Abstract

I) Objective

The study aimed to explore the health effects of precarious employment relationships in Ontario, and understand how various forms of support shape health.

II) Methods

Three measures make up our “Employment Strain” model: employment relationship uncertainty; employment relationship effort; and, employment relationship support. This new framework was used to measure the characteristics of precarious employment and their effect on health using data from a structured, self-administered, population-based survey completed by 3,244 workers, and 82 semi-structured interviews using a stratified sampling technique to select participants.

III) Results

Precarious employment has negative health consequences for many workers. However, the relationship between precarious employment and health is complex, whereby the characteristics of the employment relationship and levels of support determine health outcomes. Using the “Employment Strain” framework, we found that workers exposed to High Employment Strain – workers with high levels of employment relationship uncertainty and high levels of employment relationship effort – have poorer health. Importantly, support does shapes health and can help to buffer the health risks associated with precarious employment.

IV) Conclusions

Precarious work is not sustainable for most workers, and carries serious health and social consequences. Limited and eroding levels of support compound the health-risks of non-permanent employment.
Summary

The steady growth of precarious employment relationships over the last few decades has given rise to new health and social issues. This study explored the consequences for workers by examining the health issues related to uncertainties in the relationships between employers and employees. We were interested in how employees access employment, what they need to do to keep employed, their income uncertainty, conflicting demands of multiple employers, and irregular schedules combine to create increased levels of stress, and therefore affect workers’ mental and physical health. The study also examined how various forms of support – workplace, personal (family, friends and community) and social – influence the health of precarious workers.

This is a unique study. Research on full-time jobs indicates that the amount of control workers have over their work, combined with the amount of effort they exert, affects their cardio-vascular health. Other research that simply compares the health of workers in different types of employment (full-time, part-time, casual, contract, self-employment or temporary) has not found consistent differences. This study takes a step further by using an analysis of the characteristics of all types of employment relationships to create a more consistent predictor of health risks. The components of employment relationships that we focused on included: the uncertainty associated with access to future employment; the effort associated with finding and keeping employment; and the support associated with being employed. We have found that together these characteristics interact to create what we call Employment Strain. We argue that Employment Strain increases when employment uncertainty is high and the effort required to find and keep employment is high. These interactions are captured in what we refer to as the Employment Relationship Security Model.

In 2005 and 2006 the research team designed and administered a self-administered, fixed-response survey designed to explore Employment Strain and its health consequences. It was distributed in the Greater Toronto Area (GTA) using a population based sampling strategy and was completed by 3,244 workers. Semi-structured interviews with 82 respondents were used to gather in-depth information about workers’ experiences with precarious employment, Employment Strain, their health, and the role support plays in shaping their health and well-being.

Four key findings emerge from this study. First, our data supports the general claim that precarious employment has health implications. Simply having precarious employment, however, was not necessarily bad for respondents’ health (with the notable exception of those who find work through temporary employment agencies). Our contribution is to isolate a more complex association between precarious employment and health, where the interaction between characteristics of the employment relationship shapes workers’ health. The survey data shows that Employment Strain increases when employment uncertainty is high and the effort required to find and keep employment is high. Gender and race analyses of who experiences Employment Strain showed that South Asian women were more likely to have high strain, and white men were more likely to have low strain.
Second, we found that survey respondents who experienced high Employment Strain — workers with high levels of both employment relationship uncertainty and high levels of employment relationship effort — had poorer health. This was true, regardless of whether individuals had support. Those we interviewed described a wide range of mostly stress-related health issues. We found that the most vulnerable had few personal, household or workplace resources to deal with their health problems, and those who were not yet ill worried that they were working in ways that compromised their future health. Interview and survey data leads us to conclude that stress-related illnesses are now a major occupational health problem for precarious workers.

Third, our study found that even those who experience high Employment Strain are not a homogenous group, and that interviews about the interaction of components of Employment Strain in workers’ lives helped further identify the differences between them. Three key clusters of experiences emerged amongst those we interviewed: 47% were in employment situations that were unsustainable; 33% were in precarious employment that they viewed as ‘on-a-path’ to more stable employment; and 20% were in precarious jobs that were sustainable. Only those in the latter ‘sustainable’ category were able to enjoy the benefits of flexible employment. In contrast, those in unsustainable employment, and those in the ‘on-a-path’ group suffer the negative health and social consequences of working in uncertain, unstable employment. Those in unsustainable precarious employment seemed to be trapped in an employment cycle characterized by unstable, poorly paid, toxic employment relationships. As a result, these workers have the poorest health outcomes.

Fourth, support does shape workers’ outcomes, and can help to buffer the health risks associated with precarious employment. Respondents who were exposed to high Employment Strain who also had limited sources of support were most likely to report poor health. In the interviewees we found that those in our ‘unsustainable’ and ‘on-a-path’ groups had few sources of support. They were excluded from policies at work and isolated from co-workers, couldn’t socialize with friends because of schedules or low income, lived in households with other individuals in precarious employment, were excluded from EI and could not find low-income housing or affordable childcare. These contribute to a worrying observation: workers trapped in uncertain, unsustainable employment arrangements were in the greatest need of support, yet had the least.

The study concludes that precarious employment is not sustainable for most workers, and that it carries serious health and social consequences. It points to the need for occupational health and safety legislation that explicitly protects precarious workers, including protections related to stress-related health. It points to: regulation of temporary employment; the adequate inclusion of entitlements to future work and protections around severance in employment standards; sector-based provision of health and employee assistance benefits; public programs that explicitly support precarious households; and new tools to monitor the health risks related to the growth of precarious employment.
Proposed Future Research Directions

More research is needed on the health implications of precarious employment relationships in Canada. Three clusters of research are suggested for future work. First, policy-oriented research is needed. Such work would focus on the effectiveness of existing health policies, legislation (specifically OHS), insurance and treatment programs (such as WSIB coverage and programs), and workplace occupational health and safety systems with regard to precarious employment relationships. Such research could probe the gaps and weaknesses in existing legislation and systems, explore the challenges rising precarious poses for the existing regulatory framework and OHS systems, and begin to develop possible reforms or new policy directions.

Second, further research is needed on the gender-based health risks of precarious employment on individual workers and their families. Research could explore the following questions: Do women experience stress and strain associated with precarious employment relationships in a different manner than their male counterparts? Are women concentrated in jobs and occupations where job and employment strain linked to precariousness is higher? Are there gender-biases in existing health and safety policies, systems, and legislation? If so, what policy reforms could correct for these biases?

Third, given the dearth of research on the long-term health impacts of precariousness on workers and on different groups of workers, a longitudinal study of health and precarious employment relationships would be a useful research project.

Members of this research team have initiated a new project to address some of the gender questions outlined above, and have secured funding from the Lupina Foundation for this work. Although we began to explore the gendered dimensions of precariousness and health over the last two years, a more detailed exploration of these issues was beyond the scope of the WSIB-funded ‘Employment Strain’ project. This study will use the Employment Strain Model to analyze the gendered dimensions of health and employment strain. New interviews with precarious workers will take place, and follow-up interviews with some precarious workers interviewed in 2006 as part of this project (the WSIB-funded project), will be conducted. Although these follow-up interviews will not be adequate to constitute a longitudinal study of precariousness, they will help us understand the health-risks of precarious workers exposed to High Employment Strain over a more sustained period.

An accessible book and journal articles will be produced from data from the initial study funded by the WSIB, and new research carried out under the Lupina Foundation grant. We hope that publications produced by the project team will help to broaden public and policy discussions about the consequences of contracting out for workers, and particularly for women workers.
Research Report

I. Brief review of the relevant research

In response to widespread changes in the use and organisation of labour in most parts of the world, quite a wide and substantial body of international literature has traced the rise of precarious employment and the various social, political and health consequences of these changes. For many authors, labour market changes have resulted in rising insecurities, and negative social and health consequences for workers (Smith, 2001; Sennett 1998; Bauman 1998; Beck, 2004; Stanford and Vosko, 2004). For example, Sennett argues that “flexible capitalism has brought an end to coherent work histories for everyone, leading to anxieties in individual lives, and exposing even the most privileged to insecurity and uncertainty (Sennett 1998). In a similar vein, Bauman (1998) and Sassen (1991) link labour market changes to new and rising inequalities. According to them, labour markets are increasingly polarized, with a small elite of high earners monopolizing stable employment, and a large and growing number of casualised workers subjected to spells of unemployment and underemployment, other forms of insecurity, and the threat of poverty.

Like Bauman, Ulrich Beck (2004) contends that restructuring is resulting in the fragmentation and casualization of work, with a growing number of workers forced to piece together a package of temporary, part-time and other non-standard forms of employment in order to make a living. For him, these changes entail the end of the “Work Society” (mass production, mass labour, standardized full employment, mass consumption), and the emergence of the “Risk Society” (individualization of work, people make their own life plans, they are mobile, and provide for themselves). According to Beck, this is resulting in the “brazilianization” of the industrialized world.

Of course, not all writers view these changes in a negative light. Some authors applaud labour market changes, and argue that technological innovations and employment shifts have positive consequences for employers and employees. For example, Daniel Pink’s book on non-permanent workers (what he calls “free agents”) suggests that the new economy provides opportunities for most workers to become free agents (self-employed, small business owners, or contract workers), and to benefit from this type of employment. According to him, “the free agent provides talent (products, services, advice) in exchange for opportunity (money, learning, and connections)” (Pink, 2001: 102). Other writers have explored the growth of part-time employment in many OECD countries, and have argued that quality part-time work can provide both work and social benefits to employees (see, for example, Rubery, Ward and Grimshaw, 2005).

A growing body of scholarship focuses attention on the health and social consequences of these employment changes. Five general clusters of literature can be identified within this focal area. The first explores the health risks associated with certain types of precarious employment, and the challenges employment shifts pose for existing national regulatory frameworks and for regional and international standards setting processes (Quinlan 2003,
Saksvik and Quinlan 2003; Cranford et al. 2005; Bluff & Gunningham, 2004). For the most part, research has tended to focus on the limitations of labour laws, health and safety legislation, and workplace health benefits with regard to precarious workers. For example, extensive research on employment shifts in Australia has demonstrated the challenges rising precariousness pose for OHS regulators and those administering workers compensation/rehabilitation regimes work (Saksvik and Quinlan 2003, Quinlan 2003).

International comparative country studies on precarious employment, especially self-employed and various forms of “disguised employment relationships”, have contributed to this work. In contrast to much of the scholarly literature on labour market trends and precariousness, a recent ILO-funded project focused attention on many countries in the developing world and precarious workers in informal, triangular employment arrangements (i.e. work through temporary employment agencies), and “disguised” employment relationships. This project explored precarious employment and regulatory protections for workers in non-permanent employment arrangements in 36 member nations (not including Canada) and concluded that a large and growing number of workers (what they refer to as “dependent workers”) continue to fall outside regulatory protection due to their employment status as self-employed workers, casual, temporary or fixed-term contract workers.

According to the ILO, these workers either do not have access to statutory protections, or do not have the power to access protection due to their employment status (e.g. having a temporary employment relationship), or due to the “disguised” nature of their employment relationship (i.e. dependent employees who are categorized as “self-employed”) (ILO 2003a; ILO 2003b). The ILO summary report and many individual country studies drew attention to the health risks of precariousness in terms of regulatory protection. The report and country studies highlighted the health risks of precarious employment due to the fact that a large and growing number of workers are not protected by Occupational Health and Safety legislation, and lack access to basic health and disability protection and coverage.

A second cluster of literature explores work-life balance issues (Pocock, 2005; Lewis, 2003; Smithson & Stokoe, 2005; Hyman, Scholarios & Baldry, 2005). This work draws attention to the health and social challenges that emerge from various forms of non-standard and precarious employment, specifically the blurring of boundaries between paid and unpaid aspects of our lives and the gendered implications of this for individuals and families. As Chaykowsk (2006) notes with regard to Canada, although some forms of precarious employment relationships, such as self-employment, might present opportunities for flexibility in terms of work-life time allocation, these types of employment arrangements tends to increase work-life conflict for many workers.

A third focuses more directly on the health risks of certain types of “non-standard” employment (such as casual, part-time and temporary work), and the relationship between these types of precarious employment and health. This literature, focused mostly on trends in industrialised countries, has also explored the occupational health and safety
issues that arise from certain employment practices, such as contracting out work. For example, outsourcing and the spread of precarious employment have been associated with poorer health outcomes in clothing and trucking in Australia (Mayhew & Quinlan 1999; Quinlan & Mayhew 2006). Research has demonstrated that the organisation of work and restructuring processes can have a negative impact on workers’ health. Detailed work on Australia demonstrates that workplace restructuring and precarious employment can lead to job churning, fractured management systems and workplace disorganization, and that these have work related health outcomes (Quinlan et.al. 2001). Within this cluster of research, initial work focused on exposure to physical risks and on psychological stresses at work using the Karasek Job Demand-Control model (Letourneux, 1998; Sullivan, 2000; Goudswaard & Andries, 2002; Parker, et.al. 2002; Saloniemi et.al., 2004).

In contrast to work more narrowly focused on health outcomes of working conditions facing precarious workers, a fourth and growing body of literature explores the relationship between employment arrangements and health. This work focuses more directly on the new stressors linked to precarious employment, and the health implications of stress and non-stable employment arrangements. Emerging evidence within this fourth cluster of research suggests that part-time, casual and other types of nonpermanent and non-full-time jobs contribute to stress and therefore result in health problems for workers (Bellemare and Poulin Simon, 1983, 1986; Tremblay and Rolland, 1998; Zeytinoglu et al, 2005; Bardasi, E., and Francesconi, M. (2004). In a study of part-time and casual retail jobs, Zeytonoglu et.al. (2005) found that stress is a major occupational health problem for women in these jobs. According to her study, stress results from the working conditions of causal and part-time jobs, and the psychosocial work environment in the retail sector. Virtanen et al. (2005a & 2005b) found limited evidence of a relationship between health outcomes and different forms of the employment relationship, but did find an association between greater employment instability and poorer health outcomes.

The relationship between health and precarious employment relationship is not clear from existing research as some studies suggest that precariousness does not contribute to poorer health. For example, a series of studies based on data collected by the European Foundation for the Improvement of Living and Working Conditions argued that contract types associated with more insecure employment were not consistently related to poorer health status (Letourneux 1998, Benavides & Benach 1999; Benach et.al. 2002b; Goudswaard & Andries 2002; Daubas-Letourneux & Thebaud-Mony 2003; D’Souza et.al. 2003). Permanent employees reported higher levels of stress, while less secure workers reported more dissatisfaction with work and more frequent pain and fatigue. British and German studies also found little relationship between health outcomes and types of employment contract, but they did find an association between types of less permanent employment and lower levels of job satisfaction (Rodriguez 2002; Bardasi & Francesconi 2004). A study of Finnish municipal workers concluded that more precarious employment was associated with better overall health and less chronic disease compared to those in more permanent employment (Virtanen et.al. 2002).
More consistent results have been found in studies on the links between employment insecurity and health (Sverke et.al. 2002). In Australia, D’Souza et.al (2003) found high job insecurity associated with a significant increase in poor self-rated health, depression and anxiety. Virtanen P. et.al. 2005 found that a trajectory towards stable employment was associated with decreased psychological distress, while a trajectory towards unemployment was associated with poorer general health. In Canada, a recent study on the impact of insecure work on workers’ well-being demonstrated the negative impact of intermittent work, and the related experiences of insecurity and constantly searching for work on workers’ mental health (Malenfant, 2007). This study argues that the effects of intermittent work on well-being – specifically on workers’ social recognition, self-esteem – are as damaging to workers’ mental health as are the insecurities and stresses linked to unemployment. A series of studies emerging from the British Whitehall II study also indicated that moving to a less secure employment situation had negative effects on health outcomes (Ferrie 2001; Ferrie et.al. 2002; Ferrie et.al. 2005).

However, despite increased attention on new types of workplace stress linked to labour market changes, and scholarship on the broad impacts of precarious employment, research on the broad social and health impacts of precarious employment on individual workers and their families is limited. Therefore, recent studies have begun to probe the social and health consequences of non-permanent employment arrangements in more detail, examining a broader range of issues and experiences of different workers. Reflecting this concern for the relational characteristics of employment, a number of researchers are calling for a focus on the social structure of employment and the changing social/psychological employment contract to explain health outcomes (Benach & Muntaner 2007; Benach et. al., 2002a; Cooper, 2002).

Work within this fifth cluster shifts attention away from examining workplace organisation characteristics and their linkage to certain types of precarious employment forms, such as casual or part-time work, and health. It places a new emphasis on a broader range of issues including how individuals find work, keep work, and negotiate its terms and conditions. This research suggests that traditional workplace health risks such as the physical or organizational context of the workplace may not be the primary locations of new health risks associated with precarious employment. For example, most precarious workers in our study had not received health and safety training in any of their jobs and a few workers had been in dangerous situations where the lack of safety equipment and lack of proper supervision at work greatly increased their risk of injury. Still, the stress and uncertainty associated with uncertain employment, and workers’ lack of access to community, family and workplace supports consistently emerged as more central and frequent sources of poorer health.

We suggest that inconsistent findings on health outcomes and less permanent employment may partly be due to the overemphasis on the legal form of employment contracts, rather than the broader issues linked to employment relationships. As such, we join a number of researchers arguing for new approaches to understand the links between precarious employment and health. Benach et.al. (2002a) and Cooper (2002) recommend a focus on the social structure of employment and the changing psychological contract at
work. Scott (2004) recommends re-evaluating the nature of power and authority in less permanent types of employment. Pederson (2003) has argued that while temporary agency employees experience less stress while at work than permanent employees, a major stressor in their lives is their “job situation.” The latter includes the insecurity associated with uncertain work continuity, the lack of control over work schedules, the stress from being constantly on-call, insecurity regarding employment income, and the injustice associated with being treated differently than permanent employees doing the same work.

Focussing on the characteristics of the employment relationship also makes it possible to see the extent to which uncertainties are present in jobs that are considered “permanent.” The Karasek Job Demand-Control model offers clear insights into the health impacts of workplace organization. Our study recognizes that there are a further set of issues related to the control, effort and support beyond the workplace itself, issues associated with getting work, keeping work, and negotiating terms and conditions of employment.

II. Research Objectives

The overall aim of this project was to explore the health effects of precarious employment relationships. Following much of the literature on precariousness, we understood precarious employment to include a wide-range of employment relationships that diverge from the employment norm of continuous, full-time, permanent employment. Thus, the study began by comparing the health outcomes of workers in full-time, permanent employment relationships with those in a range of precarious employment relationships, including those in temporary, casual, fixed-term contract, and own-account self-employment. However, as will be discussed in more detail below, our study moved beyond a simple analysis based on comparing health outcomes of different employment types. Our study took a different approach, informed by a broader understanding of the concept of the employment relationship as much more than the contract of employment or specific employment type.

For us, the employment relationship takes into account: the employment-related effort of finding, securing and keeping employment; control over future employment and the setting of its terms and conditions; the costs and benefits of having multiple employers, work-sites, sets of co-workers and supervisors; control over where and when work is done; and, levels of support from employers and co-workers.

Thus, our three specific research objectives were:

- To examine how precarious employment relationships affect the health and general well-being of workers in the GTA;
- To profile the characteristics of different forms of the employment relationship and examine their association to health;
- To better understand the challenges precariousness poses for OHS legislation and health policies.
III. Methods

A. Employment Strain Model

The project built on preliminary work carried out by several members of this research team and funded by the Social Sciences and Humanities Research Council (SSHRC), (2001-2005). The SSHRC pilot project resulted in the development of a survey instrument, preliminary data collection and initial analysis of how precarious employment relationships affect health outcomes. Central to this work was the development of the concept of “Employment Strain” (Lewchuk 2006a). This concept draws on a number of ideas from the Karasek “Job Strain” model. This model is used extensively to explore how work organization affects health outcomes, and in particular how demands, control and support at work affect health outcomes (Karasek 1990). In contrast to the more narrow focus on stresses linked to control and other issues surrounding work organisation, the Employment Strain model focuses on uncertainties, control and support factors surrounding the employment relationship itself. The “Employment Strain” model was further developed and refined during this project using data from the survey and interviews. The three core measures of the model are: (1) employment relationship uncertainty; (2) employment relationship effort; and (3) employment relationship support from a union or co-workers, and personal support from friends and family. These three measures make up what we have called the “Employment Strain” model.

Diagram One below presents the basic components of the Employment Strain Model, and how the employment relationship might influence health. The control dimension, referred to as “Employment Relationship Uncertainty”, includes uncertainty over future employment, uncertainty over the terms and conditions of future employment and uncertainty over work schedules. The effort dimension, “Employment Relationship Effort” includes effort expended keeping employed, balancing the demands of multiple employers or multiple work locations, and effort expended in recognition that future employment is based on the employer’s constant evaluation of an employee’s attitude and performance. The support dimension, referred to as “Employment Relationship Support”, includes the support an employee receives at work from formal organizations such as unions, from co-workers, and at home from friends and family.¹

¹ The last two categories of support are related to employment, but some components may be the product of indirect links. For example, the support received from one’s family or community may be a function of one’s ability to integrate into that community, and this may vary with different types of employment. Employees unable to commit to family or community activities because of irregular shift schedules may also receive less support from those sources. See Byoung-Hoon et.al. 2004; Hyman et.al. 2005.
Diagram One: The Employment Strain Model

Independently, each dimension of the employment relationship may affect health. Employees who spend large amounts of time looking for work or are constantly aware they are being evaluated while at work may feel stress and strain. The dimensions of the employment relationship may also interact to create differing levels of what we call Employment Strain. High Employment Strain is defined as the combination of high levels of both Employment Relationship Uncertainty and Employment Relationship Effort.

B. Research Methods

Quantitative and qualitative research methods were used. A fixed response self-administered survey was used to gather quantitative data. An English version of the survey was developed and piloted. It was designed to measure the physical conditions of work, profile the characteristics of different forms of the employment relationship, and produce a risk and support profile of precarious employment relationships. The pilot also allowed us to test the effectiveness of our survey distribution strategy (see details below). The survey itself was conducted between September and December of 2005.

Qualitative research was carried out through 82 semi-structured interviews with precarious workers (including seven full-time workers exposed to High Employment Strain) during the first half of 2006. These interviews were used to probe the impact of precarious employment on workers’ health and their general well-being. Interviews were
also used to better understand the complex relationship between the employment relationship and health, workers’ experiences of precariousness, and the impact of uncertain work, income and scheduling on their well-being and their families.

a) Survey Participants

A population based sampling strategy was used. Our goal was to obtain a representative sample of employed individuals from the Greater Toronto Area (GTA) with a high percentage of individuals in precarious employment relationships. The surveys were solicited from 60 Toronto area census tracts representing 145,109 households and 498,560 individuals who reported working at the time of the 2001 census. Census tracks were selected with the goal of over-sampling employees in precarious employment. Two criteria were applied to select census tracks: the percentage of employed people normally working full-time was less than 80% and the median household income was less than $70,000.

All households in the selected census tracts received a multilingual postcard inviting all members of the household over the age of 18 who had worked in the previous month to participate.2 The postcards included information on how to obtain a hard copy or an electronic copy of the survey (see attached). The postcards were delivered by Canada post in three waves of approximately 50,000 households each between September and November 2005. Participants were offered $10.00 for completing the survey. Surveys were mailed in, submitted by e-mail, or completed online.3 Surveys were available in English, Chinese and Tamil. Posters with tear-off information sheets (see attached) were posted in public spaces in the targeted areas to encourage more individuals to participate.

Surveys were processed and coded as they were received. Survey participants each received a thank you letter and a cheque for $10.00. An additional postcard was included in the “thank you” package, and survey participants were asked to distribute additional postcards to people they thought might be interested in completing the survey. The survey stage of the project was completed by January 2006.

A total of 3,244 surveys were received. Of these, 1,959 (60.4% of all surveys) were from the targeted postal drop area and another 689 (21.1% of all surveys) from regions near the postal drop area. Data analysis was conducted from the surveys from the postal drop area and the adjacent regions are referred to as the Greater Toronto Area (GTA) sample. The remaining 596 surveys were from outside the Toronto region and are not included in our analysis.

2 A web-site and dedicated phone line at McMaster had been established in the first several month of the project. Postcards invited workers to participate in the project by completing a survey. This could be done by calling the office and having a hard copy of the survey in English, Tamil or Chinese mailed to the participant, or by visiting the website and completing an on-line English survey or downloading an English, Chinese, or Tamil version of the survey and mailing the completed survey to us.
3 84.2% of all surveys, and 80.9% of GTA surveys were returned electronically.
Table One below indicates that the sample was reasonably representative of the area. The sample population was marginally more educated than that reported in the census and the number working thirty or more hours was marginally lower. The later was in part by design as census tracks were selected with fewer full-time employees to increase the number of individuals in precarious forms of employment in our sample. Our sample was marginally over represented in women (51.0/47.1%) and has marginally more individuals who completed college or university (63.0/55.4%). It has fewer individuals working more than 30 hours (72.9/83.8%), a direct result of how census tracks were selected. This was to be expected given we selected census tracks for the postal drop with lower percentages of full-time employees. The percentage of part-time employees (16.2/15.5%) and median individual incomes (30,653/30,013) were almost identical.4

Table One: Comparison of 2001 Census and Survey Sample Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Census Data5</th>
<th>GTA Survey Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (%)</td>
<td>47.1</td>
<td>51.0</td>
</tr>
<tr>
<td>Median Individual Income (2005$)</td>
<td>30,563</td>
<td>30,013</td>
</tr>
<tr>
<td>Part-time (%)</td>
<td>16.2</td>
<td>15.5</td>
</tr>
<tr>
<td>Working=&gt;30 hours (%)</td>
<td>83.8</td>
<td>72.9</td>
</tr>
<tr>
<td>Completed high school (%)</td>
<td>13.6</td>
<td>12.9</td>
</tr>
<tr>
<td>Completed college or university (%)</td>
<td>55.4</td>
<td>63.0</td>
</tr>
</tbody>
</table>

b) Interview Participants

A number of survey respondents were selected for interviews approximately six months after the survey component of the project ended. Interviews were not intended to be representative of the survey sample. Rather we were interested in the experiences of workers in different types of precarious employment and at different life/career stages. We only interviewed those in precarious employment or those in full-time employment who had reported high levels of employment strain. We also limited interviews to individuals who were not full-time students, had lived in Canada at least two years, and who had indicated on their survey they were willing to be interviewed. We used a stratified sampling technique to select interview participants (see Table Two.) The “Structural Bind” group was defined as individuals between the ages of 25-50, in precarious employment relationships, and who had been employed in a precarious relationship for at least two years. All individuals who met the criteria for one of the categories were included in a list of potential candidates. Names were randomly selected from this list until either the list was exhausted or the target number to be interviewed was reached.

As Table Two outlines, a total of 82 interviews were conducted. Of these, 75 were conducted with precarious workers, and 7 were carried out with full-time, permanent

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4 2001 Census of Canada, Statistics Canada.
5 2001 Census of Canada, Statistics Canada.
workers who reported high levels of employment strain. Workers received an honorarium of $25.00 for participating in the interview. In most cases (where permission was received from the interviewee), interviews were taped, and then were transcribed and coded. Interviews were conducted at a variety of locations including the Workers Action Centre in downtown Toronto. A large number of those contacted found it difficult to schedule an interview given the uncertainty associated with their work schedules.

### Table Two: Interview Sample

<table>
<thead>
<tr>
<th></th>
<th>Target Number to Interview</th>
<th>Number of Workers Interviewed</th>
<th>Refused or Unable to Schedule Interview</th>
<th>Unable to Contact</th>
<th>Unavailable Agreed to Future Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Bind</td>
<td>40</td>
<td>30</td>
<td>15</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Younger Workers (&lt;25)</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>Older Workers (50+)</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Temporary Agency Workers</td>
<td>15</td>
<td>15</td>
<td>26</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Own-Account, Self-Employed</td>
<td>10</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Full-time (high employment strain)</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>95</strong></td>
<td><strong>82</strong></td>
<td><strong>80</strong></td>
<td><strong>52</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### C. Constructing the Indices

The concept of Employment Strain had its origins in preliminary research conducted by several members of the research team using a small pilot data set and reported on in a series of articles (Lewchuk et.al. 2003; 2006a; 2006b). Insights from this research led to revisions in the survey instrument and the sampling strategy. An outline of the questions is included as Appendix 1. Data from questions representing the three dimensions of the Employment Strain model were subjected to factor analysis. The results of this exercise identified multiple factors strongly associated with each of the three dimensions defined in Diagram One. Survey questions that failed to load on any of the factors were dropped from the analysis. The resulting factors were interpreted resulting in the more detailed

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6 The initial research team included: Wayne Lewchuk, Alice de Wolff, Andy King. This research was part of a larger project co-ordinated by Leah Vosko from York University.

7 The entire non-student GTA data set (n=2,636) was used in the factor analysis. Factor analysis was conducted using the principal component estimation procedure. Varimax rotation was applied to help interpret the factors. Factors with eigenvalues greater than one were retained and variables with loadings of at least .40 were included in each factor. The exception was Unpaid Work-Related Training which loaded on the Effort Keeping Work index marginally below .40. It was retained on the basis of strong theoretical reasons to suspect that unpaid training is an important strategy for keeping employment and the limited variance in the responses to the question as designed.
Employment Strain model presented in Diagram Two. The reliability of the indices was tested by calculating Cronbach’s alphas.\(^8\)

Diagram Two: Detailed Employment Strain Model

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\(^8\) See Appendix One. An important difference between the original formulation of the Employment Strain model and that used in this analysis is that in the original formulation, survey responses for questions with more than two possible responses were converted into binary values. This report uses the full range of responses is used providing a more nuanced analysis. These were then normalized so that each question in the index had the same weight regardless of the number of response choices.
IV. Results

A. Survey Results

a) Health Status by Employment Contract Type

As noted above, previous studies have not consistently found different health profiles among workers in different types of employment contracts. We began the analysis of our data by looking at the health profiles by four types of employment contract. Three are characteristic of less permanent forms of employment: those employed through a temporary employment agency \((n=171)\), short-term contractors \((n=144)\), and the own account self-employed \((n=161)\). The fourth is characteristic of more permanent employment: those in permanent full-time positions with one employer who provides them with over 30 hours of work a week and benefits. These employees expected that they would be with the same employer for at least the next year \((n=1,735)\). We excluded a number of employment types as it was unclear if they should be classified as precarious or permanent. This included permanent part-time employees \((147)\), self-employed employers \((13)\), those on fixed contracts lasting more than one year \((112)\), and full-time on-call employees who often worked fewer than 30 hours in a week \((111)\). We also excluded full-time students because their association between employment and health is likely to differ from that of non-students.\(^9\) Thus, our analysis draws on results using this more limited data set.

Table Three describes the socio-economic characteristics of our respondents who were in different types of employment contracts. Women in our sample were more likely to be short-term contractors \((p=.05)\). Workers who had lived in Canada less than five years were more likely to be temporary agency and short-term contract employees \((p<.001)\). White workers were more likely to be own account self-employed \((p=.047)\). While over half of our respondents had some level of university education, those in all three types of precarious employment contracts had lower levels of university completion than those employed permanently \((p=.05)\). Nonetheless over half of those in precarious employment relationships had at least one university degree. When we examined age profiles in more detail, we found marked differences between employment types \((p<.001)\). Compared to the other classifications, permanent employees were more likely to be between the ages of 25 and 50, temporary agency employees and short-term contract employees were more likely to be under the age of 25 and the self-employed were more likely to be over the age of 50.

\(^9\) A member of the research team, an MA student who worked on the project between September 2006 and April 2007 explored the survey data related to the experience of students (Watkins 2006).
Table Three: Respondents’ Socio-economic Characteristics by Employment Relationship Type

<table>
<thead>
<tr>
<th></th>
<th>Average age</th>
<th>Female (%)</th>
<th>Lived in Canada less than 5 years (%)</th>
<th>White (%)</th>
<th>University degree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary employment agency</td>
<td>37.1</td>
<td>45.6</td>
<td>21.6</td>
<td>33.9</td>
<td>51.5</td>
</tr>
<tr>
<td>Short term contract</td>
<td>35.8</td>
<td>59.7</td>
<td>16.0</td>
<td>36.1</td>
<td>53.5</td>
</tr>
<tr>
<td>Own-account self-employed</td>
<td>41.9</td>
<td>45.9</td>
<td>6.8</td>
<td>47.2</td>
<td>52.2</td>
</tr>
<tr>
<td>Permanent full-time</td>
<td>37.0</td>
<td>50.2</td>
<td>11.5</td>
<td>36.6</td>
<td>61.7</td>
</tr>
</tbody>
</table>

Table Four compares the health profile of those employed under different types of employment contracts. Table Four and subsequent tables control for age, sex and race. Those employed in less permanent contracts did not consistently report different health profiles compared to those in permanent contracts. The exception to this is temporary workers. Those workers employed through temporary agencies had the poorest health, suggesting that features of some temporary employment relationships expose employees to more health risks than others. As the table below demonstrates, except for temporary workers, the relationship between precarious employment contracts and health outcomes are not significant. In some cases, those in more precarious relationships reported better health than those employed permanently. In other words, similar to other studies using this type of analysis, our results do not consistently reveal a relationship between employment relationship type and health using a simply analysis. As the table below indicates, the only exception to this was for temporary workers.
Table Four: Relative Health Profile by Type of Employment Contract (Odds ratios: numbers greater than one represent poorer health relative to permanent full-time employees)

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>Temporary employment agency</th>
<th>Short-term contract</th>
<th>Own-account self-employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health not good</td>
<td>1.49</td>
<td>1.16</td>
<td>1.09</td>
</tr>
<tr>
<td>Mental health not good</td>
<td>1.80</td>
<td>0.98</td>
<td>1.15</td>
</tr>
<tr>
<td>Pain at work at least half the time</td>
<td>2.21</td>
<td>1.42</td>
<td>1.01</td>
</tr>
<tr>
<td>Pain at work severe</td>
<td>1.91</td>
<td>1.81</td>
<td>0.54</td>
</tr>
<tr>
<td>Frustrated with work at least half the time</td>
<td>1.69</td>
<td>1.25</td>
<td>0.92</td>
</tr>
<tr>
<td>Exhausted after work most days</td>
<td>1.16</td>
<td>1.01</td>
<td>0.69</td>
</tr>
<tr>
<td>Tense at work at least half the time</td>
<td>1.12</td>
<td><strong>0.58</strong></td>
<td><strong>0.68</strong></td>
</tr>
<tr>
<td>Work stressful most days</td>
<td>1.23</td>
<td><strong>0.57</strong></td>
<td><strong>0.55</strong></td>
</tr>
<tr>
<td>Everything an effort at least half the time</td>
<td><strong>1.38</strong></td>
<td>0.92</td>
<td>0.93</td>
</tr>
<tr>
<td>Work leads to sleep problems at least half the time</td>
<td><strong>1.54</strong></td>
<td>1.11</td>
<td>1.33</td>
</tr>
<tr>
<td>Work leads to headaches at least half the time</td>
<td><strong>1.76</strong></td>
<td>0.77</td>
<td>1.27</td>
</tr>
</tbody>
</table>

Health outcome = f(age, sex, white, employment type). Cells in bold significant at the 5% level; cells in italics at the 10% level.

It is important to note that our survey results do not support the hypothesis that individuals are sorted into employment relationship types by prior health conditions. Only 3.4% of the sample had ever lost a permanent job due to injury or illness. Those in precarious employment were marginally more likely to report having lost a permanent job, but this still represented only 5.3% of those employed through temporary help agencies. Perhaps more telling, when asked if disabilities limit the kind of work one does, or the amount of work one can do, those in permanent position were more likely to report they had limitations.

b) Characteristics of Precarious and Permanent Employment Relationships

In light of the inconsistent findings provided by a simple analysis, and given our focus on understanding the interaction between different components of the employment relationship, we move from a simple to a more detailed analysis of the survey data. As is reported in this section, we analysed the data using the Employment Strain Model, and used the indicators that make up the Employment Strain Model to capture the characteristics of different types of employment relationships. Our results indicate that employee strategies for maintaining employment (the effort dimension), the extent to which their employment is insecure (the
control dimension), and their social support, are locations of stress in employment relationships and that these are markedly different across employment types.

Table Five shows that there are marked and significant differences in the levels of Employment Relationship Effort, and in its sub-categories, among respondents in different employment types. In each case the differences were statistically significant (p<=.001). Employees in precarious employment relationships reported higher levels of Employment Relationship Effort. The differences in Effort Keeping Work, Multiple Employer Effort and Multiple Location Effort were particularly large. Those employed through temporary employment agencies were particularly likely to report high levels of effort in response to constant evaluation of their attitude and performance at work; however, this was an area where permanent employees also expended significant effort.

Respondents in different employment types experienced Employment Relationship Uncertainty and its components in markedly different ways. Here too, the differences were statistically significant (p<=.001). Compared to individuals in permanent employment, those in less permanent employment reported higher levels of uncertainty and lack of control on all measures. Those in permanent employment reported very little Employment Fragility, while levels of Earnings Uncertainty were particularly high for those in precarious employment. Finally, those in the most precarious employment relationships had the least Employment Relationship Support. Again, the differences were statistically significant at the (p<=.001) level, except for Individual Support which was significant at the (p=.05) level. Employees in less permanent employment relationships reported lower levels of Household Economic Support and Union Support than those in permanent positions. The differences were smallest in the case of Individual Support from neighbours, friends and family.

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10 Differences in means were tested through one-way analysis of variance.
We also looked at correlations between components of the Employment Strain model. Respondents who were uncertain about their future employment were more likely to expend high levels of effort finding work and keeping employed, and have low levels of support. Employees with low contract certainty were more likely to work harder at finding and keeping work, and had uncertain earnings and uncertain schedules. Those who had uncertain incomes were more likely to have low household economic support, an important observation that counters the myth that people in precarious work do not need full-time incomes. We found that three indices, Constant Evaluation Effort, Union Support and Individual Support were not correlated with the other components of the Employment Strain Model.

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11 Simple correlations between the main components of the Employment Strain Model revealed a strong correlation between Employment Relationship Uncertainty and Employment Relationship Effort(.52); a strong inverse correlation between Employment Relationship Uncertainty and Employment Relationship Support(-.58); and a weaker inverse correlation between Effort and Support(-.24).

12 Employment Fragility was positively correlated with Effort Keeping Employed(.47), Earnings Uncertainty(.46), Scheduling Uncertainty(.41) and negatively correlated with Household Economic Support(-.40).
c) Components of Employment Strain and Health

This section reports on our findings when we use the Employment Strain indices, rather than employment relationship types, to examine the impact of the employment relationship on health indicators. We also control for differences in the physical characteristics of workplaces.\textsuperscript{13} Several components of the employment relationship, regardless of employment type, are strongly associated with health outcomes.

Table Six shows that Employment Relationship Effort and Support are strongly associated with health indicators. The most consistent association is between physical risks and health. Participants who experienced poor air quality, or who stood most of their work day, etc. reported poorer health or more frequent health problems. However, when we controlled for risks in the physical environment, a number of the components of the Employment Strain model were still significant.

The strongest association with stress and ill health is the extent to which workers have to deal with keeping or looking for employment; on all but two measures, Employment Relationship Effort was associated with poorer indicators of health. A second, important association indicates that the more support workers have, the more likely they are to report better health. Surprisingly, Employment Relationship Uncertainty, which reflects characteristics commonly associated with the precariousness, was only associated with three measures of ill-health, and in one case the direction of the effect was opposite to what we had hypothesized. The stress-related health indicators that show the strongest effect include frustration at work, tension and stress at work, work-related sleeping problems and headaches. Interviews probed some of these issues in more detail in order to understand how the components of Employment Strain interact to shape health outcomes. These will be discussed in Section B (Interview Findings) below.

\textsuperscript{13} Physical risk is an index representing six questions measuring frequency of awkward positions, part of day standing, and exposure to poor air, uncomfortable temperatures, noise and toxic substances.
Table Six: Impact of a Ten Point Change in Employment Relationship Characteristics on Health Indicators (Odds ratios: numbers greater than one represent poorer health)

<table>
<thead>
<tr>
<th>Health outcome</th>
<th>Employment Relationship Uncertainty</th>
<th>Employment Relationship Effort</th>
<th>Employment Relationship Support</th>
<th>Physical Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health not good</td>
<td>1.14</td>
<td>1.02</td>
<td>0.84</td>
<td>1.17</td>
</tr>
<tr>
<td>Mental health not good</td>
<td>1.02</td>
<td>1.26</td>
<td>0.80</td>
<td>1.15</td>
</tr>
<tr>
<td>Pain at work at least half the time</td>
<td>1.08</td>
<td>1.27</td>
<td>0.95</td>
<td>1.50</td>
</tr>
<tr>
<td>Pain at work severe</td>
<td>1.20</td>
<td>1.05</td>
<td>0.81</td>
<td>1.45</td>
</tr>
<tr>
<td>Frustrated with work at least half the time</td>
<td>0.91</td>
<td>1.50</td>
<td>0.87</td>
<td>1.35</td>
</tr>
<tr>
<td>Exhausted after work most days</td>
<td>0.91</td>
<td>1.27</td>
<td>0.85</td>
<td>1.33</td>
</tr>
<tr>
<td>Tense at work at least half the time</td>
<td>0.93</td>
<td>1.38</td>
<td>0.92</td>
<td>1.29</td>
</tr>
<tr>
<td>Work stressful most days</td>
<td>0.89</td>
<td>1.39</td>
<td>0.87</td>
<td>1.12</td>
</tr>
<tr>
<td>Everything an effort at least half the time</td>
<td>1.10</td>
<td>1.22</td>
<td>0.90</td>
<td>1.25</td>
</tr>
<tr>
<td>Work leads to sleep problems at least half the time</td>
<td>1.05</td>
<td>1.49</td>
<td>0.98</td>
<td>1.30</td>
</tr>
<tr>
<td>Work leads to headaches at least half the time</td>
<td>1.08</td>
<td>1.49</td>
<td>0.97</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Health outcome = f(age, sex, white, employment type, employment relationship uncertainty, employment relationship effort, employment relationship support, physical risks). Cells in bold significant at the 5% level; cells in italics at the 10% level.

We repeated the same analysis as found in Table Four, but broke down the three components of the Employment Strain Model into their constituents components as described in Diagram Two. We found a significant association across almost all of our health indicators and three particular components of our model: Effort Keeping Employed, Constant Evaluation Effort and Individual Support. Scheduling Uncertainty was associated with pain severity, exhaustion after work, stress at work, and everything being an effort. The other sub-components of the model were less consistently associated with health outcomes.

d) Employment Strain and Health

Data from the survey was used to explore whether interactions between components of the Employment Strain model shed further light on how the employment relationship
might affect health outcomes. Our data suggests that there is a gradient of strain created by the interaction between the amount of effort individuals expend finding and maintaining employment, and the extent to which they experience uncertainty associated with having future employment and its terms and conditions.

In order to examine the interactions between different components of the employment relationship, we divided our sample into four categories using the median values of Employment Relationship Uncertainty and Employment Relationship Effort to define the cut-points. The High Employment Strain category represents individuals with high Employment Relationship Uncertainty and high Employment Relationship Effort. We expected that people experiencing this combination would face the most serious health risks associated with the employment relationship. The Low Employment Strain category represents individuals with low Employment Relationship Uncertainty and low Employment Relationship Effort. We hypothesized that people experiencing this combination would face the least serious health risks associated with the employment relationship. Workers in the High Uncertainty category spend relatively little effort maintaining employment but still face a high level of uncertainty regarding future employment prospects or its terms and conditions. Those in the High Effort category spend relatively high levels of effort maintaining employment but also report low levels of uncertainty regarding access to future employment or its terms and conditions.

Diagram Three: Employment Strain Categories

<table>
<thead>
<tr>
<th>High Uncertainty</th>
<th>High Employment Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Uncertainty</td>
<td>Low Effort</td>
</tr>
</tbody>
</table>

14 In doing this we follow the basic structure of the Karasek ‘Job-strain’ model. See Paul Landsbergis et al., (1994) for a discussion of ways of measuring job strain. This report uses median values as cut-points without main effects.
Table Seven shows that employment types cluster around different categories of Employment Strain: the majority of those in more precarious relationships were located in the High Employment Strain quadrant, with very few in the Low Employment Strain quadrant. Most of those in permanent employment experienced Low Employment Strain. However, employment relationship type does not perfectly predict employment strain. Between one-quarter and one-third of our respondents who were in precarious employment relationships did not experience High Employment Strain; and one-fifth of those in permanent employment did experience high strain. We will return to these findings in our discussion of the interview data below.

**Table Seven: Distribution of Employment Relationship Types by Employment Strain Categories (%)**

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>High Employment Strain</th>
<th>High Effort</th>
<th>High Uncertainty</th>
<th>Low Employment Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Employment Agency</td>
<td>71.9</td>
<td>2.9</td>
<td>19.9</td>
<td>5.3</td>
</tr>
<tr>
<td>Short-term Contract</td>
<td>62.5</td>
<td>2.8</td>
<td>31.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Own-account Self-employed</td>
<td>61.5</td>
<td>5.6</td>
<td>26.7</td>
<td>6.2</td>
</tr>
<tr>
<td>Permanent Full-time</td>
<td>19.4</td>
<td>24.0</td>
<td>13.0</td>
<td>43.7</td>
</tr>
</tbody>
</table>
Table Eight shows a strong correlation between Employment Strain and the level of Employment Relationship Support. Over eighty percent of the Temporary Agency workers and over ninety percent of the Short-term contract workers in the High Employment Strain category also reported low levels of Employment Relationship Support. The opposite was true of those reporting Low Employment Strain; these workers were more likely to report high levels of Employment Relationship Support.

Table Eight: Distribution of Employment Relation Types by Employment Strain and Support (%)

<table>
<thead>
<tr>
<th></th>
<th>High Employment Strain</th>
<th>High Effort</th>
<th>High Uncertainty</th>
<th>Low Employment Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Support</td>
<td>Low Support</td>
<td>High Support</td>
<td>Low Support</td>
</tr>
<tr>
<td>Temporary Employment Agency</td>
<td>14.4</td>
<td>57.9</td>
<td>1.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Short-term Contract</td>
<td>6.3</td>
<td>56.3</td>
<td>2.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Own-account Self-employed</td>
<td>19.3</td>
<td>42.2</td>
<td>2.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Permanent Full-time</td>
<td>6.7</td>
<td>12.7</td>
<td>17.1</td>
<td>6.9</td>
</tr>
</tbody>
</table>
Table Nine shows that in general, workers in the High Employment Strain category reported the poorest health indicators. Those in the High Effort category also reported poorer health than those in the Low Employment Strain category, but on fewer indicators and with generally smaller effects than the High Employment Strain category. Those in the High Uncertainty category reported similar health indicators to those in the Low Employment Strain category with the exception of general health status. The results are all relative to the Low Employment Strain category (low Employment Relationship Effort and low Employment Relationship Uncertainty).

**Table Nine: Employment Strain and Health** (Odds Ratios: Numbers greater than one represent poorer health)

<table>
<thead>
<tr>
<th>Health outcome</th>
<th>High Employment Strain</th>
<th>High Effort</th>
<th>High Uncertainty</th>
<th>Low Employment Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health not good</td>
<td>2.58 (***</td>
<td>1.64 (**)</td>
<td>2.40 (***</td>
<td>1.00</td>
</tr>
<tr>
<td>Mental health not good</td>
<td>2.04 (***</td>
<td>1.44</td>
<td>1.35</td>
<td>1.00</td>
</tr>
<tr>
<td>Pain at work at least half the time</td>
<td>2.12 (***</td>
<td>1.44</td>
<td>1.21</td>
<td>1.00</td>
</tr>
<tr>
<td>Pain at work severe</td>
<td>3.39 (***</td>
<td>2.13</td>
<td>2.43 (*)</td>
<td>1.00</td>
</tr>
<tr>
<td>Frustrated with work at least half the time</td>
<td>1.98 (***</td>
<td>1.59 (***</td>
<td>0.85</td>
<td>1.00</td>
</tr>
<tr>
<td>Exhausted after work most days</td>
<td>1.82 (***</td>
<td>1.61 (***</td>
<td>1.06</td>
<td>1.00</td>
</tr>
<tr>
<td>Tense at work at least half the time</td>
<td>1.57 (***</td>
<td>1.58 (***</td>
<td>0.78</td>
<td>1.00</td>
</tr>
<tr>
<td>Work stressful most days</td>
<td>1.77 (***</td>
<td>1.60 (***</td>
<td>0.78</td>
<td>1.00</td>
</tr>
<tr>
<td>Everything an effort at least half the time</td>
<td>1.98 (***</td>
<td>1.13</td>
<td>1.29</td>
<td>1.00</td>
</tr>
<tr>
<td>Work leads to sleep problems at least half the time</td>
<td>2.54 (***</td>
<td>1.83 (***</td>
<td>1.08</td>
<td>1.00</td>
</tr>
<tr>
<td>Work leads to headaches at least half the time</td>
<td>2.18 (***</td>
<td>1.63 (**)</td>
<td>1.15</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Health outcome = f(age, sex, white, employment type, physical risks, high employment strain, high uncertainty, high effort). (* significant at 10%, ** significant at 5%, *** significant at 1%)
Table Ten (next page) shows the health outcomes adding Employment Relationship Support to the analysis. The results reported in the table are relative to those in the study who reported both Low Employment Strain and High Support.
### Table Ten: Employment Strain and Health: High and Low Support

(Odds Ratios: Numbers greater than one represent poorer health)

<table>
<thead>
<tr>
<th>Health outcome</th>
<th>Low Support</th>
<th>High Support</th>
<th>Low Support</th>
<th>High Support</th>
<th>Low Support</th>
<th>High Support</th>
<th>Low Support</th>
<th>High Support</th>
<th>Low Support</th>
<th>High Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health not good</td>
<td>3.19(***</td>
<td>2.42(***</td>
<td>2.38(**</td>
<td>1.54</td>
<td>3.66(**</td>
<td>0.73</td>
<td>1.46</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health not good</td>
<td>2.59(***</td>
<td>3.60(***</td>
<td>3.48(***</td>
<td>1.38</td>
<td>2.55(***</td>
<td>0.23</td>
<td>2.84(***</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain at work at least half the time</td>
<td>2.01(***</td>
<td>2.14(***</td>
<td>1.83(*)</td>
<td>1.24</td>
<td>1.07</td>
<td>1.50</td>
<td>0.89</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain at work severe</td>
<td>4.76(***</td>
<td>2.60</td>
<td>3.41</td>
<td>2.09</td>
<td>4.03(**</td>
<td>-</td>
<td>1.91</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frustrated with work at least half the time</td>
<td>2.24(***</td>
<td>1.92(***</td>
<td>2.69(***</td>
<td>1.37</td>
<td>1.00</td>
<td>0.73</td>
<td>1.31</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhausted after work most days</td>
<td>2.27(***</td>
<td>1.65(**</td>
<td>1.97(***</td>
<td>1.71(***</td>
<td>1.38</td>
<td>0.82</td>
<td>1.56(*)</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tense at work at least half the time</td>
<td>1.65(***</td>
<td>1.59(**</td>
<td>3.01(***</td>
<td>1.25</td>
<td>0.86</td>
<td>0.69</td>
<td>1.11</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work stressful most days</td>
<td>2.06(***</td>
<td>1.78(***</td>
<td>2.60(***</td>
<td>1.47(**</td>
<td>0.93</td>
<td>0.74</td>
<td>1.50(*)</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Everything an effort at least half the time</td>
<td>2.26(***</td>
<td>2.03(***</td>
<td>2.58(***</td>
<td>0.88</td>
<td>1.43(*)</td>
<td>1.40</td>
<td>1.48(*)</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work leads to sleep problems at least half the time</td>
<td>2.68(***</td>
<td>3.78(***</td>
<td>3.97(***</td>
<td>1.51(*)</td>
<td>1.38</td>
<td>0.92</td>
<td>1.83(**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work leads to headaches at least half the time</td>
<td>2.11(***</td>
<td>2.51(***</td>
<td>3.08(***</td>
<td>1.20</td>
<td>1.19</td>
<td>1.12</td>
<td>1.08</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

health outcome=f(age, sex, white, employment type, physical risks, high employment strain, high uncertainty, high effort). (* significant at 10%, ** significant at 5%, *** significant at 1%)
As Table Ten demonstrates, a number of observations can be made from this analysis. First, participants in the High Employment Strain category reported poorer health regardless of the level of support. Second, the combination of High Effort and Low Support resulted in a health profile similar to that reported by the High Employment Strain category. Third, the combination of either High Uncertainty or Low Employment Strain and Low Support resulted in a mixed health profile. Low support was associated with more frequent mental health problems in both cases. Finally, the combination of High Uncertainty and High Support resulted in a health profile that was statistically identical to the Low Employment Strain and High Support group.

e) Survey Conclusions

The survey was designed to explore the association between precarious employment and employees’ health. As noted earlier in this report, previous research had not found a clear association between precarious employment and health even though there was strong evidence that increased employment insecurity was associated with poorer health outcomes. The simple analysis of employment relationship type and health in our survey data yields the same sort of ambiguous relationship found in previous research. While those who find employment through temporary employment agencies seem to consistently report poorer health outcomes than those in permanent full-time employment this was not the case for those on short-term contracts, or the own account self-employed. In fact on a number of health indicators short-term contractors and the self-employed actually reported better health outcomes than those in permanent employment.

Other researchers and our own previous projects suggested that an examination of the characteristics of the employment relationship – the power relations that regulate how people enter and exit employment, the rights to continuing employment, and how the terms and conditions of employment are determined and revised – might yield new insights on how less permanent employment is affecting health. A new set of measures was developed to better understand the relationship between precariousness and health, and to employ an analysis that moved beyond a simple analysis of health and employment type. We have labelled this the Employment Strain model. Using this model, our analysis focused on the health consequences of working without commitments; on how workers’ health is impacted by being in employment relationships that have nothing more than only an immediate commitment between the employer and employee.

At the least detailed level of analysis there was not a significant relationship between Employment Relationship Uncertainty and health. It would appear that on its own, being uncertain about future prospects, or the terms and conditions of employment are not significant health risks. This is a key finding of our research. A stronger association was found between those expending effort finding and keeping employment, and poorer health. We also found that those who enjoyed support at work, in their neighbourhoods or from their household enjoyed better health.
Using the more detailed components of the Employment Strain model suggested by factor analysis shed further light on which characteristics of the employment relationship were associated with health outcomes. Scheduling Uncertainty was associated with poorer health, however Employment Fragility or Earnings Uncertainty were not. Effort Keeping Employed and Constant Evaluation Effort were associated with poorer health outcomes while high levels of Individual Support were associated with better health outcomes. Again, the evidence seems to be pointing to a complex association between unstable employment and health where it is the characteristics of the employment relationship as much as having or not having permanent employment that shapes health outcomes.

The final section reported strong evidence that employment relationships characterized either by a combination of High Employment Relationship Uncertainty and High Employment Relationship Effort, or just High Employment Relationship Effort were associated with poorer health outcomes. Of significant interest, individuals reporting High Employment Relationship Uncertainty but low Employment Relationship Effort did not report significantly different health outcomes from those reporting low levels of Employment Relationship Uncertainty and low levels of Employment Relationship Effort. It would appear that precarious employment is a health risk only when individuals have uncertain job futures and feel the need to expend effort to compensate for this risk. Those in uncertain situations but who are not adopting strategies with the intent of maximizing having employment in the future are as healthy as those in permanent full-time employment. Finally we explored how different levels of support buffer individuals from the health risks associated with different combinations of Employment Relationship Uncertainty and Employment Relationship Effort. In general low levels of support were associated with poorer health outcomes. We found it interesting that high levels of support did not buffer those in the High Uncertainty / High Effort category, but it did significantly improve the health outcomes of those in the High Effort category.

In short, having a precarious job on its own is not a good indicator of health status. However, our research shows a significant impact of certain forms of precarious employment on health. Where precarious employment is experienced in a context of High Employment Relationship Uncertainty, High Employment Relationship Effort, and Low Employment Relationship Support, the health effects are significant. Our findings are consistent with those of Parker et.al. 2002 who suggest that being employed on a temporary contract has positive and negative consequences. It is only when we examine interactions between employment relationship characteristics, strategies for maintaining employment, and social support that we begin to see consistent patterns. Employees in precarious employment who are isolated and are expending effort to keep employed reported the worst health concerns. Having support, or not feeling the need to expend effort to maintain employment, appear to buffer individuals in less permanent employment from negative health effects. For at least some individuals, working without commitments does not necessarily lead to poorer health outcomes relative to those in permanent employment.
Thus, our three key research findings from the survey can be summarised as follows:

- Not all precarious employment relationships are unhealthy.
- The interaction between employment relationship characteristics is key to explaining patterns of health amongst precarious workers.
- The health effects of precarious employment are significant for precarious exposed to High Employment Strain – high levels of employment relationship uncertainty and high levels of employment relationship effort – and who have low employment relationship support.

These results provide strong evidence that more detailed studies of the characteristics of the employment relationship are likely to shed further light on the complex relationship between employment and health. Interviews carried out in the latter stage of the project allowed us to probe these issues in more detail, and better understand the complex interaction between components of employment strain and health outcomes.

B. Interview Findings

Interviews were conducted to deepen our understanding of the link between precarious work and health. As noted in the section above, survey data suggests that there is a gradient of strain created by the interaction between the amount of effort individuals expend finding and maintaining employment, and the extent to which they experience uncertainty associated with having future employment and its terms and conditions. Interviews allowed us to probe these issues in more detail, and to better understand the factors that influence the association between precarious employment and health. We found the combination of quantitative and qualitative research strengthened our analysis and understanding of how the characteristics of the employment relationship shape health outcomes.

Interviews aimed to explore the following general questions: How do individuals experience and cope with high levels of employment uncertainty and the need to expend effort finding and keeping employment? How do workers deal with scheduling and income uncertainty? How do these uncertainties affect their households and their social relationships? What impact do these uncertainties have on workers’ health and well-being?

Three findings emerged from the interviews:

1. There is a continuum of experiences of precarious employment and employment strain;
2. There is a limit to the level of uncertainty workers can manage before precarious employment relationships become unsustainable and toxic to workers’ health;
3. Employment support is critical; but uncommon and eroding.

These research findings will be discussed in more detail below.
a) Continuum of experiences of precarious employment & employment strain

Similar to findings from the survey data, interviews confirmed that there is a complex interaction between the various components of employment strain and health outcomes. Interviews allowed us to probe this interaction. We found that this interaction can be better understood by seeing precariousness as a continuum of experiences focused around three general clusters of precarity, levels of strain, and related stress and health outcomes.

The three clusters are:

- **Sustainable**: precarious employment that is relatively sustainable, requires limited effort to find and keep work, and has high levels of support (20% of those interviewed).
- **On-a-path**: Precarious employment that is not sustainable in the medium or longer-term; workers are “on a path” to more permanent employment (33% of those interviewed).
- **Unsustainable**: precarious employment that is not sustainable; workers are stuck in this type of employment with few options and little support (47% of those interviewed).

**Sustainable Precarious Employment:**
The first group is a privileged group amongst those in precarious employment relationships in that they are generally not negatively impacted by the uncertainty of non-permanent employment. Although their employment is not permanent, a range of supports – financial, family and household support – buffer these workers from the instability and uncertainty of precarious employment.

This cluster was made up mainly of self-employed people, and those working on short, or fixed-term contracts. It included a range of occupations, including: an accountant, a geologist, an engineer, a multi-level marketer, a sessional university instructor, a courier, a contract bank employee, a self-employed sports researcher, a crisis counsellor, and a few part-time teachers. In general, workers in this cluster had chosen this type of employment arrangement, were working in occupations that they had chosen and had been trained in, and had acquired additional skills and knowledge of their work/occupation/sector that allowed them to quite successfully navigate working independently (working either on contract, or as a self-employed person) within their sector.

In terms of demographics, men were marginally more likely to be in this group, and white workers were over-represented. Workers were marginally older and several were in the latter stages of their careers. Several had taken early retirement or had voluntarily left full-time, permanent employment in order to work more independently. Some workers in this group had chosen self-employment or contract work specifically because their previous full-time, permanent employment had been very stressful and required long hours and intense work. In contrast, their new career as a contract or self-employed
person had less stress and pressure, and allowed them more personal time for leisure activities. Only about one-third indicated a preference for more permanent employment.

Two key issues separated this group from other precarious workers. First, workers in this cluster had managed to establish themselves in their sector and build-up fairly stable and long-term employment relationships with a core group of clients / employers. Some individuals (such as the geologist, the engineer, a part-time ESL teacher, an international “market researcher”) had been able to do this because they had fairly specialized skills for a niche market (national or international) and had established a secure client base. For example, the contract university lecturer had specialized teaching background in business management and regularly taught the same courses year after year for a few universities/colleges.

Other individuals benefited from working in sectors or occupations that were relatively embedded in the local economy and were reasonably protected from competitive pressures from globalization. For example, the work undertaken by the crisis counselor was Toronto-based, and required very specific skills and training. This individual was well-established within the field of crisis counselor and had a number of core clients that regularly gave her work. The self-employed researcher specialized in Canadian sports research, had a few core clients in Ontario (mostly in Toronto), and generally carried out archival research in and around Toronto. Similarly, the teachers (one ELS teacher and two part-time teachers), and the courier had stable and ongoing employment relationships with a few clients, and therefore spent little time and energy searching for more work. Thus, for all of the workers in this cluster, although their employment relationships were not permanent, they generally had stable employment relationships with core clients and were fairly certain that they would have future employment. In addition, workers in this cluster tended to exert relatively high levels of control over their work schedule, their hours of work, and the amount of work they took on at any time. For the most part, this group spent relatively little time and effort finding and keeping work, and had low stress levels.

Second, this group benefited from high levels of support. Individuals in this cluster generally either had high levels of individual or household support (support from a partner or family member), and/or had significant personal savings built up from a previous job. For example, several workers’ partners had full-time, permanent employment with good salaries and had full health benefits that were extended to their entire families. Some workers in this cluster had saved money (had invested it and could draw on it when necessary), or were collecting a pension from their previous job. Two individuals still had continued health coverage from their previous job that had been part of their early retirement package. Most workers relied heavily on family or household support to help buffer the scheduling, work and income uncertainties of precarious employment. Thus, although their employment was still precarious, the relative stability of their contracts and high support levels meant that this cluster of precarious workers was generally buffered from the stress and insecurities of non-permanent employment relationships. Survey data from these workers showed that they were less likely to be exposed to High Employment Strain as workers in either of the other two clusters. As
such, this group was able to benefits from the type of “freedom and flexibility” Daniel Pink (2001) and other authors speak about when they applaud the growth of precarious employment.

Still, two important points needs to be made about this group. First, these workers were the minority of those we interviewed. They formed only 20% of those we interviewed. As one worker in this group put it, “I guess I’m one of the lucky ones.” Second, although this group generally benefited from high levels of support, many of these workers felt that their support structures were not as secure as they had been, and were beginning to worry about the long-term consequences of eroding support. For example, a few workers in this group acknowledged their partners’ employment was not as secure as it had been in the past, and that their job was not protected from restructuring. They also noted that their precarious employment situation would no longer be sustainable if their support structures were to erode or disappear.

On-a-path: Precarious Employment

The second group, those in “on-a-path” precarious employment thought of their current employment situation as being a short-term situation. Many liked the content of what they were doing, but had very mixed feelings (often very negative feelings) about their employment arrangements and were hoping to do similar work in the future – but with a permanent contract, or with full-time hours. Some workers in this group were working in the sector they had training or education for, while others were simply using their employment arrangement as a stepping-stone to get into a job that they felt was suited to their background or training. Some had chosen this type of employment arrangement, while others had almost fallen into it as a result of few other choices. In general, this group of workers was relatively content with some aspects of their employment arrangement, but only as a short or medium-term strategy until they could move into more stable, secure or permanent employment. Over two-thirds indicated a preference for more permanent employment.

Relative to the other clusters, workers in this cluster were younger (average age early 30s), at the earlier stage of their career, and more likely to be female and people of colour. Their skill levels, work experience, education, and occupational type were diverse. They included actors, computer programmers, accountants, a musician, child-care workers, teachers, web-designers, administration clerks and a law clerk. A number of individuals in this group were self-employed, others were working on short-term or temporary contracts, and several were multi-job holders. Many worked in sectors that are becoming more competitive (such as computer programming, web design), and have growing numbers of self-employed individuals and workers on contract (administrative work, real estate, education).

First, as noted above, everyone in this group saw their employment situation as temporary, and only sustainable in the short or medium-term. They were in non-permanent work either out of choice or circumstance, but only for the short or medium-term. Several were in temporary or contract jobs because they were completing professional training, or working on their “real future career” (i.e. a musician, an
accountant, an articling law student, and one mature student who was taking night classes) while working part-time, or were trying to build-up enough hours in part-time work to be promoted to full-time permanent employment with the same company.

Second and generally linked to the temporary nature of their employment situation, individuals in this group were investing considerable effort into their current contracts and searching for employment, and /or into additional training and education. For example, those working in the field of web-design and computer programming were investing considerable time and energy upgrading their skills and trying to build a group of core clients for whom they could either get permanent employment or more stable on-going contracts as a self-employed person. A number of individuals were in contract jobs that they hoped would turn into permanent positions. For example, a contract beer store employee, a temporary administrator, and a contract graphic designer were working hard in their jobs and hoping that their good performance would be rewarded with a permanent position. Other workers – such as a real estate agent who had just started teachers college – were putting time and their own resources into more education or training in the hope that they would be able to move into a different occupation that would offer full-time, permanent employment.

Third, although support structures were more limited and tenuous than what the “sustainable” group had access to, “on-a-path” workers generally had enough sources of support to help buffer the insecurities of non-permanent work for a limited period of time. While some workers had household or family support, others had personal sources of support (such as savings or credit) to draw on in order to deal with the ebbs and flows, and uncertainties of contract work. However, most individuals viewed their support structures as being temporary and not sustainable over the long-term. For example, several individuals (including those in their late 20s) were living with their parents or were dependent on a parent or family member for occasional or limited on-going financial support. Others were reliant on their line of credit, or were drawing on their savings during times when work was slow, or payments were late. In both cases, workers saw these buffers as necessary in the short-term, but not sustainable over time. Many workers felt like they were unable to plan for the future, or move forward with relationships or personal plans while their employment situation remained as it was.

Fourth, many individuals in this group enjoyed what they were doing, but had serious concerns about the sustainability of their employment situation. Most workers were aware that their employment situation was very uncertain and stressful. According to them, this uncertainty meant that they could not plan for the future, take care of their health, or make decisions around relationships or having children while in precarious employment. As one worker put it, “looking for work and getting new contracts takes a lot of time. … This [contracting] is not sustainable in the long-term; we’ll never get a mortgage unless one of us gets a full-time job with a salary. You cannot plan or really even think about the future and future plans; as a free-lancer, you’re locked into the ‘now’” (2678, 26 May 2006).
**Unsustainable, Precarious Employment.**

The third group, those we label as being in “unsustainable, precarious employment”, were dissatisfied with their employment situation, had generally been out of full-time, permanent work for a number of years (often longer than 2 years), and wanted to find more permanent employment. Many workers had been retrenched from previous jobs as a result of restructuring, some had left previous jobs for personal reasons (to have children, or due to dissatisfaction with their job) and then had been unable to find full-time, permanent work, and all wanted more permanent employment. Most workers in this cluster – despite skills, training, or education – were in low paid jobs with few, if any, health benefits. Most – if not all – of these workers did not see how they could change their current employment situation and had low expectations that anything would change in the near future.

Workers in this cluster represented a diverse group in terms of education, occupation and sector, including: retail workers, cleaners, a hospital orderly, computer programmers, web designers, manufacturing assemblers, a call centre worker, a translator, a senior-level temporary worker, and a range of self-employed workers. There were a number of educators: sessional college teachers; supply teachers, a child-care worker; and a self-employed private school teacher. Workers in this cluster reported high employment uncertainty and earnings uncertainty. Few in this group had support – no financial buffers, no partner, parent or other family member to act as a buffer. In fact, several of these workers’ partners or other household members were also in precarious employment.

In terms of demographics, men and women were equally likely to be in this group, although women of colour were more likely to be in this group. The age range was wider in this group, with several older workers, mid-career workers, and a number of younger workers in this group.

Similar to the “on-a-path” group but even more common in this cluster, these workers tended to be in sectors and occupations that had high and rising levels of precarious employment (such as computer programmers and educators). Workers also tended to be in sectors and occupations that were exposed to downward pressure on wages and working conditions as a result of more competitive international markets. For example, several web-designers reported that the sector had become more competitive in recent years, with workers based anywhere in the world competing for contract through internet employment sites. As a result of much lower wages in other countries, they reported that their income had dropped substantially. Several workers were in sectors and occupations where work could be outsourced or sub-contracting to workers in other parts of world. A number of workers, such a translators or college lecturers, were in occupations that were increasingly being filled with contract workers, rather than full-time, permanent employees.

Some key issues separated this group from the other two clusters of workers. First, precarious employment relationships were not a choice for individuals in this cluster. Over two-thirds reported a preference for more permanent employment. Workers in this cluster had generally been in a range of different jobs over several years, all of them
precarious and low paying, with few – if any – options of moving into more stable, permanent employment. As a result, individuals in this cluster generally felt trapped in bad employment arrangements with unstable earnings that were generally too low to cover their bills and basic needs.

Second, while workers in the “sustainable” cluster and even some of those in the “on-a-path” group had some control over their work and schedule and therefore were able to enjoy some of the benefits of “working without commitments”, workers in the “unsustainable” group felt only the negative consequences of precarious employment. These workers had high employment and high income uncertainty, almost no control over their employment situation, and felt trapped in employment relationships which offered them no immediate or future rewards. Workers in this cluster were often on-call, had little advance notice of their work schedule, and had no advance warning of when contracts would be terminated or extended. For example, one on-call worker told us that she always had clean clothes ironed and ready to wear every night before she went to bed, just in case she got called into work on days she thought she had off. Planning was impossible for those in this group, due to both the uncertainty of their work and their low income levels. According to another worker, “It is simply impossible to plan anything. And even when I do, I often have to cancel”.

Third, workers in the “unsustainable” group had no buffers and very limited sources of support (a point we will return to below). Individuals in this group rarely had any support structures or networks at work, and had limited sources of family, household or individual support. In many cases, “unsustainable” precarious workers were in households were another family member was also in a precarious employment relationship. Further, several individuals in this cluster had dependents; elderly parents they were helping to care for, or children (sometimes teenage or older), and had to provide financial support or perform care-giving activities to these family members. The lack of support or administrative assistance at work meant that workers were often responsible for the tasks that an HR or accounting department would normally do, and consistently were forced to spend their time and energy tracking down their unpaid wages and arranging their own training to try to improve their chances for future employment. The comments from one worker summed up the experiences of many workers in this cluster:

… most of the time I was there, that [getting paid] was a constant source of stress. Am I getting paid on this date, or on that date, and they’re not telling me. And sometimes the contracts didn’t match up with the pay period. They’d say “you will receive eight cheques spread over this time period and so you would be expecting the first cheque when they said and it wouldn’t come and you go to ask, and they say, oh well, your contract doesn’t match the accounting schedule. (2568).

Fourth, while “sustainable” precarious workers often reported during the interviews having good or excellent health, and “on-a-path” workers were conscious that they were – as one worker put it, “putting off their health and well-being” – workers in this “unsustainable” group almost consistently reported to poor and deteriorating health. Most
individuals told us how the constantly high stress levels surrounding uncertain work and income resulted in physical and mental health problems. Several workers reported that they were taking depression medication, most reported to having stress-related health problems (such as sleeping problems, headaches, stomach problems), and many told us that they had noticed significant changes in their weight (often weight gain) and their inability to exercise or do anything to take better care of themselves. A number of workers told us that they could not afford to take sick-days off, could not afford medicine (and were not entitled to health benefits) their doctor had prescribed, and worked during times or in a manner that was compromising their health. For example, a temporary worker with carpel tunnel syndrome did not wear her wrist brace to work for fear she would not get promoted to a full-time, permanent job, and another worker returned to work too quickly after surgery because she feared she would lose her job.

Fifth and finally, workers in the “unsustainable” group tended to be socially isolated, vulnerable to poor treatment at work (including non-payment for work completed), and unprotected by regulatory protection. Limited public, workplace and social sources of support contributed to this vulnerability. For example, several workers spoke about harassment and discrimination (mostly gender and race-based) they faced at work, and their impression that they were not protected from discriminatory behaviour in the labour market. While many “on-a-path” workers had access to some professional networks or had built-up some work or social sources of support, “unsustainable” workers generally did not have anyone to turn to if they needed advice, support, or assistance at work. They reported that they did not have recourse to bad treatment in their work, or recourse for unpaid wages. According to one worker, “they [the employer] can do whatever they want.”

In general, workers in this cluster felt socially isolated and unprotected by labour legislation, H & S legislation and employment-linked public supports. For example, workers in this cluster rarely had any health benefits (including paid sick leave), and were not able to access EI as they did not work enough weeks to qualify or could not afford to be unemployed long enough to collect benefits. Several workers were aware of H & S legislation, but had received limited training at work, or felt that they did not have the ability to exercise their rights. This issue is highlighted by the experiences of one contract worker (a technician installing cable for company that had jobs outsourced to them from a large phone company):

I needed ladder hooks to hook onto cables on the poles, they didn’t have the hooks for the ladders. And they were supposed to have a safety harness for climbing up the poles and they didn’t provide that either. There was a lot of safety equipment they didn’t really provide, but we had to do the work. They would just say, just go out there and do the job. … I was doing a house. . . I had my ladder up against a cable strand on the poles and one of the cables broke and almost fell. So that was very scary .... … It would have been a 30-foot fall. #5208

However, interview findings were not consistent in terms of the result of limited protection at work: the worker quoted above quit his job a few days after this incident; a
few workers said that their job was not good enough to risk dangerous work, while other workers told us that they would do anything to keep their temporary job or contract position. A worrying trend for us is that discrimination seems to becoming more invisible, and the gaps in protection wider. Of additional concern for us was the fact that workers in this category – “unsustainable”, precarious – made up 47% of those we interviewed, and several in the “on-a-path” group appeared more likely to slip into this category of precarious workers, rather than move up into the “sustainable” group.

To sum, this section discussed one of our interview findings, and one of the study’s overall research findings: there is a continuum of experiences of precarious employment and employment strain. As is now well documented, labour market changes over the last several decades have resulted in the growth of fixed-term contract and temporary employment in all sectors, occupations and skill levels. However, precarious workers are not a homogenous group, or not homogenous groups according to their employment contract. Rather than exploring the experiences of workers based on employment contract, we explored the components of the employment relationship and aimed to understand the clusters of experiences and health impacts within these clusters. In short, our data suggests that the health impacts of precarious employment are better understood by viewing precarious employment as different clusters of experiences based on the interaction of components of employment strain in workers’ lives. Interview data deepened our analysis and understanding of this interaction.

b) Limits to precariousness before employment relationships become unsustainable and toxic to workers’ health

As reported above, only a small minority of workers (20%) in non-permanent employment relationships appeared able to work in these employment relationships without their health or well-being suffering. Key to their ability to work in this manner was high levels of support (household, family, and in some cases, workplace support), and the ability to establish quite stable, ongoing employment relationships – despite the non-permanence of their employment. These two factors shaped their experiences with precarious employment, and buffered the negative consequences of non-permanent work. Thus, these individuals were able to experience the benefits of “working without commitments”. In contrast, workers in the “unsustainable” group, and many in the “on-a-path” group had few buffers from the negative consequences of uncertain employment. While some “on-a-path” precarious workers seemed able to sustain contract, temporary or self-employment in the short or medium-term, many already were feeling the health impacts of uncertain work, and all in the group acknowledged that there would be long term consequences to precarious employment.

In comparison, those in “unsustainable” precarious employment (47% of those interviewed) were feeling the negative health and social consequences of “working without commitments”. These employment arrangements had already become toxic to most “unsustainable” workers’ health. Further, many workers in the “on-a-path” group had limited buffers to protect them from slipping into the “unsustainable” group. Many workers in this group reported they would not be able to cope if one employment contract
fell through or was terminated early, or if a medical problem arose, or if any of their support structures changed. Thus, we contend that there are limits to precariousness before such employment relationships become unsustainable and toxic to workers’ health. Those in “unsustainable” precarious employment are in toxic employment, while those in “on-a-path” precarious employment risk their employment arrangements soon becoming toxic to their health. This section will draw on our interview findings to discuss these issues in more detail.

All workers in the “unsustainable” group were stuck in unstable, unsustainable and “bad” employment relationships (low pay, no real access to workplace support or regulatory protection). Many of these relationships were toxic to workers’ health and well-being. Further, many workers in the “on-a-path” group appeared already to be exposed to “toxic” employment relationships. For example, workers in both the “unsustainable” and “on-a-path” groups reported frequent stress and tension at work, and experienced a range of health problems linked to the employment situation. The “unsustainable” group were more likely to report deteriorating health, while those in the “on-a-path” group reported higher levels of stress and tension, but thought their bodies could deal with this stress for a short period of time. Chart One reports survey data on health indicators for the three groups of workers. Given the small sample only a few of the differences in the Chart were statistically significant even at the 10% level, however the findings do suggest there may be differences between the clusters. Over two-thirds of those interviewed were classified as exposed to high employment strain. The prevalence was marginally higher for the “unsustainable” and “on-a-path” groups. The “sustainable” group appear to experience less frequent tension and stress at work and less frequent pain.

Chart One: Interview Clusters: Percentage Reporting Health Effects

One cause of the rising “toxicity” in precarious employment is that businesses and employers appear to be downloading all the stress and uncertainties of their business onto precarious workers. This is a shift from business practices in the past. One of the key advantages of flexible employment arrangements for employers is that workers can be hired on a contract basis when work is available, and their contracts can be renewed or terminated based on the company’s needs. Although this is certainly not new – temporary
or contract workers have always been a feature of most workplaces – the ratio of permanent, full-time staff to contract and temporary workers in most sectors has changed over the last few decades. Further, outsourcing and sub-contracting nationally and internationally have accelerated. Many workers we interviewed noted that the number of temporary, versus permanent staff had changed over the last five to ten years. Several individuals stated that the company or client they received work from did not have to absorb the consequences of taking economic risks in the market; if business ventures did not succeed, the contract with temporary workers would simply not be renewed without the costs of severance pay. When workers are treated like they are expendable, they absorb more of the stress and uncertainty of a business’ success or failure.

We found that there are limits to what workers can cope with – especially in the context of limited support structures – before their health and well-being is compromised. In general, workers in the “sustainable” group had support that buffered them from the stress and uncertainty of precariousness. In contrast, workers in the “unsustainable” and “on-a-path” groups frequently told us that they felt unable to cope with the constant worries and uncertainties surrounding their employment. They told us that they constantly worry about money, about finding future employment, and about a range of social and personal issues (such as housing, transport, child-care and sustaining friendships and romantic relationships). Precarious workers, not business, suffer the consequences of volatile markets. For workers, absorbing the insecurities of their client or employers’ business along with their own employment and income insecurities was simply too much: their health and well-being was continuously compromised.

Evidence of the health consequences of toxic work are found amongst workers in the “unsustainable” group. During the interviews, these individuals frequently indicated that the stress and worry associated with precarious employment was having an impact on their mental and physical health. Several workers in the “unsustainable” group reported struggling with depression and high levels of anxiety. One woman reported that she took anti-depressants during the periods when she did not have employment because she had trouble handling her own and other people’s expectations that she should be working. Another worker, a contract teacher, who ironically teaches “wellness” classes at a college, stated that she feels “too exhausted to maintain my friends, and I don’t have the finances to be able to go out with them … but then you don’t have many friends to fall back on.” Although she had never suffered with depression issues prior to taking the contract job, she feels that the lack of certainty and constant stress is now taking a toll on her mental health. According to her, having a contract teaching job (negotiated and renewed each term) that pays for hours taught excluding any preparation time rather than being employed in a permanent, full-time position at the college makes her feel “less than a marginal citizen”, and has worn her down emotionally. Increased stress in her employment meant that she had recently gone back to taking anti-depressants (5093, 10 May 2006).

Other workers noted that they often feel “too tired or too depressed” to do anything social, or that long work hours and regular unpaid hours looking for employment impacts health.
You try to pretend that you’re not sick … but I’m always tired and I never want to do anything. I’ve gained 40 pounds since starting temp work [six years ago] cause I don’t have time or money for the gym … I work through my lunch-breaks because I’m paid for hours worked and too often just get some fast-food for lunch. … And the worst part is that you don’t have the time or finances to maintain yourself, just even to go to a doctor. Sooner or later you’ll pay the price, and the price you pay is your health. … Really, you are gambling with your life (5542, 3 May 2006).

However, while some “on-a-path” workers reported to being in good health, many in this cluster indicated that their employment arrangements were causing health problems, and seemed to be heading towards toxicity. Common stress-related health issues in these two clusters included headaches, stomach problems, sleeping disorders, high blood pressure, and various muscle pains (i.e. back, neck). Several workers reported anxiety issues and depression, and linked these health issues to their employment situation. Poor health amongst the “on-a-path” group seemed to be linked to employment related stress, to limited health coverage, and to workers constantly pushing themselves in order to find and keep employment.

Toxic health relationships were often linked to limited health coverage for many workers. One mid-career temporary worker in the “unsustainable” group told us that her employment issues “affected my health because for example, I am taking medication for blood pressure and I don’t have benefits. I don’t have a permanent full-time job because if I had a permanent full-time job I have benefits, right? Dental, medical and if, like this uncertainty, I cannot buy the medicine or the medications that I need. That affects my health.” (5563, June 26, 2006).

On the survey, another worker noted precarious workers are rarely paid if they take time off when they are sick, which means that people come to work when they are sick, or they are in the company of others who are sick at work. To quote one worker at length:

I am temporary full-time so although I am entitled to sick days, they are unpaid. This makes it difficult when I am sick because I stress out thinking about the money I am losing and the consequences of this. Then when I go back to work I am entitled to make up my sick days (which I always try to do as I am constantly concerned about money issues). This is a cycle since I then go back to work and too soon get sick again. Many issues tend to supersede health concerns in our population to keep up with the price of living, especially in urban areas (Survey 228).

Several others told us that they do not take holidays, frequently work through their lunch breaks, and worked (or do unpaid training activities) in the evening and on the weekends. Many workers told us that they could not risk planning time off. A temporary worker placed in a large oil company doing inventory analysis for the last four years in one-year renewable contracts expressed the type of worry and stress associated with employment uncertainty amongst “unsustainable” precarious workers. He noted that, despite the renewal aspect of his contract, he is always worried and tired and spends a lot of mental
energy and time looking for employment. He says that he “looks for work and thinks about looking for work all the time.” Although he feels that his job pays an adequate salary, both his relationship and his physical and mental health have suffered as a result of not being able to plan and not feeling secure enough about his future income to be able to spend money on himself: “I have been in survival mode for nine years. I can’t plan for the future and I don’t want to spend any unnecessary money… I don’t get paid sick leave and can’t afford to go to the dentist … if you plan, if you spend money, you know you are taking a risk” (5542, 3 May 2006). Like several other workers, he has gained weight in recent years and complained about regular headaches.

In contrast, workers in the “sustainable” group reported fewer health problems and frequently reported low stress levels. In fact, workers in this cluster were more likely to report improved health since moving from full-time employment to precarious employment. One contract university lecturer in the “sustainable” group told us that she had the freedom and control over her work to regularly go swimming. Other “sustainable” precarious workers told us that they were able to easily plan social time and other activities (such as exercise), while others told us that working from home meant they ate better and did not have to deal with the stress of commuting to work. Finally, most workers in the “sustainable” group had health coverage for themselves and their children (if they had children) from their partners’ health benefits. The minority of workers in precarious employment for whom the relationship is sustainable are able to enjoy the freedoms and benefits of flexibility without experiencing the negative impact of precariousness. Thus, while “sustainable” workers are in unstable, non-permanent employment, support systems and more stable employment relationships mean that they are buffered from the negative health consequences of precarious employment relationships. In short, only those in the “sustainable” group are protected from employment that is toxic to workers’ health.

c) Employment support critical; but uncommon & eroding

Other researchers have pointed to the role of social support, at work and outside work, in reducing employment stress and improving health (see for example, House 1981; Johnson and Johansson 1991). A recent study of the prevalence of stress among Canadian workers supports the association between high levels of employment stress, low support and negative health outcomes, finding that “low co-workers support was associated with a higher prevalence of depression amongst both men and women”, while “low supervisor support was significantly associated with a high rate of depression for women” (Shields 2006:19).

Our study explored a range of collective and individual support systems, including support at work, in communities and in households. We found that support – workplace, household and family support – helped to buffer the negative consequences of non-permanent employment. A key aspect of precarious employment relationships that allow non-permanent employment to become sustainable for some workers was support; strong and high levels of workplace, family and/or household support. Survey data supported interview findings. Interviewees’ survey responses showed a steady increase in levels of
support between our three clusters. On a scale of 0-100, with 100 represent high support, those in the “unsustainable” group averaged 37.5 on the index, those in the “on-a-path” group average 44.7 and those in the “sustainable” group average 48.4 (p=.088).

Thus, those in “sustainable” precarious employment relationships were able to enjoy the benefits of “working without commitments.” Further, the interviews point to a particularly strong observation; the most vulnerable precarious workers, those in “unsustainable” employment arrangements, were in the greatest need of support, yet had the most difficult time accessing support. Finally, we found the “on-a-path” workers generally had more access to support than “unsustainable” workers did; however, this support appeared to be unsustainable in the medium or longer-term. This latter observation points to a worrying trend: those “on-a-path” precarious workers run the risk of slipping into “unsustainable” precarious employment if support structures erode before they are able to move into more stable, sustainable employment relationships.

In terms of the health risks and social consequences of precarious employment, three observations about support emerged from the interviews.

- The workers in the most precarious positions have access to the least household, community and workplace support.

- Precarious employment tends to be more isolating and leads to socially disruptive changes in workers’ lives. Thus, workers in precarious employment, especially those in the “unsustainable” category are more likely to feel isolated, both socially and in their employment.

- Most of the forms of support precarious workers rely on are themselves precarious and in many cases eroding.

These are discussed below, with reference to age and gender, and support structures for workers in different employment relationships and at different stages of their careers.

**Being Precarious in a Precarious Household**

Workers in the “unsustainable” group generally reported living in households that could be viewed as precarious, with a range of personal and household stresses including low household income, lack of benefits, and living with someone also in precarious employment. This precariousness took different forms for workers in different age brackets. Younger workers often lived with their parents and contributed financially to their household. One young call centre worker who had multiple jobs was supporting his mother and two younger brothers who were still in school. They lived in low-income housing. His mother was paid a small amount to look after his grandmother by other family members. However, when these family members decided that they could not keep up the payments, he faced a crisis how to pay all the bills along with a large student loan.

Mid-aged workers tended to live with another adult, often someone who was also in precarious employment. A mid-aged temporary agency worker told us that the gaps
between her placements were hard on her household. “It’s really hard you know, but at present because my husband has a continuous job, we are still surviving” (5563, 28 June 2006). When we asked about her husband’s employment, he too was working through temporary agencies, but had managed to land an indefinite contract that had lasted over a year. In contrast, older workers were more likely to live alone, or to share their living space with another adult who was neither a partner nor a family member. For example, one woman was renting the second room in her apartment to a university student in order to pay the rent. An older woman who worked both as a counsellor and a cleaner said she had a lovely apartment that was her sanctuary, but when asked about how she managed to keep it, she said it was partly through rent control, and partly through the charity of her church. Another worker told us that: “I’ve been trying to find a part-time permanent position since the year of my arrival in Canada in 1997 without success. I am under permanent stress because neither my wife nor me have a permanent position” (Survey 542). Other workers in this “unsustainable” cluster told us that they were able to get “crisis” support from family members, such as loans or food, but that this assistance was often difficult to ask for, and was only a short-term solution to their problems.

In contrast, those in the “on-a-path” group, and especially those in the “sustainable” group were more likely to have stronger sources of emotional and financial support. They were less likely to provide the main income for the household. “On-a-path” workers were more likely to be younger, and frequently reported having strong family support structures. Younger workers living at home with their parents (we interviewed several in their mid-30s) were often grateful for the support, but said it came with continual pressure to find “any” job rather than employment they wanted or that they had been trained for. Many said that they would not be able to move out until they had paid back a student loan. One of the workers in this cluster replied to our question regarding her financial role in the household in this way: “They are okay if there is a lull, not preferable, for the most part I am paying student debts. I contribute a certain amount a month for living expenses, but if worst comes to worst I’m okay, it wouldn’t affect my household in an immediate way if it were a month or two” (5700, 2 May 2006).

More secure mid-aged workers were more likely to have partners who had full-time jobs with benefits packages, and several had received inheritances that allowed them to put a down-payment on a house. Some of the sense of security came, however, from relatively fragile sources. A mid-age contract worker told us that he was able to work in the way he wanted because his wife was a child-care worker – an occupation that is notoriously poorly paid.

Given ongoing gendered bias and related responsibilities surrounding social reproduction, it was no surprise that women mentioned a number of additional day-to-day stressors and the challenges they faced getting support. For instance, several women – especially those in the “unsustainable” group talked about their difficulties finding affordable childcare and the challenges they faced maintaining their households while dealing with the stress associated with precarious employment. One casual day care worker in the “unsustainable” group felt trapped in precarious employment as she was unable to find a permanent job that would pay enough to afford child-care for her three children.
Although her casual job was unsustainable, she was able to bring her young children with her to work and therefore not have to worry about childcare. Several other women spoke about the limited forms of social support they had as precarious workers, while also having to deal with additional family responsibilities, such as caring for elderly parents. According to several women, employment uncertainty and income insecurity meant that they worried all the time and had few options for improving their support systems.

**Being Precarious Without Employment Support**

Sources of employment support that extend beyond the workplace can be crucial for workers in precarious employment relationships. Among our interviewees, those who had “sustainable” precarious work had stronger social/employment networks – those who were in “unsustainable” situations did not. Those who were the most successful tended to be in occupations or job types, and/or have adequate free time, to take advantage of work support-structures outside the traditional workplace. For instance, one contract university lecturer had built up a network of colleagues who share similar teaching and research interests. For the most part, these colleagues were spread across different locations and rarely have face-to-face contact; however, these individuals support and engage with each other’s work. Another contract researcher had a similar set of support networks beyond the traditional workplace. This self-employed worker had taken early retirement and supplemented his pension with well-paid contract research work. Much of his research focuses on the history of different sports in Canada. In order to link into a work community interested in similar issues, and as part of his ongoing sports history hobby, he has become a member of a sport association made up of other researchers and individuals interested in the same sport. A self-employed geologist who worked in a very specialized area told us that his best friends were colleagues that he met on isolated mine sites all over the world and that they would bail him out if he needed it. Two multi-level marketers demonstrated how they used all types of interactions as a sales opportunity by asking the interviewer if she was interested in purchasing products through them. These associations and “e-colleagues” are an example of healthier employment support structures that Pink (2001) presents as the norm for non-permanent workers, but we found them to be in the minority.

The “on-a-path” workers tended to have more sources of employment support and were more likely to build up e-networks than workers in the “unsustainable” group. “On-a-path” workers tended to have both traditional support structures (unions and employees organisations) and alternative employment supports. While few workers in the “unsustainable” group belonged to unions, several workers (i.e. contract teachers, workers in the health sector, temporary university administrator) in the “on-a-path” group were union members and felt their union was there to help or support them if they had problems at work. However, one on-call hospital worker illustrated the limitations in the support the union provided to precarious employees in his workplace – he had been a casual worker for seven years, but still did not have enough seniority to apply for a permanent position. The unionised retail worker quoted earlier who had developed a hernia had no confidence that his union would help him with getting paid leave or workers compensation.
In general, workers in the “sustainable” and “on-a-path” groups seemed more likely to have built-up work support structures outside the traditional workplace. These are generally loose networks of people working in similar or the same occupations, and working in similar employment arrangements. In most cases, these new types of support require individual effort on the part of those involved, as they are not part of regular employment activities and generally do not have an institutional base. For example, a self-employed counsellor had fairly regular contact (mostly e-mail, but some face-to-face) with others in the same line of work. In addition, one company that pays her as an “on-call contract worker” provides monthly meetings for all counsellors working as contract workers for their company. This support facilitated her work, and helped her to establish a sense of community in her work, and some stability in her work contracts. Indeed, it seemed that this support contributed to the sustainability of her precarious employment relationships.

Several other web-designers and those in computer-related occupations reported to having established networks of friends/colleagues in the same area of work who provide support to each other. This support was not without complications; one self-employed worker in the editing/web-design field noted that many of her friends were in the same field and that they would share ideas, job possibilities and general information about the field with each other. However, she also noted that because the field is so competitive in Toronto, it often meant that your support network – your friends and on-line colleagues – were also the same people you were competing with for contracts; thus making real support and solidarity difficult.

More competitive labour markets and labour market restructuring does appear to be contributing to the erosion of workplace support, even for workers in more permanent employment. For instances, a permanent, on-call relief worker for a social service agency provided written comments on his survey about how support and solidarity in his employment situation had deteriorated over the last decade or so. According to this worker (who was in his 50s):

I remember the “good old days” when frontline social service providers had solidarity at work with their employers and clients – now it’s a nightmare – 5 or 6 relief workers fight for shifts – we have not had a raise in hourly wage in over 10 years and are often reminded that there is no money in the budget and that our programs could be cut at anytime. Management often brings on “volunteers” to do our work and we have to supervise “free workers” doing our own jobs! (Survey 661)

A contract writer and musician who recognized that he needed to travel to keep on top of options, said that a company closure and his loss of a permanent job has cost him some professional contacts and hurts his ability to maintain his networks. “Some professional colleagues make it apparent that you’re not as important”. After a couple of difficult encounters, he now tries to avoid situations where he’s in contact with some people: “I’ve always tried not to be that way, to judge people by their finest achievements.” (5317, 30 June 2006). But it was clear that this was not always how he was treated.
Those in our “unsustainable” group had very little workplace support. One temporary worker said that she would go to other employees for support when she was in a new placement. “But sometimes there are workers there that are mean… They don’t support you” (5563, June 28, 2006). A short-term temporary worker, who can be laid off with very little notice told us that: “We have no union, and I’m not happy with that. I feel no security. One day, I asked my colleague why we have no union, and she said because nobody wants to fight with the boss and take the risk of being laid-off” (Survey 094). Pink (2001) and other writers propose that most non-permanent employees have the freedom, skills and opportunities to take advantage of employment support networks that extend beyond the traditional workplace. Our evidence suggests that this assertion applies only to a small, select group of workers: most precarious workers we interviewed – especially those in “unsustainable” precarious employment – had limited support and tended to feel very isolated. Indeed, while workers in the “sustainable” group had the most support, even they reported feeling isolated or a declining sense of support from management and co-workers in their employment. In contrast to the benefits of restructuring Pink (2001) presents, our interviews and survey data suggest that restructuring – outsourcing, sub-contracting, and the growing number of non-permanent workers – is eroding workplace support and solidarity. Precarious employment is making support more important while simultaneously making it more difficult to get.

**Having Support Is Crucial, But It is Eroding**

Our interviewees and the survey data make it clear that support is central to the health of precarious workers, and to the sustainability of precarious employment. A precarious worker in the “on-a-path” category highlighted its importance: “I could do this for a few more years, but without a support system, without structured support and training from a company … I couldn’t continue longer than that.” (5700, 02 May 2006). The interviews allow us to identify the kind of supports that makes a difference, and to note how supports are being eroded by restructuring.

The support systems workers told us about often focused around the permanence of a partner’s earnings. The growth of precarious employment, however, means that core of secure employment in the labour market is getting smaller and this kind of security will be available for fewer precarious workers. In many sectors, benefits and pensions are under pressure and in some cases savings are had by cutting into provisions for family coverage. The packages workers are offered when companies restructure are often barely sufficient to support a short transition period, let alone provide a basic on-going income. Canadian households are not saving as much as previously, individuals are carrying more debt, and costs for services are increasing as a result of privatisation and cuts in public spending. One overall result of these changes is that the pool of personal finances available to support precarious workers is diminishing.

Workplace supports that would assist with training, networking, as well as benefit coverage, leaves and pensions for contract and temporary workers have never been established in most places. Workers told us that their support systems relied on public programs. Several told us that they relied on rent control to keep their housing costs
manageable. The absence of affordable child-care is an issue that takes many women into precarious employment, and the Canadian government has recently backed away from supporting a quality program that would keep expenses down. The lack of public programs for drugs, dental and eye care and the increasing number of medical procedures not publicly covered make it difficult for those we interviewed to access these types of care. Employment Insurance, the one public program that could directly assist with the income gaps associated with precariousness, has been restructured to in effect transfer the costs of unemployment to precarious workers – none of the workers we interviewed were eligible for the program and they were bearing the full costs of “labour market flexibility”.

There is evidence from the interviews that those who need the most support are often those who are the least able to access it, and they are by far the largest group of precarious workers. Among our interview clusters, those in “unsustainable” precarious employment had the lowest levels of household and economic support and the worst health outcomes. Interviewees’ stories illustrate how precarious employment isolates them at work and socially. The support many of these workers depended on was itself precarious or eroding. The examination of support suggests that our increasingly precarious labour market is not sustainable, and is contributing to individual stress and negative health outcomes.

V. Research Contribution to Occupational Health and Safety

Consistent with emerging research on this topic, our data supports the claim that traditional workplace health risks such as the physical or organizational context of the workplace may not be the primary locations of health risks associated with precarious employment. While physical and occupational risks are still present and threaten the health and safety of many workers – including precarious workers – our research demonstrates that stress related to insecure and uncertain employment relationships is a central and growing source of poorer health.

In short, this project contributes to research and policy developments surrounding Occupational Health and Safety in three important ways. First, the growth of precarious employment and related increase in stress-related health problems raises questions about the limitations of labour legislation, including and especially, occupational health and safety legislation (OHS). Protection provided to workers through OHS legislation, alongside education, compensation and treatment programs offered through the WSIB certainly remains critical to workers’ health, safety and wellness. However, protection, compensation, education, and treatment program remain geared towards workers in permanent employment relationships, and towards protecting workers from dangerous work. As a result, a growing number of workers in non-permanent employment relationship may not be adequately protected, and their health problems not properly understood and addressed. Mental and physical health problems related to stress are emerging as a key health issue for workers in precarious employment relationships. These health issues raise questions about the appropriateness and adequacy of existing
OHS legislation, and the effectiveness of protection, compensation, education and treatment programs provided by the WSIB. We suggest that reforms to OHS legislation and WSIB coverage need to take place in order to better address the health issues that emerge from stress linked to precariousness.

Linked to the first recommendation, our study supports calls for better regulation of temporary employment, possibly including the development and implementation of new regulations governing notice of work schedules and entitlements to more work. In general, protection surrounding future employment (i.e. protection from unfair dismissal, common-law reasonable notice, and severance pay) is extended to only those employees in permanent employment relationships. For example, the Ontario Employment Standards Act specifically excludes those in fixed-term contracts from severance pay provisions, and recent cases before the Courts (see, for example, Flynn v. Shorcan Brokers Ltd., 2004) seem to be reversing the common-law presumption that successive fixed-term contracts should be interpreted as contracts of an indefinite duration. Thus, workers in temporary or fixed-term contracts, have no recourse when their contracts end, even in cases where they expected employment to continue. Therefore, we suggest that existing legislation should be reformed in order to provide short-term, temporary, or fixed-term contract workers with regard to reasonable notice and possibly even severance pay. This needs to be viewed as a strategy intended to reduce stress and improve health rather than simply a way of some people getting more employment.

Third, while regulatory changes need to take place, reforms to labour laws and OHS are not enough. Our research findings suggest that structural changes in the labour market, specifically the steady growth of non-permanent employment, are now public health concerns. We argue for a new focus on employment stress. Policy-makers need to address the growth of, and health problems associated with unstable, insecure employment relationships, and make this issue a clear priority on the public health agenda. Given that fewer workers are able to access health benefits through employee benefit packages – since their employment relationships are not permanent and therefore rarely come with sick pay and other health benefits - we propose that basic benefits (sick pay, dental, pension) need to be provided on a sectoral and/or national basis.

In general, we suggest that Health Canada, HRSD, and the WSIB focus more directly on stress related to precarious employment relationships, and develop new tools and instruments to monitor work related health risks associated with rising precariousness in the Canadian labour market.

VI. Recommendations for further work

More research is needed on the health implications of precarious employment relationships in Canada. Three clusters of research are suggested for future work. First, policy-oriented research is needed. Such work would focus on the effectiveness of existing health policies, legislation (specifically OHS), insurance and treatment programs (such as WSIB coverage and programs), and workplace occupational health and safety systems with regard to precarious employment relationships. Such research could probe
the gaps and weaknesses in existing legislation and systems, explore the challenges rising precipitous poses for the existing regulatory framework and OHS systems, and begin to develop possible reforms or new policy directions

Second, further research is needed on the gender-based health risks of precarious employment on individual workers and their families. Research could explore the following questions: Do women experience stress and strain associated with precarious employment relationships in a different manner than their male counterparts? Are women concentrated in jobs and occupations where job and employment strain linked to precariousness is higher? Are there gender-biases in existing health and safety policies, systems, and legislation? If so, what policy reforms could correct for these biases?

Third, injured workers are a group that is particularly vulnerable to precarious employment and the effects of Employment Strain. Some are accommodated in their workplace by the creation of part-time or short-term positions, while others find that in the long-run they are only able to handle part-time or short-term work and look for it through temporary agencies. This study suggests that the WSIB should monitor injured workers who have successful claims for the health effects of Employment Strain, and incorporate appropriate education and treatment into its follow-up programs.

Finally, given the dearth of research on the long-term health impacts of precariousness on workers and on different groups of workers, a longitudinal study of health and precarious employment relationships would be a useful research project.

Members of this research team have initiated a new project to address some of the gender questions outlined above, and have secured funding from the Lupina Foundation for this work. Although we began to explore the gendered dimensions of precariousness and health over the last two years, a more detailed exploration of these issues was beyond the scope of the WSIB-funded “Employment Strain” project. This study will use the Employment Strain Model to analyze the gendered dimensions of health and employment strain. New interviews with precarious workers will take place, and follow-up interviews with some precarious workers interviewed in 2006 as part of this project (the WSIB-funded project), will be conducted. Although these follow-up interviews will not be adequate to constitute a longitudinal study of precariousness, they will help us understand the health-risks of precarious workers exposed to High Employment Strain over a more sustained period.

An accessible book and journal articles will be produced from data from the initial study funded by the WSIB, and new research carried out under the Lupina Foundation grant. We hope that publications produced by the project team will help to broaden public and policy discussions about the consequences of contracting out for workers, and particularly for women workers. Attached to this report are two papers, one accepted provisional with the International Journal of Law and Psychiatry, and the other under review at Work, Employment and Society.
Bibliography


Attachments

1) Survey Questions (English, Tamil, Chinese)

2) Postcard delivered to houses

3) Poster

4) Paper accepted by the International Journal of Law and Psychiatry

5) Paper under review Work Employment and Society

6) Paper to be published in Our Times

7) Toronto Star Report on Project