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Measuring and Monitoring the Quality of Jobs and the Work Environment in Canada

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Part I: Introduction

The quality of the jobs held by paid workers is clearly an absolutely central determinant of living standards in a market or capitalist society. Certainly this is true of income. The great majority of the working age population derive the great majority of their income from paid work. Changes in the labour market — changes in employment, unemployment, hours worked, and the distribution of earnings — are key drivers of changes in the level and distribution of market income. Accordingly, key labour market trends have been measured and well studied, particularly here in Canada where Statistics Canada has provided comprehensive data, notably through the Labour Force Survey and the Census. Information on compensation is also comprehensively collected from surveys of employers and tax returns, and is a key building block of the national economic accounts. As a result, we know a great deal about the links between employment and compensation by sector, by occupation, by gender, by age group, by union status, and so on. Canadians are particularly fortunate that Statistics Canada has published a number of important analytical studies on key labour market and compensation trends, exploring earnings trends as well as trends in earnings inequality and insecurity in the 1980's and 1990's.[1]

It is important to note that most regularly cited labour market data — employment, unemployment, hours worked — bears upon the labour market experiences of **individuals** rather than the characteristics of **jobs**. To give a salient example, about 1 in 4 jobs in Canada are part-time while fewer than 1 in 5 workers work part-time hours. The difference is explained by multiple job holding. To give another example, the unemployment rate of persons is not necessarily a reliable indicator of the stability or instability of jobs, since a given rate of unemployment can represent different combinations of workers on short-term lay-off, workers permanently displaced from jobs, new entrants to the labour force, and those unemployed for short or long periods of time. The Survey of Labour and Income Dynamics (SLID) now provides comprehensive data on jobs which has only recently

[1]That said, there are still major gaps in our understanding of the labour market experiences and earnings of different groups of the population (such as visible minorities), and reliable data on earnings has only recently been comprehensively linked in an ongoing fashion to other labour market information with the inclusion of earnings in the Labour Force Survey.

supplemented labour market data for individuals, and Statistics Canada has provided data on temporary and permanent lay-offs from jobs.

Most of us would agree that a “good job” is defined in large part by levels of pay and, as noted, the level of pay is the major systematically monitored dimension of job quality. However, from the perspective of workers, other dimensions of the job may be more important. For example, prospects for promotion and learning are likely to be particularly important to younger workers, and lower paid jobs may be taken in preference to higher paid jobs by workers if they provide greater security, more acceptable hours, better working conditions, and so on. International survey evidence suggests that job security, having an interesting job, opportunities for advancement and being allowed to work independently — cited by 59%, 49%, 34%, and 30% of respondents respectively, rank well ahead of high pay (Andrew Clark, *What Makes A Good Job?* Data from the 1989 International Social Survey Program).

Jencks, Perman and Rainwater developed an Index of Job Desirability for the U.S. in 1988, based upon the weights given to different characteristics of jobs by workers. Non monetary characteristics of jobs were, in combination, found to be twice as important as earnings, with access to training, low risk of job loss, and characteristics of the job (non repetitiveness and autonomy) ranking particularly highly and in that order. Other characteristics of jobs examined were hours of work, control of hours, and whether the job was “dirty.” The ranking of desirable job characteristics was found to differ little between men and women or by age. A striking finding of this study was that occupational status is a very limited indicator of job desirability, since variation within occupational groupings was found to be as great as that between groupings. It was also found that use of the index doubled the level of labour market inequality compared to earnings inequality, that men’s jobs were significantly better than those of women’s with respect to non compensation items, and that unionization was associated with higher job desirability (though also with low autonomy, and repetitive jobs). (Jencks, C, Perman, L. and Rainwater, L. *What is a Good Job? A New Measure of Labor Market Success.* American Journal of Sociology, 93 May, 1998.pp. 1322-57.)

Data and, as a result, analysis are much more limited for those dimensions of job quality other than pay which are desired by workers. While most people want to work stable and predictable hours, and prefer a “standard” daytime/weekday work week, detailed information on work schedules and their relationship to worker preferences has become available only in the 1990's. While most of us want to work in jobs which are safe and healthy, information on the incidence of physical hazards at work is surprisingly limited. Perhaps most strikingly, remarkably little is known about the characteristics of jobs in terms of meeting the needs and desires of workers to develop and exercise their skills and capacities, to work at a reasonable pace, to derive interest and satisfaction from their work, and to participate in a non stressful work environment. As will be detailed below, only very preliminary evidence is available regarding the quality of jobs in terms of these basic human and social needs. In short, while we know quite a lot about the **labour market**, we

know rather little about the **work environment**. While it can be suggested that this reflects a lack of sufficient attention to work environment issues, Statistics Canada must be given credit for increased work in this area in recent years.

The purpose of this paper is to provide some data and analysis of the changing quality of jobs in Canada as a very preliminary step towards the development of indices which could be used to supplement GDP and be integrated into wider measures of economic welfare and social well-being, in accordance with the overall goals of the CSLS project. Part II of the paper proposes seven key dimensions of job quality, and notes the availability of indicators for each. The focus is empirical rather than theoretical. This part provides a summary overview of trends in the quality of jobs of both men and women from 1981 to 1993, on the basis of available data. Part III examines the same dimensions in the 1990's paying particular attention to non compensation related trends in job quality and the work environment. Some attention is paid to the relative position of men and women, and union and non union workers. This section draws, in part, on the Survey of Work Arrangements (SWA), unpublished data from the General Social Survey (GSS), and the National Population Health Survey. The focus throughout the paper is upon sources of data which allow for analysis of major trends. It is recongnized that numerous case studies exist of changes in job quality and the work environment: the point is that only aggregate data allow us to draw broad conclusions. The paper also pays only selective attention to analysis of trends by occupation. Part IV makes reference to data sources in Europe. The Summaries at the end of Parts II and II describe major trends. The Conclusions propose increased statistical attention to job quality and work environment issues.

It lies well beyond the scope of this paper to link changes in the quality of jobs and the work environment to underlying causal factors. There is a voluminous literature on the impacts of globalization, increased international competition, slow growth, high unemployment, and of technological and organizational change upon Canadian workers and workplaces. The phenomena of stagnation and decline of real pay, increased inequality of pay, increased insecurity, and increased work intensity and stress have been widely noted and debated by Canadians. The recent report of the *Collective Reflection on the Changing Workplace* drew particular attention to the rise of non standard work arrangements and their implications for workers, while the report of labour representative Alexandra Dagg drew particular attention to the simultaneous development of worker insecurity and work intensification, viewing contingent work and stressful lean production techniques as the closely related consequences of employer strategies to achieve greater competitiveness. More benign interpretations of the forces at work in the modern workplace have been put forward — with some seeing non standard forms of work and reorganization of production as a shift allowing more flexibility for individuals, opening up potential for greater work satisfaction. The paper demonstrates that job quality overall has been deteriorating significantly in the 1980's and 1990's, suggesting that the former view is better founded.

Part II: Dimensions and Indicators of Job Quality, 1981 1993

Table 1 provides some indices of changes in job quality from 1981 through 1993 for women and men on the basis of available data. The data from which the indices are calculated are to be found in the attached Appendices. The indices are constructed so that any increase (decrease) represents an increase (decrease) in job quality. The most cyclically neutral comparison is between 1984 and 1993, but the focus of discussion is on changes over the 1981 to 1993 period.

TABLE 1

Summary Time-Series Indices of Job Quality

		1981		1984		1989		1993	
		Men	Women	Men	Women	Men	Women	Men	Women
A	**(i) Pay** Real Median Weekly Earnings	100	100	95.4	100	93.0	104.9	92.7	103.7
	(ii) Distribution of Pay Not Low Paid	100	100	105.4	104.9	104.5	110.3	104.6	117.0
	Polarization (DIO/DI)	100	100	85.9	94.1	77.7	96.5	80.3	98.7
	Sub Index	100	100	95.6	99.5	91.1	103.4	92.4	107.8
B	**Benefits** Pension Plan Coverage	100	100	100	100	93.8	105.1	93.4	117.7
	Other Benefits	Not available until General Social Survey (GSS) and Survey of Work Arrangements (SWA).							
C	**Satisfaction with Hours of Work** Reported Satisfaction	No time series available.							
	Voluntary Part-time as % Part-time	100	100	86.0	87.2	97.5	94.5	80.0	71.5
	"Standard" Work Week	100	100	96.8	97.1	94.7	98.3	88.5	95.0
	Sub Index	100	100	91.4	92.1	96.1	96.4	84.2	83.2

TABLE 1 (continued)		1981		1984		1989		1993	
		Men	Women	Men	Women	Men	Women	Men	Women
D	**Work Schedules** Shift Schedules, Unsocial Hours, Flextime, Paid Vacation	No data available until GSS and SWA..							
E	**Job Security** Permanent Lay-off Rate	100	100	84.9	76.4	105.8	104.7	90.7	86.0
	Temporary Lay-off Rate	100	100	79.0	75.4	105.3	101.7	80.3	75.4
	Probability of New Job Lasting More than Six Months	100	100	86.9	88.3	87.8	83.1	78.0	74.2
	Permanent (vs. Temporary) Jobs	No series available until 1991.							
	Stress from Threat of Lay-off	No data until 1991 (GSS).							
	Sub Index	100	100	83.6	80.0	99.6	96.5	83.0	78.5
F	**Physical Well-being** Incidence of Occupational Injuries (no data by gender except for 1991)	100	100	108.5	108.5	108.5	108.5	137.3	137.3
	Exposure to/damage From Workplace Health Hazards (dust, chemicals, loud noise, poor air)	No data except for 1991.							
G	**Human/Social/Work Environment** Representation - Union Density - Grievance Procedure	100	100	100.3	117.6	96.0	121.0	93.3	127.9
	Skill Development - Access to Training - Promotion in Jobs	No data until 1994-95 (GSS, NPHS, WES).							
	Work Satisfaction	"							
	Work Autonomy/ Participation	"							
	Work Stress - Demands of Work - Social Support - Harassment/ Discrimination	"							

II (A) Pay

The best single measure of pay for a job is hourly earnings, since these are independent of hours worked. Picot (Picot, G. *Working Time, Wages and Earnings Inequality Among Men and Women in Canada, 1981-93.* Paper presented to the Labour Market Institutions and Outcomes Conference, 1996.) has shown that evaluations of real earnings trends and the level of earnings inequality among workers in Canada in the 1980's and 1990's differ depending upon whether the analysis is of hourly, weekly or annual earnings. Stagnating or declining real earnings and increasing inequality have been driven more by changes in hours worked, particularly hours in the year due to the level of unemployment, than by relative changes in hourly pay. Changes in the work week, such as the trend to more part-time and long hour jobs, have also played a role in the evolution of weekly and annual earnings. Earnings differences between men and women are much more dramatic in annual than hourly terms, since just 52% of Canadian women work on a full year, full-time basis compared to 66% of men. (Statistics Canada, Cat. 13-217, Earnings of Men and Women.)

Unfortunately, reliable time series data on hourly pay are limited due to the fact that workers are not consistently paid on an hourly basis, so weekly or annual earnings of salaried workers have to be divided by hours worked. The divisor may or may not be contractual hours or paid hours (including paid overtime) or total hours (including unpaid overtime). In practice, then, weekly earnings, which do vary to some degree with hours worked, are the most reliable single indicator of pay rates in jobs.

Table 1 incorporates an index of real median weekly earnings for men and for women for 1981, 1984, 1989, and 1993. The decline of real earnings for men over this period has been a continuing one. The modest improvement in the real earnings of women has to be qualified by recognition of the fact that this reflects in large part an increase in hours worked as opposed to hourly pay rates.

The degree of inequality or dispersion of earnings among jobs is also an important aspect of job quality. As is well known, earnings inequality and polarization have grown in the 1980's and 1990's, particularly among men. Available indices are the decile distribution of weekly earnings and the incidence of low pay jobs, defined as jobs which pay less than two-thirds the median hourly wage.

With respect to real pay, there has been a small increase in the average quality of jobs held by women, and a significant decline in the average quality of jobs held by men. The pay index falls to 92.7 for men while it rises to 103.7 for women. This is the now familiar story of the closing pay gap, which has been most pronounced between full-year, full-time earners. It is important to emphasize, however, that the pay gap between the jobs of men and women remains large with women earning 22% less than men in 1993.

With respect to the distribution of pay, the index for men falls to 92.4 while it rises to 107.8 for women. Polarization between “good jobs” and “bad jobs” in terms of pay has been

apparent between men, but not among women because of the fall in the incidence of low pay jobs. Again, however, it is important to emphasize that large absolute differences remain. For example, 31% of women are low paid, defined as earning less than two-thirds the median wage, double the proportion of men. Inequality of earnings is more marked among women than men, reflecting the concentration of women's jobs in relatively well-paid professional and administrative jobs, particularly in non market services, and in relatively low paid clerical, sales, and services jobs in the private service sector.

II (B) Benefits

Employer provided benefits such as an employer sponsored pension and health (medical/dental/drug benefits) are an important element of compensation, accounting for up to 20% of total wage costs. Access to such benefits is important to workers in the context of limited public pension plans and gaps in publicly provided health care. Yet little was known about the characteristics of jobs which provided benefits other than pensions before 1989, when data became available from the General Social Survey. Information on benefits is now also available from the Survey of Work Arrangements. Such data are still limited in that the extent of employer contributions to pensions and benefits can vary widely, while these sources provide only the information that a plan exists. Again, more information is available on the extent of employer contributions to pension plans, but this data is not linked to information on the characteristics of covered jobs.

Recent analysis has shown that pension and other benefits coverage is significantly higher in the public than in the private sector, in larger firms, and among unionized workers, and is higher for men than for women. (See Lipsett, B. and Reesor, M. *Employer Sponsored Pension Plans Who Benefits?* Applied Research Branch. Department of Human Resources Development, 1997.). While benefits coverage is closely related to the level of pay, unionization tends to shift the composition of total composition towards benefits.

With respect to the benefits index, since 1984 pension coverage has declined modestly for men and increased for women (though coverage for women workers has declined since 1993 and remains below that for men).

II (C) Satisfaction with Hours of Work

The work hours provided by a job are a key element of compensation and hours are generally set by the employer rather than by the worker. Jobs obviously differ in terms of the number of paid hours offered per week or year, and in the variability of hours per week or year. Part-time jobs are not necessarily "bad jobs" to the extent that workers want to work the hours offered, and overtime is not necessarily good or bad from the perspective of the worker. Unfortunately, while data has long been available from the Labour Force Survey and the Survey of Employment, Earnings and Hours on actual hours and usual

hours worked, little is known about the relationship between hours worked in a job and the preferences of workers. One long-standing indicator which is available is the proportion of part-time workers who work part-time only because of the inability to find full-time work (involuntary part-time workers). Little or no systematic evidence is available on the extent to which the increased incidence of overtime and long hours in the 1980's and 1990's is in accordance with worker preferences, though an increase due to employer demands is suggested by the fact that relatively few workers have a right to refuse overtime, and by the fact that the increase in hours worked has been led by unpaid rather than paid overtime. There is some evidence of growing opposition to compulsory overtime and evidence that many workers will choose to take part of an increase in compensation in the form of shorter hours as opposed to more total pay. (See Andrew Jackson, *Creating More and Better Jobs Through Redirection and Redistribution of Working Time.* Canadian Labour Congress. 1998)

The 1995 Survey of Work Arrangements provided limited data on satisfaction with hours worked. However, different survey questions on tradeoffs between hours and pay tend to bring different responses depending upon whether the question is with respect to current or future pay, and whether the reduced hours are linked to job creation.

Data from the Labour Force Survey show an increasing polarization of hours worked (usual hours in a job) between short and long hours, with a shrinking over time of jobs offering a “standard” work week of 35 - 40 hours. While worker preferences are unclear, this can be taken as a rough index of job quality on the assumption that much of the trend to long and short hours has been driven by the decisions of employers which, in turn, require many workers to work longer or shorter hours than desired.

With respect to satisfaction with hours of work, the sub index falls to 84.2 for men, slightly greater than the fall to 83.2 for women. The change in the index reflects the increasing proportion of part-time jobs which are held only because jobs offering full-time hours are unavailable, particularly marked for women (who are much more likely to be working part-time) and the increase in the proportion of men’s jobs which are not “standard” hours jobs, in turn mainly reflecting the shift to long hours.

II (D) Work Schedules

Most workers prefer jobs with predictable hours and, all things being equal, most would also choose to work during the day and on week-days, as opposed to unsocial hours at night and on week-ends. Time for leisure, family, civic, and educational pursuits is clearly valued by most, and activities other than work can be constrained by both variable shift schedules and unsocial hours. Data has become available for the 1990's on these aspects of work from the General Social Survey and the Survey of Work Arrangements, but little or no earlier data are available. The same is true for entitlements to paid vacation, which can be considered as either a benefit or part of the work schedule. Information on the

ability of workers to vary hours in accordance with their own needs through flextime and compressed work weeks has also only recently become available.

II (E) Job Security

Clark reports that job security is the single most desired characteristic of a job among choices offered on an international social survey. Likely many workers would take a job which provides stability — particularly a low chance of permanent job loss — over a job which does not, even at a significant cost in terms of pay. Statistics Canada has provided data on permanent and temporary job lay-off rates, based on administrative files, which provide an indicator of changing job quality with respect to this dimension. The incidence of temporary as opposed to permanent employment contracts has become known only for the 1990's.

With respect to job security, the sub index for women falls more for women than for men, to 78.5 compared to 83.0. This reflects a larger increase in both the permanent and temporary lay-off rate, particularly the latter, and a reduced probability of a new job lasting for longer than six months. While women's jobs have become somewhat more insecure, women's jobs still tend to be significantly more secure than those of men. This reflects the greater concentration of men in sectors such as construction, primary industries and manufacturing which tend to experience regular lay-offs.

II (F) Physical Well-Being at Work

A "good" job is one which does not give rise to occupational injuries or diseases, and is not excessively demanding in terms of physical effort. Some data has long been available on the incidence of time loss injuries, workplace fatalities, and occupational diseases, but only as based upon the administrative records of Workers Compensation Boards. These data are a better indicator of the incidence of physical injuries than of occupational diseases, and are limited by the fact that many health conditions linked to workplace conditions (e.g. stress, repetitive strain injuries) may not be eligible for compensation. Time-loss injury incidence data — as indicated in Table 1 — are not available by gender, but the administrative data show that the proportion of time-loss injuries experienced by women rose from about 20% in the early 1980's to more than 25% in the early 1990's. The lower incidence reflects the heavy concentration of time-loss injuries in male dominated blue collar occupations. (Statistics Canada. Cat. 72-208. Work Injuries)

Data on exposure to physical hazards at work became available only with the 1991 General Social Survey, which has not been repeated. Little or no data are available on the physical demands of jobs, in terms of physical stress, degree of effort, degree of exhaustion etc.

With respect to the incidence of time-loss injuries — a very narrow measure of physical well-being at work — there has been a significant improvement in job quality. There has also been a marked reduction in workplace fatalities over the same period.

II (G) The Human/Social Work Environment

A large literature on the sociology of work has discussed dimensions of job quality in terms of the extent of the use of skills and the degree of worker involvement in the job. Thus analysis and criticism of "Taylorist" work practices points to the separation of conception and execution of tasks, and the de-skilling of many jobs with the shift of control of the pace and content of work from workers to management. Some have argued that jobs have been redesigned to make them more interesting and to give workers more responsibility and control in "post Taylorist/post Fordist" work environments. There is a large literature on the implications of new technology, automation, and so on for the exercise of skills, the pace and stress of work, and so on. Some case studies have been undertaken on these issues — though few of these incorporate worker perspectives — but little or no comprehensive time series data are available. The same is true of issues relating to work pace and stress, and worker participation. Neglect of these issues has been very partially remedied in the General Social Survey and in two recent surveys. However, no long time series is available

Unionization is one key work environment variable since, almost by definition, it establishes a rules based system for workplace governance and a grievance/arbitration system to resolve disputes between workers and management. Accordingly, the rate of unionization can be taken as one indicator of job quality. This indicates increased job quality for women, and a decline in job quality for men.

II Summary

The overall pattern which emerges from the indicators as shown in Table 1 is one of significantly decreased job quality for men from 1981 to 1993 by all measures except physical well-being, and a modest improvement in the quality of women's jobs, with the key exception of satisfaction with hours worked and declining job security. This is, of course, a very summary overview which pays no attention to trends at the occupational or industrial level and is limited by the unavailability of data for key dimensions of the work environment. It is striking, however, that deterioration in apparent job quality has been so widespread.

Part III: Quality of Jobs and Work Environment Trends in the 1990's

This section of the paper reviews trends in the 1990's on the basis of the dimensions specified above, drawing upon new sources of data. While it is not possible to provide a detailed decomposition of changes by occupation and sector, some attention is paid to these variables and some attention is paid to different trends between women and men, and between union and non union workers ("Union workers" generally means those covered by a collective agreement).

III (A) Pay

Data from the Survey of Work Arrangements show that between November 1991 and November 1995, real hourly earnings (deflated by the consumer price index) fell by 1.7%. The trend of the 1980's was reversed in that real earnings of men fell by 1.2%, compared to a 2.5% fall among women. The wages of union members rose by 1.4%, while the wages of non union members fell by 6.1%.

III (B) Benefits

Data on access to benefits is available from the General Social Survey (very limited data for 1989) and from the 1995 Survey of Work Arrangements. Table II shows the extent of coverage in 1989, 1991, and 1994, using the GSS data for the sake of consistency. The data refer to coverage in the main job. Information on disability insurance coverage is available only for 1991.

In terms of overall coverage, GSS data show that pension coverage has been about constant, medical benefits coverage has declined slightly, and dental coverage has increased. Likely, the overall pattern is of little change. Other data on pension plan coverage (see Appendix 4) shown a small decline in coverage for both men and women between 1993 and 1995.

In terms of the extent of coverage by sex in 1994, pension coverage was slightly higher for men than women at a little above 50% for both, but coverage for other benefits was significantly higher for men, e.g., 64% compared to 55% in the case of dental coverage. There is some indication that any decline in coverage may have been more concentrated among women than men in the 1990's.

Clearly apparent are major differences between union and non union workers in terms of the extent of coverage, with pension coverage more than doubled in union jobs. The difference between union and non union jobs is far greater than the differences between major occupational groups, indicating that unionization is indeed a major independent factor behind high levels of coverage. The difference between union and non union jobs appears to have widened between 1991 and 1994, with union coverage rising fairly significantly, while remaining constant in non union jobs. Again, these differences are more marked than changes within major occupational categories, suggesting the independent impact of unionization.

III (C) Satisfaction with Hours Worked

As indicated in the data appendix to Table 1, involuntary part-time working increased among women in the early to mid 1990's and polarization between jobs with long hours and short hours continued.

Data from the Survey of Work Arrangements for 1995 (see Table 3) show that relatively few workers — 5% of men and 7% of women — were working more hours than they wished in that year, very narrowly defined as those who would work fewer hours with a proportionate reduction in pay. A much higher proportion of workers — 28% of men and 27% of women — wanted to work more hours for a proportionate increase in pay. About 1 in 3 workers were, then, dissatisfied with the hours of work provided by their jobs, though the real dissatisfaction may be with stagnant and declining hourly wages and the need for overtime pay to increase take home pay, rather than hours *per se.*

SWA data show that the incidence of paid overtime approximately doubled between 1991 and 1995, from 7.0% to 14.0% overall, with significant increases for men and women, and union and non union workers. However, the question posed differed in 1991 and 1995. The SWA data also show that substantial amounts of unpaid overtime are being worked — with about 1 in 20 workers working an extra 10 unpaid hours per week. No time series is available, but the high incidence of unpaid overtime hours among professional and managerial workers appears to be a growing and relatively recent phenomenon. In short, the indication is of declining job quality in terms of an increase in involuntary long hours.

III (D) Work Schedules

Data on work schedules are now available from the 1991 and 1995 SWA and from the GSS. As shown in Table 4, drawn from SWA data, there was a modest shift from regular daytime jobs between 1991 and 1995, which affected men somewhat more than women and affected union and non union jobs equally. In 1995, 68% of jobs provided a regular daytime schedule, down from 70% in 1991. There was correspondingly a modest increase in regular shift working — night working and rotating/split shifts — and irregular hours.

The same trend is apparent from analysis of data from the 1991 and 1944 GSS, which show an even greater incidence and increase of rotating/split shifts than the SWA. (GSS data show the incidence of rotating/split shifts rose from 12.4% in 1991 to 14.0% in 1994, with the increase concentrated among women and unskilled workers.)

It is notable that significantly more union than non union jobs require unsocial hours — with 24% of union jobs requiring a regular shift schedule compared to 14% of non union jobs. This reflects, in part, a higher incidence of shift work among blue collar workers (e.g. 28% of processing, machining, and fabricating jobs) and in health and social services jobs (26%). There is, however, also a high level of regular shift work in the predominantly non union accommodation, food and beverage services sector (38%), and personal services (21%). Irregular hours tend to be very high among non union workers in these sectors.

The period 1991-1995 also saw a marked increase from 11% to 15% in regular weekend work among both men and women. The incidence of weekend work is very high in private services — accommodation and food, personal services — and is markedly higher for non union jobs.

The shift to service work and the growth of long hours operations in particular service industries appear to be leading to an increased incidence of unsocial hours. The incidence of unpredictable hours is much lower among unionized workers — with 10% of union jobs provided irregular hours compared to 17% of non union jobs in 1995.

On a more positive note, the 1991-1995 period saw an increased proportion of jobs with flexitime provisions, that is provisions which gave workers some ability to vary hours in accordance with their own preferences. SWA data show that flexitime provisions were available in 24% of jobs in 1995, up from 17% in 1991, with about equal availability for men and women. Flexitime is more prevalent in non union than union workplaces (27% vs. 19%) but the rate of increase has been greater in union workplaces — rising from 12% to 18% between 1991 and 1995.

Table 5 provides data from the 1995 SWA on access to paid vacation (the first available). Like benefits, access to paid vacation is somewhat higher for men than women, and availability of paid vacation entitlements of more than 20 days is twice as great in union jobs as in non union jobs — 36% vs. 16%.

III (E) Job Security and Insecurity

As shown in Table 6, the incidence of both temporary and permanent lay-offs — the indicator used to examine trends from 1981 to 1993 above — fell slightly from 1991 to 1994, though the decline was much more marked for men than for women. Data from the General Social Survey, however, show that there was a very marked increase in the proportion of workers who reported that they had experienced stress from the threat of lay-

off or job loss. As shown, levels of stress about doubled for both men and women and union and non union workers, rose mostly for women, and were pervasive across broad occupational groups with about 1 in 4 workers reporting anxiety over potential job loss in 1994 compared to 1 in 10 workers in 1991.

This trend may be partly explained by the greatly increased incidence of temporary jobs between 1991 and 1995, with the large increase from 5% to 12% over a short period of time seemingly representing an increase in jobs with short term contract durations (assuming the incidence of seasonal jobs has not greatly changed). SWA data show this increase was to be seen across occupational groups, particularly in professional, sales and service occupations, and was greatest in the public sector (rising from 5% to 14%). The increase was lowest for managers/administrators and blue collar industrial occupations. Outside of seasonal industries, the incidence of temporary jobs is particularly high and has grown strongly in educational and health services. Likely reflecting the growth of temporary jobs in public services, the proportion of temporary union jobs grew even more strongly than the proportion of non union temporary jobs, though it remained slightly lower.

III (F) Physical Well-Being at Work

The 1991 General Social Survey concentrated upon health issues, and provided data on physical hazards of work which has not been subsequently available. In effect, then, we have a one-time snapshot of exposure to such hazards. As shown in Table 7, overall, 34.1% of respondents — 36.0% of men and 31.3% of women — reported negative health impacts from workplace health hazard exposure. It is striking that the reported impact on men and women is so equal given that 3 out of 4 time loss injuries are reported by men. Negative health impacts are evenly spread across major occupational groups. They are higher in union jobs — 41.2% vs. 30.0% — which may indicate high rates of unionization in particularly hazardous jobs, a greater sensitivity to health and safety issues on the part of unionized workers, a greater propensity to unionize on the part of workers in unhealthy jobs or other factors. Studies generally show that unionization is associated with reduced accident incidence.

As shown, workplace injuries affected 9.2% of workers, with double the incidence among men and a low incidence among managerial/ professional workers. It is notable that while women are relatively less likely to have experienced a workplace injury, the difference in rates is not as large as that in the administrative data. One in five (18.8%) of all workers were exposed to dust in the air most of the time, 45% of whom reported that this had a negative impact on their health; 7.5% of workers reported exposure to dangerous chemicals most of the time, 48% of whom reported that this had a negative impact on health; 15.7% of workers reported exposure to loud noise most of the time, 42% of whom reported negative impacts on health. Exposure to all of these hazards was much higher for men and for unionized workers, and non managerial/professional workers, reflecting

the obvious link between such exposure and blue collar industrial and construction jobs. By contrast, exposure to poor quality air most of the time was higher among women, with 15.3% of all workers reporting such exposure, a very large 71% of whom reported negative health impacts. Reports of negative health impacts from exposure to computer screens were also higher for women.

These data underline the significant level of exposure to physical health hazards in the workplace, with the relative incidence between women and men and union and non union workers likely reflecting different occupational and industrial distributions.

As shown in Table 8, there was a very sharp increase — from 7.5% to 13.9% — between 1991 and 1994 in the proportion of workers reporting that they experienced stress from the risk of accident or injury. The increase was somewhat greater among women than men, and among non union workers, and was pervasive across the broad occupational groups. Again, there is a clear discrepancy between reported accident rates (low and falling incidence), and workers perceptions of physical hazards at work.

III (G) The Human/Social Work Environment

Overall reported rates of ostensible job satisfaction are very high, with only 10.0% of men and 8.8% of women reporting themselves to be “very dissatisfied” in the 1994 GSS. Similarly, in the 1994 GSS, 43.1% of workers — 40.7% of men and 45.8% of women — reported having a strong personal interest in their work. By both measures, non union workers seem to have been modestly more content than unionized workers. Reported high levels of job satisfaction may reflect relief at having a job in an uncertain labour market environment, since narrower indicators show a high and rising level of stress in the workplace, and reduced work satisfaction.

As shown in Table 9, between 1989 and 1994, the proportion of workers reporting that their job required a high level of skill remained essentially unchanged between 1989 and 1994 at 46%. The 1994 data indicate some modest concentration of jobs described as skilled among men and in union jobs, with the expected strong relationship with broad occupational categories. However, there was a very major decline over this period in the proportion of workers reporting that they had “a lot off freedom” in how to work. Overall, this fell from 54% to 40%, with a steeper decline among women than men. A union/non union difference exists, with holders of union jobs reporting themselves to have somewhat less freedom. The expected relationship with broad occupational categories exists, though it is notable that just half of managerial/professional jobs seemingly offer a lot of freedom on how to work.

Table 10 provides data on stress in the work environment for 1991 and 1994, supplementing data on stress due to risk of accident/injury as reported above. Stress due to too many demands/hours — two dimensions which could usefully have been separated

in the survey — rose over this period, with 32.8% of workers reporting stress from this source in 1994 compared to 27.5% in 1991. Again, the increase was significantly greater in jobs held by women, and was to be seen in all of the major occupational groups. Stress from too many demands/hours appears to be somewhat greater in union jobs, though change in union and non union jobs is similar.

Stress from poor interpersonal relations at work also rose sharply from 1991 to 1994, with a slightly higher rate of increase to be seen among women and in unionized jobs. Again, the increase was across the broad occupational groups. Responses to this question may indicate increased intensity of work due to pressures from managers and supervisors.

The Table also shows stress from harassment and/or discrimination in 1991, indicating that 7.3% of all and 8.0% of women workers experienced stress from this source.

The National Population Health Survey of 1994-95 posed questions relating to work stress in order to link work stress variables to health outcomes. A paper is forthcoming in National Health Reports from Marie Beaudet and Kathryn Wilkins of Statistics Canada which links work stress variables from the NPHS to health outcomes such as high blood pressure and overweight. The questionnaire for the survey was based in significant part on the work of Karasek (see Robert Karasek and Tores Theorell. *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*) who has linked work stress to heart disease and other health outcomes. Karaskek deems to be particularly stressful "high strain" jobs which combine a low level of decision latitude and high psychological demands, with decision latitude or job control being particularly crucial in terms of minimisation of unhealthy stress. Jobs with high psychological demands are those which impose stress due to the nature of job tasks and responsibilities, and due to social relations at work. An important finding of Karasek's work has been that the jobs of women, holding occupation constant, tend to be more stressful in large part because women have less decision latitude and less discretion in the use of skills.

Micro data made available from the NPHS give "mean work stress" scores for skill discretion, decision latitude, and psychological demands. Skill discretion, based on a scale of 1 to 12 (minimum to maximum) is determined by responses to questions on whether a job requires "learning new things," a "high level of skill," and "having to do things over." Decision latitude (scaled 0 to 8) is based on questions regarding "freedom to decide how to do the job," and "having a lot of say about what happens" in the job. Psychological demands are scaled from 0 to 8 based on questions regarding whether the job is "very hectic," and "free from the conflicting demands of others."

Table 11 provides the mean work stress scores for these three dimensions for men and for women, by major occupational groups. It is apparent that women tend to experience more stress from low skill discretion (outside the clerical occupations which are, in any case, dominated by women) and more stress due to low decision latitude. Psychological demands also tend to cause more stress in jobs held by women. As would be expected,

clerical, service, and processing jobs tend to have higher levels of stress due to limited skills discretion and decision latitude. Psychological demands appear to differ rather little between occupations. Unfortunately, only the scales and not the raw data are currently available, though the Beaudet and Wilkins paper will provide some data and make an important contribution to understanding of health consequences of work stress. The NPHS data serve to underline how limited our knowledge is of the overall incidence and trends in stress in the workplace due to increased intensification of work, speed-up, re-skilling, and de-skilling.

Another recent Statistics Canada survey which provides some limited information on the workplace environment is the pilot Workplace and Employer Survey or WES. It is important to note that this was a pilot survey, and that the sample was representative of a number of selected sectors (all but one in the private sector) and not of the job market as a whole. The major new feature of the survey was that it surveyed workers in establishments which were also the subject of a twinned establishment survey. Questions in both surveys were designed to gather information on workplace organization and reorganization. Table 12 provides some unpublished data from the worker survey on worker participation. While they cannot be taken as nationally representative, the data do suggest a high level of exclusion from even minimal forms of participation such as access to information on the part of unskilled production and technical/trade workers.

It is to be hoped that future linked surveys will be designed so as to measure the level and changes in work pressures in work pace, work stress, use of skills, and so on which result from the introduction of new work practices by employers. One significant finding of the survey was that access to formal grievance systems exists for a surprisingly high 50% of non union workers, though there is no information re. the nature of the process which exists.

As noted in Part II, access to opportunities for advancement and skills development is an important aspect of job quality. Data has only recently become available on access to employer sponsored education and training. As shown in Table 13, the overall incidence is low, at 21%, and there is a significant concentration of access in managerial/ professional jobs. Access is significantly greater in unionized jobs. David Livingstone has recently drawn attention to a rising gap between the education and skills of workers, and the knowledge needs of jobs. (David Livingstone. *The Limits of Human Capital Theory. Policy Options*. July - August, 1997.) A recent survey found that 22% of workers with a university degree or community college diploma feel overqualified for the jobs they currently hold, with the proportion rising to 27% for those with post graduate qualifications. In short, for many, the workplace underutilizes rather than develops worker skills and capacities. However, data are again very limited.

III Summary

Overall, there was a clear trend towards deteriorating job quality in the first half of the 1990's, with this deterioration to be seen in both union and non union jobs, and affecting women more than men. In terms of pay, the decline in real hourly pay was greater for women, a change from the earlier trend, and unionization appears to have had a cushioning impact. Access to benefits appears to have been subject to a small decline. Satisfaction with hours of work has apparently deteriorated in all jobs due to the growth of involuntary part-time jobs (disproportionately held by women) and to involuntary long hours. There has been a small shift from regular daytime jobs to shift working, and a marked increase in week-end working for both men and women. Job security has declined, particularly in jobs held by women, as indicated by a sharp increase in temporary jobs and reported stress from the threat of lay off. Deteriorating physical well-being in jobs is suggested by increased stress from risk of accident or injury, though data on the physical work environment are extremely limited. There are clear indications of a deterioration in the quality of jobs in terms of the human and social work environment, as indicated by a decline in freedom in how to work and increased stress due to too many demands or hours, and due to poor interpersonal relationships. This deterioration has affected women more than men. In terms of the difference between union and non union jobs, some of the indicators suggest that the union wage premium may reflect more stressful and hazardous working conditions, a theme which has been little examined in the literature.

Part IV: Working Conditions in the European Union

The European Foundation for the Improvement of Living and Working Conditions, a European Union institution, recently released a second European Survey on Working Conditions, making possible some analysis of changes between 1991, when a prototype survey was undertaken, and 1995-96. Based on a representative sample in all EU member states, the survey is of a wide range of work conditions as perceived by workers. It is an extremely comprehensive survey in terms of content, covering exposure to physical hazards at work, the physical intensity level of jobs, working time, the pace of work, the degree of job control and autonomy, the content of jobs, payment systems, participation and consultation at work, access to equal opportunities at work, violence at work, health risks associated with work, and job satisfaction. Table 13 provides reported exposure to various working conditions in 1995-96 by gender, indicating the scope of the survey and providing some basic data of interest. It can be noted that comparable data for Canada on virtually all of the dimensions covered, with the exception of working time, are simply not available.

Analysis based on the two European surveys is still limited, but it is apparent that physically demanding work and exposure to physical hazards remain very common, that the pace of work is increasing, that repetitive and monotonous work is extremely common while autonomy in work is still rare, and that violence at work is not marginal. It is also apparent that conditions vary significantly between member countries. (See Working Conditions in the European Union. European Foundation for the Improvement of Living and Working Conditions. 1998.)

Part V: Conclusions

This paper has been highly empirical in focus, seeking to summarily analyze trends in job quality and the work environment on the basis of available large data sets. As summarized above, the overall trend in the 1980's and 1990's has been a significant decline in job quality as measured through seven broad dimensions. Jobs held by women have been most adversely impacted in the 1990's. While few serious analysts would claim that the quality of Canadian jobs has been improving over this period, the evidence does suggest a rather grim picture. This should be the starting point for serious analysis of the driving forces of change, and available remedies.

As noted above, we lack data for many dimensions of job quality and the work environment, particularly data relating to the human and social work environment and the physical work environment. The much wider range of information available for Europe is striking. It is to be hoped that Statistics Canada and government departments which support special Statistics Canada surveys will actively consider a regular survey on broadly the same basis as the European Survey on Working Conditions, perhaps as an annual attachment to the Labour Force Survey. This would allow for analysis of a wide range of characteristics of jobs, by gender, occupation, union/union union status, age, sector and other key variables. We also need surveys which links the characteristics of jobs to the characteristics of employers, and particularly to the work restructuring strategies being implemented by employers. The increase in precarious and contingent forms of work and the decline in job security are clearly driven by changes in the kinds of employment offered, and increased stress and intensity of work are clearly driven by changes in management of the workplace. Yet, we lack firm evidence of the linkages between particular changes, such as “team” systems, and physical and mental stress, even though strong linkages have certainly been demonstrated in case studies. In short, the work environment is a critical important dimension of the lives of working Canadians, but we have devoted far too little effort to monitoring and assessing changes as a basis for policy and action.

A Note on Sources ...

Statistics Canada Cat. 71-535 - MPB #8 provides data from the 1991 and 1995 Survey of Work Arrangements. In some cases, this has been supplemented for this study by tables produced from the microdata file of the 1995 SWA by the Centre for International Statistics at the Canadian Council for Social Development. Data from the 1991 and 1994 General Social Survey has generally been obtained from the microdata files. Some data have been published in special GSS studies, notably the pioneering study by Harvey Krahn Quality of Work in the Service Sector (Statistics Canada. Cat. 11-612E #6) which provides data from the 1989 GSS and Statistics Canada Cat. 11-612E #8 Health Status of Canadians which provides data and analysis on work and health drawn based on the 1991 GSS.

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TABLE 2

Access to Workplace Benefits

		Employer Pension Plan	Disability Insurance	Medical Benefits	Dental	Drug	Counselling Services
All	**1989**	52.0	-	63.0	53.0	-	-
	1991	51.0	61.8	57.9	57.9	-	34.7
	1994	52.3	-	60.1	57.1	56.5	42.0
Men	**1989**	54.0	-	68.0	57.0	-	-
	1991	55.1	68.8	63.9	63.7	-	35.8
	1994	55.0	-	64.1	61.2	61.3	43.9
Women	**1989**	50.0	-	58.0	49.0	-	-
	1991	46.1	53.3	50.8	51.1	-	33.3
	1994	49.2	-	55.4	52.6	51.1	39.7
Union	**1991**	77.9	83.1	78.2	80.1	-	56.3
	1994	85.3	-	84.0	79.8	81.8	69.1
Non Union	**1991**	36.8	50.6	47.3	46.4	-	23.3
	1994	36.8	-	49.1	46.7	44.8	29.2
Managerial/ Professional	**1991**	67.0	77.0	72.1	74.2	-	51.2
	1994	66.1	-	74.6	71.6	70.7	56.3
Skilled/ Semi-skilled	**1991**	42.8	54.2	52.6	51.0	-	27.8
	1994	44.2	-	52.7	50.0	49.9	34.1
Unskilled	**1991**	43.6	54.7	48.0	48.3	-	23.2
	1994	44.0	-	47.9	45.1	44.3	31.6

Source: General Social Survey, 1989, 1998, and 1994 re coverage in main job. % is % responding “yes,” i.e. excludes “don’t know.”

TABLE 3

Long Hours

	Usually Work Paid Overtime*	Average Hours/Paid Overtime	Worked Unpaid Hours	Average Unpaid Hours	Would Prefer to Work Less Hours
All	14.0% (7.7%)	4.7	5.3%	10.2	6.0%
Men	18.4% (9.7%)	5.5	5.8%	11.1	5.0%
Women	9.4% (5.6%)	3.2	4.7%	9.1	7.0%
Union	17.7% (10.0%)	4.4	4.4%	9.7	7.7%
Non Union	11.7% (7.0%)	5.0	5.8%	10.4	5.0%

Source: 1995 Survey of Work Arrangements.

* figure in brackets is % reporting that they worked overtime in the reference week in 1991, not that they usually worked paid overtime

TABLE 4

Work Schedules

			Regular Shift Schedule				
		Regular Daytime	Evening	Night/ Graveyard	Rotating/ Split	Irregular	Usually Worked Weekend
All	**1991**	70	5	1	10	14	11
	1995	68	5	2	11	14	15
Men	**1991**	70	5	2	11	12	11
	1995	67	5	2	14	12	16
Women	**1991**	70	5	1	8	16	10
	1995	69	5	1	9	15	14
Union	**1991**	68	5	2	17	9	5
	1995	66	5	3	17	10	10
Non Union	**1991**	71	5	1	6	16	13
	1995	69	5	1	8	17	18

Source: Statistics Canada, Survey of Work Arrangements.

TABLE 5

Paid Vacation Leave 1995

	10 days or less	11-15 days	16-20 days	More than 20 days
All	28	28	19	25
Men	27	27	18	28
Women	29	30	20	22
Union	16	23	24	36
Non Union	37	32	15	16

Source: Statistics Canada, Survey of Work Arrangements (1995).

TABLE 6

Job Security / Insecurity

		Experienced Stress from Threat of Lay-off/Job Loss	Permanent Lay-off	Temporary Lay-off	Temporary Job
All	**1991**	10.9	7.6	9.3	5.0
	1994	23.5	7.3	8.4	12.0
Men	**1991**	12.5	9.4	11.1	5.0
	1994	23.8	8.9	10.1	11.0
Women	**1991**	9.0	5.0	7.0	5.0
	1994	23.1	4.9	7.1	13.0
Union	**1991**	15.3	-	-	4.0
	1994	34.2	-	-	11.0
Non Union	**1991**	8.7	-	-	6.0
	1994	18.5	-	-	12.0
Managerial/ Professional	**1991**	10.6	-	-	-
	1994	26.3	-	-	-
Skilled/Semi-Skilled	**1991**	10.7	-	-	-
	1994	21.4	-	-	-
Unskilled	**1991**	12.3	-	-	-
	1994	22.8	-	-	-

Source: General Social Survey 1991, 1994, and Statistics Canada, Cat. 71-539.

TABLE 7

Physical Work Environment								
	Experienced Negative Health Impact from Workplace Health Hazard Exposure	**Experienced Workplace Injury in Past Year**	**Risk of Injury Caused Worry**	**Exposure to Dust in Air Most of the Time**	**Exposure to Dangerous Chemicals Most of the Time**	**Exposure to Loud Noise Most of the Time**	**Exposure to Poor Quality Air Most of the Time**	**Negative Health Impacts from Exposure to Computer Screen**
All	34.1	9.2	7.6	18.8 (45.0)*	7.5 (48.4)*	15.7 (42.1)*	15.3 (70.7)*	8.5
Men	36.0	11.9	9.6	23.0	10.6	22.9	14.0	6.7
Women	31.3	5.9	5.1	13.8	3.8	7.1	16.8	10.6
Union	41.2	11.5	12.7	24.4	9.7	23.1	20.8	9.1
Non Union	30.0	8.0	4.8	15.9	6.4	11.8	12.5	8.1
Managerial/ Professional	35.4	5.8	5.9	14.0	5.0	8.3	17.6	12.0
Skilled/Semi-skilled	33.1	10.5	7.8	20.9	8.8	20.4	14.6	6.7
Unskilled	34.0	11.1	10.2	21.5	9.4	17.7	14.0	6.8

* Figure in brackets is % of those exposed (most of the time or sometimes) reporting a negative impact on health.

Source: General Social Survey 1991.

TABLE 8

Percentage Reporting Stress in the Work Environment from Risk of Accident / Injury

	1991	1994
All	7.5	13.9
Men	9.6	16.8
Women	5.1	10.7
Union	12.7	20.8
Non Union	4.8	10.8
Managerial/Professional	5.9	9.7
Skilled/Semi-skilled	7.8	15.0
Unskilled	10.2	19.7

Source: General Social Survey.

TABLE 9

Work Satisfaction

(Strongly Agree)

		Job Requires High Level of Skill	Lot of Freedom on How to Work	Strong Personal Interest in Work
All	**1989**	46.0	54.0	NA
	1994	46.3	40.4	43.1
Men	**1989**	50.0	56.0	NA
	1994	49.5	42.7	40.7
Women	**1989**	40.0	52.0	NA
	1994	42.7	37.9	45.8
Union	**1989**	NA	NA	NA
	1994	51.9	34.8	37.3
Non Union	**1989**	NA	NA	NA
	1994	44.1	43.5	46.2
Managerial/ Professional	**1989**	NA	NA	NA
	1994	68.6	51.4	47.5
Skilled/Semi-Skilled	**1989**	NA	NA	NA
	1994	37.4	34.8	41.0
Unskilled	**1989**	NA	NA	NA
	1994	20.9	31.1	39.1

Source: General Social Survey 1989 and 1994. 1989 data as reported by Krahn.

TABLE 10

Stress in Work Environment (%)

		Too Many Demands/Hours	Poor Inter-Personal Relations	Harassment/ Discrimination
All	**1991**	27.5	12.8	7.3
	1994	32.8	18.5	-
Men	**1991**	27.6	12.7	6.7
	1994	31.0	17.7	-
Women	**1991**	27.4	13.1	8.0
	1994	34.7	19.4	-
Union	**1991**	29.1	14.8	8.9
	1994	35.8	23.9	-
Non Union	**1991**	26.8	11.9	6.4
	1994	31.5	16.1	-
Managerial/ Professional	**1991**	40.1	16.6	7.1
	1994	44.6	22.5	-
Skilled/Semi-Skilled	**1991**	21.1	11.0	7.3
	1994	26.8	17.3	-
Unskilled	**1991**	19.9	11.3	8.1
	1994	22.2	13.4	-

Source: General Social Survey 1991, 1994.

TABLE 11

Mean Work Stress

(Low Stress — High Stress)

	Skill Discretion (0 - 12)		Decision Latitude (0 - 8)		Psychological Demands (0 - 8)	
	Men	Women	Men	Women	Men	Women
Managerial/ Administration	3.6	4.0	1.6	1.9	5.1	5.2
Professional	3.4	3.7	1.8	2.5	4.9	5.1
Clerical	5.8	5.5	2.9	3.3	4.4	4.5
Service	5.8	6.5	2.7	2.8	4.3	4.6
Processing	4.5	6.4	2.6	4.1	4.2	4.1

Source: National Population Health Survey 1994-95.

TABLE 12

Worker Participation

	No Participation in Meetings with Managers/Supervisors	No Access to Information	No Participation in Self-Directed Workgroup	Access to Formal Grievance System
Adult Men	25.3	18.8	59.6	68.0
Adult Women	29.9	16.1	72.1	62.5
Union	30.4	17.4	80.2	88.7
Non Union	27.8	20.7	60.3	50.5
Managers	17.3	11.9	43.9	68.9
Professionals	20.5	13.1	61.1	66.4
Technical/Trade	39.1	33.8	75.4	58.6
Sales/Clerical	28.9	13.1	73.0	61.9
Unskilled Production	44.1	39.5	82.1	53.4

Source: Workplace and Employer Survey

TABLE 13

Participation in Employer-Sponsored Jobs Related to Education & Training

All	21%
Men	20%
Women	21%
Union	28%
Non Union	20%
Managerial/Professional	34%
Clerical/Sales/Service	15%
Blue Collar	14%

Source: Statistics Canada, 1994 Adult Education and Training Survey.

TABLE 14

Working Conditions in the European Union (1995)

(Percentages by Gender)

AMBIENTAL FACTORS[1]	Male	Female
Exposed to:		
noise	34	20
vibrations	32	13
radiation	7	3
high temperatures	23	15
low temperatures	30	16
Breathing in vapours	30	15
Handling dangerous substances	18	10
Wearing protective equipment	32	14
DESIGN OF WORK STATIONS	**Male**	**Female**
Working in painful positions[1]	45	46
Moving heavy loads[1]	38	26
Able to adjust to their own comfort[2]:		
temperature	40	45
lighting	45	50
ventilation	41	43
position of desk/work station	32	34
position of seat	43	50
instruments/equipment	46	38
INFORMATION ON RISKS	**Male**	**Female**
Well informed[1]	77	67
PLACE OF WORK	**Male**	**Female**
Working at home[1]	16	18
WORKING TIME	**Male**	**Female**
Weekly hours:		
less than 30	5	26
30 - 39	34	38
more than 40	60	35
Average working hours per week (in hours)	43	35
Working shifts and irregular hours	37	28
Working shifts	14	11
Working at night (at least once a month)	27	14
Permanent nightwork (more than 16 nights a month)	3	1

Working Saturdays (at least once a month)	59	49
Working Sundays (at least once a month)	33	24
Average commuting time per day (in minutes)	41	35
WORK RHYTHMS	**Male**	**Female**
Working at very high speed[1]	56	52
Working to tight deadlines[1]	61	50
Not having enough time to do the job[2]	22	21
Remuneration on piece rate basis[2]	15	10
Work rate dependent on[2]:		
colleagues	39	36
customers, clients, etc.	64	72
production norms	41	28
automatic speed of machine	25	18
direct control of boss	35	34
JOB CONTROL AND AUTONOMY[2]	**Male**	**Female**
Not able to choose or change:		
rate of work	28	28
methods of work	28	29
order to tasks	35	35
Not able to take a break when wanted	34	42
Not free to decide when to take holidays or days off	40	46
On flexitime	61	72
JOB CONTENT	**Male**	**Female**
Job involving:		
complex tasks[2]	63	51
monotonous tasks[2]	45	46
assessing the quality of own work[2]	79	76
precise quality standards[2]	76	68
problem solving[2]	85	80
short repetitive tasks (less than 10 minutes)[1]	36	38
repetitive hand/arm movements[1]	56	58
rotating tasks[2]	55	55
Possible assistance from colleagues[2]	85	83
Dealing directly with outside people[1]	64	74
Demands too high in relation to skills	7	8
Demands too low in relation to skills	10	11
Job involving learning new things[2]	77	73
Having undergone training in the last 12 months	29	29
Working with computers[1]	37	41

PAYMENT SYSTEMS	Male	Female
Remuneration includes:		
basic fixed salary	79	85
piece rate/productivity payment	15	10
payment for overtime	25	19
payment for special working hours	16	12
payment compensating poor working conditions	5	2
PARTICIPATION AND CONSULTATION[2]	**Male**	**Female**
Consultation about changes (over the last 12 months)	46	46
Job involving deciding on departmental issues	49	44
Discussion of work related issues (over the last 12 months)		
with staff representatives	24	19
with boss	56	58
with colleagues	70	67
Work appraisal with boss (over the last 12 months)	42	40
EQUAL OPPORTUNITIES	**Male**	**Female**
The boss is a man	75	54
The boss is a woman	6	32
Consider that[2]:		
men and women have equal opportunities	53	65
men have more opportunities	41	18
women have more opportunities	3	15
Subjected to[2]:		
sexual discrimination	1	4
nationality discrimination	1	1
disability discrimination	1	0
racial discrimination	1	1
age discrimination	3	3
VIOLENCE AT WORK[2]	**Male**	**Female**
Subjected to:		
physical violence	3	4
unwanted sexual attention	1	4
intimidation	7	9
FACILITIES PROVIDED BY COMPANIES[2]	**Male**	**Female**
Maternity leave	35	54
Sick child leave	32	41
Parental leave	32	43
Child day care	7	10

OCCUPATIONAL RISKS AND HEALTH PROBLEMS	Male	Female
Work affects health	58	55
Stress	28	27
Backache	29	30
Overall fatigue	20	20
Headaches	11	15
Muscular pains in arms or legs	17	16
Sleeping problems	7	6
Allergies	3	4
Heart disease	1	1
Anxiety	7	8
Irritability	11	11
Personal problems	3	4
Respiratory difficulties	5	3
Stomach ache	5	4
Skin problems	6	6
Eye problems	10	9
Ear problems	9	3
Work improves my health	1	1
Job made more difficult because of health problems	10	8
HEALTH RELATED ABSENTEEISM (over the last 12 months)	**Male**	**Female**
No absence	76	78
Less than 5 days	6	6
5 - 20 days	12	11
More than 20 days	6	5
PERCEPTION OF RISK[2]	**Male**	**Female**
Think their health at risk because of work	33	22
Think their job is secure	69	71
JOB SATISFACTION	**Male**	**Female**
Satisfied with their job	84	84
In the last 5 years:		
changed job for a healthier job	13	13
tried, but unsuccessfully	8	8
did not try	78	79

[1] exposure for more than a quarter of the time
[2] yes/no question

APPENDIX 1

Real Median Weekly Earnings

*average of 5th and 6th decile

	Year	Data ($)	Index
Men	1981	589	100
	1984	562	95.4
	1989	553	93.0
	1993	546	92.7
Women	1981	410	100
	1984	410	100
	1989	430	104.9
	1993	425	103.7

Source: Garnett Picot (1996), *Working Time, Wages and Earnings Inequality Among Men and Women in Canada*, 1981-1993, Appendix Table 1. Data are for workers aged 25-54.

APPENDIX 2

% Not Low Paid in Main Job

	Year	Data (%)	Index
Men	1981	81.5	100
	1984	85.9	105.4
	1989	85.2	104.5
	1993	85.3	104.6
Women	1981	59.3	100
	1984	62.2	104.9
	1989	65.4	110.3
	1993	69.4	117.0

Source: Low Pay is < $10.80/hour in constant 1993 dollars or roughly below two-thirds of the economy wide median wage. Picot (1996), Table 2.

APPENDIX 3

Polarization: Ratio of Top to Bottom Deciles, Average Weekly Earnings

	Year	Data	Index
Men	1981	4.26	100
	1984	4.86	85.9
	1989	5.21	77.7
	1993	5.10	80.3
Women	1981	6.26	100
	1984	6.63	94.1
	1989	6.48	96.5
	1993	6.18	98.7

Source: Picot (1996).

APPENDIX 4

Pension Plan Coverage (% Paid Workers)

	Year	Data (%)	Index
Men	1981	NA	100
	1985	50.1	100
	1989	47.0	93.8
	1993	46.8	93.4
	1995	44.0	87.8
Women	1981	NA	100
	1985	35.6	100
	1989	37.4	105.1
	1993	41.9	117.7
	1995	40.6	114.0

Source: Statistics Canada, Cat. 74-401-XPB, *Pension Plans in Canada*.

APPENDIX 5

Voluntary Part-Time as % Part-Time Workers

	Year	Data (%)	Index
Men	1981	82.5	100
	1984	70.9	86.0
	1989	80.4	97.5
	1993	66.0	80.0
	1995	67.8	82.2
Women	1981	84.2	100
	1984	73.4	87.2
	1989	79.6	94.5
	1993	68.6	71.5
	1995	69.6	82.7

Source: Statistics Canada, Labour Force Survey.

APPENDIX 6

% Adult Paid Workers Working Standard Usual Work Week (35-40 Hours)

	Year	Data (%)	Index
Men	1980	77.5	100
	1985	75.0	96.8
	1989	73.4	94.7
	1995	68.6	88.5
Women	1981	64.5	100
	1984	62.6	97.1
	1989	63.4	98.3
	1995	61.3	95.0

Source: Mike Sheridan, Deborah Sunter, and Brent Diverty, *The Changing Work Week: Trends in Weekly Hours of Work*, Canadian Economic Observer, September 1996. Data are from Labour Force Survey for 1980, 1985, 1989, 1995.

APPENDIX 7

Permanent Lay-Off Rate

	Year	Date	Index
Men	1981	8.6	100
	1984	9.9	84.9
	1989	8.1	105.8
	1993	9.4	90.7
Women	1981	4.3	100
	1984	5.4	76.4
	1989	4.1	104.7
	1993	4.9	86.0

Source: G. Picot and Z. Lin, *Are Canadians More Likely to Lose their Jobs in the 1990s? Canadian Economic Observer*, September 1997. Statistics Canada, Cat. 11-010-XPB, Table 2.

APPENDIX 8

Temporary Lay-Off Rate

	Year	Data	Index
Men	1981	7.6	100
	1984	9.2	79.0
	1989	7.2	105.3
	1993	9.1	80.3
	1994	8.4	110.5
Women	1981	5.7	100
	1984	7.1	75.4
	1989	5.6	101.7
	1993	7.1	75.4
	1994	5.6	101.7

Source: Statistics Canada, Cat. 71-539-XPB, *Permanent Layoffs, Quits and Hirings in the Canadian Economy*, 1978-1995, Table 5.

APPENDIX 9

Probability of New Job Lasting More Than 6 Months

	Year	Data	Index
Men	1981	.564	100
	1984	.490	86.9
	1989	.495	87.8
	1993	.440	78.0
	1994	.487	86.4
Women	1981	.643	100
	1985	.568	88.3
	1989	.534	83.1
	1993	.477	74.2
	1994	.485	75.4

Source: Data provided by Heisz, see Andrew Heisz, *Changes in Job Tenure and Job Stability in Canada,* Statistics Canada, 11 F0019MPE #95, 1996.

APPENDIX 10

Incidence of Occupational Time-Loss Injuries*

Year	Data	Index
1981	5.9	100
1984	5.4	108.5
1989	5.4	108.5
1993	3.7	137.3
1995	3.4	142.4

Source: Human Resources Development Canada, *Data Base on Occupational Safety and Health*.

Data not separately available for men and women. 1995 Data preliminary.

*Incidence is per 100 workers.

APPENDIX 11

Union Density

	Year	Data (%)	Index
Men	1981	37.5	100
	1984	37.6	100.3
	1989	36.0	96.0
	1993	35.0	93.3
	1996	32.9	87.7
Women	1981	23.3	100
	1984	27.4	117.6
	1989	28.2	121.0
	1993	29.8	127.9
	1996	30.0	128.8

Source: Union Members as % Paid Non-Agricultural Workers, Diane Galarneau, *Unionized Workers, Perspectives on Labour and Income.* Spring, 1996. Cat. 75-001XPE. 1996 is data from the Labour Force Survey for the first six months of 1997.