



# Work time and learning activities of the continuously employed

Work time and  
learning  
activities

## A longitudinal analysis, 1998-2004

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### Abstract

**Purpose** – The purpose of this paper is to examine the paid and unpaid work time and learning activities of a small longitudinal sample ( $n = 286$ ) of continuously employed Canadians over the 1998-2004 period.

**Design/methodology/approach** – A sub-sample of those who responded to two national surveys carried out in 1998 and 2004 and who were continuously employed throughout this period was selected. In addition to a quantitative analysis of their responses to both surveys, a qualitative analysis of open-ended interviews in 2000 with many of the same respondents offers further insight into orientations to engagement in formal (course-based) and informal learning.

**Findings** – Those who are not taking adult education courses are still very likely to participate continually in job-related informal learning. There is some indication that continuing lack of participation in courses may be associated with declining participation in job-related informal learning. The in-depth interviews suggest that most continuously employed respondents see course-based education and informal learning as complementary.

**Originality/value** – The lack of prior longitudinal population studies means that understanding of continuity and change in work and learning relations has been based on inferences from cross-sectional surveys. There are few recent longitudinal surveys of work and learning and none that incorporate both unpaid work and informal learning as well as paid work and adult education course participation. This study provides some elementary benchmarks for further diachronic research on work time and learning relations.

**Keywords** Adult education, Lifelong learning, Employment, Volunteers, Canada

**Paper type** Research paper

### Review of literature

Research on learning related to paid workplaces has expanded greatly over the past generation and offered numerous insights about the forms, contents and processes of workplace learning (e.g. Boud and Garrick, 1999; Rainbird *et al.*, 2004). In particular, much more attention has been devoted to studying less formal aspects of job-related learning (e.g. Marsick and Watkins, 1990; Garrick, 1998) in relation to the presumed increasing knowledge-based character of many jobs. However, in spite of widespread presumption about the changing nature of work and learning, there have been very few empirical studies of diachronic design to attempt assessing such changes over time.



Aside from some short-term case studies (e.g. Darrah, 1996), there are very few longitudinal studies of patterns of work and learning. A few recent studies have focused on the effects of specific training programs, such as vocational education and training (VET) programs in Australia (Cully, 2003), or the Sectoral Employment Development Learning Projects (SEDLP) in the USA (Conway and Zandniapour, 2002, Zandniapour and Conway, 2002). Both studies found positive effects of employment training on improving individuals' occupations. Other longitudinal studies have focused more on particular firms to evaluate the effectiveness of their in-house training programs on the perceptions of self for those participating in the training (Puurula and Lofstrom, 2003).

The major longitudinal study of adult education to date, completed in the 1980s, looked at the effects of initial formal education and participation in adult education among a Swedish group of men who were followed for more than 50 years. There was strong evidence confirming the positive cumulative nature of adult education (Tuijnman, 1989). The current Longitudinal Study of Adult Learning Projects in the USA addresses literacy development, learning and life experiences of low-education adults between the ages of 18 and 44 who have not finished or were not enrolled in high school. The project's focus is to connect research and practice to help strengthen education programs. Three reports have been produced to date: the first focuses on the effects of negative high school experiences on participation in adult education courses or self directed learning (Reder and Strawn, 2001a); the second focuses on lifelong learning of high school dropouts (Strawn, 2003); and the third focuses on providing information for adult basic education programs by looking at the practices of self directed learning for high school dropouts (Reder and Strawn, 2001b). A few earlier studies looked at the effects of post-school continuing education and training on occupational attainments of young people (Adams *et al.*, 1982, Mangum and Adams, 1987).

We have found no other recent longitudinal studies of adult education participation, none at all that have examined participation in informal learning and none that have addressed work and learning relations more broadly over time. While necessarily time-consuming and potentially costly, such studies can provide insights about relationships that are beyond the capacity of cross-sectional research. For example, the same general frequency of participation in adult education courses may be found in population surveys five years apart but this tells us nothing about patterns of continuing participation or exclusion over this period.

### **National recall sample**

This paper focuses on a longitudinal sample of respondents in 1998 and 2004 to Canadian national surveys on work and learning. The 1998 survey was conducted as part of the New Approaches to Lifelong Learning (NALL) research network (see [www.nall.ca](http://www.nall.ca)) and the 2004 survey as part of the Changing Nature of Work and Lifelong Learning in the New Economy research network (WALL) (see [www.wallnetwork.ca](http://www.wallnetwork.ca)). Both networks were supported by the Social Sciences and Humanities Research Council of Canada. Respondents to the 1998 survey ( $n = 1562$ ) were recalled in 2004. The total number of recall respondents was 600.

The current analysis considers only those recall respondents who were employed at the time of both surveys and further excludes employed respondents who also

identified themselves as being either full-time or part-time students. The resulting sample of 286 respondents is quite small and permits only exploratory analysis of basic trends for this core group in hours worked and participation in adult education and informal learning. Statistical analysis of significant differences is limited by small cell sizes in many instances, so the patterns discussed are only suggestive. It should be stressed that, in Canada as in most advanced capitalist countries, there is both chronic and occasional unemployment as well as a growing contingent labor force in temporary employment. There are also increasingly frequent and complex transitions for people moving from school to employment and leaving the workplace to return to school. The continuously employed group in the 2004 sample represents about two-thirds of those in the recall sample who had been employed in 1998. The continuing learning practices of the contingent labour force may be quite different and also need further diachronic analysis.

The age and sex composition of this sample remains quite similar to that of the employed labor force in the 1998 general NALL sample, with the obvious exception that it becomes truncated in age terms, with no new 18 to 24 respondents and dwindling numbers in the oldest age groups as people have retired from the active labor force. So the focus of this analysis is on the increasingly middle aged, continuously employed core of the Canadian labor force.

### Paid and unpaid work time profiles

Respondents in our sample report a slight increase in the average number of paid hours worked per week between 1998 and 2004 from about 40 to over 41 hours per week. Table I shows the distribution of employment hours. There has been an increase from 19 to 25 percent in the proportion of respondents employed 50 hours or more and a similar decrease for those employed between 30 and 39 hours per week (28 percent to 23 percent, respectively). The larger NALL and WALL cross-sectional samples showed somewhat greater increases for the entire labor force between 1998 and 2004 in average hours employed and the proportion employed over 50 hours a week. Higher paid work hours in the recall sample may be attributable to an aging sample which includes no new age 18-24 labor force entrants, the most likely age cohort to have temporary jobs with low hours. There is no suggestion here that the relatively secure continuously employed are reducing their employment hours for “leisure” pursuits.

Average hours worked per week	Males		Females		Total	
	1998 (%)	2004 (%)	1998 (%)	2004 (%)	1998 (%)	2004 (%)
1 to 19 hrs	1	1	8	8	3	3
20 to 29 hrs	2	3	13	11	7	7
30 to 39 hrs	23	18	33	29	28	23
40 hrs	37	34	26	29	32	32
41 to 49 hrs	11	13	11	5	11	9
50 + hrs	26	30	9	19	19	25
Total average hours	43	44	36	38	40	41
N	(159)	(159)	(127)	(127)	(286)	(286)

**Table I.**  
Average paid  
employment hours  
worked per week,  
continuously employed  
Canadian Labour Force  
1998 and 2004

Employment hours for specific respondents tend to be fairly similar at both points. Two-thirds of those who spent over 50 hours a week on the job in 1998 also did so in 2004. But those who worked few hours a week in 1998 generally increased their employment hours by 2004. Those who worked around 40 hours a week in 1998 were just as likely to increase their employment hours as to reduce them. Overall, about half of those in this continuously employed sample changed employment hours category (those outlined in Table I) over this period, most fairly marginally.

The average hours of employment increased for both men and women in this continuously employed sample, from 43 to 44 hours for men and slightly more for women, from over 36 to about 38 hours. The women continued to be more likely to work under 30 hours a week and men over 40 hours in both periods. But around a quarter of the women were devoting over 40 hours a week to their paid jobs in 2004, compared to over 40 percent of the men. This sample, of course, excludes women who discontinued their employment for child-bearing responsibilities during this period. But in both cross-sectional surveys of the total labor force and the current continuously employed sample, women have increasingly approached parity with men in both participation rates and hours of employment (see Statistics Canada/Labour Statistics Department, 2004).

Time devoted to housework is typically much more diffuse and less accurately estimated than for employment. As Table II shows, the respondents' self-reports of time devoted to cooking, cleaning, home maintenance and repair, yard work, shopping, renovations, home budgeting and other household tasks indicated that they were doing an average of about 15 hours of housework per week in both years. Those who said they were doing more than 30 hours of housework a week remained at around 10 percent in both years. As in all prior surveys of housework, continuously employed women continued to do more housework than men. In 1998, these women were doing an average of 19 hours of housework per week and men around 11 hours, a difference in hours of over 70 percent. In 2004, this gender gap appears to have narrowed to 17 hours for women versus 13 hours for men, a difference in hours of about 30 percent. Again, these figures are for a continuously employed and aging sample and they ignore aspects of domestic labor such as childcare, which are a major responsibility for women in younger age cohorts. But there is at least some suggestion here that continuously employed men are increasingly "helping her out" with housework as they grow older together.

The majority of respondents in our sample are married (72 percent) or living with a partner (5 percent). Of those who are married or living with a partner, the majority

Average hours unpaid work per week	Males		Females		Total	
	1998 (%)	2004 (%)	1998 (%)	2004 (%)	1998 (%)	2004 (%)
1 to 9 hrs	47	32	30	18	40	26
10 to 19 hrs	30	42	31	39	31	41
20 to 29 hrs	16	18	19	26	18	22
30 to 39 hrs	4	4	6	14	5	9
40 + hrs	2	3	14	3	7	2
Total average hours	11	13	19	17	15	15

**Table II.**  
Average unpaid housework hours worked per week, 1998 and 2004

have a partner who was also employed (69 percent). There seems to be no difference in the amount of housework hours for men whether their partners are employed or not. There is a slight decrease in the average number of hours spent on housework when respondents work more paid hours, most notably for males employed more than 39 hours per week. Women tend to do more housework if they have a partner while men tend to do fewer hours of housework when they do not have a partner. The small numbers of men in the sample who now do more hours of housework than paid work have experienced some form of family crisis (injury, illness or breakup) in the past five years.

Table III summarizes the combined total amount of paid work and housework done by members of the continuously employed labor force in both 1998 and 2004. Both men and women in this group are doing similar total amounts of work. The small increase in total hours of work from about 55 hours per week to about 57 hours is mainly attributable to increasing hours of paid work for women and increasing unpaid work for men. According to these limited estimates, the men in the continually employed labor force now may be doing marginally more total paid work and housework than the women in this core group. However, this is an exclusive group, other unpaid labor such as child care and elder care are not taken into account and men in this sample, as in most others, probably tend to overestimate their housework hours just as women tend to underestimate theirs. Women in general still do far more housework with more complex responsibilities than men, to the detriment of their employment careers (Livingstone and Pollock, 2005). In any case, both paid and unpaid work time should increasingly be taken into account in relation to equitable adult learning opportunities.

### Adult course profiles

In both the 1998 and 2004 general national surveys, around 60 percent of all employed respondents indicated that they had taken an adult education course or workshop in the past year. In the longitudinal sample, as Table IV shows, about 60 percent also said that they took a course in 1998. In 2004, the participation rate of this sample had declined somewhat to 53 percent. This result is consistent with the longstanding cross-sectional finding that adult education participation declines with age. Analysis of the formal educational attainment level of those who took continuing education courses also confirms the common cross-sectional survey finding that those with higher levels of formal educational attainment are more likely to participate in adult education courses. In both 1998 and 2004, only about one-quarter of the high school dropouts took courses, compared to a majority at all higher attainment levels and over two-thirds of

Total hours worked	Males		Females		Totals	
	1998 (%)	2004 (%)	1998 (%)	2004 (%)	1998 (%)	2004 (%)
0-39	9	6	18	4	14	5
40-49	30	21	30	28	29	25
50-59	26	33	23	24	25	29
60-69	24	25	8	23	16	24
70 +	11	15	23	21	17	18
Average hours	55	58	55	55	55	57

**Table III.**  
Total paid work and housework hours by sex, 1998 and 2004

those with professional or graduate degrees. There were no notable differences in basic course participation rates, or in job-related informal learning rates, by sex.

The longitudinal sample allows us to identify those who took adult courses during both 1998 and 2004, those who took course at only one of these times, and those who did not take courses in either year. As Table V summarizes, 40 percent took courses during both years, about one-third took courses only during one of these years and about a quarter did not take courses during either year.

Case by case analysis of participation in adult education at both points confirms that the likelihood of continuing participation is closely related to 1998 formal attainment levels. As Table VI summarizes, the majority of those with university degrees are found to be continuing participants while less than 20 percent of those without a high school diploma took courses in both years. Conversely, over 60 percent of school dropouts took no adult courses in either year while only around 15 percent of university graduates took no courses.

### Job related informal learning

A primary focus of the NALL and WALL research networks has been to study forms and processes of informal learning in general and related to paid and unpaid work in

**Table IV.**  
Formal educational attainment by adult education participation 1998 and 2004

Formal educational attainment, 1998	Taking adult education courses	
	1998 (%)	2004 (%)
No diploma	28	28
High school diploma	54	48
College certificate	64	60
Bachelor degree and some undergraduate	77	60
Professional and graduate degree	75	69
Total	61	53

**Table V.**  
Participation in adult education courses, 1998 and 2004

1998		2004	
		Took courses	Did not take courses
	Took courses (%)	40	21
	Did not take courses (%)	14	26

**Table VI.**  
Formal educational attainment in 1998 by continuing participation in or exclusion from adult courses

Formal educational attainment, 1998	Participation adult education courses	
	Yes 1998 and 2004	No 1998 and 2004
No diploma (%)	17	61
High school diploma (%)	29	27
College certificate (%)	44	20
Bachelor degree and some undergraduate (%)	52	16
Professional and graduate degree (%)	58	14
Total (%)	40	26

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particular (see overview papers on the web sites). The current analysis focuses on the basic incidence of job-related informal learning as reported by this longitudinal sample in 1998 and 2004. Housework-related learning, which has been ignored in all prior studies of adult learning, will not be addressed in this paper but is being analyzed for the first time in related WALL network papers (see Eichler, 2006). Overall, as the total participation rates in Table VII indicate, there is no noticeable difference in the proportions of continually employed respondents who reported doing job-related informal learning in 1998 (91 percent) and in 2004 (88 percent). Consistent with prior survey research (Livingstone, 1999), we have found very high levels of participation and no noticeable differences in average hours of this informal learning in relation to formal educational attainment levels in either year.

However, as Table VII also shows, there is a tendency for the continuously employed who have participated in adult education courses in both years to sustain somewhat higher rates of participation in job-related informal learning than those who did not participate in courses in either year. Nearly all continuing course participants were actively involved in job-related informal learning, while informal participation among those who did not take courses at all declined from over 80 percent to about two-thirds. This suggests that either the mutual presence or absence of both formal course participation and informal learning do reinforce each other in many instances, cumulative effects of prior learning which deserve further study.

### **Personal views of formal and informal learning**

More specific views about preferred modes of continuing learning among this continuously employed group were expressed in the open-ended interviews conducted with a subsample of the original NALL sample in 2000 (Livingstone *et al.*, 2002). Virtually all of those who took courses continually (at least one course per year) conceded that they also did some informal learning but some of the more highly schooled tended to denigrate it as undisciplined and unproductive or trivial and irrelevant. An older male supervisor with a BA argues:

When you take M.A. courses you learn a better system of checks and balances. You would learn more formally in one month than in a year on your own.

A young male manager with a BA asserts:

At times, life experience [informal learning] is more valuable but there is no substitute for formal learning.

But the dominant relationship for most of the continuously employed adults who take courses is to regard their formal education, adult courses and informal job-related learning as complementary and at least potentially interactive. For example, a young woman semi-professional with a bachelor's degree says:

I think it's important to learn both formally and informally. Formal learning is important in that it is often tied to work; informal learning is tied more to one's personal side, cooking, gardening, etc. I think they're both important, you need a balance.

A middle-aged woman professional employee with a high school diploma feels that:

Informal and formal learning are used in different facets of life. Formal learning [is for] business and informal learning [is for] gardening and other unrelated areas.

**Table VII.**  
Participation in  
job-related informal  
learning by participation  
in adult courses, 1998 and  
2004

Participation in job-related informal learning	Participation in adult education courses				Total participation in job related informal learning
	Participated in both 1998 and 2004	Participated in adult courses in 1998 but not in 2004	No participation in adult courses in 1998 and participation in 2004	No participation in adult education courses in either 1998 or in 2004	
Participated in job related informal learning in 1998 (%)	95	93	87	84	91
Participated in job related informal learning in 2004 (%) (N for course participation)	97 (113)	91 (61)	94 (39)	67 (73)	88 (286)

Another middle-aged woman professional with a graduate degree states:

Formal learning is important for workplace and informal learning is very important for mental balance.

And an older woman supervisor with a college certificate comments:

I recently had a job change so I'm learning informally a lot more [related to my work]. I just think things you learn informally are just as important as the things you learn formally. Well, there are some things that you may learn about in a course but there are other things that you learn about more/better informally, for example interpersonal skills and communication skills. The formal learning I've taken [courses on dealing with difficult people] was applied and is related to the informal learning I've done on the same topic.

Those who had more irregular course participation patterns (less than one course per year during this period) also tended to mention the importance of both formal and informal learning for their work and to stress the gaining of different knowledges through various methods.

A middle-aged woman professional with a high school diploma notes:

I'm more driven to get formal education related to my employment. I will be going back to school to take a course that will help me in my employment career. Because some of the things I do learn are informally learned, I didn't have to take a formal course to learn, whereas some things it is better to get formal training or learning. The informal and formal learning that I've done both pertain to [my career]. So whatever I've learned formally, I've also learned about informally through life experiences. I've learned my whole life about [my field] and so I decided to learn formally as well.

Some do not have a preference but feel that you need formal learning to form a base for future learning. This is explained by an older woman industrial worker with a high school diploma:

I'm learning what I want to know and not going to a structured class. It seems equal to me. . . High school learning is not same as informal learning. But high school learning was the base of knowledge and is helping me to understand better and do more informal learning.

In some cases, respondents have not been able to find the type of courses needed for their line of work. In these cases, they typically turned to informal learning to get the necessary skills. A middle-aged self-employed male with a professional degree claims that:

I was always a very good student in school and I learned to get the skills that are required in both informal and formal ways. If there was a class suited that would add to my skill set and if I could afford to take the course, [I'd take it] . . . But what I'm studying informally cannot be part of what you could find in a standard college curriculum. It's like learning to paint; the stuff that I'm interested in is learning to develop the eye for it so that what is done it's something you can't get out of school, you learn by yourself.

The combination of formal and informal learning is seen as very important by some people in specialized fields where foundational knowledge is readily available in formal courses. A young male semi-professional with a college certificate explains:

I'm starting to realize that learning is important and you stop learning when you die. Formal is structured – they teach you what they want you to learn, whereas, informal learning is more personal. Formal courses train us to be a computer programmer, marine biologist, etc.

Informal learning ranges from how to repair a car to raising kids. Informal learning covers every small important aspect of life.

Those who did not participate in courses at all during this period tended to express either dislike for perceived rigidities of formal education or frustration with access barriers to such courses, as well as celebrating the relevance of their informal learning activities. An older female school dropout who is a service worker puts it:

I'm too busy doing other things . . . I don't like going to school personally. I like learning it for myself. Some people like school and some don't. But just because you don't go to school doesn't mean you don't learn a lot. That's why I think they're the same importance, because you learn just as much in both.

A young male industrial worker with a high school diploma states simply:

I work nights so I don't have time during the day and I study on my own time. For this reason I study and learn when I have time and when I want to.

A middle-aged small employer with high school declares:

You can do it and learn it at the same . . . [There are] not very many courses on the work that I do.

Most of these continuously employed people tend to regard the relationship between courses and informal learning as complementary in some way. Some of the more highly schooled course participants seem to denigrate informal learning as trivial while some of the non-participants see courses as irrelevant. But most see the potential benefits of both types of learning whether or not they are prepared to or have been able to participate themselves.

### Age effects on learning

A strong relationship between aging and participation in adult education courses has been the most consistent finding in the adult education research (e.g. Kim *et al.*, 2004). The findings for this group of continuously employed workers over this six year period are summarized in Table VIII. A declining pattern of participation is generally evident both by age group in 1998 and 2004 and for most age cohorts over time. But these declines are not as pronounced or consistent as numerous earlier studies have found. Indeed, majorities in the age groups up to 45 to 54 were actively participating in courses in both years and there is no strong difference between them. There is a sharp

1998 age cohorts	Adult education participation (%)		Job related informal learning (%)	
	1998	2004	1998	2004
25-34	60	51	93	80
35-44	70	57	91	90
45-54	53	51	93	93
55-64	27	27	73	71
Total	61	53	91	88

**Table VIII.** Participation in adult education and job related informal learning by age, 1998 and 2004

drop in course taking in the over-55 group, which is when most people are either preparing to retire or actually retiring from their jobs. But this is the only age group that did not show a declining rate of course participation during this period. Each of the younger cohorts does exhibit some decline in its own participation over this period but older age group show higher course participation rates than earlier Canadian studies (see Belanger and Valdivielso, 1997). This sustained participation rate is partly a consequence of the rapid increase in recent decades in post-secondary completion in Canada to a world-leading level and the strong association of more formal education with greater adult education participation, as documented in Table IV.

A somewhat similar pattern is found for job-related informal learning. The vast majority of workers at all ages continue to participate actively in informal learning activities. Rates of around 90 percent are found for all cohorts up to 45 to 54 in both 1998 and 2004, with no indication of declining involvement. There is a notable decline for the over 55 group, but over two-thirds remained active in job-related informal learning in 2004.

### Paid work time and learning

The elementary measures used in this longitudinal survey permit some estimation of the association between working time and participation in work-related learning activities. As Table IX shows, there was a small decline in course participation across nearly all category levels of paid work time between 1998 and 2004. In contrast, participation in job-related informal learning was initially much higher than course participation and remained at these high levels in this period for all levels of paid work time. There is also evidence that those who remain in low hour jobs experience both declining course participation and increases in job-related informal learning, suggesting that the more marginally engaged active labor force is no less reliant on job-related informal learning than full-time workers. While we would expect to see declining course participation in the aging cohort of workers, the finding that participation in job-related informal learning remains very high for all levels of paid work time as well as all age groups points to a sustained importance of such learning for performing most jobs.

As in prior cross-sectional analysis of the 1998 NALL survey, there were only weak associations between hours of paid work and participation in either courses or informal learning for the entire labor force, both in 2004 and in lagged associations with 1998. Reported hours of job-related informal learning showed a slight positive association

Average paid work hours	Participation in adult education courses (%)		Participation in job related informal learning (%)	
	1998	2004	1998	2004
Less than 30	52	47	77	86
30-39	70	59	87	95
40	53	54	94	83
41-49	61	41	94	85
50 or more	66	54	96	90
Total	61	53	91	88

**Table IX.**  
Average paid work hours  
by participation in adult  
education courses and  
informal job-related  
learning, 1998 and 2004

with hours of job-related informal learning in 1998 but no noticeable relation for the continuously employed sample in 2004. It should be noted that community volunteer work-related informal learning time was quite positively associated with hours of volunteer work in both years (see Livingstone, 2001). It is possible that these patterns may be partly explained by greater discretionary control for those who opt to do unpaid community work. Differences in “job control” and learning activities deserve much further attention.

There appear to be some gender differences in job-related informal learning for those who work long hours. Men who spent over 50 hours at their jobs in 2004 tended to devote the most hours to job-related informal learning, averaging around six hours per week by their reckoning, while women with such long hours jobs did roughly half as much. These gender differences in long work hours-based learning are increased if total work hours are counted, with men more likely to be involved in more voluntary overtime employment and employed women more likely to have to devote more time to housework responsibilities. “Workaholic” males may choose to work overtime; most women with families don’t have that choice.

In any case, the main point here is that there are few noticeable differences in the relationship between paid work time and basic incidence of job-related learning activities for the continuously employed during this period. Course participation rates are quite comparable for those with high and low employment hours in both years. Participation rates in job-related informal learning are generally very high, except for declining involvement among those who are chronically excluded from course participation. Those in low hours jobs remain highly reliant on job-related informal learning.

### **Conclusion**

This analysis focused on adults employed continuously between 1998 and 2004 and excludes those in irregular employment and those outside the active labor force. It also omits those who entered the 18 to 24 age group during this period, those now recognized as the most intensive and extensive formal and informal adult learners (Livingstone, 1999). Among the continuously employed labor force, there has been a tendency towards longer work hours during the 1998 to 2004 period. While those more marginalized from the employed labor force may experience enforced “leisure” time, along with their unpaid housework, there is little indication here that those in more secure forms of employment are now disposed to reduce their time commitment and opt for more free time.

The finding that there has been an increase in paid work hours most notably for employed women and that there is some marginal redistribution of basic housework hours toward men applies mainly to continuously employed workers living with other employed workers. Even here, where the sustained pressure to share housework is likely greatest, the gender gap remains substantial and men do a greater share than women only in times of family crisis. There has been much recent attention to a “long hours culture”, fixated on paid employment hours but ignoring the unpaid work, notably housework, that is a significant part of most employed workers’ work week. Initiatives to achieve better work-family balance are most likely to have a positive effect on either quality of work life or workers’ learning opportunities if the full extent of these long hours is recognized more clearly. In particular, efforts to provide equal

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opportunities for women to achieve career mobility have often failed to come to grips with the differential constraints that their assumption of the major family responsibilities has placed on engagement in long paid hours, social networking and job-related learning even among those women most continuously involved in employment (Livingstone and Pollock, 2005). The finding of this study that these persistent work and learning gaps may be narrowing among continuously employed men and women is at least a hopeful sign.

Participation levels in adult education courses have typically been found to be higher in the employed labor force than in the general adult population. There have probably been greater opportunities among the continuously employed sample for access to continual job-related courses. But the sustained levels of course participation among the continuously employed older age cohorts in this study are much higher than among the older population in most prior studies. This may be reflective of the distinctive work and learning conditions of continuously employed older workers or perhaps of an emerging “lifelong education culture” in the now highly educated Canadian labor force, over half of whom now have post-secondary credentials (Statistics Canada, 2003). New information technologies such as the internet have generally enhanced the accessibility of relevant adult courses. The increasing incidence of course participation by older workers may be related to the growing infusion of information processing tasks into many jobs. In any case, course participation does not substantially decline now until these workers are into their 50s.

Job-related informal learning has been little studied, especially longitudinally. It is much more widespread than course participation and shows much less decline in terms of either participation or time devoted to it with aging. Overall, those who do not take adult education courses do not have very different patterns of participation in job-related informal learning, either in terms of participation rates or average hours. But the association of continuing lack of participation in courses with declining participation in job-related informal learning should underline the significance of continuing to provide formal educational opportunities to workers as they age.

Perhaps the greatest implication of these exploratory findings is greater appreciation of the extent and dynamism of the working knowledge of older workers. One of the most significant changes in the composition of the Canadian labor force over the past decade has been the growing numbers and proportion of people over 55 staying in the labor force; they now constitute over half of all job increases (Cross, 2006). Course-based learning of older workers drops substantially after age 55 when many are preparing for retirement, but their informal job-related learning only declines marginally. The endogenous learning of workers generally continues to be underestimated (see Pankhurst and Livingstone, 2006). But the continuing informal learning of the growing proportion of older workers, combining vast tacit knowledge of local working conditions with implementation of new work techniques and mentoring younger workers, should be increasingly recognized as vital to continuing workplace effectiveness and labor force renewal. Recent comparative case studies with more sensitive measures of working conditions and learning practices have documented the rich informal learning networks, often led by more experienced, less formally educated workers, in diverse workplaces (e.g. Livingstone and Sawchuk, 2004)

This analysis has merely scratched the surface of changing work and learning relationships in advanced market-based economies today. There is little indication here

that the continuously employed and aging portion of the labor force is reducing its paid work time, as leisure society theorists would have predicted. Older workers appear to be increasing the duration of their active engagement in both employment and formal and informal job-related learning. Further more in-depth longitudinal analyses of work and learning relations, broadly conceived to include both unpaid work and informal learning, are much needed to understand adequately these relations among the continuously employed, as well as among those more marginally connected to the employed labor force. Further studies with larger samples, more nuanced concepts of work and learning, and in-depth qualitative designs would be especially valuable to assess more carefully the common presumption of workers' learning deficits in relation to the changing demands of knowledge-based economies.

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