
FROM JOB STRAIN TO EMPLOYMENT STRAIN: HEALTH EFFECTS OF PRECARIOUS EMPLOYMENT

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The growth of precarious employment relationships described in this issue of *Just Labour* raises a range of bargaining and policy issues (Vosko, Zukewich and Cranford 2003; Fudge, this issue). Many of the daily concerns of workers in precarious employment relationships centre on the issues of stress and health. This article reports on our investigation into the relationship between health and the unique organisation of precarious employment. In 2002-2003, we designed and conducted an Employment Strain and Health Survey with over 400 workers in precarious employment relationships in Ontario. The preliminary analysis and findings that we discuss here have implications for contracts, bargaining, workplace health and safety and broader social policy.

Since the 1970s research has shown that the organisation of work

is as important as exposure to dangerous substances and exposure to biomechanical risks in understanding work-related health outcomes in permanent, full-time jobs (Cooper 1998). Our challenge has been to design a research method that captures the unique characteristics and effects of the organisation of precarious employment. Precarious employment is, in our understanding, a cumulative combination of atypical employment contracts, limited social benefits, poor statutory entitlements, job insecurity, short tenure and low wages. We have developed the concept of “employment strain” and indicators of “employment uncertainty” to capture the characteristics of precarious employment, and these are central to the design of the survey and to our analysis.

HEALTH RISKS AND CONTROL OVER WORK ORGANISATION

Much of the research on work organisation and health traces its theoretical roots to the Job Demand-Control model developed by Karasek (1979) and Karasek and Theorell (1990). Job Demand-Control studies have shown that employees' control over how work is done and their workload each affect health directly, and that the interaction between these two elements has a further health impact. Jobs characterised by low levels of worker control and high expenditures of psychosocial effort appear to expose employees to "job strain". "Job strain" appears to lead to lower job satisfaction, exhaustion and depression, and in the long run to stress-related illness, including cardiovascular disease. Jobs characterised by high levels of control and expenditure of psychosocial effort are considered "active jobs". "Active jobs" include challenges, opportunities, and learning on and off the job which can lead to positive health outcomes.

Control over how work is done is recognised as providing employees with a buffer from the negative health effects of workload-related stress. It provides "the opportunity for individuals to adjust to demands according to their needs and circumstances" (Wall, et al. 1996). Control, however, is likely to be very different for workers in precarious

employment than for those in standard employment relationships.

THE RETURN TO PRECARIOUS EMPLOYMENT RELATIONSHIPS AND LOSS OF CONTROL

In 2002, approximately one-third of workers in Canada were part-time, temporary, working on contract, holding multiple jobs or own-account self-employed. This figure has increased from approximately one-quarter of employed workers in the early 1990s. While the majority of workers in precarious employment are young, female and/or recent immigrants, the new growth in this kind of employment has been, proportionally, among mid-career men and women in temporary jobs and self-employment (see Vosko, Zukewich and Cranford 2003; Cranford and Ladd this issue; Fudge this issue).

Precarious employment relationships are not new in the Canadian labour force. The labour history of much of the first half of the 20th century can be described as the successful struggle to reduce workers' uncertainty and to gain some control over the precarious conditions of their work. Early in the 20th century, many dock workers, construction, agricultural, food processing, forestry, factory and garment workers were hired at plant gates, street corners or hiring halls for a day, a week or a month at a time. The subsequent movements

to establish “living wages” were concerned with raising wages and reducing uncertainties: employment relationships became less casual and were governed by legally enforceable contracts that defined rights to continuing employment, the terms and conditions of work, and in many cases, seniority-based job rights. These were significant victories for the predominantly male workforce that created control over access to, and the terms and conditions of full-time permanent wage work. These victories, however, left workers in other forms of employment unprotected.

The current growth of precarious employment is a predictable outcome of employment strategies and policies of both private sector employers and governments of the past fifteen years, and reflects a loss of control over employment by larger groups of workers. Through the 1990s many institutions cut back on core permanent workers and increased the periphery of flexible workers. Employers and policy makers have used fears about global competitiveness, and tools like the privatisation of services, just-in-time production and flexible human resource management to create a climate where employers have permission to break the implicit agreements associated with standard employment relationships. Employers have casualised their relationship with employees in two ways: either directly by creating temporary and part time jobs, or

through the intermediary of a subcontractor. These casualised contracts significantly limit labour relations protection for the worker and transfer additional responsibilities to the individual worker (Cameron 2001). Together, business and governments have restructured employment so that increasing numbers of workers are “free agents” in a weakly regulated labour market.

CONTROL AND PRECARIOUS EMPLOYMENT RELATIONSHIPS

Many workers in precarious employment face constant uncertainty about their future employment prospects and the terms and conditions of their work. Low pay and lack of benefits can create added uncertainties, including workers’ ability to provide for their basic household needs. Further, workers in precarious employment may need to search for work on a regular basis, manage pay systems based on completed tasks rather than hours expended, balance multiple jobs at multiple work sites, and provide their own equipment and training. These types of uncertain work organisation are associated with three categories of work-related health risks: weak labour market regulation; increased injury and illness risks that are similar to permanent workers; and over-all stress-related health risks.

Weak labour market regulation

Occupational health and safety research identifies three major factors that contribute to injury and illness prevention in “the workplace”: management commitment, worker participation, and regulatory compliance (Walters and Frick 2000). Precarious employment relationships weaken and undermine these factors in a number of ways. Laws regulating the basic relationships between workers and employers, the right to organise and bargain, minimum labour standards, and worker compensation schemes, both assume and are designed to support the standard employment relationship (Cranford and Ladd, this issue; Fudge, this issue). Precarious employment is largely defined by the absence of laws, regulations and practices that support the standard employment relationship. The legal relationships relating to precarious employment are blurred as a result of third party employment agencies, own-account self-employment, temporary and short-term contracts that make labour market regulations less effective. Every manner in which the legislation is blurred or where workers are not covered has a negative impact on prevention in the workplace.

Increases in work-related injury and illness

The focus of most current research on health and precarious employment is on work-related

injury and illness. Researchers have consistently found evidence of increased injury and ill health from outsourcing, labour shedding (restructuring) and casualisation. (Quinlan *et al* 2001). In 1999 Quinlan demonstrated a worsening of health outcomes associated with three broad causal factors: economic and reward systems (competition, long hours, piecework, etc); disorganisation (ambiguity of rules, splintering occupational health and safety management systems, etc); and increased likelihood of regulatory failure (laws do not apply to these employment relationships). He revealed increased risks of injury and illness in very different sectors, and found that the consistent factor was minimal regulatory protection. Workers in precarious employment relationships are poorly protected in hazardous work situations, and their often unregulated hours of work, intense workloads and limited decision making latitude contribute to high rates of workplace injury and illness. The point here, however, is that while these risks are higher for workers in precarious employment, they are workplace specific and qualitatively similar in nature to those of workers in standard employment relationships.

From job strain to employment strain

Our study suggests that workers in precarious employment also face qualitative health risks that are not specific to one workplace. These risks are a product of the insecurity

of employment itself, the uncertainty regarding the terms and conditions of work, and the need to expend additional effort searching for work and balancing multiple jobs at multiple work sites.

Studies that have expanded the notion of workplace control beyond decision authority, use of skills, capacity for collective action and supportive colleagues have been of particular use to us. Brooker and Eakin (2001) have found that social power and its uneven distribution shapes the variance in health outcomes, rather than decision latitude or control at work. Other studies further suggest that social support outside of the workplace can positively buffer “job strain” and its health effects (Johnson 1991). We build on these ideas to argue that the standard employment relationship, and consequently Karasek’s notions of control and workload, assumes a very specific allocation of power and support at work and in society. Some work organisation researchers have looked at precarious employment but have not, we argue, adequately understood precarious employment relationships. Goudswaard and Andries (2002), for instance, suggest that while precarious employment results in less control, it involves fewer demands compared to permanent work. Cooper (2002) has suggested that the rise of a “short-term contract culture” actually gives employees more control and choice over their working lives, perhaps

with a trade-off of longer hours and more intensive employment. These analyses minimise the effect of the legal constraints that limit employers in standard employment relationships from hiring and firing at will. They also permit employees, through collective action, some controls over which job they do (seniority), the right to participate in setting wages and benefits, and sometimes the ability to affect how the work is organised.

Workers in precarious employment relationships lack control over these critical areas of work, relative to employees in standard employment relationships. Precarious employment relationships involve radically different power relationships, since limited (or non-existent) contractual rights apply, and few stable accepted customs and practices exist. Precarious employment relationships create new types of “control” uncertainty over access to future work, level of income and benefits, location of work, work schedules, who one works with, one’s supervisors and even the jobs one must accept. Workers in precarious situations may also face increased workload and effort associated with searching for work, travel time between multiple jobs at multiple sites, and constantly adapting to new work locations, co-workers and supervisors. They are also likely to bear more responsibility for their own training and work related equipment.

To incorporate these elements of the organisation of precarious employment into the “job strain” model of workplace health, we have developed the idea of “employment strain” which includes seven new control and workload variables. They are illustrated in Table 1. We propose that “employment strain” captures a dimension of work organisation that has a health effect that is independent from employees’ experience with any one workplace. We expect that the uncertainty associated with precarious employment increases stress and work-life conflicts, increases overall workloads, and that this may in turn lead to low social support and poor health, regardless of the level of “job strain”. We think that high levels of employment strain can be correlated with high levels of job strain, but this need not be the case in all sectors. Where there is a strong connection between employment strain and job strain, we would expect employment strain to compound the health effects associated with job strain.

While the notion of employment strain is based in the realities of precarious employment, we recognise that workers in so-called permanent jobs also experience these uncertainties. In reality, many jobs that are called “permanent” no longer have all of the characteristics of a standard employment relationship. In the course of the study we have, for instance, met with “permanent”, unionized home

care workers who did not know in advance how many hours, or even whether they will work each week. Auto parts workers have felt insecure about their job futures since the recession and layoffs of the early 1990s. Employees in smaller workplaces, many of which are handling sub-contracted work, have fewer basic employment standards protections. We see the development of the notion of “employment strain” as a tool that will allow us to assess the effects of the erosion of the standard employment relationship and the continuum of precarious employment that is growing in the Canadian labour market.

PRECARIOUS EMPLOYMENT AND HEALTH – THE SURVEY

Over the last year we have designed and conducted a survey to examine “employment strain” with over 400 workers in precarious employment relationships in Ontario. Survey respondents include contract and part-time workers and workers hired through employment agencies in home care, construction, social services, manufacturing and office support. The results reported here are based on a preliminary analysis of 137 surveys. They indicate that stress related health issues are significant for workers in precarious employment relationships and begin to provide a description of the components of employment strain.

Table 1: Employment Strains

Components	Control / Demand	Measured By
1. Employment Uncertainty	Control over access to work	<ul style="list-style-type: none"> • average length of contracts • perceived uncertainty regarding current employers offering more work • presence / absence of a union to enforce workplace rights • perceived influence of day to day work performance and attitude evaluations on future offers of work • favouritism in getting new work.
2. Earnings Uncertainty	Control over future earnings	<ul style="list-style-type: none"> • presence/absence of written pay records • EI/ CPP deductions from earnings • whether employee is paid when sick • whether employee is paid on time • the degree to which employee can plan on future earnings
3. Household Precarious-Ness	Control/ demand providing basic needs	<ul style="list-style-type: none"> • number of dependants in household • individual and household earnings • individual and household benefit coverage
4. Scheduling Uncertainty	Control over work schedule and hours	<ul style="list-style-type: none"> • length of advance notice of work schedule • number of hours to be worked
5. Location Uncertainty	Control over work location	<ul style="list-style-type: none"> • number of work locations • length of advance notice of work location
6. Task Uncertainty	Control over use of skills and job assignment	<ul style="list-style-type: none"> • perceived influence of day to day evaluations of attitude over work tasks assigned • the number of different supervisors and groups of co-employees • frequency of working in an unfamiliar location.
7. Employment Uncertainty Workload	Demand required to manage employment uncertainty	<ul style="list-style-type: none"> • time spent looking for work • time spent travelling between jobs • conflicts from holding more than one job.

Our respondents were a mid-aged group of workers, just over half (55%) were female and over one-quarter (27%) were immigrants who had been in Canada for less than ten years. They were highly educated: 45% had some university education, while only 10% had less than secondary education. Most were in short-term employment: 58% had short-term jobs; 20% had part-time jobs; 17% had full-time jobs that were either temporary or where their weekly hours were not actually assured; and 3% were self employed. One in five (20%) belonged to a union. Just under half (46%) had relied on precarious employment for a year, while 16% had been working in precarious jobs for over five years. On average they had worked for 1.7 employers in the previous month.

Figure 1 compares the self-reported health status of the respondents with the responses of Canadians in the National Population Health Survey 1998. Our

precarious employment respondents reported poorer health than employed Canadians who were asked the same question.

Figures 2, 3 and 4 compare levels of pain, tension and exhaustion between our respondents and workers in standard employment relationships at a large unionized manufacturing plant in Ontario. Both groups were asked the same questions to allow for this comparison. As Figure 2 shows, working with pain appears to be a larger concern for workers in the standard employment relationship than for precariously employed respondents. And, while 20% reported working with severe pain in the previous month, this was less than the 30% of the workers in standard employment relationships who worked with severe pain. We can hypothesise older workers, employed in more standard employment relationships, may work in pain more than younger workers in more precarious

Figure 1: Self Reported Health, Canada, 1998, Age 18 to 64

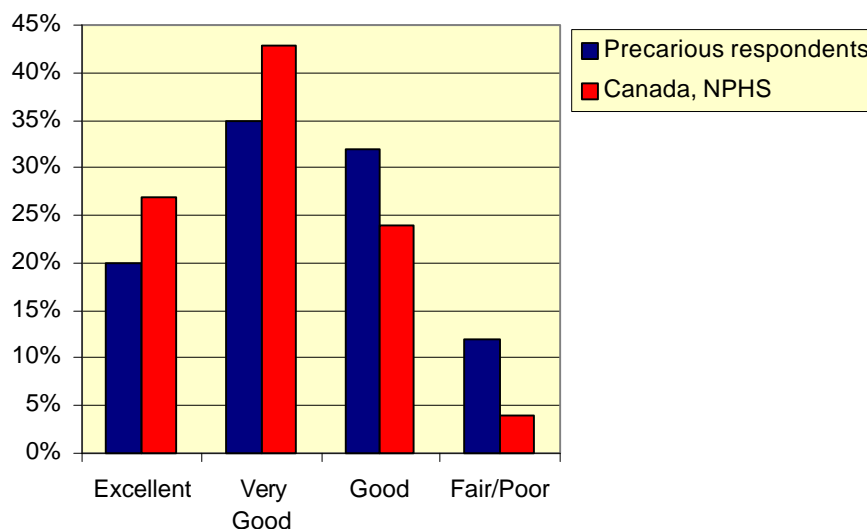


Figure 2: Days Working in Pain Last Month

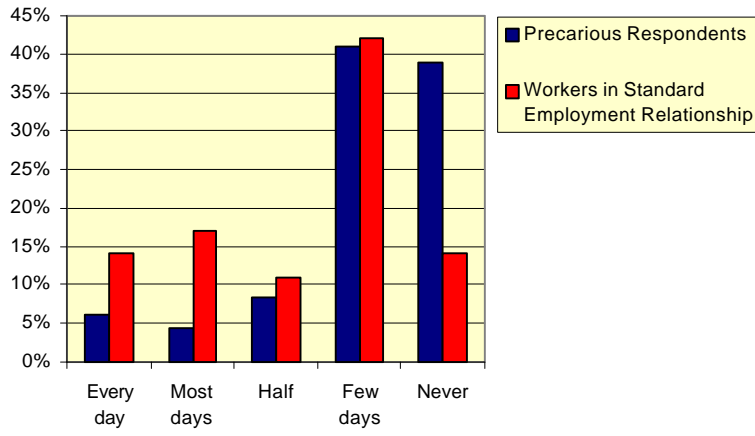


Figure 3: Days Tense at Work Last Month

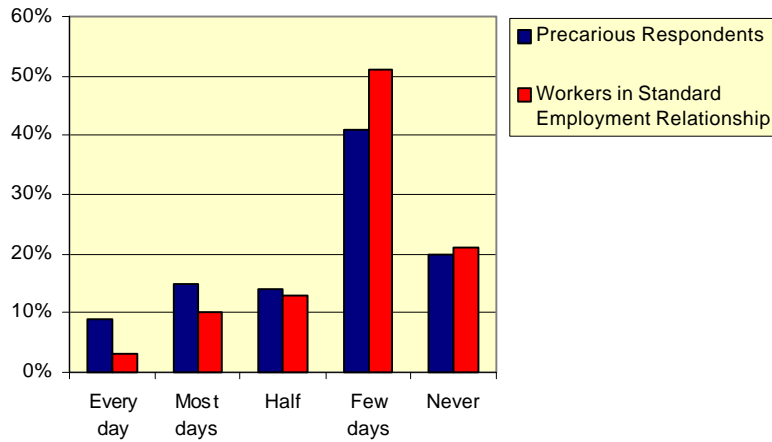
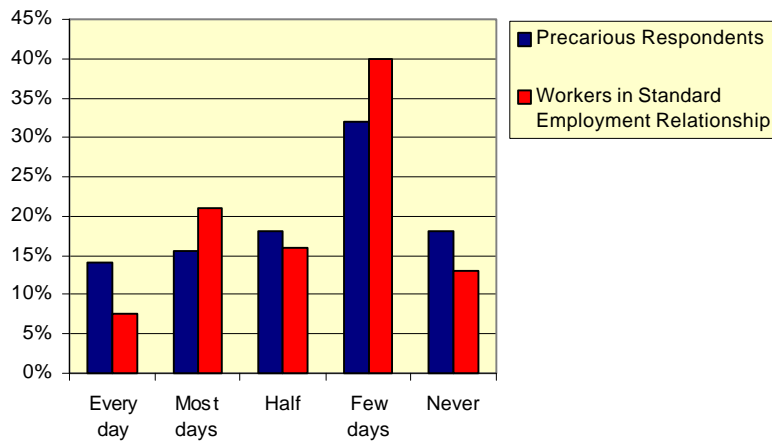


Figure 4: Days Exhausted After Work Last Month



employment.

The health issues that appear to be more severe for workers in precarious employment are stress-related tension and exhaustion. Figure 3 indicates that our respondents were tense at work more often than those in manufacturing jobs. Figure 4 shows that exhaustion was more frequently a concern for more workers in precarious employment than for manufacturing workers.

EMPLOYMENT STRAIN UNCERTAINTIES

Tables 2 to 7 begin to describe the characteristics of employment strain among our respondents. Table 2 shows that their level of uncertainty about future employment was high, even though 20% were unionized. Many didn't have a written contract, a surprising number were working on weekly contracts (9%), and 41% did not know if their current employer would offer them more work. Ongoing formal and informal performance evaluations, favouritism and discrimination all feature significantly in respondents' understanding of whether their employer will offer them more hours, longer contracts or new contracts.

Table 3 and Table 4 depict a group where 72% are earning at a level that is close to poverty in Ontario, particularly for the 29% of respondents who were supporting children. And even that level of

income is not predictable for more than half (58%) of the group. Many are reliant only on their own resources for any "insurance" when they are sick: 64% lose earnings when they are sick and 21% were not covered by Employment Insurance or Canada Pension Plan. Significantly, while 71% lived with another adult, workers in this group are not relying on a partner's secure standard employment relationship at home. They belong to precarious households, where other earners raise the household income only slightly, and where two-thirds have no household drug plan, 78% have no vision plan and 81% have no pension plan (Table 4).

Working in multiple locations with different schedules results in uncertainties (Table 5) that also create stress and disruption in part because of unfamiliarity with the workplace, but also because they create other forms of managing work, like rescheduling childcare and finding the appropriate transportation. Our survey respondents worked either sequentially or in multiple workplaces (2.2 on average). Less than half of precariously employed respondents (48%) knew their schedules a week or more in advance half of the time; 40% didn't get much more than a day's notice half of the time.

Table 6 suggests that task assignments and co-workers changed consistently: on average respondents had 2.2 supervisors

Table 2: Employment Uncertainty

Length of contract	40% no contract 9% < 1 week 40% < 6 months
Bargain collectively	20%
Current employer offer more work?	41% unlikely or don't know
Evaluation of performance affects hours of work	21% a lot
Evaluation of attitude affects hours of work	17% a lot
Favouritism affects hours of work	31% a lot

Table 4: Precarious Households

Income from work	72% < \$25,000
Household income	68% < \$35,000
Benefits	48% no benefits
Pension plan	84% no plan
Household pension plan	81% no plan
Household drug plan	66% no plan
Household vision plan	78% no plan

Table 6: Task Uncertainty

Worked with different co-workers last month	46% at least half the days
Average number of supervisors last month	2.2

Table 3: Earnings Uncertainty

Can plan on same income in 6 months	58% disagree
Lose pay when sick	64%
Receive written record of pay	35% not all workplaces
Paid on time	9% less than half the time
Pay EI/CPP	21% no

Table 5: Scheduling and Location Uncertainty

One or more weeks notice of work schedule	48% half the time or less
One or more days notice of work hours	40% half the time or less
Advance notice of work location	34% half the time or less
Average number of work locations last month	2.2
Work in unfamiliar location last month	19% at least weekly

Table 7: Employment Uncertainty Workload

Days spent looking for work last month	32% at least half the days
Daily unpaid travel to work	38% two or more hours per day
Conflicting demands by multiple employers	14% at least half the time
Conflicting demands, multiple work sites	11% at least half the time
Do extra things to get more work	10% at least half the time

over the previous month, and almost half had worked half of the previous month with different co-workers.

Table 7 illustrates the workload of managing the uncertainty of whether, where and when one was going to work. This workload is specific to precarious employment. One-third of this group had spent at least half their days in the previous month looking for work, over one-third spent significant unpaid time getting to the work they had, and some spent significant time managing conflicting demands by multiple employers or multiple worksites.

CONCLUSIONS

We have developed the concept of “employment strain” to attempt to capture the unique characteristics of precarious employment. Preliminary evidence suggests that workers in precarious employment relationships report poorer overall health than other workers in the National Population Health Survey and higher levels of stress than workers in standard employment relationships. They face high levels of uncertainty regarding access to work, the terms and conditions of that work, and future earnings. They engage in additional effort searching for work and balancing the demands of multiple employers. They have low earnings, few benefits, and reside in low-income households. Future research will explore the links between these

characteristics of precarious employment and health outcomes.

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