SSHRC Research Network on the Changing Nature of Work and Lifelong Learning

WALL

Work and Lifelong Learning in Canada: Basic Findings of the 2004 WALL Survey

by D. W. Livingstone and Antonie Scholtz

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Preface

The Canada-wide survey of work and lifelong learning (WALL) was conducted in the winter and spring of 2004. The WALL survey provides profiles of the current work and learning activities of a large-scale sample of Canadian adults. Work profiles include paid employment and also household work and community volunteer work. The array of adult learning profiles includes formal schooling, further adult education courses, informal training and non-taught informal learning.

The survey permits various analyses of relations between work and learning activities. The survey also offers profiles of workers' perceptions of changes in key dimensions of work in recent years and permits comparisons with a prior survey of adults' learning activities conducted in 1998 (the New Approaches to Lifelong Learning [NALL] survey). These survey results give estimates of the extent and rate of emergence of a "new economy," as well as the impact of such changes on adult learning activities. In comparison with conventional surveys of education and employment, the WALL survey pays greater attention to informal learning and unpaid work, and provides new evidence for development of fuller understanding of the general processes of change in learning and work relations. The current report summarizes the basic findings from the report.

The primary survey data reported on here were gathered as part of the research network on The Changing Nature of Work and Lifelong Learning (WALL). The WALL research network was funded by the Social Sciences and Humanities Research Council (SSHRC) from 2002 through 2006 as a Collaborative Research Initiative on the New Economy (Project No. 512-2002-1011).

The WALL network is based in the Centre for the Study of Education and Work (CSEW) at OISE/UT. This network is composed of the WALL survey project and 12 related case study projects which examine learning and work relations in greater depth within the following work environments: biotechnology; steel/light manufacturing/nursing homes; public sector work; the teaching profession; disabled bank workers; women information technology workers; immigrant workers; housework; volunteer community work; school-work youth transition; critical transitions through the life course; and labour education programs. An extensive annotated listing of a much wider array of recent studies on work and learning, the Work and Lifelong Learning Resource Base (WALLRB), has been produced with the aid of the Canadian Foundation for Innovation. For further information on the case studies, the WALLRB and other WALL and NALL papers, please see the network website at: http://www.wallnetwork.ca.

The principal investigators of the general national survey on learning and work are David W. Livingstone, WALL network director and CSEW Head, John Myles (University of Toronto), and Pierre Doray (University of Quebec at Montreal). Community partners are Larry Hubich (President, Saskatchewan Federation of Labour) and Monica Collins (Director, Global Learning Office, Scotiabank). Assistance with data analysis was provided by Doug Hart and Milosh Raykov. Rhonda Sussman, WALL Network Secretary, formatted the report. Fab Antonelli and Susan Stowe reviewed it. D'Arcy Martin, Coordinator for CSEW, and Ilda Januario, WALL Project Coordinator, also helped. We are grateful to all for their support in the production of this report.

Executive Summary

The 2004 Work and Lifelong Learning (WALL) survey provides general profiles of both paid and unpaid work as well as formal and informal learning activities of Canadian adults. Comparisons are made with the 1998 New Approaches to Lifelong Learning (NALL) survey, as well as with a similar survey of work in 1982-83 and a few other relevant surveys of specific aspects of work and learning. The WALL and NALL surveys are distinctive in their attention to work-related informal learning activities and in offering population benchmarks for studying relations between work and learning activities. Major findings include:

Paid Work

- Paid employment is increasingly dominated by the service sector which now makes up over two-thirds of all jobs.
- There was a significant shift in the distribution of occupational classes between 1983 and 2004, with increases in managerial and professional employees and decreases in both industrial and non-managerial service workers.
- There was extensive organizational restructuring over the past decade, most notably enterprise downsizing, increasing use of part-timers and overtime, and multi-skilling.
- Labour force participation is at unprecedented high levels, but at least a quarter of the employed are in part-time and/or employed student statuses while many others are oriented to employment but cannot actively pursue it.
- Around a third of the entire labour force now works irregular or night shifts.
- The permanent, full-time core labour force is shrinking and the typical 40 hour week declining, but there are growing numbers working more than 50 hours a week; there is also interest in redistributing employment hours from “over-timers” who feel they are working too much to “part-timers” who want more hours.
- Employee involvement has increased since the early 1980s in terms of thought and attention devoted to doing the job. As well, employees have gained at least limited participation in organizational decision-making (e.g., policy-making regarding products or services delivered, number of employees, budgets, etc.).

Unpaid Work

- Some form of housework is almost universal, but women remain responsible for most of it even though their participation in paid work has continued to increase relative to men.

- Child-care remains a large and incalculable responsibility, mainly for women. Many less people perform elder care but those who do spend over 10 hours per week.
- Over 40 percent of adults participate in community volunteer organizations, while two thirds are involved in helping friends and neighbours.
- Overall, time devoted to unpaid work is comparable to paid work.

Formal Education

- Higher education has grown massively since the 1960s; around half of all adults have completed post-secondary schooling and three-quarters think this level is now needed to get along in society.
- Participation in adult education has grown greatly since the 1960s, with over 40 percent of adults taking some form of credit or non-credit course(s) in 2004; however, substantial time and money barriers persist and employer support is much greater for managerial and professional employees than for service workers and industrial workers.
- Those with higher education continue to have higher participation rates in adult education but the gap is closing as the general level of educational attainment rises.

Informal Learning

- Over 80 percent of the employed labour force report involvement in some form of job-related informal learning – including, most commonly, new general knowledge in their field, new job tasks, computers, general problem solving and health and safety. Those pursuing job-related informal learning average over 5 hours per week.
- Around 80 percent of those who do either housework, volunteer work or general interest activities are involved in informal learning related to the unpaid activities they perform.
- For housework, learning most commonly relates to home renovation, gardening and cooking; for volunteer work, interpersonal and communication skills; for general interest activities, health matters. In each instance, the participants report spending, on average, approximately 5 hours per week.
- Total self-reported time devoted to informal learning averages around 14 hours per week, with around a third of participants spending less than 5 hours a week and 20 percent spending over 20 hours.
- Informal learning is only roughly estimated by survey methods; however, the estimates from the NALL and WALL surveys confirm that informal learning is more extensive than adult course participation and not strongly related to the latter.

Paid Work and Learning

- Occupational classes remain highly differentiated by formal educational attainments, less so by adult education participation and very little by incidence of job-related informal learning.
- Job requirements have increased since the 1980s both in terms of formal education levels required for entry or performance as well as training time to learn the job.
- Computer use has increased greatly since the 1980s, as have perceptions of increase in needed job skills, yet the employed labour force still report that their computer skills exceed those required by their jobs.
- Increases in the educational attainment of the employed labour force since the 1980s exceeds increases in the educational requirements of jobs.
- In terms of the match between educational attainments and job requirements, the general rate of underutilization in 2004 is estimated to be around 30 percent.
- Underutilization of education and skill exceeds underqualification in the employed labour force. Underutilization is a more enduring condition and has the greatest incidence among service and industrial workers—groups who have made the greatest relative gains in formal educational attainments since the early 1980s.

This report on the basic findings of the 2004 WALL survey is intended to provide general benchmarks for continuing studies of work and learning. It can be used most fruitfully in conjunction with reports on the 12 WALL network case studies that can be found at: http://www.wallnetwork.ca.

Introduction

It is now widely taken for granted that lifelong learning is essential for individuals, especially those in or seeking to enter the active labour force. Policy makers and management theorists (Department of Finance Canada, 2006; Garvin, 2000; Klein, 1998) make lifelong learning a focal point of economic growth and social-cohesion initiatives, often in conjunction with warnings of wide-spread skill shortages (McMullin, Cooke, & Downie, 2006; Neef, 1999). While studies such as Statistics Canada's Adult Education and Training Survey (AETS) have documented the extent of participation in adult education courses, there continues to be a dearth of empirical research with which to assess the fuller extent of Canadians' engagement in lifelong learning, and whether this learning is being used to its fullest potential in paid workplaces and beyond. Addressing this blind spot by expanding appreciation of dimensions of learning and documenting their relations with various forms of work has been a primary goal of the 2004 Work and Lifelong Learning (WALL) survey.

Over the past generation, global economic competition and new information technologies have been driving changes in the capitalist labour process and increases in non-standard work arrangements (Baldoz, Koeber, & Kraft, 2001; Castells, 1996; Smith, 1997). Women's increased paid labour participation has challenged traditional gendered divisions of labour both in paid workplaces and in the home. Partly in response to such changes, formal educational participation has increased greatly. Post-secondary educational attainments of youth cohorts in Canada grew quickly to a world leading level by the turn of the century (Statistics Canada, 2000a); and adult education course participation also grew continuously from 1960 until the early 1990s (Statistics Canada, 2001b). More recent increases in participation in adult education courses may have been more modest and will be examined further in this report. But it is fairly clear from the accumulating evidence that major recent changes have been occurring in the organization of work in advanced market-based economies, and that adults have been making substantial learning efforts to cope with such changes through various formal and informal means, often aided by new information and communication technology (ICT).

In this context, the WALL survey probed workers' perceptions of recent changes in key dimensions of paid and unpaid work and reports of their learning practices. The WALL survey addresses three basic questions:

(1) What are the current forms, contents and outcomes of the array of learning activities of Canadian adults?
(2) How have changes in the nature of paid and/or unpaid work and other general social conditions in the past five years and longer been associated with adults learning practices?

(3) What differences are there in these learning and work relations between social groups and especially between socially disadvantaged groups and others?

The WALL survey questionnaire addresses paid and unpaid work, formal and informal education, and the relationship between these and other socio-demographic variables. The questionnaire included over 200 items organized into 26 sections. It should be noted that not all respondents were asked all questions, with a few sections directed to special subgroups and a few other sections selecting a subset of respondents at random in order to limit interviewee response burden. General topics covered include basic demographics, paid employment status, time use, volunteer and household activities, formal and informal learning activities, barriers to formal learning, access to information technology, changes in the labour process, attitudes to current socio-economic issues, and social class and income. The full WALL questionnaire is available at:
http://wallnetwork.ca/resources/WALL_Survey_Questionnaire04.pdf.

This report addresses a small number of the questions in the survey. The intent is to highlight basic findings and provide the reader with a general introduction to the breadth and depth of possible analyses. The focus here is on paid employment, still a central feature in the struggle over material resources and quality of life, and an activity where issues of class, race and gender continue to be very salient.

The WALL survey builds upon the pioneering 1998 New Approaches to Lifelong Learning (NALL) survey (see www.nall.ca). Like the NALL survey, the WALL survey questionnaire is based on an inclusive conception of both learning (including not only formal schooling and further education courses, but informal training and self-taught learning) and work (including paid work but also community volunteer work as well housework and care of children and elders). Expanding our notions of what constitutes learning and what constitutes work is vital if we are to fully understand the relations between learning and other technological and social changes occurring in contemporary workplaces *and* homes. Together, the NALL and WALL surveys provide unprecedented documentation of learning and work relations in Canada.

Methodology

The WALL survey is based on interviews with a large, representative sample of 9,063 Canadian adults over age 18, with an over-representation of respondents from selected urban areas to ensure adequate representation of non-white and recent immigrant groups. Interviewing started in late October 2003 and was completed in July 2004. The Institute for Social Research (ISR) at York University was contracted to conduct the survey. David

Northrup, Associate Director at ISR, and his colleagues worked closely with Doug Hart, WALL survey project coordinator, and the WALL survey research team throughout the initial design, piloting and final interviewing stages. Modified random digit dialing (RDD) procedures were utilized to select households and, within households, respondents were chosen based on the birthday-selection method (for more detail, see link to ISR technical document below). All interviews were conducted by telephone. Interviewing in all provinces, except Quebec, was completed at the Institute for Social Research. The French-language pilot interviews and eighty-five percent of the Quebec respondents in the Canada-wide sample were interviewed by Montreal-based Jolicoeur & Associés. The sample used by Jolicoeur was provided by ISR and the selection of respondents, number of call attempts, and all other survey procedures were the same at both data collection centres.

In addition to the cross-sectional 2004 sample, a group of respondents (N=600) from the 1998 New Approaches to Lifelong Learning (NALL) survey were re-interviewed. For the re-interview sample, an attempt was made to locate and interview all respondents to the original 1998 NALL survey (N=1,565).

For further design and sampling information, please consult the ISR technical documentation on the 2004 WALL survey at:
http://wallnetwork.ca/resources/WALLISRtechrpt.pdf.

Comparability

The WALL survey is not only intended to provide an extensive snapshot of learning and work in Canada in 2004. It is also meant to provide interested researchers with an opportunity to conduct comparative and longitudinal analysis. As mentioned above, the WALL survey builds directly on and is most closely linked with the 1998 NALL survey and some of the most comparable general results of the two cross-sectional surveys are reported here. In addition, reports on the directly comparable 1998 and 2004 responses of the longitudinal sample of 600 additional respondents drawn from the original NALL survey sample of 1,565 people appear on the WALL website at: http://wallnetwork.ca/resources/WALLRB.htm.

WALL survey questions were also constructed to be comparable to many other surveys. These included such Canadian surveys as the 1982-83 Canadian Facts Study, the 2001 Canadian Census, General Social Surveys (1989, 1994, 2000, 2003), the 1999 Workplace and Employee Survey, and the 1998 and 2003 Adult Education and Training Surveys. Comparable items were also drawn from foreign surveys such as the 2002 United States General Social Survey, the 1997 UK Skill Survey, and the 2000 Third European Survey on Working Conditions.

For a full list of the surveys and questions used to construct variables in WALL, please see the WALL survey codebook on the WALL website at: http://wallnetwork.ca/resources/WALLRB.htm.

A country-wide 2005 survey of teachers' learning practices was also conducted, which also links to a prior survey conducted by NALL in 1999. Other WALL case studies have conducted special focus analyses of the WALL survey data, as well as conducting their own follow-up surveys in conjunction with their in-depth interviewing. Findings from these studies, as well as links to other related research, can be found at: http://www.wallnetwork.ca.

Results

Technical Preamble

Filters are used, where appropriate, when analyzing the data. Where no filter is used, “All Respondents” appears in the table or figure title. The primary filter used is “Employed Labour Force”, limiting the analysis to the currently employed Canadian labour force: wage and salary employees, employers, and self-employed. A number of other filters are used infrequently and these are identified as specifically as possible in the title of the table or figure.

It should be noted that the number of respondents used in the analysis of each question, or “N”, also fluctuates depending on how many people chose to answer a given question (each had the opportunity to decline) or if survey participants were not asked certain questions based on responses to prior questions. For example, those who indicated they were working in a permanent job (section 2, question 18 or s2_18) were not asked s2_19 “Are you working on a temporary/seasonal basis by your own choice?” Similarly, to reduce time burden on respondents, only a subset were asked some sections. For example, in section 11 on access to information technology, only one out of every six respondents was selected at random to answer these questions. The full WALL questionnaire is available at: http://wallnetwork.ca/resources/WALL_Survey_Questionnaire04.pdf.

Most WALL variables that appear in the report are weighted using the variable “wt2001m”, which uses population distribution data from the 2001 Canada Census to compensate for the under- or over-representation of respondents on sex, age, and educational attainment. It is standard procedure to weight surveys by age and sex; however, because learning is one of the key foci in the WALL survey, the sample has also been weighted by educational attainment.

The other weight used in this report is wt2001mi, which is used only for questions relating to informal learning. This weight reproduces the age-gender-education-region weighting for the subsample of respondents selected to answer questions on informal learning unrelated to paid employment.

At some points we use a constructed variable that divides respondents into one of four categories: non-white female, non-white male, white female, and white male. This is in no way meant to homogenize the cultures or experiences of those who did not identify as white. Rather, the categories used are necessary due to the very small number of non-white respondents. Without combining these respondents into one category, any hope of conducting a statistical analysis would be lost. As it stands, even after

combining the variety of people who do not identify as white, we are left with a small N and must remain cautious about drawing any definitive conclusions.

Selected Demographics

Below is a comparison of unweighted and weighted frequencies for key demographic variables in the WALL survey sample:

Table D1: Sex, All Respondents, 2004

SEX	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Male	3942	43.5	4330	48.0
Female	5121	56.5	4696	52.0
TOTAL	*9063*	*100.0*	*9026*	*100.0*

Table D2: Age Group, All Respondents, 2004

AGE	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
18-24	959	10.6	1059	11.7
25-29	721	8.0	722	8.0
30-34	896	9.9	818	9.1
35-39	885	9.8	962	10.7
40-44	1054	11.6	984	10.9
45-49	960	10.6	938	10.4
50-54	790	8.7	793	8.8
55-59	696	7.7	614	6.8
60-64	532	5.9	479	5.3
65 +	1323	14.6	1404	15.6
Total	8816	97.3	8773	97.2
Missing	247	2.7	253	2.8
TOTAL	*9063*	*100.0*	*9026*	*100.0*

Table D3: Formal Educational Attainment*, All Respondents, 2004

EDUCATIONAL ATTAINMENT	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Elementary	373	4.1	781	8.7
Some secondary	1039	11.5	1664	18.4
Complete secondary	1951	21.5	1301	14.4
Some College	504	5.6	442	4.9
Some university	614	6.8	553	6.1
Complete college	1717	18.9	2630	29.1
Univ. bachelors	1712	18.9	1163	12.9
Univ. grad or prof. degree	991	10.9	330	3.7
Total	8901	98.2	8864	98.2
Missing	162	1.8	162	1.8
TOTAL	*9063*	*100.0*	*9026*	*100.0*

* Those in vocational or trade schooling are included in the “college” category.

Table D4: Race, Nationality, or Ethnicity, All Respondents, 2004

SELF-IDENTIFIED RACE, NATIONALITY, OR ETHNICITY	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
White*	7853	86.6	7773	86.1
Chinese	183	2.0	178	2.0
South Asian	174	1.9	179	2.0
Black	194	2.1	210	2.3
Aboriginal	153	1.7	156	1.7
Arab/West Asian	69	.8	62	.7
Filipino	50	.6	50	.5
South East Asian	79	.9	84	.9
Latin American	68	.8	77	.9
Japanese	22	.2	21	.2
Korean	21	.2	18	.2
Other [specify]	85	.9	87	1.0
Don’t know	45	.5	65	.7
Refused	67	.7	66	.7
TOTAL	*9063*	*100.0*	*9026*	*100.0*

* The category of white included anyone who answered Anglo, Caucasian, Canadian, English, French, etc. to the question, “How would you best describe your race or colour?”

Part 1 – Work

1.1 Paid Work

In all advanced market economies, paid work continues to move away from traditional agrarian and manufacturing activities to jobs in the service sector (OECD, 2000). In Canada, this widespread shift to services is well underway. As Table 1.1.1 shows, the majority of workers have been employed in service sector jobs for over a generation. The trend continues so that less than a quarter of all workers are now in goods producing industries.

Table 1.1.1 Sectoral Distribution, Employed Labour Force, 1983-2004

SECTOR	1983 [%]	2004 [%]
Goods Producing	32	24
Mixed*	8	7
Services	60	69
TOTAL	100	100
N	*1758*	*5038*

Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004

* Note: "Mixed" includes those workers in Standard Industrial Categories "Transportation and Storage" and "Communications and Utilities".

In discussions of the knowledge-based economy (KBE), the post-industrial economy, the new economy, the information economy, or other closely related notions, there tends to be a strong emphasis on the growth of professional and managerial jobs. Prior studies have documented the substantial recent growth of these two occupational groups (Baldwin & Beckstead, 2003; Lavoie & Roy, 1998).

The general distribution of occupational classes in Canada is shown in Table 1.1.2, with employer, self-employed and wage and salary occupations grouped into eight categories. Class position is based first on the Canadian Classification and Dictionary of Occupations (CCDO) codes, and then on self-reports relating to self-employment (without employees) and employers (small or large depending on the number of employees – please see Appendix A for a detailed description of the class logic used in this report). Individuals owning companies that have employees now account for about 7% of the labour force. The self-employed, including consultants, freelancers, and those owning businesses with no employees, are more than twice the size of the two employer categories combined. Based on comparison with the similar 1983 Canadian Class Structure Survey (Clement & Myles, 1994), there have been small increases in the self-employed labour force over the past generation.

As Table 1.1.2 also shows, managerial and professional employees increased from around 15 percent to over 25 percent of the total employed labour force between 1983 and 2004. Conversely, other non-managerial employees declined significantly, with industrial workers and non-managerial service workers dropping from about two-thirds to under half of the employed labour force. The apparent decline of non-managerial service workers may be related to the simultaneous, rapid rise of both self-service and "back office" technical administrative functions in an ever-expanding array of service industries. The numbers of managers and professional employees have been increasing quite rapidly in relation to other occupational classes.

Table 1.1.2 Occupational Class Distribution, Employed Labour Force, 1983-2004

OCCUPATIONAL CLASS	1983 [%]	2004 [%]
Large Employers	<1	1
Small Employers	4	6
Self-Employed	11	15
Managers	5	11
Supervisors	4	5
Professionals	11	16
Service Workers	42	27
Industrial Workers	23	19
TOTAL	100	100
N	*1758*	*5437*

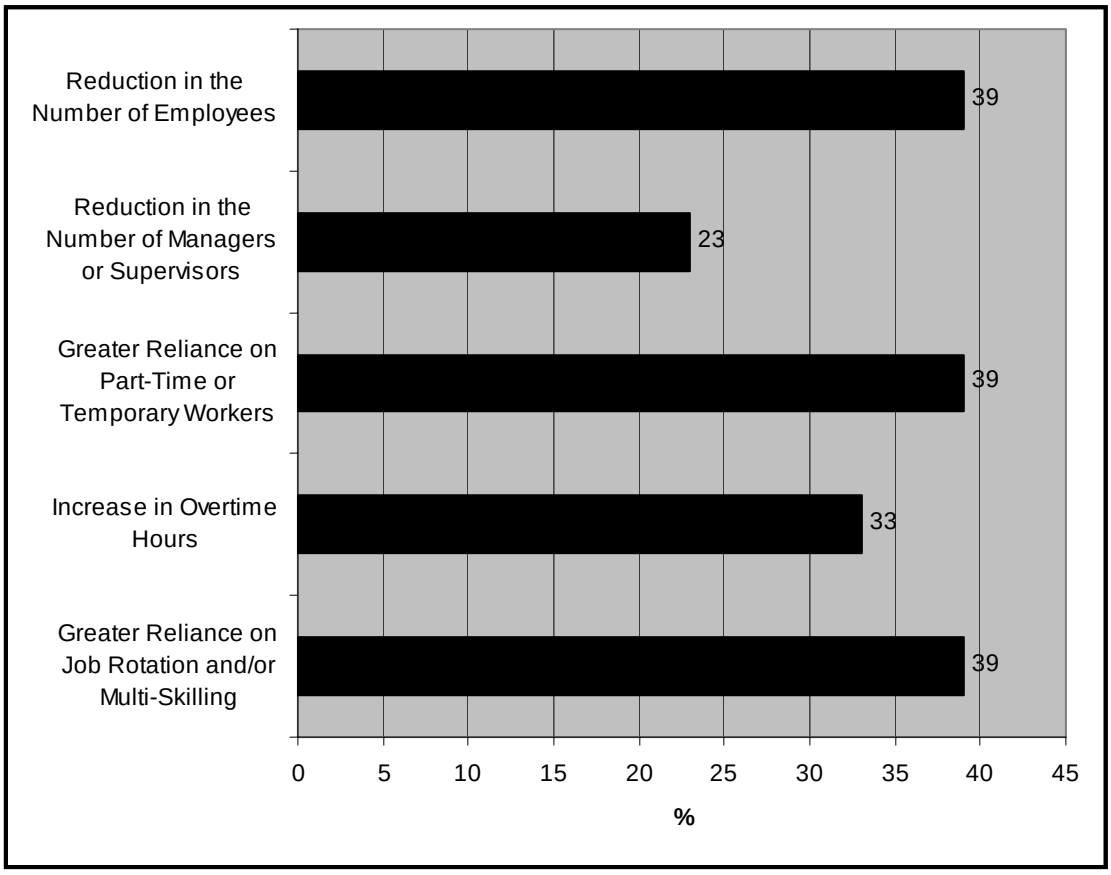
Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004

Organizational Change

Economic globalization has been fuelled by the removal of state-based restrictions on the flow of capital and the trans-nationalization of corporations (Holton, 2000). Increased competition between widening numbers of profit-seeking organizations has driven more frequent changes in products, labour processes, and organizational structures (Kenney, 1997; Kleinman & Vallas, 2001). The power of unions has been undercut with the dismantling of state-based regulatory regimes, while employers have gained greater discretion in altering how many workers they employ and what their employees do.

Questions posed to the employed workforce in the WALL survey revealed a number of trends relating to the organization of work (Figure 1.1.1). Three trends stand out: almost 40% of respondents indicate that over the last five years there had been a reduction in the number of employees; a greater reliance on part-time or temporary workers; and/or a greater reliance on job rotation and multi-skilling in their place of work. While larger firms appear to have relied more on downsizing and increased overtime for remaining employees, small firms have been more likely to depend on more part-time workers and multi-skilling (Statistics Canada, 2001d: 10).

Figure 1.1.1 Organizational Change Over Last 5 Years, Employed Labour Force, 2004



Source: WALL Survey, 2004 (N=5733).

Contrary to some research and theorizing on the "de-layering" of organizations (Littler, Wiesner, & Dunford, 2003), Figure 1.1.1 indicates that less than a quarter of the labour force reports their managerial hierarchy is being dismantled in any significant way. If more organizations are indeed seeking to reduce the number of employees while not reducing the number of managers, the long-term trend in Canadian workplaces may actually be toward an intensification of managerial oversight, as suggested by Table 1.1.2.

Employment Statuses

Table 1.1.3 shows the employment statuses of Canadians over the age of eighteen in both 1998 and 2004. About two-thirds of respondents in 2004 indicate engaging in some form of paid employment, similar to 1998. This includes the slightly less than half of all respondents who worked full-time (defined as over 30 hours per week) and around 18 percent of adults in 2004 who worked only part-time and/or were also registered students in

degree/diploma programs. So, around a quarter of the employed labour force was working at less than full-time jobs.

About a third of the adult population was not working for pay. Estimations of who should be counted as "unemployed" are controversial. They definitely include the officially unemployed who have recently registered for unemployment benefits. They could also include those who are off work temporarily for various circumstances. Thirdly, there are "discouraged workers" who would pursue employment if they thought there were real prospects of a job. According to NALL and WALL survey estimates, around 7 percent of the adult population could be classified as unemployed in this more expansive way, but these surveys could not distinguish these subgroups. Only the small numbers of permanently disabled (around 1 percent), larger numbers of homemakers (about 4 percent) and the very large number of retired people (around 20 percent) are not primarily oriented to paid work—but significant numbers in these groups would also take paid work if they could get it. For example, around 10 percent of retired people indicated in 1998 that they would likely seek jobs in the next year (Livingstone, 2002). This proportion is likely to be increasing with the relaxation of mandatory retirement provisions.

Table 1.1.3 Employment Status, All Respondents, 1998-2004

EMPLOYMENT STATUS	1998 [%]	2004 [%]
Employed Full-Time (FT)	46.3	45.3
Employed Part-Time (PT)	7.0	5.7
Employed Hours Unknown (HU)	0.0	2.3
Employed Student	8.0	9.9
TOTAL EMPLOYED	61.4	63.6
Non-employed Student	2.3	1.7
Unemployed*	7.6	7.8
Homemaker	4.6	3.7
Retired	19.1	19.4
Permanently Disabled	1.3	0.3
Other	0.3	0.7
Non-employed, status unknown	2.7	2.7
TOTAL NOT EMPLOYED	38.6	36.3
TOTAL	100	100
N	*1565*	*9026*

Sources: NALL Survey, 1998; WALL Survey, 2004

* Unemployed category includes active unemployed, discouraged unemployed, and those who are temporarily off work.

According to the WALL survey, about two-thirds of employed Canadians in 2004 worked regular day shifts, while about a third worked either irregular

shifts or night shifts (Table 1.1.4). The General Social Survey of 2003 found a very similar pattern (Statistics Canada, 2005b).

Table 1.1.4 Type of Working Shift, Employed Labour Force, 2004

TYPE OF WORKING SHIFT	[%]
Regular daytime*	66
Regular evening / night	7
Irregular Shift or On Call	27
TOTAL	100
N	*5573*

Source: WALL Survey, 2004

* "Regular daytime" includes those with daytime shifts and those with regular shifts but who are also on call. "Irregular Shift or On Call" includes those with rotating schedules (changes periodically from days to evening or to nights), split shifts (consisting of two or more distinct periods each day), on call or casual, or irregular schedules.

The core labour force employed in permanent, full-time work does appear to be shrinking; the numbers of non-standard, part-time, temporary jobs growing; and the use of out-sourcing and off-shoring becoming more widespread (Chaykowski, 2005; Kalleberg, 2003). However irregular the work hours of some, nearly 80 percent still claim to have permanent full-time jobs, as summarized in Table 1.1.5. Women remain over-represented in "non-standard" work, except for seasonal work (data not shown). This pattern is particularly true for women of colour.

Table 1.1.5 Work Schedule, Employed Labour Force, 2004

WORK ARRANGEMENT	Total [%]	Female [%]	Male [%]	Non-White Female [%]	Non-White Male [%]	White Female [%]	White Male [%]
Permanent FT*	78	73	83	67	78	74	83
Permanent PT**	9	14	4	20	9	13	4
Temporary FT	9	8	10	9	9	8	10
Temporary PT	4	5	3	3	4	5	3
TOTAL	100	100	100	100	100	100	100
N (column)	*4570*	*2207*	*2256*	*291*	*260*	*1878*	*1937*
N	*4570*	*4569*		*4459*			

Source: WALL Survey, 2004

* FT indicates "full-time". ** PT indicates "part-time".

Some workers choose temporary and part-time arrangements, but recent Canadian research indicates that many of those in non-standard jobs are not there by choice and often experience high levels of job insecurity and low pay (Cranford, Vosko, & Zukewich, 2003). This finding is supported by WALL data in Table 1.1.6, with almost half of temporary or seasonal workers wanting more permanent work. Likely reflecting their over-representation in

non-standard jobs, more women than men find themselves in insecure work not by choice.

Table 1.1.6 Working on Temporary or Seasonal Basis by Choice, Temporary and Seasonal Workers Only, 2004

TEMPORARY BY CHOICE	Total [%]	Female [%]	Male [%]	Non-White Female [%]	Non-White Male [%]	White Female [%]	White Male [%]
Yes	52	45	58	49	61	45	58
No	48	55	42	51	39	55	42
TOTAL	100	100	100	100	100	100	100
N (column)	*573*	*282*	*291*	*35*	*31*	*241*	*250*
N	*573*	*573*		*557*			

Source: WALL Survey, 2004

The WALL survey also examines employment stability. As Table 1.1.7 shows, those in the labour force below the age of 25 are far more likely than other age groups to have held two or more jobs over the last five years. This is, to a certain extent, to be expected as young people make transitions between school and employment. Job stability increases markedly with age, but even in the 45 to 54 age group about a third has changed jobs within the past 5 years.

Table 1.1.7 Number of Jobs Held in the Last Five Years* by Age Group, Employed Labour Force, 2004

AGE	1 Job [%]	2 Jobs [%]	3 Jobs [%]	4 Jobs [%]	5+ Jobs [%]	Total [%]	N
18-24	10	13	28	18	31	100	*669*
25-34	34	30	18	9	9	100	*1237*
35-44	55	25	11	3	5	100	*1595*
45-54	64	22	8	3	2	100	*1378*
55-64	73	18	5	2	2	100	*555*
65+	77	15	5	1	2	100	*85*
TOTAL	49	23	13	6	8	100	*5519*

Source: WALL Survey, 2004

* Includes current job.

Employment Hours

The normal paid work week dropped from 60 hours in 1900 to around 40 hours in 1960 (Advisory Group on Working Time and the Distribution of Work, 1994: 13). In spite of the subsequent growth of non-standard jobs, there have been only minor fluctuations in the average hours of paid work per week for the entire employed labour force since then. As Table 1.1.8 summarizes, the major shifts since the 1970s have been the continuing

decline of standard 40 hours a week jobs and a more recent increase in the proportion who work over 50 hours a week. This pattern reflects the shift to more contingent part-time and temporary jobs with a corresponding intensification of labour hours for the shrinking "core" of permanent full-time workers (Cranford et al., 2003; Kalleberg, 2003). By some measures, actual *annual* employment hours appear to have declined slightly since the 1970s (Galarneau, Maynard and Lee, 2005). But the NALL and WALL surveys found that average *usual* employment hours for the entire labour force increased from 38 to 40 hours per week during the 1998-2004 period. Other, more detailed time use surveys have found increases since the mid-1980s (see Statistics Canada, 2005b).

Table 1.1.8 Usual Weekly Paid Hours, Canada, 1976-2004

YEAR	<20 hrs	20-29 hrs	30-39hrs	40 hrs	41-49 hrs	50+ hrs
1976	7.5	4.6	25.0	49.7	7.1	6.2
1993	10.5	8.3	26.8	40.1	6.4	7.9
2004	7.0	7.6	24.1	30.5	9.5	21.2

Sources: 1976 and 1993: Advisory Group on Working Time and the Distribution of Work (1994, p. 17), all figures drawn from Statistics Canada Labour Force Surveys; WALL Survey, 2004.

There is a notable inverse relationship between current hours of paid employment and preferred hours. As Table 1.1.9 indicates, in both 1998 and 2004 a small majority of those working less than 50 hours prefer their current hours. However, the majority of those working over 50 hours would prefer fewer hours. The more hours one works, the stronger the preference for fewer hours. About a third of those working less than 30 hours would prefer longer hours. There is a fairly widespread sentiment in favour of some redistribution of employment hours.

Table 1.1.9 Preferred Employment Hours by Current Paid Work Hours per Week*, Employed Labour Force, 1998-2004*

CURRENT PAID HOURS	Prefer More [%]		Prefer Same [%]		Prefer Less [%]	
	1998	2004	1998	2004	1998	2004
1-19 Hours	30	35	59	50	11	15
20-29 Hours	26	31	55	59	19	10
30-39 Hours	14	17	59	57	28	26
40 Hours	11	11	62	59	28	30
41-49 Hours	5	9	49	51	46	40
50+ Hours	7	7	38	38	55	55
TOTAL	14	14	55	53	31	33

* Sources: NALL Survey, 1998 (N=951); WALL Survey, 2004 (N=5450).

Wages, Union Membership and Perceived Job Benefits

There is mounting evidence that the income gap between corporate executives and most wage and salary earners has widened considerably over the past generation, with executive incomes greatly increasing while wages and salary earners struggle to keep up with inflation (Mackenzie, 2007). Table 1.1.10 summarizes the gross income gaps between general occupational classes in 2003. Large employers (including corporate executives and all employers with over 250 employees) and small employers (all those with 1 to 250 employees) were much more likely than others to earn more than $100,000 per year. Only a small proportion of the self-employed (freelancers, contract workers, and owners with no employees) earned more than $100,000 and they were also among the most likely to be earning very low incomes. Managers were much less likely than employers to be earning over $100,000 but much more so than other wage and salary earners. Professional employees were less likely to be earning low incomes than other non-managerial employees but less than 5 percent earned over $100,000. Around three-quarters of service workers and half of industrial workers earned under $40,000 and only a few earned over $100,000, likely with the aid of overtime earnings. There were wide variations within occupational classes; however, in general, large and small employers clearly had greater opportunities to attain large incomes than any wage and salary earners. Such differences are systemic to a market-based economy.

Table 1.1.10 Personal Income by Occupational Class, Employed Labour Force, 2003

OCCUPATIONAL CLASS	Under $40,000 [%]	Over $100,000 [%]
Large Employers	28	39
Small Employers	38	23
Self-Employed	64	7
Managers	30	11
Supervisors	52	3
Professionals	40	3
Service workers	73	2
Industrial workers	50	1
TOTAL	54	5
N	*4705*	

Source: WALL Survey, 2004

There were also sex and race differences in annual employment income levels, as summarized in Table 1.1.11 Males are more likely to command higher wages than females, as documented in many studies (O'Donnell et al., 2006). Non-white males are more likely than white males to be making very low incomes. But these income differences are relatively small compared to the income gap between employers and wage earners generally.

Table 1.1.11 Annual Employment Income Levels by Sex and Race, Employed Labour Force, 2004

ANNUAL EMPLOYMENT INCOME	Total [%]	Female [%]	Male [%]	Non-White Female [%]	Non-White Male [%]	White Female [%]	White Male [%]
Less than $20,000	21	30	14	27	23	30	12
$20,000 to $39,000	34	40	28	46	33	39	28
$40,000 to $59,000	24	19	28	18	22	19	29
$60,000 to $79,000	12	7	16	6	11	7	17
$80,000 to $99,000	4	2	6	2	4	2	6
More than $100,000	5	2	8	1	6	2	8
TOTAL*	100	100	100	100	99	99	100
N (column)		2288	2629	284	324	1972	2255
N	*4917*	*4917*		*4835*			

Source: WALL Survey, 2004

* Total may not equal 100% due to rounding.

Since the early 1990s, union density has declined from about 36 percent to around 30 percent (Statistics Canada, 2005a). The WALL survey confirms this figure and also finds 15 percent of workers report membership in some other type of association which may be covered by collective bargaining agreements (Table 1.1.12). Unions have historically achieved many greater

benefits for workers, including higher wages and job security, so it is of some interest to see workers' assessment of recent changes in wages/benefits and their job security.

Table 1.1.12 Membership in Union or Other Type of Association, Employed Labour Force, 2004

TYPE OF EMPLOYEE ORGANIZATION	[%]
Union	30
Other Association*	15
No Union / Association	55
TOTAL	100
N	*5718*

Source: WALL Survey, 2004

* May include associations and other organizations that are not involved in collective bargaining.

As Table 1.1.13 shows, non-managerial employees were generally split in 2004 between those who considered recent wages and benefits to be about the same as in recent years and those who thought they were improving, with only 15 percent feeling they were worse. Among non-managerial employees, no significant difference existed between union members, other association members and non-members in their overall assessments of recent changes in wages and benefits. This finding does not deny that unionized service and industrial workers have continued to gain some wage and benefit premiums through union membership (Verma, 2005). But it does suggest that non-union workers were no less likely than union members to perceive either improvement or worsening of these conditions.

Table 1.1.13 Change in Income and Benefits Compared to Recent Years, Non-Managerial Employees*, 2004

CHANGE IN INCOME & BENEFITS	Total [%]	Union Mem. [%]	Assoc. Mem. [%]	Non-Mem. [%]
Much Better	12	12	16	11
Better	33	34	35	32
About the Same	41	42	38	41
Worse	11	10	8	12
Much Worse	3	2	3	4
TOTAL	100	100	100	100
N (column)		*1399*	*336*	*1591*
N	*3328*		*3326*	

Source: WALL Survey, 2004

* Owners, managers and supervisors are excluded in this table, leaving professionals, service workers, and industrial workers.

Permanent job loss has hovered around 6% of the labour force since the 1980s (Morissette, 2004). As Table 1.1.14 indicates, the proportion the

employed labour force who estimate a high likelihood of losing their job in the next year was also around 6 percent in both 1994 and 2004. As this table also shows, there were no significant differences between unionized and non-unionized workers in 2004 in estimates of the likelihood of job loss. Non-white workers do report feeling more vulnerable than other workers.

Table 1.1.14 Likelihood of Losing Job in the Next Year, Non-Managerial Employees*, 1994-2004

POSSIBILITY OF LOSING JOB	1994	2004	2004			2004	
	Total [%]	Total [%]	Union Mem [%]	Assoc. Mem [%]	Non-Mem [%]	Non-White [%]	White [%]
Very Likely	6	6	6	5	7	7	6
Somewhat Likely	9	10	10	9	10	18	9
Somewhat Unlikely	22	22	20	16	24	25	21
Very Unlikely	63	62	64	70	59	50	64
TOTAL	100	100	100	100	100	100	100
N (column)			*1357*	*320*	*1498*	*387*	*2720*
N	*6078*	*3176*	*3175*			*3107*	

Sources: Statistics Canada, General Social Survey, Cycle 9, 1994; WALL Survey, 2004.

* Owners, managers and supervisors are excluded in this table, leaving professionals, service workers, and industrial workers.

Worker Involvement: Thought and Decision-making

Capital intensification in all industries puts an increasing premium on human mediation of machinery. The recent proliferation of information technologies has made a wider array of work tasks dependent on the self-monitoring use of workers' minds. Workers' own reports confirm this view. As Table 1.1.15 shows, about two-thirds of the workforce report their job demands a great deal of thought and attention compared with less than 40% in 1983. Of course, "thought and attention" could mean rather different things for different occupational groups. But both service workers who work directly with customers or clients and industrial workers who process material goods have found their labour process increasingly mediated by computer-based maintenance and recording functions. Increasing pace and volume of work tasks could also impact the thought and attention demanded.

Table 1.1.15 Amount of Thought and Attention Demanded, Employed Labour Force, 1983-2004

AMOUNT OF THOUGHT AND ATTENTION	1983 [%]	2004 [%]
A Little	9	7
Moderate Amount	52	26
Great Deal	39	67
TOTAL	100	100
N	*1753*	*5692*

Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004.

The changes between 1983 and 2004 in thought and attention demanded appear to have affected mainly service and industrial workers. As Table 1.1.16 indicates, managers and professional employees give similarly high responses in both 1983 and 2004, while the proportions of service and industrial workers reporting that their jobs require a great deal of thought and attention doubled, from around 30 percent to 60 percent, during this period.

Table 1.1.16: Job Demands "Great Deal" of Thought and Attention by Occupational Class, Employees, 1983-2004

OCCUPATIONAL CLASS	1983 [%]	2004 [%]
Managers	77	78
Supervisors	55	72
Professional employees	74	76
Service employees	25	60
Industrial employees	30	63
TOTAL	37	67
N	*1482*	*4249*

Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004.

Recent research suggests a trend towards greater worker involvement in organization-level decisions (Giles, Lapointe, Murray, & Belanger, 1999). This trend may include increased delegation of supervisory tasks to non-managerial employees and somewhat diminished roles for middle management (Littler, Wiesner, & Dunford, 2003). The extent and permanence of actual delegation of power remains in question (Sims Taylor, 1998; Smith, 1996; Thompson, Warhurst, & Callaghan, 2000). But WALL survey findings support the trend. Respondents were asked whether they had any role in organizational policy decisions about the types of products or services delivered, the total number of people employed, budgets, and so forth. As Table 1.1.17 summarizes, it is clear that workers generally perceive themselves as having more decision input than those surveyed two decades earlier. The percentage of workers clearly excluded from organizational decision-making dropped from three-quarters to under half. The main shift

appears to have been to actual collective or individual decision-making roles rather than to merely advisory or more constrained decision functions.

Table 1.1.17 Input into Organization's Policy Decisions (e.g., number of employees, budgets, etc.), Employed Labour Force, 1983-2004

INPUT TO POLICY DECISIONS	1983 [%]	2004 [%]
None	75	44
Only Provide Advice	6	10
Make Decisions Subject to Approval	6	8
Make Decisions as Part of a Group	6	17
Make Decisions Yourself	7	21
TOTAL	100	100
N	*1580*	*5504*

Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004.

However, contrary to rhetoric around flattening organizations and employee involvement, decision-making over organizational issues is deeply structured around occupational classes. Table 1.1.18 shows that approximately 60% of service and industrial employees have no input whatsoever in policy decisions. Almost half of non-managerial professionals report no involvement as well, nor do such professionals perceive themselves to have more sole-responsibility decision-making power than those in service and industrial occupations. Professionals do, however, appear to be more involved in project teams and other workplace groups that do have decision-making powers.

Table 1.1.18 Input into Organization's Policy Decisions (e.g., number of employees, budgets, etc.) by Occupational Class, Employed Labour Force, 2004

OCCUPATIONAL CLASS	None [%]	Only Provide Advice [%]	Make Decisions Subject to Approval [%]	Make Decisions as Member of Group [%]	Make Decisions Yourself [%]	N
Large Employers	16	7	3	31	43	*46*
Small Employers	8	4	3	29	56	*321*
Self-Employed	25	7	4	15	49	*735*
Managers	23	9	14	27	28	*567*
Supervisors	28	17	12	20	23	*279*
Professionals	45	13	10	22	10	*833*
Service Employees	59	11	8	13	10	*1424*
Industrial Employees	61	11	5	11	12	*1021*
TOTAL	44	10	8	17	21	*5227*

Source: WALL Survey, 2004.

Within these shifting patterns of organizational decision-making, the relative exclusion of women and people of colour persists (Baldoz, Koeber, & Kraft, 2001; Huws, 2003; Vallas, 2003). Table 1.1.19 makes clear that sex and race—alongside occupational class—continue to play active roles in workplace inequality. White males enjoy substantially more access to sole-responsibility decision-making roles, with women of all racial backgrounds enjoying the least.

Table 1.1.19 Input into Organization's Policy Decisions (e.g., number of employees, budgets, etc.) by Sex and Race, Employed Labour Force, 2004

RACE / SEX	None [%]	Make Decisions Yourself [%]	TOTAL [%]	*N*
Non-white female	52	15	100	*311*
Non-white male	43	21	100	*361*
White female	49	15	100	*2196*
White male	39	27	100	*2517*
TOTAL N				*5386*

Source: WALL Survey, 2004.

1.2 Unpaid Work

Most people must do some household work and many need to contribute to community labours in order to reproduce themselves and society. Both housework and community volunteer work are typically unpaid and under-appreciated, but they remain essential for our survival and quality of life (see Waring, 1988). *Housework*, including cooking, cleaning, childcare, eldercare

and other often complex household tasks, has been largely relegated to women and only gained some public recognition as women have gained power through increased participation in paid employment.

Housework

Statistics Canada has been a world leader in documenting time use in unpaid work. According to the General Social Surveys, the total amount of paid work and housework done by men and women increased by more than a half hour per day from 1986 to 2005 (Statistics Canada, 2005b), most of this from increased paid labour time. For women, the increase was attributable to both a surging labour force participation rate and more hours on the job. For men, most of the increase was from unpaid housework.

According to the NALL 1998 and WALL 2004 surveys, virtually all women and men did some general household work (including cooking, cleaning, shopping, home budgeting, yard work, home maintenance) on a weekly basis in both years. As Table 1.2.1 summarizes, over 95 percent of both women and men claimed to have done such work. But as the table also shows, women still devote substantially more weekly time to housework, an average of 20 hours versus 12 hrs for men. The 2005 General Social Survey with more detailed estimates found averages of 23 hours and 14 hours per week, respectively (Statistics Canada, 2005b). The gender gap in general housework may be narrowing but it still appears to be very substantial.

Table 1.2.1 Participation in and Duration of General Housework, All Respondents, 1998-2004

HOUSEWORK	1998		2004	
	Men	Women	Men	Women
Do Unpaid Housework [%]	97	99	97	97
Average (Mean) Hours / Week*	11.7	21.3	12.8	20.7
N	*1507*		*8508*	

Sources: NALL Survey, 1998; WALL Survey, 2004.

* Includes only those performing unpaid housework.

Changes in the division of power and labour within the home are complex phenomena, affected by participation rates in paid work, employment hours, earnings, and beliefs regarding gender roles and family, to name just some factors. While there has been a general trend towards greater equality, many studies show that the great majority of household labour continues to be performed by women (Coltrane, 2000). The two tables below compare full-time employed couples to assess the extent to which shared employment responsibility has translated into a sharing of household decision-making and general housework duties.

Table 1.2.2 indicates that responsibility for key household-related financial decisions is perceived to be equally shared by the vast majority (over 80%) of both men and women, regardless of employment status.

Table 1.2.2 Decision-Making about Major Household Purchases, Couples Where Both Individuals Work Full-Time Compared With All Other Couples*, 2004

COUPLES' JOB STATUS		Always You [%]	Usually You [%]	Shared Equally [%]	Usually Someone Else [%]	Always Someone Else [%]	N
Both Work Full-Time	**Male**	2	7	85	4	2	*862*
	Female	5	11	82	2	1	*868*
	TOTAL	4	9	84	3	1	*1730*
All Other Couples	**Male**	5	6	82	4	2	*1703*
	Female	6	10	79	3	1	*1637*
	TOTAL	5	8	81	4	2	*3340*

Source: WALL Survey, 2004.

* "Couples" includes both married and common-law.

Table 1.2.3 suggests that, where partners are both employed full-time, males and females are slightly more likely to report a more equitably division of household labour than other couples. But around half of women employed full-time indicate they still always or usually do most of the housework while only a handful of full-time male partners do so.

Table 1.2.3 Performance of Household Work, Couples Where Both Individuals Work Full-Time Compared With All Other Couples*, 2004

COUPLES' JOB STATUS		Always You [%]	Usually You [%]	Shared Equally [%]	Usually Some one Else [%]	Always Some one Else [%]	N
Both Work Full-Time	**Male**	2	5	61	28	4	*859*
	Female	13	38	46	3	<1	*867*
	TOTAL	8	21	54	16	2	*1726*
All Other Couples	**Male**	2	4	47	37	9	*1703*
	Female	25	34	37	3	1	*1636*
	TOTAL	13	19	42	20	5	*3339*

Source: WALL Survey, 2004.

* "Couples" includes both married and common-law.

If we express labour expended in terms of the total amount of paid employment time and general housework time done by *all* Canadian adults, the averages according to the 2004 WALL survey and the 2005 General Social Survey, are between 25 to 28 hours of paid employment and 15 to 20 hours of housework per week in recent surveys. The point of these estimates is simply to establish that unpaid housework is a very substantial portion of the work that most of us do and deserves to be consistently recognized on its own merits.

But the above estimates exclude the essential labour of childcare. In 2004, according to the WALL survey, over a third of Canadian adults reported some involvement in unpaid childcare, for an average of over 30 hours per week (see Table 1.2.4). Again, while general participation rates are fairly close between males and females, the bulk of unpaid labour continues to be performed by women. The respective averages were almost 40 hours per week for women and just over 20 hours per week for men; the majority of women caregivers devoted over 30 hours per week while the majority of men spent less than 20 hours per week in child care duties.

Table 1.2.4 Unpaid Childcare, All Respondents, 2004

SEX	Do Unpaid Childcare [%]	Average (mean) Hours / Week*	N
Male	36	21.3	*4329*
Female	39	39.1	*4696*
TOTAL	37	31.0	*9025*

Source: WALL Survey, 2004.

* Includes only those performing childcare.

Eldercare is also becoming a more prominent form of unpaid work in our aging society, with about 15 percent of adults now engaged in such caring activities for an average of about 12 hours per week (see Table 1.2.5). Women appear to devote only slightly more time to eldercare than men.

Table 1.2.5 Unpaid Eldercare, All Respondents, 2004

SEX	Do Unpaid Childcare [%]	Average (mean) Hours / Week*	N
Male	15	10.4	*4330*
Female	16	14.1	*4696*
TOTAL	16	12.4	*9026*

Source: WALL Survey, 2004.

* Includes only those performing eldercare.

Volunteer Work

As community life became more fragmented with dual-earner commuter households, time devoted to *community work* to sustain and build social life through local associations and helping neighbours declined. The productive importance of this work has been rediscovered as “social capital” (Putnam, 2000). Voluntary organizations including neighbourhood associations, cultural, political and religious groups, sports clubs and many others play vital roles in sustaining community life.

Over the past decade, the Canada Survey of Giving, Volunteering and Participating (see Hall et al., 2006) has begun to estimate the extent of volunteering through organizations (see Table 1.2.6).The most recent CSGVP survey found that in 2004 about 43 percent of those over 18 had volunteered during the prior year. The WALL survey found a rate of 41 percent. Estimations of time devoted to organization-based volunteering differed in these surveys: a detailed set of items about time devoted to specific organizations over the past year in CSGVP with continual checks for overestimation, compared to a single item on overall hours per week in the WALL survey with no further probe. The estimates, expressed in average hours per week for those who did volunteer, differed from 3 hours to 8 hours. In both instances, the distribution was highly skewed, with the top 10 percent of volunteers contributing more than 50 percent of the volunteer hours.

Table 1.2.6 Volunteer Work in Organizations, All Respondents, 2004

2004	Volunteered [%]	Average (mean) Hours / Week*	N
CSGVP	**43.6**	**3.2**	*20832*
WALL	**41.5**	**8.0**	*9026*

Sources: Canada Survey of Giving, Volunteering and Participating, 2004; WALL Survey, 2004.

* Includes only those performing volunteer work.

In any case, other unorganized work of helping out friends and neighbours in their communities was more widespread and probably as time-consuming. According to the CSGVP, 83 percent of Canadians over 15 helped friends and neighbours directly on their own over the prior year. As noted in Table 1.2.7, the WALL survey found that over 65 percent of those over 18 did so over the past week, and estimated that they spent an average of 5 hours per week over the past year.

Table 1.2.7 Unpaid Help Friends and Neighbours, All Respondents, 2004

SEX	Help Friends and Neighbours [%]	Average (mean) Hours / Week*	N
Male	70	5.0	*4145*
Female	63	5.8	*4462*
TOTAL	66	5.4	*8607*

Source: WALL Survey, 2004.

* Includes only those who help friends and neighbours.

Unpaid work is much less precisely measurable than the employment for which most people are paid on a distinct time schedule. While both housework and community volunteer work have been increasingly constrained by paid employment, they do not obey the same rhythms (Sorokin, 1943). Most obviously, childcare responds to the needs of the child. For many mothers this is a constant labour of varying intensity but it is inherently different than the time measured by a plant or office time clock. Even in terms of clock time measures, mothers with small children are among the longest-working people in the country. If they also happen to be employed, clock time fails utterly to grasp the extent of their labours. The massive increase in the participation of married women with children in the paid labour force in recent generations has put growing pressure on their households to reorganize domestic labour to ensure it gets done. Longer and less defined paid work hours, facilitated by computer-aided job tasks, have also generally increased the time squeeze on unpaid work. The extent and importance of organized and unorganized volunteer work in communities is also increasingly recognized, perhaps partly because a declining proportion of adults now have much discretionary time to donate to it.

All three forms of labour – paid employment, housework and community volunteer work – should be included in any fair accounting of contemporary work practices. Even by crude estimates, it is likely that *around half of the work that Canadians now do is unpaid work*.

Part 2 – Learning

In the WALL survey and prior NALL survey, a central objective has been to document and analyze adults' intentional learning activities. Such intentional acquisition of knowledge, skill or understanding occurs in sites of widely varied formality. Basic types of learning can be distinguished (Livingstone, 2004):

- *Formal schooling* – A pre-established body of knowledge is used to construct a curriculum, which is then taught to learners by an authorized teacher. Examples of this type of learning include primary and secondary schooling, as well as post-secondary college and university programs.
- *Formal adult educatio*n (or continuing education) – Learners acquire knowledge or skill relating to their interests or job by studying with a teacher who uses an organized curriculum. Examples include adult night school courses, workshops, and various distance education courses.
- *Informal education or training* – Here teachers or mentors work with learners without sustained reference to any specific curriculum, often in more incidental and spontaneous learning situations. On-the-job training by more experienced workers is a prime example.
- *Non-taught individual or collective informal learning* – Learning is undertaken either individually or as part of a group without direct reliance on a teacher or an externally organized curriculum.

Much informal learning is tacit, coterminous with life experience itself. The NALL and WALL surveys of self-reported intentional learning merely attempt to provide a more complete picture of Canadian adults' learning activities than country-wide surveys prior to the NALL survey (e.g., Statistics Canada, 2001b) which focused exclusively on formal education and training. This portion of the report summarizes basic findings on formal schooling, adult education and informal learning activities.

2.1 Formal Schooling

Formal schooling attainment in Canada expanded greatly throughout the 20th and early 21st century, with participation in post-secondary college and university programs increasing most rapidly since the 1960s (Livingstone, 2002). According to the 2001 Canada Census, a majority of age 25 to 64 adults possessed some post-secondary credential, one of the highest levels of educational attainment in the world (Statistics Canada, 2003: 141). The 2001 Census also found that, while the aboriginal population remained disadvantaged in terms of educational attainments, younger cohorts of

women and recent immigrants had post-secondary completion rates at least as high as white males.

In the 2004 WALL survey, three-quarters of those surveyed believed that some sort of post-secondary credential is necessary to "get along" in today's society (Table 2.1.1). This widespread attitude is a reflection of the rapid expansion of higher education. Those with less formal education tended to view educational attainment as less important than those with more advanced credentials, but even the majority of high school dropouts indicated that some form of post-secondary credential was now needed.

Table 2.1.1 How Much Education Do Most Young People Need Today to Get Along in Society by Educational Attainment, All Respondents, 2004

EDUCATIONAL ATTAINMENT	No Diploma [%]	High School Diploma [%]	College or Trade School [%]	Under-grad Degree [%]	Profess. or Grad Degree [%]	Column TOTAL [%]	N
No Diploma	5	39	27	13	16	27	*2262*
High School Diploma	1	24	37	21	17	26	*2202*
College or Trade School	1	15	55	15	14	30	*2538*
Undergrad. Degree	0	13	36	41	9	13	*1126*
Professional or Graduate Degree	1	12	34	33	20	4	*314*
Row TOTAL [%]	2	23	40	20	15	100	*8443*

Source: WALL Survey, 2004.

2.2 Adult Education

Participation in continuing adult education also expanded rapidly from about 4 percent in 1961 to 35 percent in the early the 1990s (Livingstone, 2002). Statistics Canada's Adult Education and Training Survey (AETS) is the major source of evidence since the late 1980s. The AETS found that there was some decline in participation rates in the late 1990s (Statistics Canada, 2001b). This apparent decline may be largely an artefact of excluding those young adults who prolonged or returned to schooling in the face of the poor job markets of the mid-1990s. The only subsequent AETS in 2003 restricted itself to job training courses and programs only and found that the incidence of job training courses for the non-student working age population increased from 29 percent to 35 percent from 1997 to 2003 (Peters, 2004). The NALL and WALL surveys asked about adult participation in all courses in both 1998 and 2004. As summarized in Table 2.2.1, these surveys have found that participation in formal adult education courses grew to 43 percent in 1998 and 45 percent in 2004. Canadian adult education participation appears to have generally grown over the past two generations to more than ten times the 1961 rate. But participation remains significantly lower than that of

various other areas, notably Scandinavia (Statistics Canada, 2001a) and Canadian adult education remains beset by accessibility problems for those with limited formal schooling (Myers and de Broucker, 2006).

Table 2.2.1 Participation in Any Formal Training in Past Year, All Respondents, 1998-2004

YEAR	Taken Any Formal Training (including current students) [%]	Taken Any Formal Training (AETS)* [%]	N
1998	43	40	*1565*
2004	45	42	*9026*

Sources: NALL Survey, 1998; WALL Survey, 2004.

* This is the measure used by Statistics Canada in its Adult Education and Training Survey (AETS). This indicator excludes full-time students under 20 years of age in high school diploma programs or under 25 years of age in post-secondary programs unless their education is supported financially by an employer (Statistics Canada, 2001b).

A breakdown of types of types of formal adult education by adult learner status (Table 2.2.2) shows that most participants take either non-credit courses or other formal training programs. Those registered as students in credential programs often also take non-credit courses in addition to courses for credit.

Table 2.2.2 Participation in Type of Adult Education by Student Status, All Respondents, 2004

STUDENT STATUS	Credit Course [%]	Non-Credit Course [%]	Both [%]	Other Formal Training [%]	None [%]	Column TOTAL [%]	N
Non-student Learner	6	51	4	39	0	29	*2593*
Full-Time Student*	62	0	39	0	0	5	*467*
Part-Time Student*	42	18	27	13	0	11	*972*
No Formal Learning	0	0	0	0	100	55	*4995*
Row TOTAL [%]	10	17	6	13	55	100	
N	*854*	*1511*	*540*	*1127*	*4995*	*9027*	*9027*

Source: WALL Survey, 2004.

* Full-time Student Status is based on whether the respondent was enrolled in credential-granting program for more than 15 weeks in the previous year, and for more than 15 hours per week. Those enrolled for less than 15 weeks and/or less than 15 hours per week were deemed “part-time”.

As other prior surveys, the 2004 WALL survey found that the participation of the employed labour force in adult education was higher than that of the entire population, with over 50% engaged in some type of course or formal training. The participation rate in WALL is higher than that in the 2003 AETS, which focused exclusively on job related courses or programs in finding that such participation was about 35% in 2003 (Peters, 2004). The WALL survey

also included formal training outside courses as well as courses not considered to be job-related.

While adult education participation rates in the employed labour force and generally have increased greatly over the past generation, there are still significant differences between occupational classes. As Table 2.2.3 indicates, about two-thirds of large employers, managers and professional employees were involved in a formal training course in the past year. About half of small employers, the self-employed, supervisors and service workers participated. Only 41 percent of industrial workers did so.

Table 2.2.3 Participation in Formal Training by Occupational Class, Employed Labour Force, 2004

OCCUPATIONAL CLASS	Participate in Formal Training [%]
Large Employers	67
Small Employers	46
Self-Employed	46
Managers	68
Supervisors	54
Professionals	67
Service Workers	52
Industrial Workers	41
TOTAL	53
N	*5436*

Source: WALL Survey, 2004.

Employer contributions are widely recognized as a factor in employee course participation (Peters, 2004). While demand for adult education courses appears to be similar between occupational classes, employer contributions differ widely. As Table 2.2.4 summarizes, in 2004 employers provided, paid for or facilitated half of all managers to receive formal training. Over a quarter of all professional employees and supervisory employees received support. Only around 15 percent of service workers and industrial workers were given any such assistance. This is presumably one factor accounting for persistent differences in course participation rates.

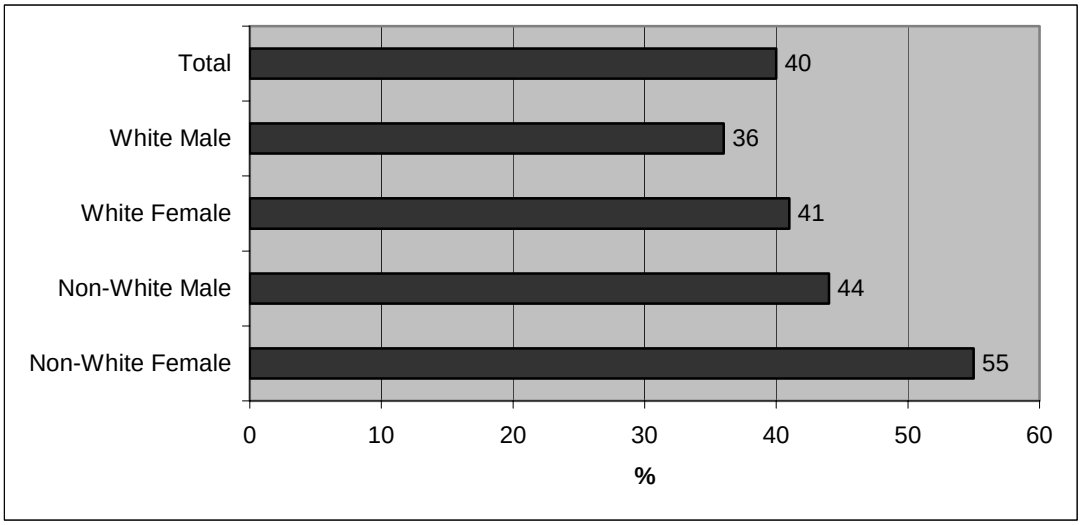
Table 2.2.4 Employer Support for Courses by Occupational Class, 2004

OCCUPATIONAL CLASS	Employer support [%]	N
Managers	50	*567*
Supervisors	26	*279*
Professionals	29	*833*
Service Employees	16	*1424*
Industrial Employees	13	*1021*
TOTAL	18	*5227*

Source: WALL Survey, 2004.

Prior surveys have assessed a variety of possible barriers to participation in adult education The WALL survey examined individuals' unmet desire to participate, as well as the types of barriers they faced. As is apparent from the chart below (Figure 2.2.1), access varies by race and gender, with over half of visible minority females expressing and unmet need to take courses, compared to around a third of white males.

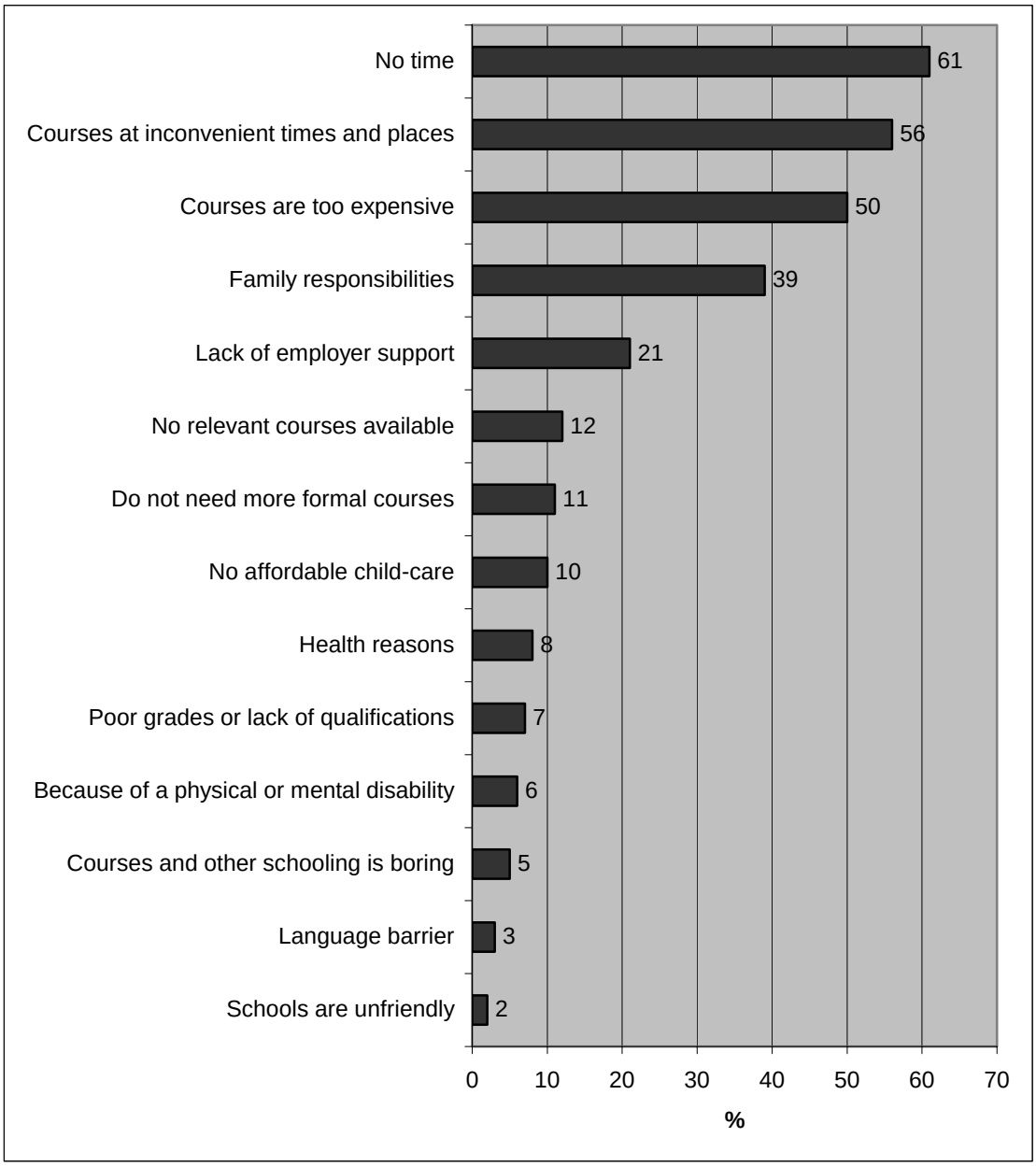
Figure 2.2.1 Wanted to Participate in Courses but Did Not, All Respondents, 2004



Source: WALL Survey, 2004 (Total N=8756; White Male N=3661; White Female N=4006; Non-White Male N=533; Non-White Female N=556).

As in prior surveys (Livingstone, Raykov and Stowe. 2001), the primary barriers to adult course participation remain time and money (Figure 2.2.2). That is, majorities of potential course takers reported the main barriers were little free time, inconvenient times and places of courses, and the high cost of the courses. Family responsibilities were also cited as a barrier by over a third of those who wanted courses. Lack of employer support was mentioned by about 20 percent as a barrier. Respondents in general did not think that a lack of qualifications was a significant factor blocking their participation.

Figure 2.2.2 Reasons for Not Pursuing Formal Courses, Non-Participating Adults, 2004



Source: WALL Survey, 2004 (N=3136).

Schooling and Adult Education

One of the most consistent findings in research on education has been the strong association between formal schooling and participation in adult education. Table 2.2.5, once again confirms that formal schooling and adult education continue to be mutually reinforcing. With increasing educational attainment, the likelihood of participating in further education courses and the

likelihood of planning to continue to participate increase. Although both formal attainment and adult education have made aggregate gains since 1960, participation in adult education courses still tends to reproduce prior differences in educational attainments.

Table 2.2.5 Participation in Adult Education by Formal Educational Attainment, All Non-Student Respondents*, 1998-2004

Formal Schooling	Taken Adult Education Course or Workshop in Past Year [%]		Plan to Take Course [%]	
	1998	2004	1998	2004
No Diploma	15	18	24	17
High School Diploma	40	33	49	36
Community College	55	42	59	44
University Degree	64	53	64	51
TOTAL	37	34	43	35
N	*1371*	*7439*	*1361*	*7324*

Sources: NALL Survey, 1998; WALL Survey, 2004.

* Excludes students registered in degree/diploma programs and includes all non-employed. These differences account for the lower participation rates than in most other tables.

2.3 Informal Learning

Most empirical research to date on adult learning has focused on continuing education courses. The 1998 NALL survey was the first country-wide survey of adult informal learning in Canada (see Livingstone, 2000). The NALL survey drew on many prior case studies and several prior international surveys of informal learning (Livingstone, 2001). All of these prior studies had found that self-reported informal learning was more widespread and extensive than formal adult education. The NALL survey found similar tendencies and established benchmarks on more specific patterns of work-related informal learning. The 2004 WALL survey was conducted in part to further confirm and track trends in informal learning. Again, it should be stressed that such surveys can only deal with self-reported intentional learning. Caution is also needed when drawing trend conclusions from these data because of differing question order (i.e. informal learning preceded formal adult education in NALL; vice versa in WALL), as well as the often-seamless nature of informal learning in relation to other activities.

Most research on informal learning has focused on self-directed, non-taught activities. Self-directed informal learning is surely a major component of all informal learning since the individual is the final agent, and self-reports naturally will be self-referential. However, informal education by more experienced mentors is also an essential element in acquisition of basic knowledge on most topics. These social relations of learning processes are inherently difficult to assess through individual questionnaires; while some

surveys have touched on aspects of informal education with a mentor, informal education and non-taught informal learning are rarely distinguished.

The 1998 NALL survey was distinctive from prior surveys in probing informal learning related to the different forms of work (i.e. paid employment, housework, community volunteer work) as well as general interest, non-work-based informal learning. Respondents were asked if they learned informally over the past year about several topics in relation to the respective type of work or related to general interests. The 2004 WALL survey repeated the same basic set of questions. The comparative findings are summarized here first for employment-based informal learning, then for other unpaid work and general interest informal learning, and finally for informal learning overall.

Employment-Related Informal Learning

In recent empirical research, the vast majority of job training has been found to be done informally through the mentoring of more experienced co-workers and relatively little through formal courses (Betcherman, Leckie & McMullen, 1998; Center for Workforce Development, 1998) Table 2.3.1 summarizes NALL and WALL employed respondents' views on the most important source of their specific job knowledge. The results for both 1998 and 2004 confirm that workers' informal learning is far more likely than employer training programs to be regarded as the most important source of knowledge to do one's job. While over 40 percent of workers give priority to their own independent efforts, over a quarter recognize co-workers as the major source of their specific job knowledge and others see this mentoring as most important in combination with themselves; only about 15 percent regard employer training programs as most important.

Table 2.3.1 Most Important Source of Job-specific Knowledge, Employed Workers, 1998-2004

SOURCES OF JOB-SPECIFIC KNOWLEDGE	1998 [%]	2004 [%]
Own Independent Efforts	44	43
Co-workers	29	28
Employer training	16	16
Combination	12	13
N	*864*	*5555*

Sources: NALL Survey, 1998; WALL Survey, 2004.

Both the 2003 AETS and the 2004 WALL survey asked employed workers about the frequency of mentoring. Both found that around a third of *all* workers had sought advice *within the past month* from other knowledgeable

colleagues to develop their job skills, 32 percent in AETS[1] and 39 percent in WALL, using exactly the same question. These responses at least hint at the general importance of mentoring to employment-related learning.

Partly informed by the 1998 NALL survey, the 2003 AETS asked a specific set of questions about job-related informal learning activities. The overall finding was that about 80 percent of all employed workers had engaged in some of these job-related informal learning activities in the past year (see Peters, 2004: 16, 32). The NALL and WALL surveys referred to a wider array of learning topics and found that over 85% were engaged in such informal learning (Table 2.3.2).

Table 2.3.2 indicates that, while those in lower positions in the occupational hierarchy may have been slightly less likely to participate in job-related informal learning, there was a very high participation rate across all occupational class positions.

Table 2.3.2 Job-Related Informal Learning by Occupational Class, Employed Labour Force, 1998-2004

OCCUPATIONAL CLASS	1998		2004	
	Do Informal Learning [%]	Average Hours / Week*	Do Informal Learning [%]	Average Hours / Week*
Large Employers	**	**	87	5.1
Small Employers	87	9.9	88	4.7
Self-Employed	83	5.8	87	5.6
Managers	96	5.5	92	5.4
Supervisors	95	4.7	88	5.8
Professionals	88	5.1	92	4.6
Service Employees	83	5.6	84	5.0
Material Goods Employees	83	8.4	84	5.2
TOTAL	86	6.7	87	5.3
N	*940*	*825*	*5428*	*4978*

Sources: NALL Survey, 1998; WALL Survey, 2004.

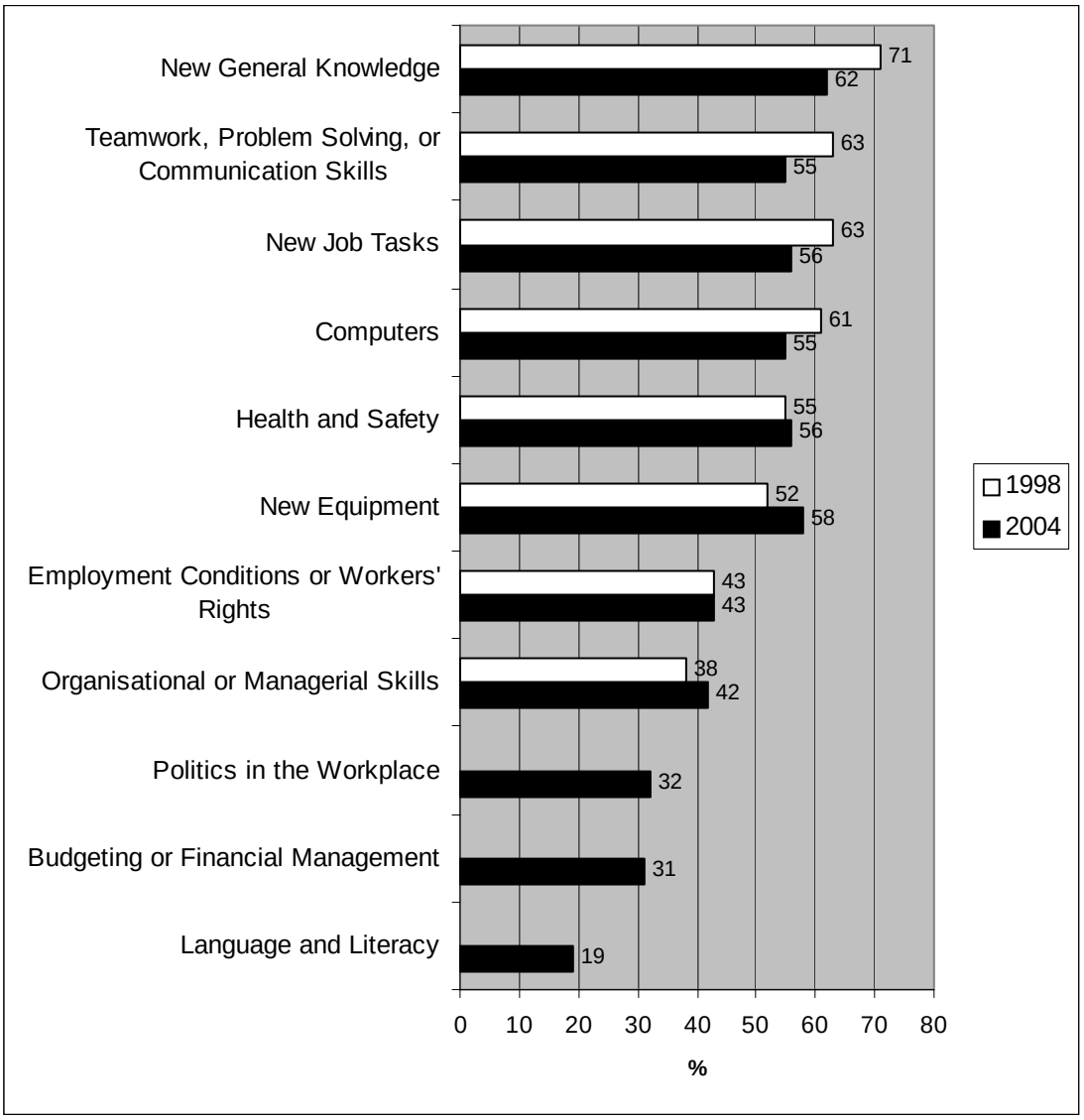
* Average hours per week are calculated as mean of those doing informal learning.

** N too small for reliable estimate.

The employment-related informal learning topics used in NALL and WALL are summarized in Figure 2.3.1. The learning frequencies for the respective topics were very similar in 1998 and 2004, with over half of all workers indicating informal learning about new general knowledge, new job tasks, computers, general problem solving and health and safety.

[1] The AETS figure is computed from the original data file. A higher figure is quoted in Peters (2004, p. 17) with reference only to those who reported participating in specific types of self-directed informal job-related learning.

Figure 2.3.1: Topics of Job-related Informal Learning, Employed Labour Force Participating in Informal Learning, 1998-2004



Sources: NALL Survey, 1998 (N=940); WALL Survey, 2004 (N=5428).

The 2003 AETS found that the most highly educated workers were significantly more likely than those with the least formal schooling to participate in a *small set* of job-related informal learning activities *over the past four weeks* (16 percent for those with high school or less versus 50 percent for university graduates (Peters, 2004: 17, 44). But, as Table 2.3.3 indicates, informal learning participation rate differences between those with differing educational attainment levels over the course of a year and the wider array of informal learning activities addressed by the NALL and WALL surveys are quite small. There is also no suggestion in these data that those with less formal schooling are devoting appreciably less time to job-related informal learning.

Table 2.3.3 Job-related Informal Learning by Formal Schooling, Employed Labour Force, 1998-2004

EDUCATIONAL ATTAINMENT	1998		2004	
	Do Informal Learning [%]	Average Hours / Week*	Do Informal Learning [%]	Average Hours / Week*
No Diploma	71	11.1	78	5.5
High School Diploma	91	6.3	86	5.2
College Certificate	88	4.5	90	5.5
University Degree or More	94	5.9	91	4.6
TOTAL	86	6.7	87	5.3
N	*936*	*825*	*5660*	*4978*

Sources: NALL Survey, 1998; WALL Survey, 2004.

* Average hours per week are calculated as mean of those doing informal learning.

AETS estimates of time devoted to adult education courses by participants in both 1997 and 2003 averaged around 150 hours per year (Peters, 2004, p. 12), or less than 3 hours per week. NALL and WALL survey estimates are quite similar. Time spent in informal learning activities is generally much harder to estimate, given their more seamless, less discrete character. But when participants in job-related informal learning were asked to estimate their time, the average time in 1998 and 2004 worked out to just over 5 hours per week, as noted in Tables 2.3.2 and 2.3.3. The AETS course participation rate was about 35 percent for job-related courses, while the NALL and WALL job-related informal learning participation rate was around 85 percent. For all self-reported job-related learning of the employed labour force, the incidence ratio of informal learning to course-based learning was probably around five to one. The analogy of an iceberg, often used in general research on adults' informal learning, (Tough, 1978) is quite apparent here.

Informal Learning Related to Housework, Volunteer Work and General (non-work) Activities

Informal learning related to unpaid activities is even more difficult to estimate than employment-related learning because these activities themselves are typically less well defined than paid work. Research on job-related informal learning remains underdeveloped, but study of informal learning related to housework and volunteer work has scarcely begun (Eichler, 2005; Schugurensky and Mündel, 2005). The NALL and WALL surveys were the first in North America to examine informal learning related to housework and volunteer work, in conjunction with WALL case studies (see http://www.wallnetwork.ca). In each survey, respondents who indicated they did housework or volunteer work were asked whether they engaged in any of a variety of related informal learning activities, and then asked to estimate the amount of time they devoted to these learning activities on a weekly basis. All respondents were also asked whether they engaged in any other

informal learning in their general interest pursuits (such as sports or leisure) not directly related to either paid or unpaid work. The basic findings on participation rates appear in Table 2.3.4.

Table 2.3.4 Participation Rates in Informal Learning Related to Unpaid Activities, Eligible Respondents*, 2004

SEX	AREA OF INFORMAL LEARNING					
	Housework [%]		Volunteer Work [%]		General Interest [%]	
	1998	2004	1998	2004	1998	2004
Male	80	83	78	79	82	83
Female	77	82	83	74	84	80
TOTAL	79	82	81	76	83	82
N	*1436*	*8607*	*795*	*3745*	*1565*	*9024*

Sources: NALL Survey, 1998; WALL Survey, 2004.

* Only those performing housework or volunteer work were asked questions about related informal learning.

The vast majority of participants in housework, in volunteer work and in general interest activities indicated that they engaged in some types of related informal learning. The participation rate was around 80 percent in all of these unpaid activities in both 1998 and 2004. These rates tend to be only slightly lower than those noted in Table 2.3.2 for employment-related informal learning.

The estimated duration of time devoted to informal learning in relation to each of these unpaid activities is summarized in Table 2.3.5. The participation rates in paid work and these unpaid activities vary greatly, from a minority in volunteer work, to over 60 percent in paid work to virtually everyone in some form of housework and general interest activities. But the amount of time given by *participants* to related informal learning appears to be quite similar in all of them, averaging around 5 hours per week in each instance. Such averages mask a wide range of variation and the respondents' estimates themselves are merely rough approximations. But we can at least conclude that there is very substantial informal learning occurring in relation to each of these adult activities, which warrants further consideration in a learning society.

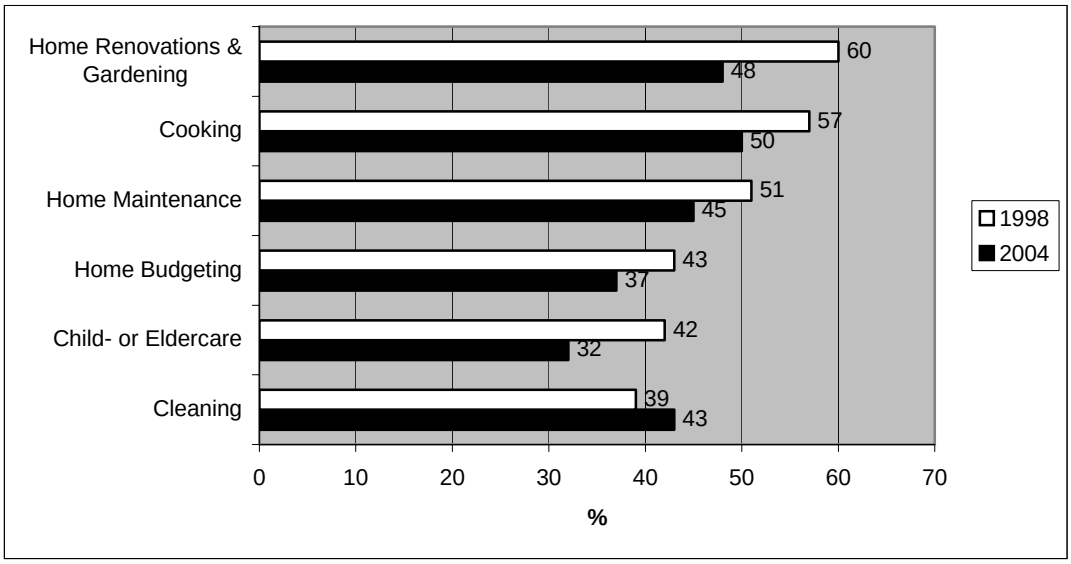
Table 2.3.5 Informal Learning (Average Hours per Week) by Activity, All Participants, 1998-2004

YEAR	Job	Housework	Volunteer Work	General Interest
1998	6.7	5.9	4.2	6.1
2004	5.3	5.8	4.0	5.0

Sources: NALL Survey, 1998 (Job N=825, Housework N=1129, Volunteer N=655, General Interest N=1297); WALL Survey, 2004 (Job N=4978, Housework N=7087, Volunteer N=2839, General Interest N=7363).

Some idea of the content of informal learning in each of these activity areas is provided by the following graphs summarizing the frequency of informal learning involvement in different topics. Since more people do housework than any other form of work and since participation rates in informal learning are similar for participants in all forms of work, housework-related informal learning is probably the most widespread type of unpaid work-related learning, albeit the least studied. In terms of basic housework activities, as Figure 2.3.2 shows, more people indicated involvement in informal learning related to home renovation, gardening and cooking than related to other basic tasks which may involve less discretionary choice.

Figure 2.3.2 Housework-Related Informal Learning Topics, Eligible Participants*, 1998-2004



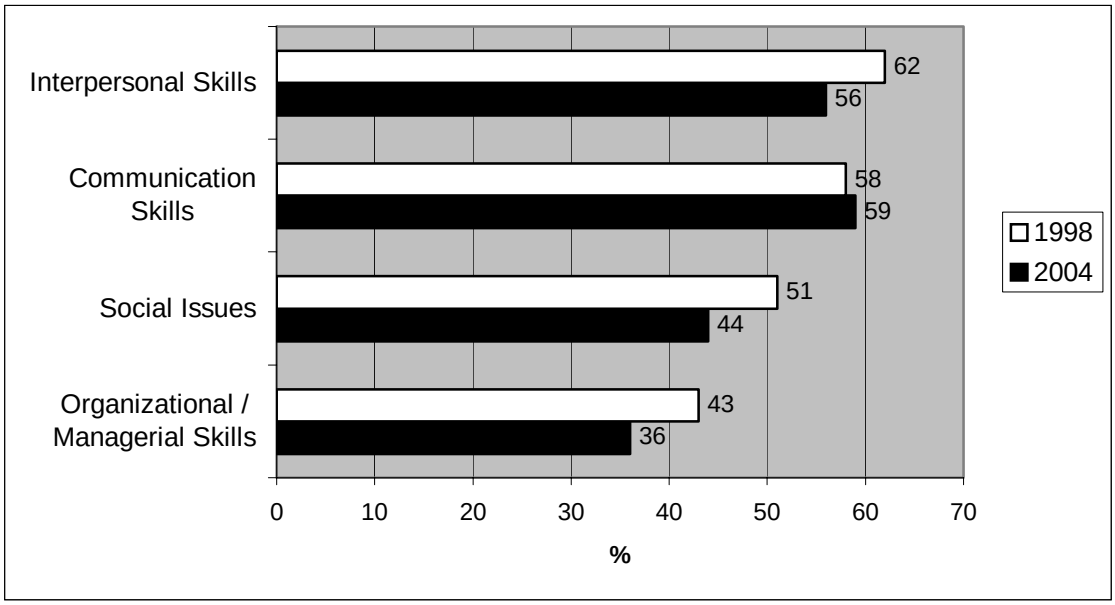
Sources: NALL Survey, 1998 (N=1129); WALL Survey, 2004 (N=7087).

* Note: Only those who reported doing some housework-related informal learning were asked questions about topics.

Since volunteer work is by definition the most discretionary work, those who do it are also freer than those who do housework and paid work to engage in related learning. Figure 2.3.3 summarizes topical frequencies. The majority

of volunteer learners said they have learned about interpersonal and communications skills in this work. This may suggest that adults are most likely to learn intentionally how to relate to others in social settings relatively free of hierarchical control.

Figure 2.3.3 Volunteer Work-Related Informal Learning Topics, Eligible Participants*, 1998-2004

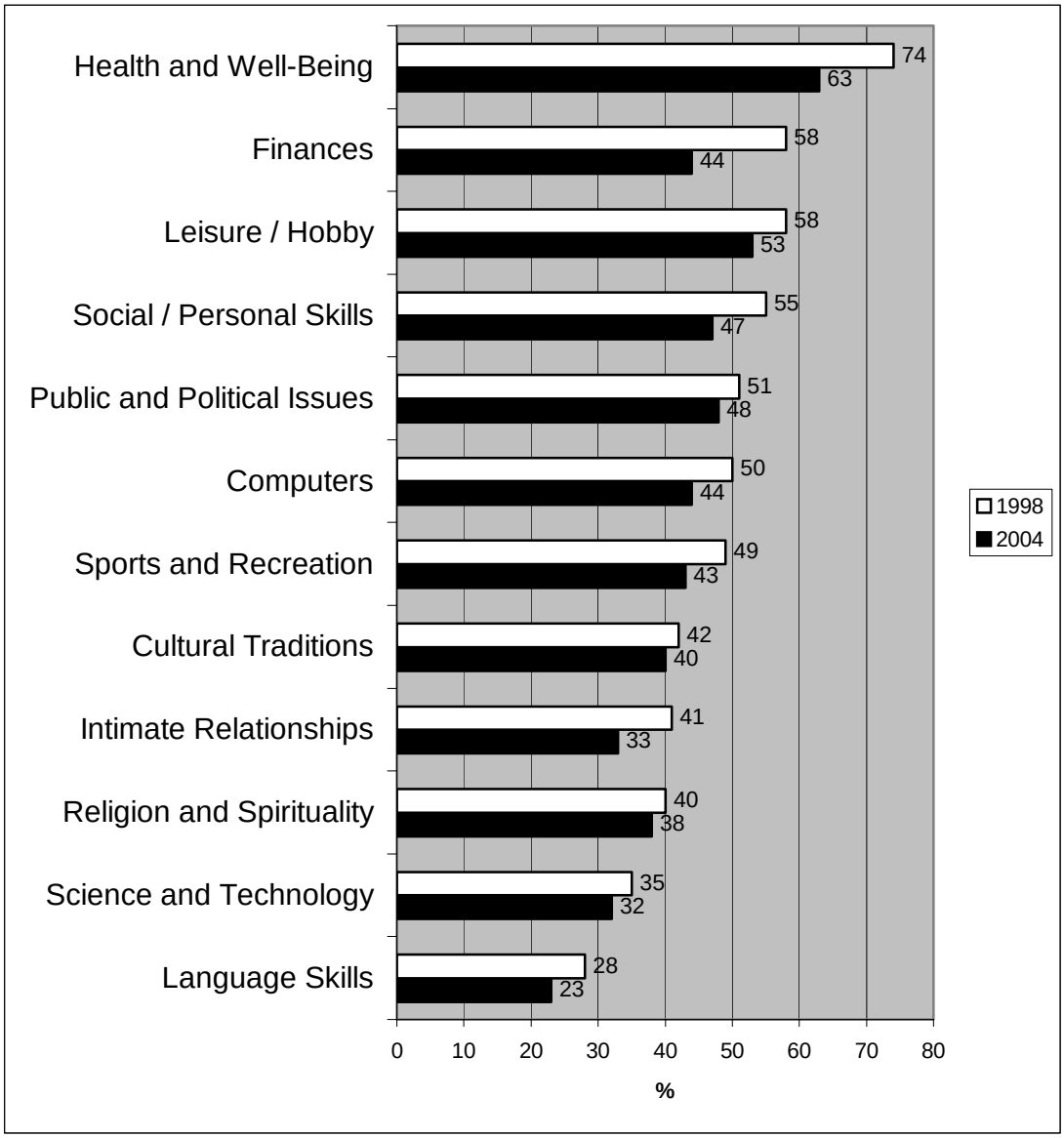


Sources: NALL Survey, 1998 (N=655); WALL Survey, 2004 (N=2839).

* Note: Only those who reported doing some volunteer work-related informal learning were asked questions about topics.

When all respondents were asked about doing any informal learning related to their general interests, topical frequencies were widely varied. As Figure 2.3.4 indicates, the most popular topic was health and well-being. The only other area in which a majority consistently engaged in self-reported learning was in pursuit of their hobbies. The areas in which people in general were least likely to engage in independent informal learning were sciences and languages, forms of knowledge that are most likely to require a disciplined approach for effective learning.

Figure 2.3.4 General Interest Informal Learning Topics, All Respondents*, 1998-2004



Sources: NALL survey, 1998 (N=1297); WALL survey, 2004 (N=7363).

* Note: All survey respondents were asked questions about general interest learning topics.

Total Informal Learning

Early empirical research on self-directed learning, through an array of case studies primarily in Canada (Tough, 1978) and a U.S. national survey in 1976 (Penland, 1977) found that the vast majority of adults reported significant involvement in such learning projects and that the average time involvement was around 10 hours per week in all informal learning activities. The NALL and WALL surveys are not directly comparable with this prior research as they were not limited to self-directed, non-taught informal learning, and also

inquired about work-specific as well as general interest learning. In any event, as Table 2.3.6 summarizes, when these different aspects of informal learning were considered in aggregate, the participation rate of Canadian adults in some form of informal learning was very high (92 percent in 1998 and 91 percent in 2004). Considering all forms of self-reported informal learning for all participants, the time devoted averaged around 14 hours per week.

Table 2.3.6 Total Informal Learning (Average Hours per Week), All Participants, 1998-2004

YEAR	Do Any Informal Learning [%]	Average Hours / Week*
1998	92	14.7
2004	91	13.9

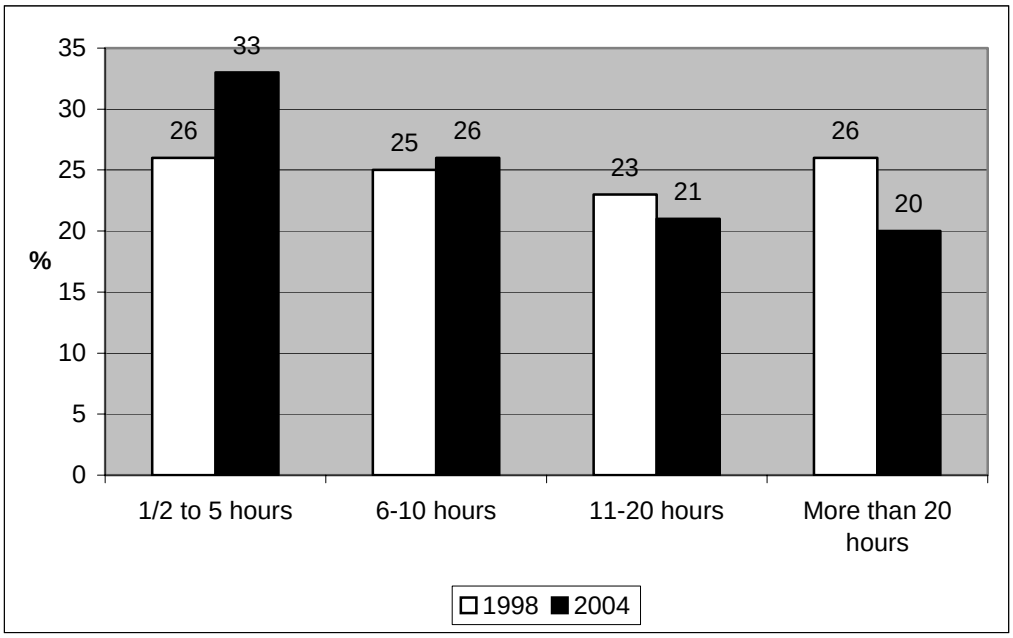
Sources: NALL Survey, 1998 (N=1565); WALL Survey (N=9024).

* Average hours per week are calculated as mean of those doing informal learning.

These time estimates are of similar magnitude to earlier case studies and the few generally comparable prior country-level surveys. But they should be contrasted with available estimates of overall time use based on detailed diaries of daily activities. For example, the most recent Canadian General Social Survey in Time Use (Statistics Canada, 2005b) found that, based on time diaries covering a 24-hour period in 2005, only 10 percent of those over 15 had participated in educational activities, for an average of half an hour. However, the general population also registered over 5 hours per day of "free time" beyond paid and unpaid work, sleeping and eating. This translates into over 30 hours per week that could be devoted to intentional informal learning among other activities. But informal learning is also likely to be embedded in work activities and difficult to distinguish from work per se. So, in terms of detailed estimates of general time constraints, the NALL and WALL estimates of informal learning appear plausible.

As noted above, there was a wide variation in time reported for various aspects of informal learning. This variation is reflected in the distribution of total informal learning time for all those who report any intentional informal learning, as displayed in Figure 2.3.5. As the average informal learning hours for respective activities imply, the majority of participants in each instance was spending less than 5 hours per week in related informal learning. Overall, about a third claimed to spend less than 5 hours per week in all informal learning, a quarter spent between 6 and 10 hours, a fifth spent 11 to 20 hours, and the remaining fifth spent over 20 hours per week. Again, these are rough approximations based on respondents' own estimates. But the consistent patterns found by the NALL and WALL surveys establish that self-reported informal learning is a very substantial part of Canadian adults' learning related to their paid and unpaid work.

Figure 2.3.5 Distribution of Hours of All Informal Learning, Respondents Reporting Participation in Any Informal Learning, 1998-2004



Sources: NALL Survey, 1998 (N=1443); WALL Survey, 2004 (N=7423).

While school attainment and participation in adult education courses continue to be quite strongly related, as noted previously in Table 2.2.5, neither type of formal education appears to be strongly related to adults' informal learning. The 2003 AETS does find an association between school attainment and a few specific job-related informal learning activities over a limited month-long period (Peters, 2004, p. 16, 32). Longitudinal research with a continuously employed sub-sample from the 1998 NALL survey in 2004 has found that those who do not participate in adult education courses do tend to reduce their participation in job-related informal learning (Livingstone and Stowe, 2007) But, as Table 2.3.7 shows, the association of formal and informal learning does not appear to hold on an annual basis and wider range of learning activities. While there may be a tendency for school dropouts to be somewhat less involved in both job-related and general self-reported informal learning, the vast majority of school dropouts remain actively engaged in informal learning and devote similar amount of time to it as more highly schooled people.

Table 2.3.7 Formal Educational Attainment and Participation in All Informal Learning Activities, All Respondents, 1998-2004

EDUCATIONAL ATTAINMENT	1998		2004	
	Do Any Informal Learning [%]	Average Hours / Week*	Do Any Informal Learning [%]	Average Hours / Week*
No Diploma	81	15.5	80	15.2
High School Diploma	97	15.2	94	14.6
Community College	97	13.7	96	13.2
University Degree	99	13.1	96	12.2
TOTAL	92	14.7	91	13.9
N	*1548*	*1407*	*8861*	*7423*

Sources: NALL Survey, 1998; WALL Survey, 2004.

* Average hours are calculated as mean of those reporting any informal learning

As Canada becomes an increasingly information-based society, lifelong learning in all of its aspects is frequently heralded as very important. The NALL and WALL surveys confirm that a very large part of adults' learning is done informally and suggest that, regardless of their formal schooling, most adults should be recognized as continuing, actively engaged informal learners.

Part 3 – Paid Work & Learning

The assumption that skill shortages and education and literacy deficits must be overcome for the Canadian economy to be successful is now widespread but largely unexamined empirically. Leaving aside the pervasive use of informal job-related learning to address gaps in required knowledge for job performance, a basic problem in assessing education-job requirement matching is the lack of consensus on the best approach to conceptualizing and measuring the skills that workers bring with them and/or develop on the job.

Serious scholarly and political debate over the skill requirements of paid work persists, in a context with apparent growing subordination of workers to automated machinery at the same time as there is more dependence on workers generating and deploying knowledge (e.g., Carter, 1995). (The skill complexity involved in housework and care work has not even been hinted at by most prior research.) Efforts to develop occupation-based measures of skill requirements have blended training time, gauged via General Educational Development (GED) and Specific Vocational Preparation (SVP), with the testing of aptitudes needed by workers in specific jobs. The Canadian Classification and Dictionary of Occupations (CCDO) and its progeny, the National Occupational Classification (NOC)[2] have developed out of these efforts. There are serious issues of reliability related to such classificatory systems, as well as the conflation of skills possessed and those actually used on the job (Pankhurst, 2005). CCDO and NOC do provide the best available survey tools for studying occupational trends—the sectoral and class distributions of jobs noted in Part 1. But these classification systems have little to say about changes in the content of jobs—such matters as changing skill demands and required continuing education.

The NALL and WALL surveys, as well as the 1983 Canadian Facts' Survey, not only provide general data on change and continuity in the distribution of owner and employee occupational classes using the CCDO system. These surveys also rely on self-reports to estimate relations between employment statuses, educational attainments and education/ training requirements for the active labour force. These data generate basic profiles of the extent of correspondence between the knowledge that workers bring to the job and what the job actually requires. (The comparability of workers' self reports and analysts' rating schemes, such as GED and SVP scores, will be examined in other WALL papers).

[2] The occupational coding of WALL respondents includes both CCDO and NOC. The CCDO allows longitudinal analysis with past surveys such as the 1983 Canadian Facts Class Structure and Class Consciousness Survey while NOC allows direct comparison with current research. The occupational analysis in this report utilizes CCDO.

3.1 Employment Status and Formal Education

Comparisons between 1998 NALL data and 2004 WALL data on adult education (Table 3.1.1) show that employed students, expectedly, continue to be actively engaged in their programs of study. Full time workers continue to be slightly more active participants in courses than part-time workers. Among the unemployed (including officially unemployed, off work for other reasons and discouraged workers), participation in adult education courses appears to have increased significantly during this period. This may reflect both an increasing emphasis on credentials for (re)entry to employment and a growing insistence on skills upgrading in public discourse about jobs in a knowledge-based economy.

Table 3.1.1 Participation in Courses by Employment Status, Labour Force, 1998-2004

EMPLOYMENT STATUS	All courses / workshops [%]	
	1998	2004
Employed FT	50	46
Employed PT	42	39
Employed Student	100	100
Unemployed	26	50
TOTAL	53	53
N	*1072*	*6441*

Sources: NALL survey, 1998; WALL survey, 2004.

The role of formal education in reproducing social classes has been well documented. School success has long reflected the occupational and family-centred transmission of cultural codes (Bourdieu, 1984), as well as class-based access to adequate funds. Canadian research has found that children from families in higher occupational class locations, whose parents much more commonly had advanced educational attainments, have been much more likely to gain university credentials and better jobs (Curtis, Livingstone, & Smaller, 1992). Table 3.1.2 shows that occupational classes in the current labour force continue to be quite highly differentiated in terms of the proportion attaining a university degree: about half of professional employees and around a third of all large employers and managers, contrasted with 10 percent of service workers and 4 percent of industrial workers. But, as previously noted, completion of some form of post-secondary certification has grown very rapidly in Canada in recent decades. Consequently, the long established association between school attainment and participation in adult education (see Table 2.2.5 and Peters, 2004) may be playing a diminishing role in the cycle of class reproduction. As Table 3.1.2 shows, the differences in course participation between large employers, managers and professionals on the one hand and service and industrial workers on the

other appear to have decreased in recent years, partly because the latter have significantly increased their post-secondary education attainments.

Table 3.1.2 Schooling, Further Education and Participation in Job-related Informal Learning Participation Rates by Occupational Class, Employed Labour Force, 1998-2004

OCCUPATIONAL CLASS	University Degree [%]		Course/ Workshop Taken in Past Year [%]		Participate in Informal Job-Related Learning [%]	
	1998	2004	1998	2004	1998	2004
Large Employers	33	35	55	67	100	87
Small Employers	33	23	52	46	87	88
Self-Employed	22	22	47	46	83	87
Managers	25	34	71	68	96	92
Professionals	49	46	73	67	88	92
Supervisors	10	14	50	54	95	88
Service Workers	9	10	59	52	83	84
Industrial Workers	4	4	35	41	83	84
TOTAL [%]	18	21	56	53	86	87
N	*950*	*5366*	*953*	*5436*	*940*	*5428*

Sources: NALL survey, 1998; WALL survey, 2004.

As we have seen, both formal educational attainment and adult course participation continue to be highly differentiated between occupational classes at the highest levels of university completion and employer-sponsored further education courses. Further detailed studies of informal learning may find more specific associations with formal schooling and adult education courses (see Peters, 2004). But it is clear that participation in both job-related and general informal learning is much more prevalent than participation in adult education, and does not appear to be generally linked to formal credentials. As Table 3.1.2 also shows, the vast majority of Canadians in all occupational classes are lifelong informal learners regardless of their formal educational attainment. This finding suggests that the continuing acquisition of skills is more prevalent than often assumed among lower occupational classes.

3.2 Changing Job Requirements

Job requirements can be estimated most straightforwardly by relying on occupants' own perceptions of the skills, training and educational attainments needed to do their jobs.

In 2004, as Table 3.2.1 shows, over three-quarters of workers agreed that their job required them to learn new skills. A comparable U.S. General Social Survey in 2002 (Davis, Smith, & Marsden, 2005) found that over 80 percent agreed with a similar statement. This view was widely shared across

occupational classes and is consistent with both the increasing educational attainments of the employed labour force and with the extensive adult learning documented in this report.

Table 3.2.1 Job Often Requires the Learning of New Skills, Employed Labour Force, 2004

JOB REQUIRES LEARNING NEW SKILLS	[%]
Strongly Disagree	6
Somewhat Disagree	12
Neither	5
Somewhat Agree	38
Strongly Agree	38
TOTAL	100
N	*5733*

Source: WALL survey, 2004.

As Table 3.2.2 indicates, over half the labour force in 2004 reported that the level of skill required to perform their job had increased over the last five years, about 40 percent said the skill level stayed the same and just 3% reported a decrease. This finding suggests that the process of "de-skilling" predicted in the 1970s by Braverman (1974) has not occurred in a manner that is evident to many workers. Prior surveys have found that, whatever their experience in linking their own skills and job requirements, most workers share a general belief that more skill is involved in the paid work of today than of a generation ago (see Livingstone, Hart, & Davie, 1999).

Table 3.2.2 Change in Level of Skill Required to Perform Job Over Last 5 Years, Employed Labour Force, 2004

CHANGE IN JOB SKILL	[%]
Decreased	3
Stayed the Same	42
Increased	56
TOTAL	100
N	*5601*

Source: WALL survey, 2004.

Regarding the knowledge complexity of jobs, Table 3.2.3 offers evidence that the extent of job-specific training rose between 1983 and 2004. This upward shift involved the number of jobs requiring only a few days or less of training dropping from a quarter to around 15 percent, while those jobs that needed more than a year of training increased from a quarter to about 40 percent. Despite these changes, over 40% of jobs still took workers less than 3 months to gain competence.

Table 3.2.3 Amount of On-the-Job Training, Apprenticeship Training, or Job Experience Required to Perform Job, Employees, 1983-2004

SPECIFIC TRAINING REQUIRED TO PERFORM JOB	1983 [%]	2004 [%]
Few days or less	25	14
A week to a month	17	15
1 to 3 months	15	14
3 to 6 months	8	8
6 months to 1 year	10	7
1 to 3 years	13	21
3+ years	12	21
TOTAL	100	100
N	*1717*	*4587*

Sources: Canadian Class Structure Survey, 1983; WALL survey, 2004.

Another measure of actual changes in job requirements is the general level of formal schooling, the entry credential that occupants judge is normally required for people who do their type of job. Table 3.2.4 summarizes the changes from 1983 to 2004. Overall, just over a quarter of employees estimated that their jobs required completion of post-secondary education in 1983. This estimate increased to 45 percent in 2004. Most of the increase in post-secondary education requirements appears to have occurred in service and industrial occupations, both of which are declining as a proportion of the workforce (see Table 1.1.2).

Table 3.2.4 Job Entry Educational Requirement by Occupational Class, Employees, 1983-2004

OCCUPATIONAL CLASS	Post-Secondary Education Required for Job Entry [%]	
	1983	**2004**
Managers	75	67
Supervisors	39	31
Professional employees	87	81
Service employees	16	35
Industrial employees	10	20
TOTAL	28	45
N	*1462*	*3877*

Sources: Canadian Class Structure Survey, 1983; WALL survey, 2004.

Innovations in information technology, especially computers, are widely regarded as intimately related to changing technical skill requirements for the labour force (Autor, Levy, & Murnane, 2003; Machin, 2003). The WALL survey included further questions that probed such technical change and related competence in the workplace. Table 3.2.5 illustrates the growing prevalence of computer-use among the workforce.

General Social Surveys (Statistics Canada, 1989, 1994, 2000b) found that computer use by the employed labour force increased from under 40 percent in 1989 to about half in 1994 and over three-quarters in 2000 (Table 3.2.5). The WALL survey found that by 2004 over 80 percent of the employed labour force was using a computer.

Table 3.2.5 Computer Use in Paid Workplaces in Canada, Employed Labour Force, 1989-2004

	1989	1994	2000	2004*
Use computer [%]	38	51	77	85
N**	*5332*	*6134*	*24130*	*1741*

Sources: GSS4, 1989; GSS9, 1994; GSS14, 2000b; WALL survey, 2004.

* The section on computer use and skills was asked only of one-sixth of respondents, leading to the relatively small but still random sample.

** The reported GSS figures are for employed respondents 18 years and older, except for the GSS4 (1989) where reported figure is for 20 years and older employed respondents.

Table 3.2.6 shows that over the prior five years about two-thirds of the entire employed labour force had experienced at least a moderate amount of change in computer software and/or other work techniques. Majorities in all occupational classes shared this view (data not shown). The profiles in Tables 3.2.5 and 3.2.6 suggest that much of the perceived change in job requirements reported earlier in this section is connected to such information technology innovations.

Table 3.2.6 In the Last Five Years, to What Extent have the Work Techniques and Equipment Used on a Regular Basis Changed (e.g., computers and software programs), Employed Labour Force, 2004

TECHNIQUE & EQUIPMENT CHANGE	[%]
Not at All	14
A Little	19
A Moderate Amount	34
A Great Deal	32
TOTAL	100
N	*5733*

Source: WALL survey, 2004.

Often missing from studies of technological change is assessment of how much workers know compared to the increasingly computer-related skill demands of their jobs. Table 3.2.7 illustrates the relevance of this omission for full understanding of skill requirements and shortages. Just 9% of all workers reported in 2004 that their computer-related skills were lower or much lower than they needed for their job while over half of all workers reported higher or much higher skills than they needed. This pattern of

computer-related underutilization of skill is particularly pronounced among workers aged 18 to 34, as might be expected since recent and continuing participation in advanced forms of formal education is highest among them. But the pattern of underutilization persists among workers aged 35-44, with over half answering that they have a higher level of computer-related skill than required by their job. A similar pattern, with around half indicating a higher level of computer skill than required for their job, is found in all *employee* occupational classes; among ownership classes (large and small employers, self-employed) who set their own job requirements to a greater extent, only minorities express such a mismatch.

Table 3.2.7 How Computer Skills Match with Requirements of Job, Random Sub-Sample of All Respondents*, 2004

AGE	Much higher [%]	Higher [%]	Same [%]	Lower [%]	Much lower [%]	Computer skills not required [%]	N
18-24	33	37	26	3	0	2	*95*
25-34	19	40	32	8	0	1	*219*
35-44	20	34	39	6	0	1	*316*
45-54	9	29	44	11	4	3	*254*
55-64	17	20	58	5	1	0	*83*
65+	13	9	9	68	0	0	*11*
TOTAL [%]	18	33	39	8	1	1	*978*

Source: WALL survey, 2004.

* The section on computer use and skills was asked only of one-sixth of respondents, leading to the relatively small but still random sample.

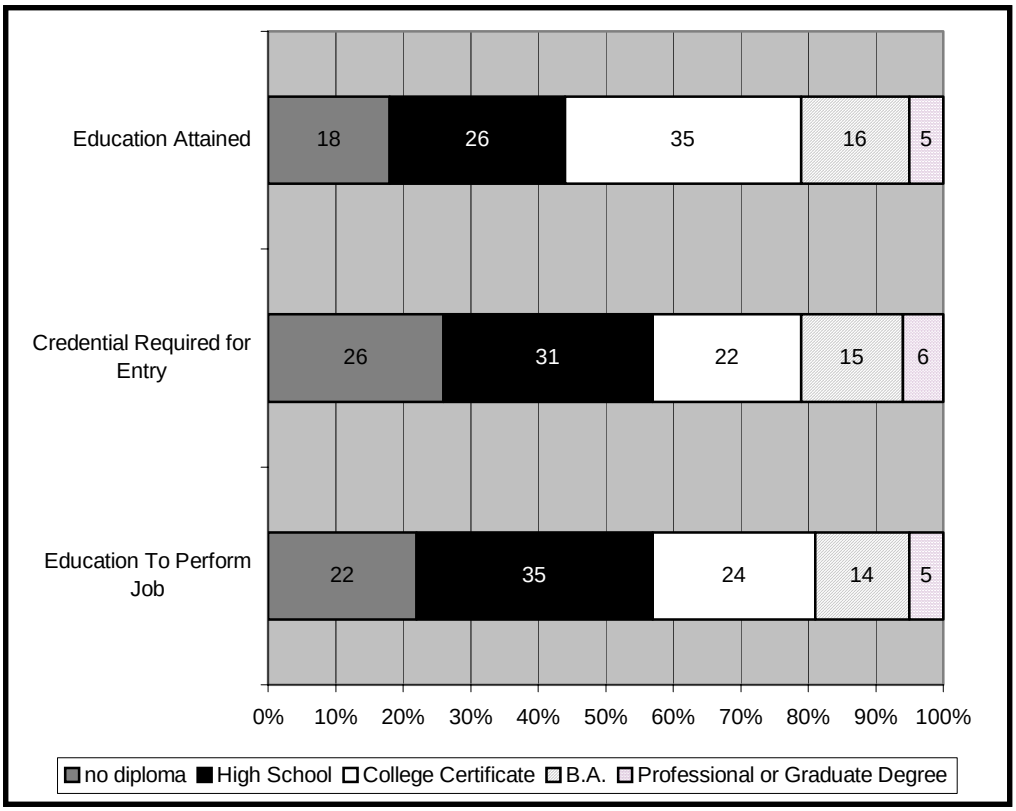
Given the preceding profiles of education and training as well as the job requirements of the employed labour force, the final section of the report will address the match between them more generally.

3.3 Education-Job Match

A belief in the necessity of a post-secondary education for virtually everyone has grown along with the rapid expansion of the post-secondary education system since the 1960s. As Table 2.1.1 indicated, the expectation has exceeded the reality. While the 2004 WALL survey found that three-quarters of all Canadian adults believed that a post-secondary credential is necessary to "get along" in today's society, less than half had attained one. Further analysis with employed respondents' own job requirements finds that even most of those whose jobs required no high school diploma believed that a post-secondary credential was now required. There appears to be a growing tendency for educational attainments to exceed job requirements, driven by effort to gain advantage in competitive labour markets and to aid in coping with many aspects of modern life beyond the instrumental one of getting a decent job. Canada has become a credential-oriented society.

The *aggregate* profiles of formal education attained and formal education required for entry to and performance of jobs in 2004 are presented in Figure 3.3.1. The overall supply of workers with post-secondary credentials (56 percent) substantially exceeded the credential (43 percent) or performance (43 percent) requirements. Conversely, while 44 percent of the employed labour force had attained only a high school diploma or less, about 57 percent of all jobs required no more than a diploma. These aggregate patterns suggest the basic magnitude of underutilization, or underemployment, in relation to job requirements was around a quarter of the employed labour force (i.e. 13 percent whose education attained exceeded their diploma or less job requirement and 13 percent whose education exceeded their post-secondary job requirement). When we examine workers' specific attainments in relation to the requirements of their own jobs, a somewhat more complex picture of matches and mismatches emerges.

Figure 3.3.1 Education Attained, Credential Required For Entry to Job, and Education Needed to Perform Job, Employed Labour Force, 2004



Source: WALL survey, 2004 (Education Attained N=5658; Credential Required N=5147; Education to Do Job N=5354).

Education-job matching has several time and skill-related aspects (Livingstone, 2004). In this report we will consider only skill-related

dimensions, namely credential match, performance match and subjective match. The 1983 Canadian Class Structure Survey and the 2004 WALL survey provide a comparable measure for estimating changes in the match between educational attainment and entry requirements for wage and salary earners in general as well as for specific classes of employees[3]. Table 3.3.1 summarizes the findings.

As noted earlier, there was an increase in the education required for job entry over this period, from around a quarter of all jobs requiring post-secondary (college or university) completion to about 45 percent, according to job occupants' own estimates. But the actual educational attainments of the employee labour force increased more greatly, from around a quarter with post-secondary completion in 1983 to about 55 percent in 2004. The overall rate of credential underutilization increased from about 25 percent to 31 percent. The credential gap increased across all employee occupational classes. For the expanding numbers of managerial and professional employees, there was little change over this period in the educational entry requirements for such jobs but there was some increase in the proportions of managers and supervisors with post-secondary attainments. But the gap continued to be greater for the declining numbers of service and industrial workers because, while their post-secondary job entry requirements may have doubled, their post-secondary attainments appear to have tripled. Supervisors experienced a growing credential gap because their attainments increased greatly while their requirements did not.

Table 3.3.1 Educational Attainment and Credential Underutilization* by Occupational Class, Employees, 1983-2004

OCCUPATIONAL CLASS	1983 [%]			2004 [%]		
	Post-sec** completed	Post-sec Required for Job Entry	Under-utilized*	Post-sec completed	Post-sec Required for Job Entry	Under-utilized*
Managers	41	75	15	72	67	25
Supervisors	23	39	21	56	31	43
Professional employees	85	87	17	83	81	20
Service employees	16	16	25	50	35	36
Industrial employees	12	10	33	34	20	33
Total [%]	25	28	25	56	45	31
N	*1483*	*1462*	*1461*	*4217*	*3877*	*3844*

Sources: Canadian Class Structure Survey, 1983; WALL Survey, 2004

* Credential underutilization is calculated by comparing educational attainment with respondents' estimation of the amount of education normally required for entry to their job.

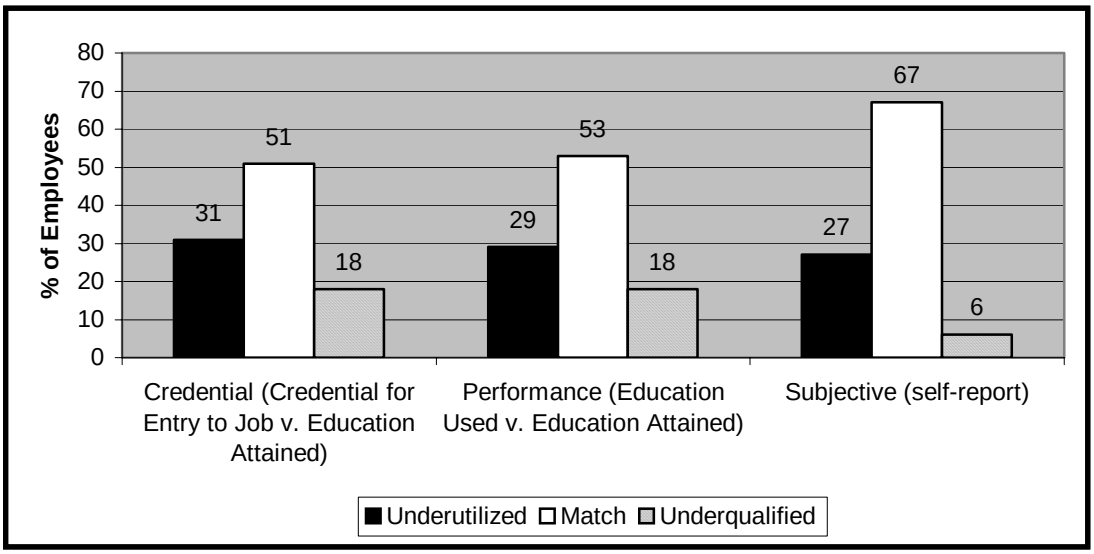
** "Post-sec" stands for "post-secondary" credential.

[3] Owners are excluded from the reported occupational class matching results because their job requirements are often more discretionary.

Some mismatches in terms of both underutization and underqualification are to be expected in a dynamic labour market like Canada. Both chronic and more temporary shortages of qualified workers do occur especially in specialized areas such as skilled trades. But there is a growing research literature in Canada and internationally using various criteria (e.g. Statistics Canada, 1999; Felstead, Gallie, & Green, 2002; Li, Gervais, & Duval, 2006) which finds that educational attainments increasingly outpace rising skill demands.

As Figure 3.3.2 summarizes, underutilization of qualifications of the wage and salary labour force hovered around 30% in 2004 regardless of which of the three skill-based measures is used. While the credential and performance match measures are constructed based on the respondents' respective responses on attainments and requirements, the subjective measure is a direct self-assessment. Around half or more of all workers were matched on all three measures. Underutilization was generally more likely than underqualification. The subjective measure found a greater number of "matched" workers, which perhaps reflects respondents' psychological unwillingness to either acknowledge that they are over-qualified for their jobs or admit that they are underqualified. The underqualified group includes some older workers whose experience compensates for their lack of increased entry credential requirements but mainly consists of younger workers who admit they are still learning job competency.

Figure 3.3.2 Subjective, Performance, and Credential Match, Employees, 2004



Source: WALL Survey, 2004 (Subjective N=4181; Performance N =3997; Credential N=3844).

Comparisons of the NALL and WALL surveys on all three measures of skill-based education-job matching are summarized in Table 3.3.2. The findings suggest that employee underutilization may have increased slightly between 1998 and 2004. This tendency is most notable in an apparent increase in self-assessments of underutilization and a corresponding decline in the majority assessment of matching.

Table 3.3.2 Measures of Education-Job Match, Employees, 1998-2004

TYPE OF MEASURE	Underutilized [%]		Match [%]		Underqualified [%]	
	1998	2004	1998	2004	1998	2004
Credential Match	27	31	51	51	22	18
Performance Match	29	29	52	53	20	18
Subjective Match	22	27	74	67	4	6

Sources: NALL Survey, 1998 (N=779); WALL Survey, 2004 (N=4271).

We might generally expect that underutilization declines with age, as workers locate more suitable jobs, develop their working knowledge and adapt their jobs. As Table 3.3.3 summarizes, the level of underutilization on all three of these particular measures does decline somewhat with age. Around 40 percent of workers aged 18 to 24 are underutilized. The 1998 NALL survey findings suggest a fairly pronounced decline to around 10 percent of those aged 55 to 64, with the vast majority of this age cohort preparing to leave the active labour force. The 2004 WALL survey, however, suggests a more gradual decline, with around 30 percent of these older workers still found to be underutilized. Underutilization in these terms may be becoming a more sustained condition throughout the life course of employment.

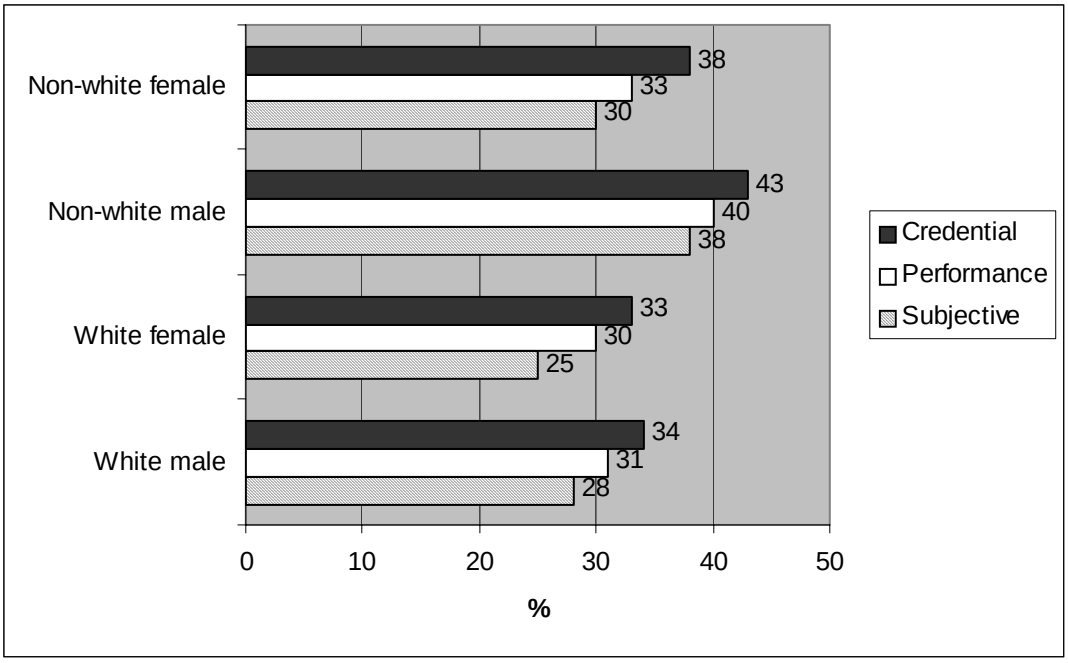
Table 3.3.3 Underutilization by Age, Employed Labour Force, 1998-2004

AGE	Credential Underutilization [%]		Performance Underutilization [%]		Subjective Underutilization [%]	
	1998	**2004**	**1998**	**2004**	**1998**	**2004**
18-24	44	48	45	39	38	42
25-34	36	35	32	37	25	30
35-44	28	35	25	30	18	27
45-54	21	28	25	26	16	23
55-64	12	32	8	29	3	23
TOTAL	30	34	28	31	21	28
N	*881*	*5018*	*887*	*5211*	*905*	*5475*

Sources: NALL Survey, 1998; WALL Survey, 2004.

There is also systemic underutilization related to race and gender. As Figure 3.3.3 shows, non-white males are most likely to experience underutilization on all three measures. Even greater levels of underutilization have been found for those designated as disabled and often excluded from employment even when highly qualified (Abbas, 2003). On bases of class, race, gender and disability, there are now notable tendencies for the talents and abilities of the potential Canadian labour force to be underused.

Figure 3.3.3 Underutilization by Sex and Race, Employed Labour Force, 2004



Source: WALL Survey, 2004 (Subjective N=5459; Performance N=5193; Credential N=4998).

In general, underutilization of workers' learning and skills appears to be more widespread than underqualification. Persistent underqualification is a

pressing problem that affects some of the unemployed and others *excluded* from the active labour force through low literacy skills and other social disadvantages. But, for the *employed* labour force, underqualification is a relatively minor and temporary condition that usually can be overcome by continuing formal and informal learning. Underutilization is a more enduring and growing issue that calls for job redesign and economic reform even more than for more coherent education and training initiatives (see Livingstone, 2004).

Conclusion

The NALL and WALL surveys provide an unprecedented glimpse at the wide array of work and learning activities of Canadian adults. These surveys suggest that unpaid work is probably as extensive as paid work and that self-reported informal work-related learning is much more extensive than participation in formal education. The scope of these surveys allows further insight into both the extent and content of work and learning and the relations between these activities.

Some of the findings on paid work have been documented in more detail in larger government-sponsored surveys. What is most distinctive is the finding of extensive occupational class redistribution between increasing numbers of managerial/professional employees and decreasing numbers of industrial/ non-managerial service workers, the widespread organizational restructuring toward more contingent use of employees, and the apparent increases in worker involvement in terms of attention to the job and in limited decision roles. Workers appear to be becoming more involved in more temporary jobs.

Unpaid work continues to be ignored in studies of work and learning, in spite of documentation of its extensive nature. Not only do most adults do housework and around half participate in organized volunteer work, but this work often involves higher order skills and knowledge than is commonly recognized. Unpaid work also involves continual informal learning. If we are living in a "learning society", much of this learning is related to unpaid work and the benefits of such learning remains almost completely unfathomed.

Canada's post-secondary educational attainment level outpaces most other advanced market economies. Adult course participation has also grown impressively since the 1960s but still trails many other countries with better-organized adult education systems. Unmet demand for continuing education is likely to grow unless governments and employers provide more coherent programs and sustained resources, especially for the least credentialed.

Informal learning is still the submerged part of the learning iceberg. While the 2003 AETS as well as the NALL and WALL surveys have begun to document the extent of self-reported informal learning on a country-wide basis, attention to informal aspects of lifelong learning remains largely rhetorical in policy and program terms. For example, a movement for prior learning assessment and recognition emerged a generation ago in Canada. So far it has mainly provided a means for those who already have entered post-secondary institutions to complete advanced programs faster, with little educational or employment benefit for the vast numbers who may have achieved advanced knowledge and competency through informal learning

directly related to their jobs, and no recognition at all for learning related to housework and volunteer work.

It may be inherent in a market-driven economy for the general supply of qualified workers to exceed the demand, as entrants continually try to prepare for competitive labour markets. But underutilization of the education, skills and knowledge of over a quarter of the employed labour force is now chronic. There are growing numbers with advanced education who are not able to find jobs that require such lengthy formal schooling. Working class and visible minority employees experience the greatest underutilization. The underutilization of those *excluded* from employment but desiring it is largely beyond the scope of these surveys but is even greater. For the vast majority of those experiencing underutilization or "overqualification", the problem is not a lack of relevant formal education, nor is it the failure to engage in continual job-related informal learning. More and more people are engaging formally and informally in an "educational arms race". Continuing escalation per se will only produce greater underutilization of skills and knowledge. There is an ever-greater prospect for reforms to redistribute work and design more decent jobs for an increasingly knowledge-based population.

In any event, this basic report on the 2004 WALL survey and related surveys is primarily intended to provide general benchmarks for continuing studies of work and learning. Readers are encouraged to use this report in conjunction with reports on the 12 WALL network case studies and the WALL Resource Base which can be found at: http://www.wallnetwork.ca. Further critical inquiry into the full array of work and learning activities is much needed.

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Appendix

Logic Used in Construction of Occupational Class Variable

The categorization of class locations was initially developed in the mid-1980s for analysis of data from the Ontario-based OISE/UT Surveys of Educational Issues. It has subsequently been used in analyses of both the NALL and WALL national survey data.

The categorization is operationally based on respondents' self-reports of:

- Their occupation – a job title and/or brief description of type of work
- Their ownership status, if any, in their work organization.
- The size of the organization.

There are two steps in constructing the categorization for those in the labour force:

Step 1:
Occupation is coded according to the 1980 Standard Occupational Classification (1980 SOC), reflecting the origins of the categorization in the mid-1980s. A preliminary sorting into owner/manager or supervisor/worker categories is made on this basis.

Step 2:
Self-reported ownership status is used to reassign respondents from non-owner to owner categories. Self-reported size of organization also plays a role at this stage (no employees = self-employed, <250 employees = small employer, >250 employees = large employer).

These steps result in a categorization of eight class locations:

- Owner locations
  - Large employers
  - Small employers
  - Self-employed
- Managerial/supervisory locations
  - Managers
  - Supervisors
- Worker locations
  - Professional employees
  - Service workers
  - Industrial workers

For those in worker categories, that is, without ownership or managerial/supervisory status, class location is determined wholly by the 4-digit 1980 SOC unit codes.

The categorization of worker locations incorporates a hierarchy of education and skill requirements reflecting the minor group (7-digit codes) and unit group (4-digit codes) titles in the 1980 Standard Occupational Classification. The validation data for linking these titles to education and training requirements is set out in the GED (General Education Development) and SVP (Special Vocational Preparation) scales that are found in the Canadian Census Dictionary of Occupations (CCDO).

The 1980 SOC codes have become increasingly antiquated and the WALL data is also coded using the new National Occupational Classification (NOC) codes, first introduced in 1993 and subsequently updated. The SOC describes occupations in terms of job duties and industry category while the NOC describes occupations on the basis of skill levels and skill types, meaning that concordance between the two is often difficult and sometime impossible. Thus, for this report we have used the 1980 SOC codes as it allows a much more accurate longitudinal comparison with older surveys.