	0.077	0.042
PROV_NORTH	0.013	0.088	-0.043	-0.081	0.035	-0.011	-0.043	0.073	-0.016	0.004	0.010	0.076	0.022	0.051	0.043	-0.090	0.143	0.016
R_MOB5_R	-0.056	0.057	0.017	0.106	-0.018	-0.122	0.087	-0.088	-0.039	-0.014	-0.010	0.050	0.034	-0.094	-0.136	0.087	-0.081	-0.075
D_Hearing_WPAIN	0.111	0.036	0.121	0.003	-0.079	-0.109	0.018	-0.135	-0.114	0.015	0.023	0.139	-0.141	0.050	0.037	-0.011	-0.063	-0.225
D_Memory_WPAIN	0.046	-0.073	-0.147	-0.041	-0.095	-0.015	-0.192	0.122	0.058	0.082	-0.044	0.033	-0.055	-0.057	0.261	-0.087	0.010	0.141
D_Emotional_WPAIN	0.111	-0.009	0.031	0.045	-0.003	0.006	-0.047	-0.019	0.021	-0.007	0.073	-0.016	-0.075	0.103	0.022	-0.024	-0.181	0.063
D_Developmental_WPAIN	0.007	0.001	0.054	0.068	0.111	0.079	0.132	-0.022	0.058	0.034	0.051	-0.153	0.072	0.078	-0.134	0.098	0.068	0.046

Appendix Table A.17c

Correlation matrix for variables included in the regression model

	D_Unknown	R_MAC_03AA	R_MAC_03AB	R_MAC_03AC	R_MAC_03AD	R_MAC_03AE	R_MAC_03AG	RHLEVED_HIGHSCHL	RHLEVED_COLLEGE	RHLEVED_TRADES	RHLEVED_UNIV	trn_class	trn_otj	trn_other	REDI_01_Y	REDI_02_Y	R_EMO_BuiltEnviro_N	R_EMO_BuiltEnviro_Y
D_Learning_NO_ID_WPAIN	-0.023	0.133	0.118	0.105	0.133	-0.133	0.202	-0.032	0.059	0.009	0.078	-0.033	0.141	-0.032	-0.282	0.061	0.012	-0.148
D_Mob_dexflex_WPAIN	0.216	-0.127	-0.095	-0.123	-0.322	-0.029	-0.167	0.133	0.070	0.133	0.144	0.216	0.041	0.031	-0.111	0.000	0.080	-0.133
D_Seeing_WPAIN	0.070	0.048	0.042	-0.080	-0.061	0.039	-0.046	-0.031	-0.026	0.077	0.052	0.114	-0.103	0.092	0.007	-0.081	-0.009	-0.335
D_Hearing_NO_PAIN	0.058	0.026	-0.020	0.076	-0.043	0.123	0.003	0.102	0.071	0.038	0.060	0.017	-0.021	0.029	-0.180	0.144	0.054	-0.027
D_Memory_NO_PAIN	0.049	0.096	-0.063	0.064	0.072	0.007	-0.006	0.039	0.059	0.034	0.035	-0.008	0.110	-0.020	0.018	0.008	-0.042	0.007
D_Emotional_NO_PAIN	0.128	-0.082	0.035	-0.026	-0.098	-0.037	-0.081	-0.019	-0.031	0.074	0.038	0.073	-0.097	0.084	-0.037	-0.064	0.083	-0.051
D_Developmental_NO_PAIN	0.118	-0.137	0.035	0.030	-0.021	0.008	-0.023	0.037	0.074	-0.029	0.095	-0.014	0.083	0.052	-0.145	0.036	0.015	-0.059
D_Learning_NO_ID_NO_PAIN	0.095	-0.158	0.130	0.062	0.040	-0.027	-0.123	-0.006	0.026	-0.022	0.057	0.020	-0.055	0.000	0.012	-0.090	0.090	-0.051
D_Mob_dexflex_NO_PAIN	0.118	-0.117	-0.026	-0.163	-0.088	0.063	0.033	-0.034	-0.035	0.003	0.022	0.067	-0.042	0.046	-0.073	0.146	-0.093	-0.250
D_Seeing_NO_PAIN	0.008	-0.045	-0.037	-0.035	-0.038	0.098	0.020	-0.073	-0.071	-0.042	-0.154	0.095	-0.057	-0.090	0.029	-0.041	0.014	0.047
D_Unknown	1.000	-0.042	-0.014	-0.026	0.021	0.049	-0.033	0.062	0.082	0.162	0.051	0.034	-0.039	-0.054	0.067	-0.151	0.019	-0.030
R_MAC_03AA	-0.042	1.000	0.228	0.310	0.266	0.144	0.319	-0.052	-0.082	-0.039	-0.019	-0.067	0.100	0.069	-0.066	0.064	-0.038	0.059
R_MAC_03AB	-0.014	0.228	1.000	0.341	0.195	0.041	0.255	-0.195	-0.145	-0.134	-0.092	-0.031	-0.019	0.043	0.014	-0.125	-0.045	-0.150
R_MAC_03AC	-0.026	0.310	0.341	1.000	0.294	0.074	0.335	-0.072	-0.037	-0.080	-0.021	-0.113	0.029	-0.019	-0.002	-0.129	-0.114	0.063
R_MAC_03AD	0.021	0.266	0.195	0.294	1.000	0.100	0.330	0.027	-0.028	-0.135	0.016	-0.253	0.110	-0.021	0.001	-0.041	-0.083	0.157
R_MAC_03AE	0.049	0.144	0.041	0.074	0.100	1.000	0.107	0.067	0.039	-0.026	-0.061	-0.020	-0.068	-0.044	0.076	0.002	0.073	0.048
R_MAC_03AG	-0.033	0.319	0.255	0.335	0.330	0.107	1.000	-0.103	-0.151	-0.143	-0.077	-0.149	0.063	-0.046	-0.126	0.134	-0.213	0.014
RHLEVED_HIGHSCHL	0.062	-0.052	-0.195	-0.072	0.027	0.067	-0.103	1.000	0.520	0.547	0.472	0.091	-0.030	-0.013	-0.057	0.001	0.113	0.087
RHLEVED_COLLEGE	0.082	-0.082	-0.145	-0.037	-0.028	0.039	-0.151	0.520	1.000	0.542	0.529	-0.113	-0.017	0.046	-0.110	-0.003	0.044	-0.085
RHLEVED_TRADES	0.162	-0.039	-0.134	-0.080	-0.135	-0.026	-0.143	0.547	0.542	1.000	0.448	0.106	-0.178	0.096	0.078	-0.127	0.008	-0.050
RHLEVED_UNIV	0.051	-0.019	-0.092	-0.021	0.016	-0.061	-0.077	0.472	0.529	0.448	1.000	-0.073	0.004	0.037	-0.111	0.018	0.072	-0.073
trn_class	0.034	-0.067	-0.031	-0.113	-0.253	-0.020	-0.149	0.091	-0.113	0.106	-0.073	1.000	-0.345	-0.068	0.093	-0.116	0.182	-0.197
trn_otj	-0.039	0.100	-0.019	0.029	0.110	-0.068	0.063	-0.030	-0.017	-0.178	0.004	-0.345	1.000	-0.106	-0.118	0.155	0.010	0.111
trn_other	-0.054	0.069	0.043	-0.019	-0.021	-0.044	-0.046	-0.013	0.046	0.096	0.037	-0.068	-0.106	1.000	-0.004	-0.036	-0.110	-0.122
REDI_01_Y	0.067	-0.066	0.014	-0.002	0.001	0.076	-0.126	-0.057	-0.110	0.078	-0.111	0.093	-0.118	-0.004	1.000	-0.598	0.028	0.149
REDI_02_Y	-0.151	0.064	-0.125	-0.129	-0.041	0.002	0.134	0.001	-0.003	-0.127	0.018	-0.116	0.155	-0.036	-0.598	1.000	-0.110	0.045
R_EMO_BuiltEnviro_N	0.019	-0.038	-0.045	-0.114	-0.083	0.073	-0.213	0.113	0.044	0.008	0.072	0.182	0.010	-0.110	0.028	-0.110	1.000	-0.089
R_EMO_BuiltEnviro_Y	-0.030	0.059	-0.150	0.063	0.157	0.048	0.014	0.087	-0.085	-0.050	-0.073	-0.197	0.111	-0.122	0.149	0.045	-0.089	1.000

Appendix Table A.17c

Correlation matrix for variables included in the regression model

	D_Unknown	R_MAC_03AA	R_MAC_03AB	R_MAC_03AC	R_MAC_03AD	R_MAC_03AE	R_MAC_03AG	RHLEVED_HIGHSCHL	RHLEVED_COLLEGE	RHLEVED_TRADES	RHLEVED_UNIV	trn_class	trn_otj	trn_other	REDI_01_Y	REDI_02_Y	R_EMO_BuiltEnviro_N	R_EMO_BuiltEnviro_Y
R_EMO_Transport_N	-0.023	0.050	-0.031	0.112	0.026	-0.088	0.137	-0.072	-0.042	-0.007	-0.046	-0.093	0.081	0.072	-0.092	0.103	-0.325	-0.009
R_EMO_Transport_Y	-0.031	-0.037	0.050	0.040	-0.078	-0.064	0.037	-0.067	0.008	0.026	0.068	-0.109	0.043	0.105	0.024	-0.016	-0.159	-0.081
REDI_03_Y	0.041	0.076	0.061	0.152	0.111	0.065	0.007	0.067	0.014	-0.001	-0.043	-0.099	-0.070	-0.131	-0.115	-0.242	-0.076	0.096
R_EMO_DutTele_Y	0.050	-0.095	0.011	0.105	0.100	0.059	-0.068	0.134	0.022	0.061	-0.024	-0.098	0.029	-0.030	0.128	-0.094	-0.070	0.244
R_EMO_DutTele_N	0.048	-0.141	-0.181	-0.193	-0.140	-0.082	-0.175	-0.030	0.010	0.057	0.043	0.026	0.012	0.012	0.166	-0.032	-0.049	0.151
R_EMO_Hours_Y	0.016	0.073	0.055	0.026	0.070	0.071	0.097	-0.181	-0.048	-0.224	-0.137	0.015	-0.085	0.054	-0.131	0.064	-0.006	-0.209
R_EMO_Hours_N	0.058	0.057	0.126	0.095	-0.033	-0.107	0.130	-0.176	-0.111	-0.024	-0.072	0.165	-0.209	0.039	-0.010	-0.125	-0.249	-0.215
R_EMO_Human_N	-0.029	-0.104	0.041	0.157	0.122	-0.066	-0.002	0.055	0.258	0.107	0.159	-0.087	-0.002	-0.026	-0.102	-0.044	-0.092	-0.145
R_EMO_Human_Y	-0.057	0.063	-0.048	-0.030	-0.004	-0.067	0.069	0.102	0.063	0.015	0.128	0.104	0.050	-0.026	-0.238	0.140	0.080	-0.154
R_EMO_Technologies_N	0.044	0.078	0.064	0.103	-0.009	0.063	0.122	-0.004	-0.029	0.108	-0.101	0.031	-0.003	0.065	-0.014	0.044	-0.132	-0.116
R_EMO_Technologies_Y	0.044	-0.076	0.026	-0.016	0.018	0.155	0.102	-0.041	0.044	-0.035	-0.086	-0.037	-0.050	-0.054	-0.019	-0.027	-0.036	-0.107
R_EMO_ChairBack_N	-0.007	0.049	-0.002	-0.078	0.166	0.190	0.101	0.157	0.016	0.041	0.005	0.023	0.041	-0.083	0.024	-0.048	0.044	0.003
R_EMO_ChairBack_Y	0.121	-0.055	-0.068	-0.109	0.009	0.090	-0.017	0.083	-0.046	0.106	-0.121	-0.014	-0.115	-0.071	0.264	-0.116	-0.204	0.130
R_EMO_Other_N	-0.042	0.037	0.074	0.202	0.241	-0.020	0.248	-0.032	0.074	-0.085	-0.030	-0.135	0.055	-0.089	-0.029	-0.122	-0.091	0.045
R_EMO_Other_Y	-0.058	-0.048	-0.141	-0.025	0.065	0.014	-0.201	0.046	-0.115	-0.069	-0.073	-0.240	0.025	-0.053	0.238	0.055	-0.193	0.526
R_INC_CPP_D	0.010	-0.148	0.001	-0.206	-0.118	-0.003	-0.059	-0.007	-0.040	0.040	0.035	0.071	-0.003	0.082	0.117	-0.022	-0.044	0.016
R_INC_QPP_D	0.051	0.026	0.012	0.144	0.089	-0.100	-0.035	0.049	0.128	0.170	0.141	0.042	0.001	0.007	-0.021	-0.064	0.069	-0.068
R_INC_QPP_Reg	-0.013	-0.065	0.014	0.030	0.025	-0.027	0.013	-0.045	0.064	-0.007	-0.099	-0.065	-0.020	-0.025	0.054	0.014	-0.116	0.012
R_INC_CPP_Reg	0.016	-0.036	0.011	0.028	0.027	0.025	0.012	0.039	0.058	0.045	0.064	0.047	0.091	0.064	-0.114	0.090	-0.093	-0.156
R_INC_EI	-0.096	0.080	0.031	0.002	0.027	0.064	0.187	0.027	-0.024	-0.089	-0.043	-0.010	0.009	-0.005	-0.069	0.053	-0.051	-0.050
R_INC_LTD_Pvt	-0.112	0.078	0.101	0.303	0.277	0.060	0.178	0.015	-0.009	-0.083	-0.118	-0.054	0.105	-0.086	-0.010	-0.086	-0.068	0.003
R_INC_MVI	-0.008	0.066	0.020	-0.225	0.008	-0.016	0.045	-0.024	-0.041	-0.044	-0.051	0.023	0.036	-0.016	-0.120	0.088	-0.032	-0.120
R_INC_SocAsst	0.075	-0.091	0.052	-0.027	-0.119	0.034	-0.099	0.025	-0.004	0.154	0.015	0.182	-0.111	0.053	0.177	-0.228	-0.065	-0.079
R_INC_Vets	-0.014	-0.003	0.060	0.024	-0.217	-0.015	-0.030	-0.094	0.065	-0.023	0.001	-0.105	0.067	0.082	0.046	-0.010	-0.147	-0.009
R_INC_WorkersComp	-0.017	0.183	0.144	0.151	-0.375	0.111	0.170	-0.188	-0.167	-0.102	-0.127	0.113	-0.020	0.012	-0.051	0.031	-0.030	-0.111
R_Help_RcvSome	-0.007	-0.050	-0.080	-0.166	-0.094	0.081	-0.129	-0.024	0.011	-0.017	-0.053	-0.038	0.009	-0.098	0.045	-0.067	0.223	-0.019
R_Help_RcvAll	-0.050	-0.054	-0.039	-0.044	-0.146	-0.062	-0.040	-0.065	0.018	0.030	0.020	0.022	-0.087	-0.056	-0.017	-0.036	0.082	-0.008
R_Help_RcvNone	0.010	-0.067	-0.010	-0.064	-0.059	-0.051	-0.048	-0.037	-0.053	0.111	-0.124	0.059	-0.111	0.029	-0.025	0.007	0.060	-0.046

Appendix Table A.17c

Correlation matrix for variables included in the regression model

	D_Unknown	R_MAC_03AA	R_MAC_03AB	R_MAC_03AC	R_MAC_03AD	R_MAC_03AE	R_MAC_03AG	RHLEVED_HIGHSCHL	RHLEVED_COLLEGE	RHLEVED_TRADES	RHLEVED_UNIV	trn_class	trn_otj	trn_other	REDI_01_Y	REDI_02_Y	R_EMO_BuiltEnviro_N	R_EMO_BuiltEnviro_Y
R_Aids_RcvSome	-0.045	-0.046	-0.093	0.151	0.034	-0.129	-0.022	-0.079	-0.094	-0.096	-0.043	-0.233	0.063	-0.063	0.089	-0.093	-0.122	0.236
R_Aids_RcvAll	0.031	0.022	-0.096	-0.036	-0.050	-0.134	-0.049	-0.084	-0.092	-0.020	0.032	0.006	0.036	0.025	-0.036	-0.029	-0.004	-0.093
R_Aids_RcvNone	0.068	0.091	-0.043	0.061	-0.039	0.033	0.090	-0.092	-0.158	-0.051	-0.065	-0.008	0.054	-0.087	-0.030	0.012	-0.101	0.046

Appendix Table A.17d

Correlation matrix for variables included in the regression model

	R_EMO_Transport_N	R_EMO_Transport_Y	REDI_03_Y	R_EMO_DutTele_Y	R_EMO_DutTele_N	R_EMO_Hours_Y	R_EMO_Hours_N	R_EMO_Human_N	R_EMO_Human_Y	R_EMO_Technologies_N	R_EMO_Technologies_Y	R_EMO_ChairBack_N	R_EMO_ChairBack_Y	R_EMO_Other_N	R_EMO_Other_Y	R_INC_CPP_D	R_INC_QPP_D	R_INC_QPP_Reg
Intercept	-0.045	0.008	-0.110	-0.129	-0.023	0.064	-0.003	0.011	0.027	-0.045	-0.034	-0.028	-0.022	-0.002	0.090	-0.099	-0.079	0.071
RREF_AGE_15_29	-0.003	-0.019	0.022	0.157	0.032	0.036	0.011	0.012	-0.060	-0.089	0.053	-0.049	-0.009	-0.063	0.086	0.214	-0.043	0.014
RREF_AGE_50_64	-0.056	0.033	0.130	0.073	0.063	-0.134	-0.116	0.037	0.085	-0.120	0.072	0.078	-0.059	0.040	-0.019	-0.127	-0.010	-0.072
R_Male	0.050	0.037	0.062	0.138	0.031	-0.002	0.003	-0.070	-0.063	-0.096	-0.103	-0.142	0.042	-0.062	0.293	0.032	-0.001	0.027
RVISMIN	-0.126	0.023	-0.017	0.015	-0.071	0.110	0.049	-0.035	0.035	-0.031	-0.062	-0.056	-0.032	0.019	-0.101	0.093	-0.094	-0.062
RABDERR	0.025	-0.038	-0.047	-0.100	0.013	-0.074	0.045	0.181	0.066	-0.091	0.066	-0.015	-0.101	-0.039	-0.246	0.090	0.081	-0.022
R_CFKID_B_14	-0.112	-0.039	-0.011	0.071	0.029	-0.029	-0.249	-0.063	0.029	-0.108	0.000	0.072	-0.134	-0.042	0.095	-0.039	-0.059	-0.006
R_EFAM_CPL_KIDS	0.163	0.058	0.068	0.061	0.028	0.018	0.185	0.000	-0.072	0.044	0.049	-0.104	0.123	0.006	-0.050	0.081	0.060	0.051
R_EFAM_SonsDaughters	-0.028	0.106	0.100	-0.016	0.097	-0.087	-0.009	0.062	-0.031	0.043	0.020	0.092	0.116	0.108	-0.077	-0.074	0.128	0.009
R_EFAM_LoneParents	0.079	-0.005	0.004	0.013	-0.006	0.008	0.130	-0.187	-0.047	0.177	0.108	0.032	0.223	-0.056	-0.004	0.008	-0.016	-0.059
R_EFAM_OtherEfam	-0.010	0.033	0.045	0.031	-0.004	-0.048	0.036	0.101	0.012	0.036	-0.060	0.054	0.070	0.003	-0.058	-0.021	0.160	-0.012
R_EFAM_Unattached	0.027	-0.054	0.116	0.191	0.056	-0.004	-0.098	-0.122	-0.139	0.005	0.087	0.055	0.121	0.071	0.102	-0.027	0.049	-0.025
PROV_NL	0.011	-0.031	0.020	0.004	-0.029	-0.004	0.097	0.033	-0.180	0.058	0.008	0.024	0.006	0.051	-0.070	0.032	-0.009	-0.057
PROV_NB	-0.043	-0.030	-0.051	0.004	-0.057	-0.027	0.041	0.176	-0.011	-0.041	-0.082	-0.051	-0.183	0.006	-0.107	0.114	0.020	-0.014
PROV_PEI_NS	-0.013	-0.016	0.071	0.007	-0.151	-0.050	0.082	0.252	0.052	-0.003	-0.105	0.039	-0.136	0.104	-0.151	0.023	0.068	0.042
PROV_QC	-0.053	-0.021	-0.033	-0.065	-0.085	0.079	0.007	-0.075	-0.019	0.014	-0.037	0.009	-0.011	0.075	-0.109	0.133	-0.300	-0.211
PROV_MB	0.009	-0.051	0.175	-0.156	-0.187	0.120	0.075	0.044	-0.010	-0.015	-0.028	0.012	-0.186	0.027	-0.151	-0.019	0.030	-0.050
PROV_SK	0.016	-0.090	0.089	0.040	-0.049	-0.080	0.059	0.127	-0.025	0.060	0.030	0.023	-0.004	-0.017	-0.167	0.085	0.010	0.036
PROV_AB	-0.006	-0.091	-0.021	-0.030	-0.139	0.001	0.045	0.020	-0.014	0.159	-0.044	0.086	0.003	-0.035	-0.125	0.101	-0.118	0.005
PROV_BC	0.025	-0.046	-0.011	0.003	-0.123	0.001	-0.040	0.128	-0.080	-0.060	-0.057	0.047	-0.097	0.017	-0.028	-0.040	-0.057	-0.071
PROV_NORTH	-0.039	0.020	-0.100	-0.010	-0.049	-0.037	0.030	-0.011	0.015	0.003	-0.232	0.108	-0.031	0.068	0.026	0.004	-0.021	-0.065
R_MOB5_R	0.096	0.009	-0.020	-0.094	-0.027	-0.089	0.080	0.018	0.040	0.044	0.102	-0.034	-0.188	-0.070	-0.195	-0.004	0.094	0.019
D_Hearing_WPAIN	-0.078	-0.058	-0.100	-0.165	0.010	0.152	0.212	-0.101	-0.039	0.095	0.119	-0.083	-0.116	-0.180	-0.270	0.000	0.097	-0.025
D_Memory_WPAIN	-0.097	-0.083	-0.049	0.133	0.293	-0.065	-0.190	-0.029	-0.130	0.058	-0.042	-0.022	0.204	0.068	0.264	-0.087	0.029	0.095
D_Emotional_WPAIN	0.106	0.081	-0.078	0.125	-0.049	0.038	0.081	-0.113	-0.127	0.128	-0.091	-0.059	0.126	-0.045	0.141	0.034	-0.129	0.018

Appendix Table A.17d

Correlation matrix for variables included in the regression model

	R_EMO_Transport_N	R_EMO_Transport_Y	REDI_03_Y	R_EMO_DutTele_Y	R_EMO_DutTele_N	R_EMO_Hours_Y	R_EMO_Hours_N	R_EMO_Human_N	R_EMO_Human_Y	R_EMO_Technologies_N	R_EMO_Technologies_Y	R_EMO_ChairBack_N	R_EMO_ChairBack_Y	R_EMO_Other_N	R_EMO_Other_Y	R_INC_CPP_D	R_INC_QPP_D	R_INC_QPP_Reg
D_Developmental_WPAIN	-0.045	-0.002	-0.024	0.064	-0.008	-0.010	-0.129	0.056	-0.052	-0.046	0.037	0.033	-0.140	-0.085	-0.042	0.025	0.065	0.004
D_Learning_NO_ID_WPAIN	0.058	0.048	0.140	-0.160	-0.222	0.006	0.099	0.209	0.160	-0.115	-0.051	0.096	-0.182	0.198	-0.282	-0.098	0.126	-0.082
D_Mob_dexflex_WPAIN	0.081	0.032	-0.072	-0.129	-0.029	0.131	0.023	-0.046	0.023	-0.040	0.042	-0.067	-0.055	-0.083	-0.125	0.050	-0.091	-0.036
D_Seeing_WPAIN	-0.131	0.015	-0.034	-0.077	-0.033	0.085	0.256	-0.047	0.077	0.051	0.036	-0.064	0.033	-0.238	-0.264	0.108	0.068	-0.024
D_Hearing_NO_PAIN	0.000	-0.013	0.069	-0.040	-0.041	0.100	-0.046	-0.078	0.066	-0.037	0.095	-0.005	-0.105	-0.067	-0.043	0.027	-0.020	-0.095
D_Memory_NO_PAIN	0.109	0.145	-0.033	-0.043	-0.093	0.056	-0.020	0.011	-0.089	0.053	-0.043	0.064	0.051	0.065	-0.018	-0.135	0.085	-0.042
D_Emotional_NO_PAIN	0.044	0.035	-0.048	0.062	0.170	-0.123	0.021	-0.215	-0.018	0.044	0.046	-0.102	0.043	-0.109	0.001	0.059	0.089	0.056
D_Developmental_NO_PAIN	0.135	-0.019	-0.055	-0.029	-0.089	0.054	0.010	-0.034	-0.085	-0.077	0.068	0.032	-0.062	0.037	-0.066	0.033	-0.110	-0.054
D_Learning_NO_ID_NO_PAIN	-0.046	-0.040	0.014	0.133	-0.027	0.074	-0.056	-0.023	-0.078	-0.100	0.042	0.029	-0.076	-0.013	0.013	0.043	0.111	0.002
D_Mob_dexflex_NO_PAIN	0.024	-0.035	-0.199	-0.066	0.032	0.163	0.076	-0.043	-0.036	0.137	0.022	-0.034	0.045	-0.028	-0.123	0.036	-0.101	0.016
D_Seeing_NO_PAIN	-0.055	-0.054	-0.011	0.026	-0.001	0.101	0.068	-0.045	-0.078	-0.084	-0.124	0.094	0.041	-0.013	-0.020	0.075	-0.070	-0.030
D_Unknown	-0.023	-0.031	0.041	0.050	0.048	0.016	0.058	-0.029	-0.057	0.044	0.044	-0.007	0.121	-0.042	-0.058	0.010	0.051	-0.013
R_MAC_03AA	0.050	-0.037	0.076	-0.095	-0.141	0.073	0.057	-0.104	0.063	0.078	-0.076	0.049	-0.055	0.037	-0.048	-0.148	0.026	-0.065
R_MAC_03AB	-0.031	0.050	0.061	0.011	-0.181	0.055	0.126	0.041	-0.048	0.064	0.026	-0.002	-0.068	0.074	-0.141	0.001	0.012	0.014
R_MAC_03AC	0.112	0.040	0.152	0.105	-0.193	0.026	0.095	0.157	-0.030	0.103	-0.016	-0.078	-0.109	0.202	-0.025	-0.206	0.144	0.030
R_MAC_03AD	0.026	-0.078	0.111	0.100	-0.140	0.070	-0.033	0.122	-0.004	-0.009	0.018	0.166	0.009	0.241	0.065	-0.118	0.089	0.025
R_MAC_03AE	-0.088	-0.064	0.065	0.059	-0.082	0.071	-0.107	-0.066	-0.067	0.063	0.155	0.190	0.090	-0.020	0.014	-0.003	-0.100	-0.027
R_MAC_03AG	0.137	0.037	0.007	-0.068	-0.175	0.097	0.130	-0.002	0.069	0.122	0.102	0.101	-0.017	0.248	-0.201	-0.059	-0.035	0.013
RHLEVED_HIGHSCHL	-0.072	-0.067	0.067	0.134	-0.030	-0.181	-0.176	0.055	0.102	-0.004	-0.041	0.157	0.083	-0.032	0.046	-0.007	0.049	-0.045
RHLEVED_COLLEGE	-0.042	0.008	0.014	0.022	0.010	-0.048	-0.111	0.258	0.063	-0.029	0.044	0.016	-0.046	0.074	-0.115	-0.040	0.128	0.064
RHLEVED_TRADES	-0.007	0.026	-0.001	0.061	0.057	-0.224	-0.024	0.107	0.015	0.108	-0.035	0.041	0.106	-0.085	-0.069	0.040	0.170	-0.007
RHLEVED_UNIV	-0.046	0.068	-0.043	-0.024	0.043	-0.137	-0.072	0.159	0.128	-0.101	-0.086	0.005	-0.121	-0.030	-0.073	0.035	0.141	-0.099
trn_class	-0.093	-0.109	-0.099	-0.098	0.026	0.015	0.165	-0.087	0.104	0.031	-0.037	0.023	-0.014	-0.135	-0.240	0.071	0.042	-0.065
trn_otj	0.081	0.043	-0.070	0.029	0.012	-0.085	-0.209	-0.002	0.050	-0.003	-0.050	0.041	-0.115	0.055	0.025	-0.003	0.001	-0.020
trn_other	0.072	0.105	-0.131	-0.030	0.012	0.054	0.039	-0.026	-0.026	0.065	-0.054	-0.083	-0.071	-0.089	-0.053	0.082	0.007	-0.025
REDI_01_Y	-0.092	0.024	-0.115	0.128	0.166	-0.131	-0.010	-0.102	-0.238	-0.014	-0.019	0.024	0.264	-0.029	0.238	0.117	-0.021	0.054
REDI_02_Y	0.103	-0.016	-0.242	-0.094	-0.032	0.064	-0.125	-0.044	0.140	0.044	-0.027	-0.048	-0.116	-0.122	0.055	-0.022	-0.064	0.014

Appendix Table A.17d

Correlation matrix for variables included in the regression model

	R_EMO_Transport_N	R_EMO_Transport_Y	REDI_03_Y	R_EMO_DutTele_Y	R_EMO_DutTele_N	R_EMO_Hours_Y	R_EMO_Hours_N	R_EMO_Human_N	R_EMO_Human_Y	R_EMO_Technologies_N	R_EMO_Technologies_Y	R_EMO_ChairBack_N	R_EMO_ChairBack_Y	R_EMO_Other_N	R_EMO_Other_Y	R_INC_CPP_D	R_INC_QPP_D	R_INC_QPP_Reg
R_EMO_BuiltEnviro_N	-0.325	-0.159	-0.076	-0.070	-0.049	-0.006	-0.249	-0.092	0.080	-0.132	-0.036	0.044	-0.204	-0.091	-0.193	-0.044	0.069	-0.116
R_EMO_BuiltEnviro_Y	-0.009	-0.081	0.096	0.244	0.151	-0.209	-0.215	-0.145	-0.154	-0.116	-0.107	0.003	0.130	0.045	0.526	0.016	-0.068	0.012
R_EMO_Transport_N	1.000	0.153	-0.030	-0.040	-0.099	0.032	0.026	-0.113	-0.026	-0.041	0.038	-0.040	-0.012	0.156	0.122	-0.058	0.011	-0.005
R_EMO_Transport_Y	0.153	1.000	-0.096	-0.021	0.006	0.015	0.057	-0.019	-0.192	0.030	-0.095	-0.032	0.039	0.089	0.103	-0.017	-0.010	0.016
REDI_03_Y	-0.030	-0.096	1.000	0.053	-0.087	-0.003	-0.062	0.062	-0.011	-0.120	0.143	0.086	0.069	0.017	0.049	-0.082	0.051	0.015
R_EMO_DutTele_Y	-0.040	-0.021	0.053	1.000	0.201	-0.261	-0.174	-0.089	-0.364	0.007	-0.057	-0.029	0.179	-0.031	0.381	0.052	0.011	0.039
R_EMO_DutTele_N	-0.099	0.006	-0.087	0.201	1.000	-0.284	-0.219	-0.168	-0.089	-0.007	-0.035	-0.318	0.245	-0.120	0.280	0.103	0.060	0.081
R_EMO_Hours_Y	0.032	0.015	-0.003	-0.261	-0.284	1.000	0.199	-0.006	-0.053	-0.021	0.055	-0.028	-0.111	0.075	-0.175	-0.074	0.007	-0.006
R_EMO_Hours_N	0.026	0.057	-0.062	-0.174	-0.219	0.199	1.000	0.019	0.030	0.064	0.014	-0.220	0.082	0.040	-0.246	0.014	-0.024	0.021
R_EMO_Human_N	-0.113	-0.019	0.062	-0.089	-0.168	-0.006	0.019	1.000	0.152	-0.230	-0.067	0.048	-0.212	0.241	-0.209	-0.040	0.114	0.049
R_EMO_Human_Y	-0.026	-0.192	-0.011	-0.364	-0.089	-0.053	0.030	0.152	1.000	-0.074	-0.143	0.107	-0.148	0.004	-0.199	-0.022	0.022	-0.048
R_EMO_Technologies_N	-0.041	0.030	-0.120	0.007	-0.007	-0.021	0.064	-0.230	-0.074	1.000	0.078	-0.164	0.091	-0.198	-0.252	-0.126	0.021	0.105
R_EMO_Technologies_Y	0.038	-0.095	0.143	-0.057	-0.035	0.055	0.014	-0.067	-0.143	0.078	1.000	0.019	-0.017	-0.034	-0.195	0.026	-0.048	-0.015
R_EMO_ChairBack_N	-0.040	-0.032	0.086	-0.029	-0.318	-0.028	-0.220	0.048	0.107	-0.164	0.019	1.000	0.043	0.148	-0.081	-0.026	-0.034	-0.025
R_EMO_ChairBack_Y	-0.012	0.039	0.069	0.179	0.245	-0.111	0.082	-0.212	-0.148	0.091	-0.017	0.043	1.000	0.025	0.310	0.069	-0.056	0.036
R_EMO_Other_N	0.156	0.089	0.017	-0.031	-0.120	0.075	0.040	0.241	0.004	-0.198	-0.034	0.148	0.025	1.000	0.007	-0.168	-0.073	-0.015
R_EMO_Other_Y	0.122	0.103	0.049	0.381	0.280	-0.175	-0.246	-0.209	-0.199	-0.252	-0.195	-0.081	0.310	0.007	1.000	0.080	-0.093	0.045
R_INC_CPP_D	-0.058	-0.017	-0.082	0.052	0.103	-0.074	0.014	-0.040	-0.022	-0.126	0.026	-0.026	0.069	-0.168	0.080	1.000	-0.295	-0.001
R_INC_QPP_D	0.011	-0.010	0.051	0.011	0.060	0.007	-0.024	0.114	0.022	0.021	-0.048	-0.034	-0.056	-0.073	-0.093	-0.295	1.000	0.007
R_INC_QPP_Reg	-0.005	0.016	0.015	0.039	0.081	-0.006	0.021	0.049	-0.048	0.105	-0.015	-0.025	0.036	-0.015	0.045	-0.001	0.007	1.000
R_INC_CPP_Reg	0.120	0.029	-0.007	0.029	-0.074	0.057	0.014	0.081	0.014	0.024	-0.069	0.086	-0.054	0.079	-0.065	0.108	0.066	-0.011
R_INC_EI	0.131	0.126	-0.041	-0.082	-0.138	0.087	0.114	-0.095	0.063	0.073	0.110	0.054	-0.038	0.020	-0.066	0.024	-0.013	0.062
R_INC_LTD_Pvt	0.100	0.065	0.038	0.091	-0.041	0.034	0.039	0.144	-0.038	0.089	0.051	0.166	0.034	0.335	-0.003	-0.405	0.182	0.040
R_INC_MVI	0.111	-0.083	0.007	-0.133	-0.167	0.037	0.064	0.084	0.150	-0.199	0.079	0.058	-0.133	-0.002	-0.102	0.079	-0.105	-0.137
R_INC_SocAsst	0.077	0.085	-0.040	0.036	0.045	-0.053	0.160	-0.050	-0.094	0.109	0.017	-0.070	0.099	0.039	-0.088	0.165	-0.059	-0.012
R_INC_Vets	-0.008	0.111	-0.073	0.010	0.045	-0.072	0.051	0.063	0.035	0.069	-0.049	-0.110	-0.027	-0.066	0.040	0.075	-0.064	0.021
R_INC_WorkersComp	0.154	0.134	-0.076	-0.171	-0.127	0.087	0.075	-0.200	0.004	0.250	0.184	-0.042	-0.149	-0.113	-0.213	-0.092	-0.059	-0.020

Appendix Table A.17d

Correlation matrix for variables included in the regression model

	R_EMO_Transport_N	R_EMO_Transport_Y	REDI_03_Y	R_EMO_DutTele_Y	R_EMO_DutTele_N	R_EMO_Hours_Y	R_EMO_Hours_N	R_EMO_Human_N	R_EMO_Human_Y	R_EMO_Technologies_N	R_EMO_Technologies_Y	R_EMO_ChairBack_N	R_EMO_ChairBack_Y	R_EMO_Other_N	R_EMO_Other_Y	R_INC_CPP_D	R_INC_QPP_D	R_INC_QPP_Reg
R_Help_RcvSome	-0.224	-0.157	0.081	0.012	0.137	-0.116	-0.183	-0.068	0.027	-0.015	0.041	-0.086	-0.086	-0.116	0.005	0.012	0.050	0.034
R_Help_RcvAll	-0.053	-0.061	0.014	-0.065	0.095	-0.049	-0.055	-0.094	0.026	-0.025	0.040	-0.151	-0.110	-0.080	-0.005	0.077	-0.011	-0.012
R_Help_RcvNone	-0.058	-0.022	-0.065	0.047	0.185	-0.102	-0.001	-0.062	-0.005	0.057	0.055	-0.128	0.039	-0.094	0.019	0.032	0.121	-0.016
R_Aids_RcvSome	0.062	0.032	0.084	0.117	0.128	-0.224	-0.057	0.094	-0.093	-0.112	-0.123	-0.084	0.021	0.083	0.247	-0.002	-0.035	0.014
R_Aids_RcvAll	0.000	-0.042	0.040	-0.074	0.054	-0.071	-0.034	-0.014	0.044	-0.015	-0.079	-0.051	-0.042	-0.017	-0.022	0.042	-0.052	-0.140
R_Aids_RcvNone	0.080	0.026	-0.044	0.033	-0.080	-0.017	0.041	-0.138	-0.098	0.104	0.021	-0.062	0.044	-0.014	0.009	-0.001	-0.146	-0.082

Appendix Table A.17e

Correlation matrix for variables included in the regression model

	R_INC_CPP_Reg	R_INC_EI	R_INC_LTD_Pvt	R_INC_MVI	R_INC_SocAsst	R_INC_Vets	R_INC_WorkersComp	R_Help_RcvSome	R_Help_RcvAll	R_Help_RcvNone	R_Aids_RcvSome	R_Aids_RcvAll	R_Aids_RcvNone
Intercept	-0.147	0.005	0.044	0.015	-0.118	0.052	-0.038	-0.025	-0.144	-0.113	-0.063	-0.291	-0.120
RREF_AGE_15_29	0.034	-0.035	-0.038	-0.034	0.167	0.024	-0.052	0.062	-0.034	0.075	-0.059	-0.023	-0.042
RREF_AGE_50_64	-0.173	-0.058	0.139	0.132	0.004	0.016	0.086	0.070	0.036	0.036	0.044	0.045	-0.022
R_Male	0.051	-0.094	-0.006	-0.075	-0.068	0.009	-0.040	0.057	0.117	0.051	0.076	-0.011	0.080
RVISMIN	-0.025	-0.069	-0.105	0.121	0.011	-0.048	-0.072	0.073	0.128	0.121	-0.075	0.096	-0.051
RABDERR	0.113	-0.046	-0.073	0.086	0.028	0.005	-0.113	0.027	0.025	0.041	-0.015	0.074	-0.016
R_CFKID_B_14	-0.125	-0.110	-0.059	-0.045	-0.139	-0.045	0.000	0.002	0.009	-0.139	0.043	0.074	-0.019
R_EFAM_CPL_KIDS	0.130	0.154	-0.040	0.029	0.100	0.028	0.022	-0.095	-0.059	0.040	-0.064	-0.026	-0.009
R_EFAM_SonsDaughters	0.082	0.043	0.132	-0.105	-0.018	-0.033	-0.018	-0.111	-0.051	0.003	0.094	0.075	0.001
R_EFAM_LoneParents	0.077	0.116	0.046	0.054	-0.113	-0.103	0.116	-0.084	-0.025	0.202	-0.097	0.059	0.092
R_EFAM_OtherEfam	0.091	0.076	0.038	-0.050	-0.080	-0.038	-0.042	-0.159	-0.088	0.039	-0.032	0.021	-0.010
R_EFAM_Unattached	0.081	0.039	-0.003	-0.065	-0.185	-0.103	-0.056	-0.045	-0.023	-0.036	-0.009	0.033	-0.012
PROV_NL	0.032	-0.144	0.026	-0.021	0.047	-0.008	0.023	-0.083	-0.099	0.002	-0.005	0.076	-0.027
PROV_NB	0.038	-0.090	-0.105	0.093	0.083	-0.042	-0.009	0.066	0.011	0.059	-0.020	0.076	0.008
PROV_PEI_NS	0.105	-0.103	0.031	0.028	0.056	-0.001	-0.053	-0.113	-0.122	-0.057	0.002	0.071	-0.055
PROV_QC	0.079	-0.007	-0.079	0.045	0.027	0.001	0.002	-0.017	-0.032	-0.134	0.023	0.127	0.036
PROV_MB	0.022	0.046	-0.068	0.136	0.092	-0.047	0.147	-0.041	-0.044	-0.063	-0.091	0.092	0.050
PROV_SK	0.084	0.029	-0.067	0.093	0.023	-0.013	0.044	-0.005	0.020	-0.008	-0.025	0.025	0.004
PROV_AB	0.037	-0.008	-0.128	0.090	0.072	-0.027	0.147	-0.068	-0.084	-0.053	-0.039	0.056	0.072
PROV_BC	0.020	-0.053	-0.022	0.062	0.014	-0.040	0.138	-0.047	-0.040	-0.095	0.085	0.000	0.053
PROV_NORTH	0.054	-0.021	0.011	-0.014	0.047	-0.014	0.063	-0.032	-0.032	-0.042	0.000	0.023	-0.009
R_MOB5_R	0.016	-0.009	0.023	0.059	-0.026	-0.072	0.144	0.053	0.138	0.114	0.032	0.068	0.025
D_Hearing_WPAIN	-0.148	0.048	-0.158	0.040	0.138	-0.146	0.180	-0.016	0.070	0.102	-0.248	0.089	-0.013
D_Memory_WPAIN	-0.116	-0.168	0.087	-0.132	-0.043	-0.020	-0.112	0.011	0.002	0.042	0.120	0.037	-0.054
D_Emotional_WPAIN	0.013	-0.081	-0.087	-0.024	0.078	0.031	0.032	-0.279	-0.142	-0.156	-0.014	0.054	0.123
D_Developmental_WPAIN	0.047	0.053	-0.008	0.060	-0.210	0.022	-0.053	0.020	0.040	0.059	0.018	0.002	-0.055

Appendix Table A.17e

Correlation matrix for variables included in the regression model

	R_INC_CPP_Reg	R_INC_EI	R_INC_LTD_Pvt	R_INC_MVI	R_INC_SocAsst	R_INC_Vets	R_INC_WorkersComp	R_Help_RcvSome	R_Help_RcvAll	R_Help_RcvNone	R_Aids_RcvSome	R_Aids_RcvAll	R_Aids_RcvNone
D_Learning_NO_ID_WPAIN	0.173	0.061	0.068	0.099	-0.042	0.002	-0.041	-0.080	-0.067	-0.026	-0.054	0.007	-0.021
D_Mob_dexflex_WPAIN	0.082	-0.012	-0.223	-0.082	0.094	-0.041	0.052	-0.200	-0.123	-0.169	-0.129	-0.041	-0.015
D_Seeing_WPAIN	0.084	0.067	-0.124	-0.005	0.139	-0.026	0.141	-0.030	-0.017	-0.022	-0.258	-0.086	-0.032
D_Hearing_NO_PAIN	0.041	0.011	-0.055	0.030	0.013	-0.027	0.064	0.090	0.118	0.050	-0.257	-0.150	-0.120
D_Memory_NO_PAIN	-0.017	-0.014	0.085	-0.094	-0.080	-0.053	-0.008	-0.161	-0.102	-0.103	0.064	0.037	0.023
D_Emotional_NO_PAIN	-0.004	0.023	-0.116	-0.029	0.158	0.010	0.010	0.033	0.072	0.107	-0.022	0.035	-0.089
D_Developmental_NO_PAIN	0.056	-0.017	-0.170	0.071	-0.027	-0.039	0.060	-0.190	-0.026	-0.153	0.003	0.058	0.021
D_Learning_NO_ID_NO_PAIN	0.075	-0.074	0.001	0.054	0.043	-0.018	-0.032	0.023	0.037	0.017	-0.055	-0.089	-0.133
D_Mob_dexflex_NO_PAIN	0.160	-0.025	-0.041	-0.026	0.074	-0.001	0.078	-0.153	-0.089	-0.047	-0.130	-0.003	0.124
D_Seeing_NO_PAIN	0.003	-0.019	-0.040	-0.023	0.069	-0.055	-0.018	-0.104	-0.082	-0.071	-0.008	0.028	0.036
D_Unknown	0.016	-0.096	-0.112	-0.008	0.075	-0.014	-0.017	-0.007	-0.050	0.010	-0.045	0.031	0.068
R_MAC_03AA	-0.036	0.080	0.078	0.066	-0.091	-0.003	0.183	-0.050	-0.054	-0.067	-0.046	0.022	0.091
R_MAC_03AB	0.011	0.031	0.101	0.020	0.052	0.060	0.144	-0.080	-0.039	-0.010	-0.093	-0.096	-0.043
R_MAC_03AC	0.028	0.002	0.303	-0.225	-0.027	0.024	0.151	-0.166	-0.044	-0.064	0.151	-0.036	0.061
R_MAC_03AD	0.027	0.027	0.277	0.008	-0.119	-0.217	-0.375	-0.094	-0.146	-0.059	0.034	-0.050	-0.039
R_MAC_03AE	0.025	0.064	0.060	-0.016	0.034	-0.015	0.111	0.081	-0.062	-0.051	-0.129	-0.134	0.033
R_MAC_03AG	0.012	0.187	0.178	0.045	-0.099	-0.030	0.170	-0.129	-0.040	-0.048	-0.022	-0.049	0.090
RHLEVED_HIGHSCHL	0.039	0.027	0.015	-0.024	0.025	-0.094	-0.188	-0.024	-0.065	-0.037	-0.079	-0.084	-0.092
RHLEVED_COLLEGE	0.058	-0.024	-0.009	-0.041	-0.004	0.065	-0.167	0.011	0.018	-0.053	-0.094	-0.092	-0.158
RHLEVED_TRADES	0.045	-0.089	-0.083	-0.044	0.154	-0.023	-0.102	-0.017	0.030	0.111	-0.096	-0.020	-0.051
RHLEVED_UNIV	0.064	-0.043	-0.118	-0.051	0.015	0.001	-0.127	-0.053	0.020	-0.124	-0.043	0.032	-0.065
trn_class	0.047	-0.010	-0.054	0.023	0.182	-0.105	0.113	-0.038	0.022	0.059	-0.233	0.006	-0.008
trn_otj	0.091	0.009	0.105	0.036	-0.111	0.067	-0.020	0.009	-0.087	-0.111	0.063	0.036	0.054
trn_other	0.064	-0.005	-0.086	-0.016	0.053	0.082	0.012	-0.098	-0.056	0.029	-0.063	0.025	-0.087
REDI_01_Y	-0.114	-0.069	-0.010	-0.120	0.177	0.046	-0.051	0.045	-0.017	-0.025	0.089	-0.036	-0.030
REDI_02_Y	0.090	0.053	-0.086	0.088	-0.228	-0.010	0.031	-0.067	-0.036	0.007	-0.093	-0.029	0.012
R_EMO_BuiltEnviro_N	-0.093	-0.051	-0.068	-0.032	-0.065	-0.147	-0.030	0.223	0.082	0.060	-0.122	-0.004	-0.101
R_EMO_BuiltEnviro_Y	-0.156	-0.050	0.003	-0.120	-0.079	-0.009	-0.111	-0.019	-0.008	-0.046	0.236	-0.093	0.046

Appendix Table A.17e

Correlation matrix for variables included in the regression model

	R_INC_CPP_Reg	R_INC_EI	R_INC_LTD_Pvt	R_INC_MVI	R_INC_SocAsst	R_INC_Vets	R_INC_WorkersComp	R_Help_RcvSome	R_Help_RcvAll	R_Help_RcvNone	R_Aids_RcvSome	R_Aids_RcvAll	R_Aids_RcvNone
R_EMO_Transport_N	0.120	0.131	0.100	0.111	0.077	-0.008	0.154	-0.224	-0.053	-0.058	0.062	0.000	0.080
R_EMO_Transport_Y	0.029	0.126	0.065	-0.083	0.085	0.111	0.134	-0.157	-0.061	-0.022	0.032	-0.042	0.026
REDI_03_Y	-0.007	-0.041	0.038	0.007	-0.040	-0.073	-0.076	0.081	0.014	-0.065	0.084	0.040	-0.044
R_EMO_DutTele_Y	0.029	-0.082	0.091	-0.133	0.036	0.010	-0.171	0.012	-0.065	0.047	0.117	-0.074	0.033
R_EMO_DutTele_N	-0.074	-0.138	-0.041	-0.167	0.045	0.045	-0.127	0.137	0.095	0.185	0.128	0.054	-0.080
R_EMO_Hours_Y	0.057	0.087	0.034	0.037	-0.053	-0.072	0.087	-0.116	-0.049	-0.102	-0.224	-0.071	-0.017
R_EMO_Hours_N	0.014	0.114	0.039	0.064	0.160	0.051	0.075	-0.183	-0.055	-0.001	-0.057	-0.034	0.041
R_EMO_Human_N	0.081	-0.095	0.144	0.084	-0.050	0.063	-0.200	-0.068	-0.094	-0.062	0.094	-0.014	-0.138
R_EMO_Human_Y	0.014	0.063	-0.038	0.150	-0.094	0.035	0.004	0.027	0.026	-0.005	-0.093	0.044	-0.098
R_EMO_Technologies_N	0.024	0.073	0.089	-0.199	0.109	0.069	0.250	-0.015	-0.025	0.057	-0.112	-0.015	0.104
R_EMO_Technologies_Y	-0.069	0.110	0.051	0.079	0.017	-0.049	0.184	0.041	0.040	0.055	-0.123	-0.079	0.021
R_EMO_ChairBack_N	0.086	0.054	0.166	0.058	-0.070	-0.110	-0.042	-0.086	-0.151	-0.128	-0.084	-0.051	-0.062
R_EMO_ChairBack_Y	-0.054	-0.038	0.034	-0.133	0.099	-0.027	-0.149	-0.086	-0.110	0.039	0.021	-0.042	0.044
R_EMO_Other_N	0.079	0.020	0.335	-0.002	0.039	-0.066	-0.113	-0.116	-0.080	-0.094	0.083	-0.017	-0.014
R_EMO_Other_Y	-0.065	-0.066	-0.003	-0.102	-0.088	0.040	-0.213	0.005	-0.005	0.019	0.247	-0.022	0.009
R_INC_CPP_D	0.108	0.024	-0.405	0.079	0.165	0.075	-0.092	0.012	0.077	0.032	-0.002	0.042	-0.001
R_INC_QPP_D	0.066	-0.013	0.182	-0.105	-0.059	-0.064	-0.059	0.050	-0.011	0.121	-0.035	-0.052	-0.146
R_INC_QPP_Reg	-0.011	0.062	0.040	-0.137	-0.012	0.021	-0.020	0.034	-0.012	-0.016	0.014	-0.140	-0.082
R_INC_CPP_Reg	1.000	0.055	0.019	-0.015	0.006	0.044	-0.141	-0.089	-0.092	-0.037	-0.105	-0.022	-0.028
R_INC_EI	0.055	1.000	0.063	0.101	0.040	-0.042	0.097	-0.013	0.049	0.027	-0.212	-0.231	-0.027
R_INC_LTD_Pvt	0.019	0.063	1.000	-0.067	-0.030	-0.030	-0.036	-0.110	-0.137	-0.032	0.028	-0.165	-0.036
R_INC_MVI	-0.015	0.101	-0.067	1.000	0.024	0.039	0.022	0.012	0.071	0.010	-0.086	-0.030	0.030
R_INC_SocAsst	0.006	0.040	-0.030	0.024	1.000	0.091	0.128	-0.092	-0.053	0.016	-0.075	-0.006	0.079
R_INC_Vets	0.044	-0.042	-0.030	0.039	0.091	1.000	0.126	0.006	0.035	0.043	0.128	0.014	-0.008
R_INC_WorkersComp	-0.141	0.097	-0.036	0.022	0.128	0.126	1.000	-0.075	0.059	-0.002	-0.097	-0.073	0.127
R_Help_RcvSome	-0.089	-0.013	-0.110	0.012	-0.092	0.006	-0.075	1.000	0.572	0.435	-0.132	-0.024	-0.079
R_Help_RcvAll	-0.092	0.049	-0.137	0.071	-0.053	0.035	0.059	0.572	1.000	0.416	-0.008	0.019	-0.019
R_Help_RcvNone	-0.037	0.027	-0.032	0.010	0.016	0.043	-0.002	0.435	0.416	1.000	-0.093	-0.005	-0.075

Appendix Table A.17e
Correlation matrix for variables included in the regression model

	R_INC_CPP_Reg	R_INC_EI	R_INC_LTD_Pvt	R_INC_MVI	R_INC_SocAsst	R_INC_Vets	R_INC_WorkersComp	R_Help_RcvSome	R_Help_RcvAll	R_Help_RcvNone	R_Aids_RcvSome	R_Aids_RcvAll	R_Aids_RcvNone
R_Aids_RcvSome	-0.105	-0.212	0.028	-0.086	-0.075	0.128	-0.097	-0.132	-0.008	-0.093	1.000	0.531	0.287
R_Aids_RcvAll	-0.022	-0.231	-0.165	-0.030	-0.006	0.014	-0.073	-0.024	0.019	-0.005	0.531	1.000	0.375
R_Aids_RcvNone	-0.028	-0.027	-0.036	0.030	0.079	-0.008	0.127	-0.079	-0.019	-0.075	0.287	0.375	1.000

From the Canadian Survey on Disability, 2012

Appendix B: People in the Employment Modifications Module

Appendix Table A.14 provides details about people who were and were not included in the Employment Modifications Module (EMO), which asked about job accommodations and other supports for employment. Essentially, people included in the EMO were more likely than those not included to be from western Canada or the north. They were more likely to be younger, visible minorities or immigrants, and to have a mild or moderate level of disability. They were less likely to be very severely disabled, to have multiple disabilities, difficulties with mobility, memory, or dexterity, and more likely to be dealing with issues of hearing, pain, or some undefined disability.

In the following observations, the terms “much more” and “much less” have been used to indicate that the difference between those in the EMO vs. those not in the EMO was greater than ±20%. The term “substantially” describes a difference from ±10% to ±20%. “Slightly” refers to a difference that is within ±10%. Generally, the observations below do not draw attention to slight differences.

Focusing on those who were in the EMO vs. those who were not in it, Appendix Table A.14 shows that those in the EMO were:

- Distributed the same as those not in the EMO in terms of gender (both 46.9%).
- Much more likely to be 15 to 29 years (16.6% vs. 5.7%) and 30 to 49 years (38.8% vs. 23.5%). They were much less likely to be older people 50 to 64 years (44.6% vs. 70.8%).
- Much more likely to be visible minorities (15.8% vs. 12%), and slightly more likely to be immigrants (19.5% vs. 17.1%). They were as likely to be Aboriginal persons (both 5.1%).

- Substantially less likely to be from New Brunswick (2.4% vs. 3%) and Quebec (14.5% vs. 17.6%) and much less likely to be from Newfound and Labrador (1.5% vs. 2.1%). They were much more likely to be from the northern territories (0.3% vs. 0.2%), the Prairie Provinces (18.7% vs. 13.4% overall) and from Prince Edward Island (0.5% vs. 0.4%).

Appendix Table A.14 shows that people in the EMO were:

- Much more likely to have only one broad type of disability (e.g., mobility, seeing, developmental, pain – 30.1% vs. 15.1%), or two or three (40.3% vs. 30%). They were much less likely to have more than three (29.6% vs. 54.9%).
- Substantially less or much less likely to report each of the specific types of impairment listed on the table because they were less likely than those excluded from the EMO to report more than one disability. The exceptions were hearing and "unknown" disability (2.4% vs. 1%). Using the sum of the prevalence rates for the types of disability shown on Appendix Table A.14, and looking at the distributions of impairment with those prevalence rate totals as the denominators for the columns, those in the EMO were substantially less likely than those excluded from the EMO to have difficulties with mobility (13.3% vs. 16.5%) and memory (5.2 vs. 5.9%), and much less likely to have difficulties with dexterity (6.5% vs. 9.6%). Those in the EMO were substantially more likely to be limited in their activities by pain 24.9% vs.19.9%), hearing (6.4% vs. 4.6%), and an "unknown" disability (0.8% vs. 0.3%).
- Substantially more likely to report a moderate level of impairment (20.3% vs. 17.3%), much more likely to report a mild level of impairment (39.1% vs. 15.5%) and much less likely to report a very severe level of impairment (18% vs. 42.8%).

Appendix C: People with "decent work"

The literature review found that very little research explores the quality of work options in which people with disabilities participate. The ILO (2012) has developed "decent work" criteria that reflect sought-for characteristics of work as expressed in the UN International Covenant on Economic, Social, and Cultural Rights, which the UN Convention on the Rights of Persons with Disabilities also reflects. Summarized below are ideas for how these concepts could be operationalized with the CSD using specific variables:

ILO indicators of 'decent work' and potential data sources for operationalizing an approach to capturing decent work amongst people with disabilities

ILO "substantive elements"	Person-level indicators/ ILO concerns	Potential statistical indicators of decent work from the CSD	CDSD variables that can be used
Economic and social context for decent work	• Income inequality • Poverty	The person's household income is above the after-tax "poverty line"	LICOA
Employment opportunities	• Informal employment • Own-account and contract family work	The person is working for wages, salary, tips or commission for an employer or is self-employed, i.e., not without pay for spouse or another relative in a family farm or business	EDE_04
	• Labour underutilization	The person's job gives him/her the opportunity to use all his/her skills, knowledge or work experience	Not available in the CSD. (Previously, AEDE_Q31 was available in PALS 2006).
Adequate earnings and productive work	• Low pay rate below 2/3 median hourly earnings	The person's employment income is at least 2/3 the median (annual) earnings, irrespective of disability	EMPIN crossed with WORKACT
	• Recent job training	The person received any classroom-based or on-the-job training at present job in the past year	ETR_01A, ETR_02

ILO indicators of 'decent work' and potential data sources for operationalizing an approach to capturing decent work amongst people with disabilities

ILO "substantive elements"	Person-level indicators/ ILO concerns	Potential statistical indicators of decent work from the CSD	CDSD variables that can be used
Decent working time	• Excessive hours (more than 48 "usual" hours per week) • Annual hours worked per employed person	The person worked from 1 to 48 hours per week for pay	HOURS
Combining work, family, and personal life	• Still to be developed by the ILO	Not immediately clear.	No strong indicators were found in the CSD on this ILO concern.
Work that should be abolished	• Forced labour	The person does not have difficulty finding another job because of disability-related discrimination/stigma.	EDE_20A
		The person does not have difficulty finding another job because of difficulties he/she would experience in securing the supports/accommodations s/he would require in that new situation.	EDE_20D

ILO indicators of 'decent work' and potential data sources for operationalizing an approach to capturing decent work amongst people with disabilities

ILO "substantive elements"	Person-level indicators/ ILO concerns	Potential statistical indicators of decent work from the CSD	CDSD variables that can be used
Stability and security of work	• Precarious employment • Job tenure	The person's job is permanent.	EDE_12
	• (Not a) subsistence worker • (Not) casual work with low earnings	The person has a permanent job and mean earnings ≥ 2/3 of the national mean earnings	EDE_12 = 1 crossed with EMPIN and WORKACT
Equal opportunity and treatment	• Discrimination	The person is employed and was not refused a job interview, a job or a promotion in the past 5 years.	EDI_01 – EDI_03
	• (Other) measure for persons with disabilities	Not immediately clear.	No strong indicators were found in the CSD on this ILO concern.
Safe work environment	• Occupational injury	The person's disability was not the result of a work-related factor. The person did not have to undergo time lost from work due to occupational injury or disease.	The CSD does not have an indicator of whether the respondent's *present job* was responsible for the person's disability or illness, or for time lost from work.

ILO indicators of 'decent work' and potential data sources for operationalizing an approach to capturing decent work amongst people with disabilities

ILO "substantive elements"	Person-level indicators/ ILO concerns	Potential statistical indicators of decent work from the CSD	CDSD variables that can be used
Social security	• Beneficiaries of cash income support	The person received workers' compensation in the previous year if injured or made sick by a work-related factor, or s/he received social assistance in the previous year if not working.	SNC_01C, SNC_01K
		The person received Employment Insurance in the previous year if not working.	SNC_Q01L
Social dialogue, workers' and employers' representation	• Union identity • Collective bargaining coverage	The employed person is a member of a union or covered by a collective agreement	EDE_10

A preliminary variable was derived to operationalize "decent work" by including people who met the following conditions:

- The person's employment was permanent;
- The person's annual employment income was at least two-thirds the median earned income of that amongst people without disabilities;
- The person's family income was above the poverty line;
- The person had a job with an employer or was self-employed rather than working without pay in a family business;

- The person received classroom-based, on-the-job or some other form of training in the past year;
- The person worked for 48 or less but more than 0 hours in the reference week;
- The person had not been refused a job, a job interview or a promotion at work because of disability in the past five years, i.e., they did not feel they had been discriminated against in employment because of disability;
- The person did not feel that discrimination (stigma) based on their condition, or difficulties they would experience obtaining needed job accommodations, made it difficult to change jobs or advance at their present job;
- The person was a member of a union or was covered by a collective agreement.

Unlike PALS, the following useful information about "goodness of fit" between the individual and their job was not captured by the CSD;

- The person felt able to use all their education, skills and work experience at work.

Virtually all employed people with disabilities had jobs that met *at least one* of these criteria. In the interests of capturing cases that met at least some of the ILO criteria and that yielded sufficient sample size to conduct the statistical analyses for the present research, employment was considered decent if, at the very least, it:

1. Was permanent, with an employer; or
2. Provided earnings at or above two thirds the median income that was earned by people without disabilities.

Below is a justification for using *either of these* criteria for flagging people as having "decent work".

Permanent job with an employer

The ILO's approach to defining decent work is in part a reaction against people having to work at precarious, unhealthy, or dangerous jobs for low pay or no pay at all. People at higher risk of such experiences are those who are self-employed or doing temporary, casual, seasonal, or contract work for an employer, or in a family business without pay. Accordingly, people were operationally excluded from having decent work if they worked without pay in family businesses. As this was a very small number of people with disabilities their removal from the decent work category had no major effect on sample size. Also excluded from the decent work category were people who were self-employed or in temporary, casual, or otherwise non-permanent job with an employer *unless* their earnings were also decent. "Decent earnings" are discussed below. This left in the decent work category people with permanent jobs with employers and people with less-than-permanent jobs whose earnings were decent.

Decent earnings: at or above two-thirds the median

Some individuals prefer to work as self-employed individuals. Indeed people with disabilities are more likely to be self-employed than their non-disabled counterparts (11.4% vs. 9.8%). If such individuals had decent earnings, they were included in the present research as having decent work.

The ILO has stipulated that people with decent work would ideally be making two-thirds of the median earned income or more, which is within about a standard deviation of the earnings norm or higher. However, the earnings picture for society as a whole reflects the earnings of

people with and without disabilities. Many people with disabilities have no earnings because they are jobless and many who do have jobs earn less than others (Statistics Canada, 2008f). The lower earnings of people with disabilities therefore deflate the overall earnings of society as a whole. A more balanced approach to calculating the median earned income would be to calculate that figure based on what people without disabilities earn, and then to apply that minimum as a threshold for capturing disabled people with decent earnings: where people with disabilities earn within some reasonable range of what their non-disabled counterparts earn, then they could be considered to have decent earnings - at least, in the society or other analytical unit for which the data pertain.

Even this approach, however, runs the risk of not taking into account that people with disabilities typically work fewer hours than others on average and in many cases need or prefer to do so as an accommodation because of their disability. Furthermore, women are less likely than men to work full-time all year, irrespective of disability. These sorts of discrepancies between the amount of time worked and earnings between men and women with and without disabilities can be addressed somewhat if the calculation of median earnings is attenuated to take into account gender and the comparatively greater likelihood that men will work more hours for more weeks of the year than women, irrespective of disability. Accordingly, the approach used in the present research was to calculate the median earnings of people without disabilities, by gender, by the number of weeks that people worked in 2010, and by whether they worked full-time or part-time for those weeks. So, for example, the median annual earnings of non-disabled men who worked 49 to 52 weeks full-time were $51,561. The median earnings of non-disabled women who worked 49 to 52 weeks full-time were $40,688.

The research obtained the median earnings in this way for the weeks worked full-time and part-time by non-disabled men and women as shown on Appendix Table 15. Each of those medians were then multiplied by 0.67 (i.e., two-thirds of the median). Those calculations were used to establish minimum thresholds that had to be met in order for people to be flagged as having "decent earnings," irrespective of disability. So, for instance, women who worked 14 to 16 weeks full-time had to earn at least $8,108.34 in order to be flagged as having "decent earnings;" men who worked the same number of weeks full-time had to earn at least $10,912.96. People who did not work in 2010 were assigned $0 in earnings.

This approach made no attempt to devise idealized base levels that women *would have* earned if gender-based discrimination and other gender-based differences in earnings were not in play. However, the approach did establish thresholds according to which men and women with disabilities would be considered to have "decent pay" if they were earning in the same general range as their non-disabled counterparts for similar weeks and hours of effort per year.

Using this approach it was found that 60.8% of disabled people *who were employed* when the CSD was conducted had earnings at or above two-thirds the median earnings of people without disabilities. Some 70.4% of employed people without disabilities had earnings in this range in 2010.[18]

[18] The most recent earnings data in the CSD are for 2010.

Indicators not used to create the "decent work" flag

While the following indicators may be useful measures for assessing the employment and economic situation of people with disabilities, for the reasons discussed below these indicators were not used in the present research to indicate integral features of decent work.

Family income above the poverty line. People with disabilities face a greater likelihood of living below the "poverty line" (Crawford, 2013). However, Statistics Canada's Low Income Cut-Off (LICO), which is a widely-used measure of poverty and which is sometimes taken as the "poverty line" (Statistics Canada, 2013c), "muddies the water" by using as a key feature of the calculation a person's total household income. Total household income is the sum of all personal incomes, from all income sources, of all household members. The logic behind the LICO is that if a person is a member of a household that spends 20 percentage points or more than the average household[19] on food, shelter, and clothing, then that person's household is in a relatively low income situation. Statistics Canada flags such a household as one with a household income below the LICO. While the LICO includes the personal income of the disabled individual from employment, it also includes their income from other sources such as investments, pensions, income assistance programs, and spousal and/or child support. The LICO also includes the total personal incomes of all other household members, e.g., spouse/ partner and children. So, for instance, a person with a disability may have little or no personal income but may not be flagged as residing in a low income household because of what may be the relatively high income of their spouse/partner or others in the household. As the LICO may be measuring more than the employment income of a given individual with a household, it is not an accurate measure of that

[19] The calculations take into account 7 different family sizes and 5 different populations of area of residence. Statistics Canada calculates pre-tax and after-tax LICOs.

person's employment income. The LICO was ruled out as an accurate tool for capturing the adequacy of disabled people's earnings.

Receipt of training in the past year. This indicator seems to be a reasonable gauge of whether a job is decent in terms of equipping workers to perform well and perhaps to advance in their careers. But the present research sought to examine whether training is a significant predictor of whether a person obtains decent work. If training were to have been used as a defining feature of decent work, and were also to have been used it as a predictor, the analysis would probably have found a strong correlation because the analysis would to some extent have been examining the relationship between training and itself, which does not make conceptual sense. Training as an indicator of decent work was therefore ruled out as an inherent characteristic of decent work. However, the research *did* hypothesize that whether someone receives training may be associated with the odds of their obtaining decent work when defined without training as an inherent feature.

Working for less than 49 hours per week. Working for less than 49 hours but more than 0 hours per week seems to be a reasonable gauge of decent work if being spared from overwork is to be considered a positive thing. But some people chose to work more than 49 or more hours per week, whether because they love their work, need the money, or for some other reason aside from being forced to do so by their employer. Robust information could not be found in the CSD about the extent to which people who worked involuntarily for more than 49 hours. However, PALS 2006 has two approximate indicators. First, among working-age people with disabilities who were working 49 or more hours in the reference week in 2006, 86.1% felt that they were using all their education, skills or work experience at their job. Second, of these people, 82.3% did not consider themselves disadvantaged in employment. In and of itself, then, working for less

than 49 (but more than 0) hours per week does not seem to be a strong indicator of "decent work". Accordingly, it was ruled out as a defining feature of decent work.

Absence of discrimination. It seems reasonable to infer that a person has a more decent job environment where their employer does not discriminate on the basis of disability – or on other grounds for that matter. The CSD captures the respondent's perception of discrimination in employment as expressed by an employer's refusal to provide a job interview, a job, or a job or a promotion because of disability. The only people asked the question were employed people and non-retired people who were not working who had been employed at some point from 2008 through 2012. The absence of discrimination is only reasonable as a criterion if it can be tied directly to the person's present job or perhaps more broadly to include any other job with their present employer. The information available in the CSD, however, does not tie the experience of employment discrimination directly to the person's present job or employer, but instead captures (perceived) discrimination that occurred in the previous 5 years in *any* job or potential job situation. Specifically, the questions ask, "In the past five years, do you believe that because of your condition, you have been: refused a job interview?... refused a job?... refused a job promotion?"

Furthermore, the present research sought to explore whether overt employer discrimination is a significant inverse predictor of "decent work", i.e., whether people are more likely to obtain decent work if, regardless of context, they have not had to deal with this problem. As with training, if the absence of discrimination were to have been included as a defining feature of decent work, and then also used it as a predictor of decent work, the analysis would probably have found a strong correlation because it would to some extent have been examining the relationship between non-discrimination and itself, which does not make conceptual sense.

The lack of discrimination as captured in the CSD was therefore rejected as an intrinsic characteristic of decent work. However, the research *did* hypothesize that the absence of discrimination may be a factor associated with whether a person obtains decent work when defined without discrimination as an inherent characteristic.

Work that is not forced labour. There are no indicators in the CSD about whether the person was working involuntarily. There *are* questions about whether perceived discrimination (stigma) based on disability, or difficulties likely to be experienced in efforts to obtain needed job accommodations in some other job situation would make it difficult for employed people with disabilities to change jobs or advance at their present jobs. Such barriers hint at some of the difficulties people with disabilities experience in terms career- and job-mobility. As they are weak indicators of "forced labour", however, their opposites (i.e., "no" such barriers) were rejected as inherent characteristics of "decent work."

The person is a member of a union or is covered by a collective agreement. As the demographics chapter shows, employed people with disabilities who have been included in the "decent work" category were much more likely than people with other work to be members of a union or covered by a collective agreement (32.2% vs. 7.8%, respectively). As that chapter also shows, however, most disabled people who had decent work (or any other kind of work) were not union members or covered by collective agreements. And as the CSD provides this information only about people who were employed when the survey was conducted, such information could not be used to predict the likelihood of disabled people moving into decent work from situations where they were previously not working but had had such protections in the previous five years. On these grounds, then, union membership and/or coverage by a collective agreement was rejected as an integral characteristic of decent work.

Summary characteristics of people with "decent work"

Appendix Figure E.1 shows demographic and work-related characteristics of people with disabilities who had "ILO-decent work" compared with some other work as here defined when the CSD was conducted. Those with decent work are those whose employment either:

1. Was permanent, with an employer; or

2. Provided earnings at or above two thirds the median income that was earned by people without disabilities.

Appendix Table A.16 provides details for Appendix Figure E.1. The gender and age profiles are similar for people with both types of work. However, those with decent work were slightly more likely to be Aboriginal persons (4.6% vs. 3%) and considerably less likely to be visible minorities (13.5% vs. 24.2%). While those with decent and other jobs were about as likely to have a moderate or very severe level of disability, those with decent work were more likely to have a mild level of disability (47.2% vs. 38%) and less likely to have a severe level of disability (17.7% vs. 27.4%). They were also less likely to indicate that they had work limitations because of their condition (43.9% vs. 55.2%). However, those who *were* limited at work and had decent work were considerably more likely to say that their employer knew about their work limitation (73.8% vs. 63.4%), which suggests comparatively supportive work environments in places with decent work.

As permanency of employment is one of the key features of decent work as here defined, it is not surprising that most people with decent work (85.4%) had permanent jobs when the CSD was conducted. Among people with other work, most (66.4%) were self-employed and many (17.5%) had temporary or contract work with employers.

Reasonably good pay is another of the key features of decent work as here defined, and most people with decent work were indeed being paid two-thirds or more than the median earnings of non-disabled workers. Comparatively few with decent work (8.8% vs. 36.7%) had no earnings because they not working the year before the CSD, which suggests greater longevity of attachment to employment amongst those with decent work. Those with decent work were also less likely to work part-time (20.1% vs. 32.2%) and less likely to work more than 48 hours per week (10.5% vs. 20.3%), which suggests they were in work arrangements that were comparatively reasonable in terms of the time and energy they demanded for earnings that were generally quite good.

Those in decent work were considerably more likely to be unionized workers or covered by collective agreements (32.2% vs. 7.8%). However, most working people with disabilities were without such coverage regardless of whether they were involved in decent or some other kind of work. Of some interest, those with decent work were more than twice as likely to be in small workplaces with fewer than 20 employees (27.5% vs. 12.9%) and were more likely to be in fairly large workplaces with 100 to 500 employees (20.7% vs. 3.9%). More than a third of disabled people in decent work situations had received on-the-job training (38.6%) or classroom-based training (33.6%) at some point in the previous year compared with less than one in five of their counterparts in other work, among whom 19.7% had on-the-job training and 16.3% had classroom-based training in the past year. It is unknown to what extent these people had training in connection with their present job, but a reasonable inference is that those with decent work were more likely to have had access to training for their present work.

The extent of perceived employment discrimination was fairly low amongst employed people with disabilities, regardless of whether they had decent work as here defined. That said,

those in decent work were more likely to feel that they had been denied a promotion in the past five years because of disability. Perhaps this is because they were also more likely to have been recently employed and were therefore more likely to have had opportunities to be considered – and rejected – for promotions.

Overall, then, disabled people with decent work as here defined, i.e., permanent jobs with employers or other work for reasonably good pay, tended to do better across a range of indicators than people with lower quality jobs where people had relatively low earnings as self-employed individuals or as seasonal, casual, or other temporary workers for employers.

Appendix D: Industry sector and occupations

Industry sector

The CSD captured information about the types of industries in which people worked in 2010, i.e., a year or so before the CSD was conducted. For people with several jobs, the information is about the job where they worked the most hours. The information is based on the North American Industry Classification System (NAICS) of 2007, which was designed to facilitate industry comparability among Canada, United States and Mexico. The classification clusters industries into twenty sectors, over a hundred subsectors and over three hundred industry groups, all based on similarities of input structures, labour skills or production processes (Statistics Canada, 2014b). That information is available for people who had jobs in 2010, which includes people in the target and comparator groups, other disabled people with jobs and people without disabilities who worked in 2010. Appendix Table1 A.1 provides percentage distributions across industrial sectors for each of these groups.

However, as the proportion amongst the comparator group that did not work in 2010 was very high (54.7%). These people were coded as “valid skips” in the raw data. All valid skips have been removed from Appendix Table A.2 to limit the table to people with employment in 2010. Focusing on industry sectors where there was at least a 20 percent difference. That is,

$$\text{Target Group \%} \div \text{Comparator Group \%} \geq 1.2$$

Table A.2 shows that those in the target group were much more likely than those in the comparator group who were working in 2010 to have jobs, respectively, in the following sectors:

- Educational services - 6.0% vs. 2.4% (x 2.5);

- Retail trade - 22.0% vs. 15.0% (x 1.5);
- Construction - 10.9% vs. 7.6% (x 1.4);
- Public administration - 4.7% vs. 3.4% (x 1.4).

Following the same general approach, Appendix Table A.2 also shows that those in the target group were much less likely than those in the comparator group ((i.e., Target Group % ÷ Comparator Group % ≤ 0.8) who were working to have jobs, respectively, in the following industry sectors in 2010:

- Manufacturing - 5.8% vs. 7.5% (x 0.8);
- Finance and insurance; real estate, rental and leasing - 4.0% vs. 5.6% (x 0.7);
- Information and cultural industries; arts, entertainment and recreation - 2.6% vs. 4.3% (x 0.6);
- Agriculture, forestry, fishing and hunting; mining, quarrying, and oil and gas extraction - 1.6% vs. 4.2% (x 0.4);
- Utilities; administration and support; waste management and remediation services - 3.9% vs. 12.4% (x 0.3).

Less dramatically, those in the target group were 10% (1.1 times) more likely than people in the comparator group who were working in 2010 to have jobs in:

- Wholesale, warehousing and transportation - 9.3% vs. 8.7%;
- Health care and social assistance - 12.1% vs. 11.4%;
- Accommodation and food services - 7.5% vs. 6.7%.

Those in the target group were 10% less likely than those in the comparator group who were working in 2010 (or 0.9 times as likely) to have jobs in:

- Professional, scientific & technical services; management of companies and enterprises - 4.0% vs. 4.3%;
- Other services (except public administration) 5.7% vs. 6.5%.

A few other patterns stand out for attention. For instance, if people in the target group were substantially more likely than those in the comparator group who were working in 2010 to have jobs in construction (10.9% vs. 7.6%) and the retail trade (22% vs. 15%), they were even more likely than employed people without disabilities to have jobs in these sectors (1.5 and 1.9 times more likely, respectively). If people in the target group were a little more likely than those in the comparator group to have jobs in accommodation and food services (7.5% vs. 6.7%) and a little less likely to have jobs in "other" services except public administration (5.7% vs. 6.5%), they were substantially more likely than employed people without disabilities to have jobs in these sectors (respectively, 1.2 and 1.3 times more likely).

Generally, the sectors where people in the target group were substantially less likely than those in the comparator group to have jobs in 2010 were the same sectors where people in the target group were also substantially less likely than non-disabled people to have jobs. There were some exceptions, however. People in the target group were substantially more likely than those in the comparator group to have jobs in education and public services in 2010, but they were considerably *less* likely than non-disabled working people to have jobs in these sectors (0.8 and 0.7 times as likely, respectively, in these two sectors).

Perhaps such patterns help account for the public perception that people with disabilities looking for work are either dealing with work injuries e.g., many who look for decent jobs find them in construction) or are over-represented in other semi-skilled service jobs such as in the retail trade, accommodation and food services, and various other service sectors. Sectors that are

less promising and that may even be associated with a lower likelihood that disabled job seekers will find decent work are: manufacturing; finance and insurance; real estate, rental and leasing; information and cultural industries; arts, entertainment and recreation; primary industries (agriculture, forestry, fishing and hunting, mining, quarrying, and oil and gas extraction); utilities; administration and support; waste management and remediation services; professional, scientific and technical services; and the management of companies and enterprises.

While some broader public sector jobs (e.g., in public administration and education) may serve as hedges against being shut out of decent work for some disabled job seekers, those kinds of jobs also appear to present challenges to disabled job seekers gaining the same level of access to decent work as people without disabilities. That said, disabled job seekers with disabilities have marginally better luck than non-disabled working people landing decent work in the other public sector jobs such as in the health care and social assistance sectors. They also have marginally better luck finding jobs in the wholesale, warehousing, and transportation sectors.

Occupations

Appendix Table A.1 presents the distribution of people with and without disabilities across the kinds of occupations they held in 2010. The table includes people without jobs and therefore who were not flagged as having an occupation that year. Similar to the analytical approach that was used for industry sectors above, people who did not report an occupation for 2010 were removed from the analysis. Results are shown on Appendix Table A.2. Both tables are based on the National Occupational Classification (NOC) of 2011. The NOC consists of ten broad occupational categories that represent 40 major groups, 140 minor groups, and 500 occupational units. The latter are formed by taking into account the education, training, or skill

level required to do the job, as well as the tasks, duties, and responsibilities the occupation requires (Statistics Canada, 2014).

Appendix Table A.2 shows that people in the target group were much (≥ 1.2 times) more likely than people in the comparator group with jobs in 2010 to be in:

- Health occupations - 5.8% vs. 3.2% (x 1.8);
- Trades/transport and equipment operators and related occupations - 16.6% vs. 11.6% (x 1.4);
- Management occupations - 10.3% vs. 8.1% (x 1.3);
- Occupations in education/law & social/community & government services - 11.2% vs. 9.6% (x 1.2).

People in the target group were much *less* likely (≤ 0.8 times as likely) than people in the comparator group to be in the following occupations:

- Occupations in art, culture, recreation and sport - 2.0% vs. 2.6% (x 0.8);
- Occupations in manufacturing and utilities - 5.0% vs. 6.4% (x 0.8);
- Natural and applied sciences and related occupations - 2.3% vs. 3.4% (x 0.7);
- Natural resources/agriculture & related production occupations - 0.5% vs. 5.0% (x 0.1).

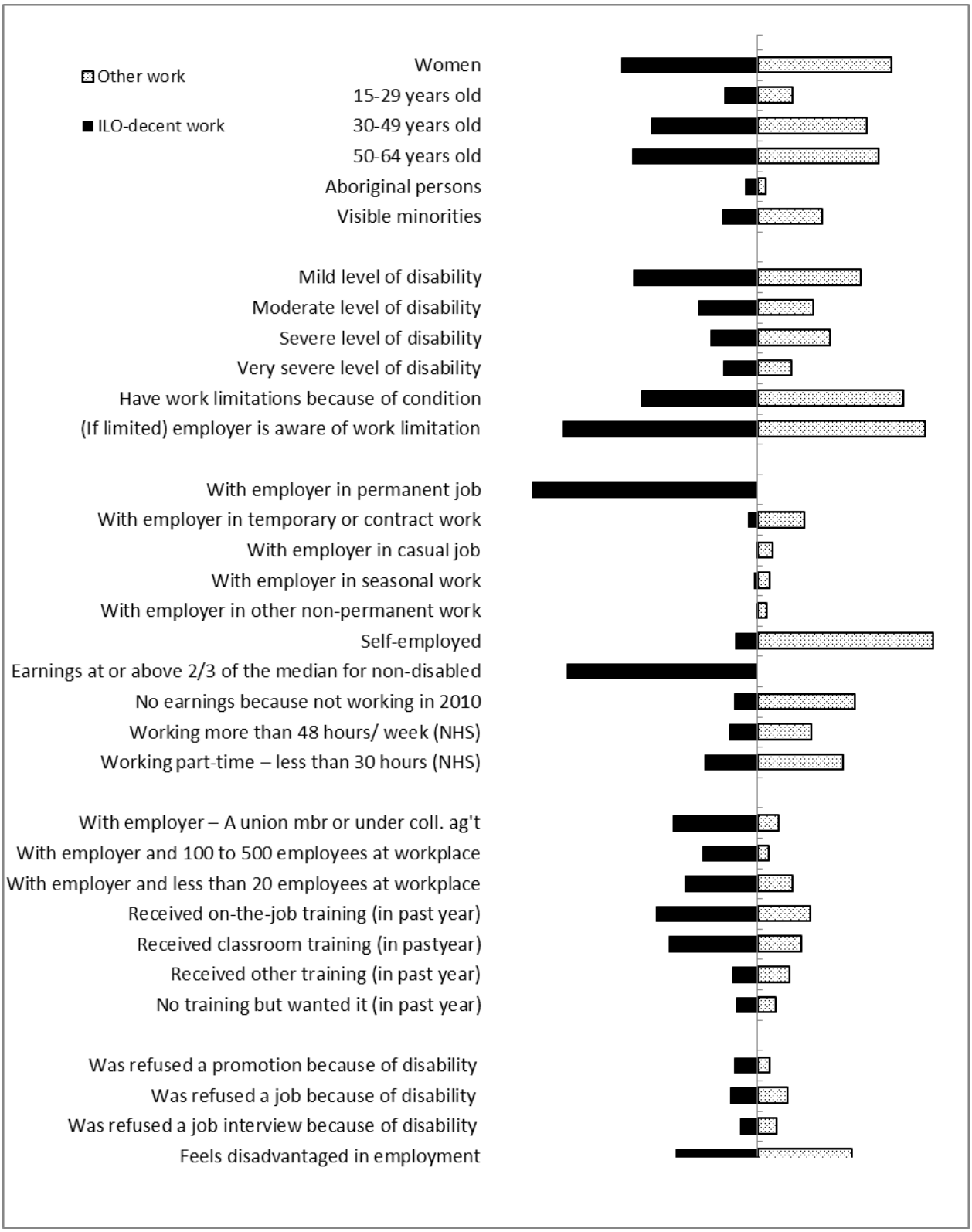
Less dramatically, people in the target group were nearly (0.9 times) as likely as those in the comparator group to be in business, finance, and administration occupations (16.1% vs. 17.2%) or in sales and service occupations (30.2% vs. 32.8%).

While this way of looking at people's jobs – i.e., at the types of skills they utilize – is a different approach than one that looks at the industry sectors in which people work, there are some similarities. For instance, both the NOC and NAICS show that people with skills suitable to health services were more likely than people in the comparator group to have jobs that used

such skills, as were people whose occupations were in education/law, social/community, and government services. In contrast, people in the target group did not do very well when looking through the NOC lens their distribution across occupations in the natural and applied sciences and related occupations, in natural resources, agriculture and related occupations, in manufacturing or utilities, or in art, culture, recreation, and sport. People were also less likely when viewed through the NAICS lens to be found in professional, scientific and technical service jobs, or in the utilities, cultural industries, the arts, entertainment, recreation, or primary industries.

Some other patterns that show up across the NOC are hard to detect across the NAICS, however. For instance, the NOC shows that people in the target group were more likely than those in the comparator group who had jobs in 2010 to have jobs in management occupations. Because management is required in most job sectors, it is difficult to tie this finding specifically to any particular sector in the NAICS in which management skills would have been in high demand and available to disabled job seekers.

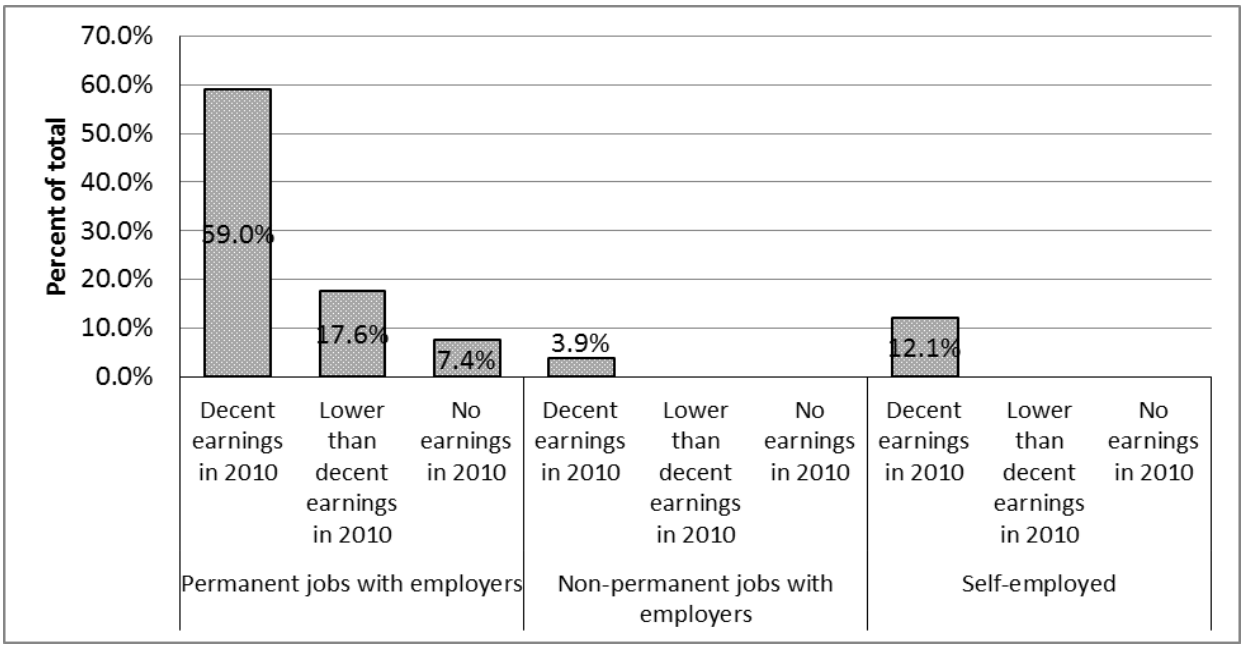
Appendix E: Appendix Figures



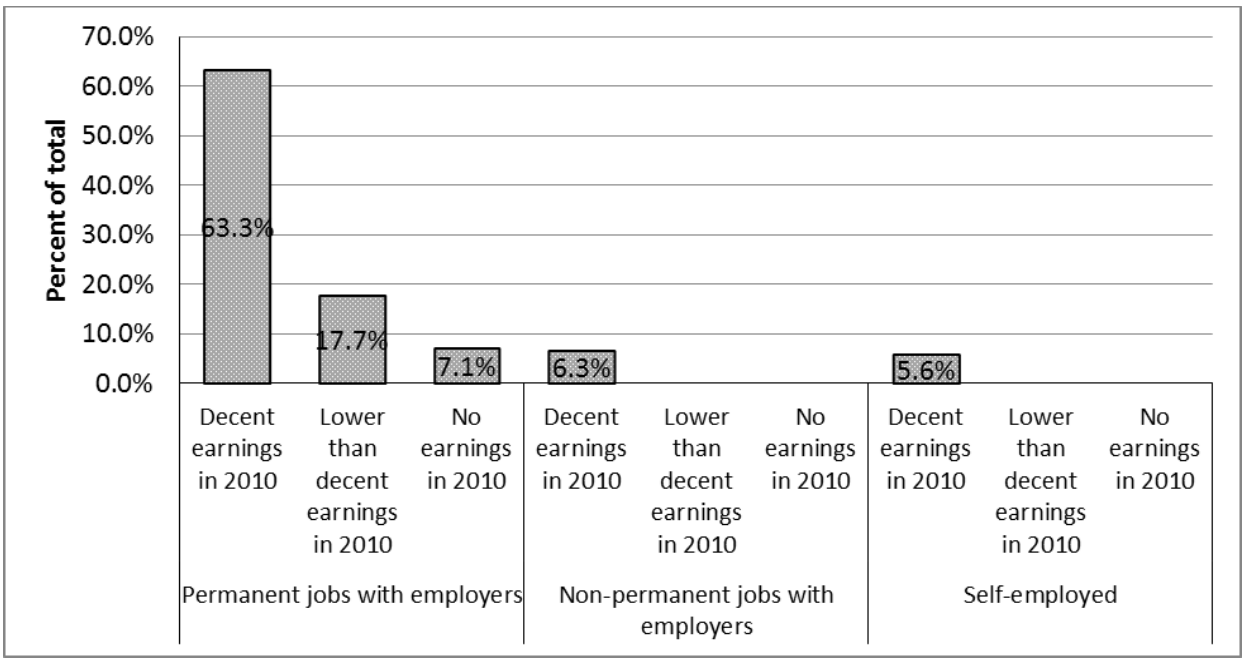
Appendix Figure E.1

Demographic and work-related characteristics of disabled people with and without 'ILO-decent' work

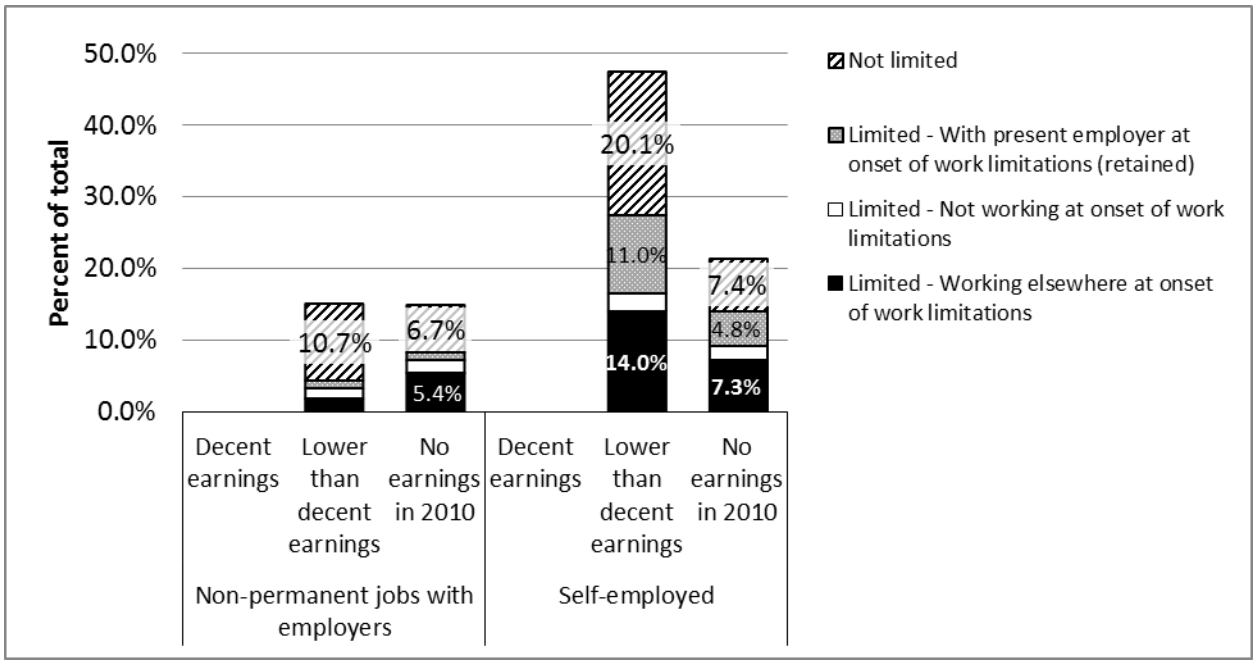
From the Canadian Survey on Disability, 2012



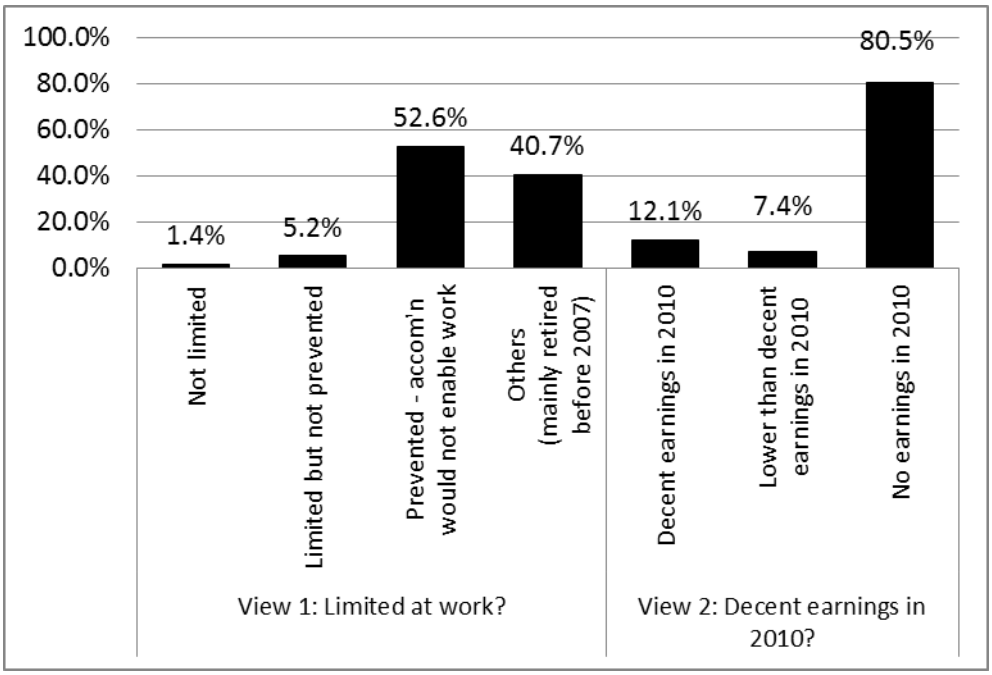
Appendix Figure E.2
Disabled people retained in decent employment after the onset of work limitations - overview
N = 175,470
From the Canadian Survey on Disability, 2012



Appendix Figure E.3
Disabled people with decent employment and no work limitations - overview
N = 494,740
From the Canadian Survey on Disability, 2012



Appendix Figure E.4
Disabled people with less-than-decent work - overview
N = 170,700
From the Canadian Survey on Disability, 2012



Appendix Figure E.5.
People excluded from the Employment Modifications Module (EMO), showing whether they felt limited at work and whether they had decent earnings in 2010
N = 741,740
From the Canadian Survey on Disability, 2012