

THE KNOWLEDGE ECONOMY AND EDUCATION

Teacher Learning and Power in the Knowledge Society

Rosemary Clark, D.W. Livingstone and
Harry Smaller (Eds.)



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TEACHER LEARNING AND POWER IN THE KNOWLEDGE SOCIETY

The Knowledge Economy and Education

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Teacher Learning and Power in the Knowledge Society

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Many members of CSEW assisted in the research reported in this book. CSEW co-ordinator D'Arcy Martin and CSEW secretary Rhonda Sussman, as well as NALL research co-ordinator Reuben Roth and WALL research co-ordinator Ilda Januario, played key roles in organizing the various activities in these networks. Both the NALL and WALL networks contained large teams of academic researchers, community partners and graduate students, most of whom are identified on the respective network websites (www.nall.ca and www.wallnetwork.ca). Many members of both networks provided valuable feedback on the design and development of our teacher projects. In particular, representatives of teachers' federations across Canada assisted in facilitating our surveys of their members over the years, and especially the Canadian Teachers' Federation (CTF), the Alberta Teachers' Association (ATA), the Nova Scotia Teachers Union (NSTU), and the Ontario Secondary School Teachers' Federation (OSSFTF). The cover photographs were provided courtesy of the Ontario Secondary School Teachers' Federation.

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INTRODUCTION

Teacher Learning and Power in the Knowledge Society

INTRODUCTION

I learned how to do pottery ... I found that I wasn't as technically able in pottery as I thought I would be ... [N]ot being able to do something that I wanted and being frustrated in that situation ... has made me more empathetic to kids who aren't naturally able in languages in the subjects that I teach ... I learned that ... I could learn a lot about cultures and I could learn a lot about people while I am teaching them something as well. (Mary, high school teacher, cited in Pankhurst 2009, p. 300)

By any definition, teachers are knowledge workers. In the school systems of modern societies, they have the primary responsibility to transmit formal knowledge to the next generation of workers and citizens. Teachers' work is among the most demanding and complicated of jobs focused on knowledge. To do their job well, teachers have to master the changing content and pedagogy of formal fields of specialized knowledge, develop empathic understanding with diverse groups of students and perform a multiplicity of other complex roles. But teaching is also among the most underappreciated jobs and the complexity of teachers' learning has been virtually ignored, for reasons that this book will examine, in comparison with other professions. A recent overview of teachers and teaching (Beijaard, Korthagen & Verloop 2007, p. 105) observed that: "It is remarkable that with so much attention being paid to student learning in schools, the issue of teacher learning has until recently drawn relatively little attention from researchers." There has been growing attention to some programmatic aspects of teachers' learning in some countries. In this book, we examine literature and trends worldwide, and use our Canadian empirical research data to deepen analysis of the global issue of teachers' learning. In this time when the processing of information has become more prominent than processing materials in so many peoples' lives, it is indeed ironic that so little is known about the learning processes of these knowledge workers who are so pre-eminent in the transmission of knowledge to others. The basic purpose of this book is to shed more light on the array of teachers' learning practices.

Since the development of industrial capitalism and mass schooling in the nineteenth century, public schooling and teachers have been targeted in virtually every economic crisis as both cause and cure (Curti 1935; Schrag 2007). The present study began in the context of an economic downturn and proposed major restructuring of schools in Canada, particularly the central province of Ontario.

From 1995 to 2003, the Conservative party in Ontario governed with a major part of its agenda focused on education reform in general and attacks on teachers in particular (see, e.g., Sears 2003). Similar to reforms in other state school systems, these challenges to teacher professionalism included legislation increasing teacher workload, an extensively revamped curriculum, mandatory teacher testing, and a compulsory professional development/recertification program which required each teacher to complete over a dozen formal courses every five years or lose their license to teach.

Human capital theorists continue to assert that more and better investment in formal education offers economic salvation. Such views ignore or evade growing evidence of a surplus of educational attainments in relation to job requirements, which suggest greater *relative* need of economic and workplace reform than educational reform (see Livingstone 2009). Nevertheless, general educational reforms and teacher training reforms are of vital importance and continue to preoccupy many people. Everyone supports the improvement of school systems to enhance human development. *Teacher learning and power in the knowledge society* aims to increase understanding of teachers as professionals and of some of the intricacies of their work and learning in these changing times, particularly in relation to challenges over control of their profession.

This book arose primarily out of concerns the editors shared in the mid-1990s about the limited usefulness of traditional formal professional development (PD)¹ for teachers and the lack of substantial studies of teachers' actual learning activities. For many years, in North America and beyond, substantial resources have been expended on further formal in-service training for teachers. With recent attempts to "reform" and "restructure" schooling, it appears that such efforts have been redoubled. Teachers are again presumed to lie at the heart of needed change. Therefore, change they must, and more PD is seen as the obvious way in which to affect this change. However, judging from numerous evaluations of program initiatives, surveys of school administrators and measurements of student success, much of this expenditure has been for naught.

The factors involved in the apparent failure of PD programs are complex. One could begin with a critical analysis of state schooling itself, and its apparent resistance to meaningful change, virtually since it was established over a century and a half ago (see, e.g., Labaree 1992; Lewis 1999; Popkewitz 1982). Similarly, one might begin with a critical analysis of the more recent schooling reform movement – the sources of this initiative, the reasons for its existence (curricular, pedagogical and political), and the varied definitions and expectations for success held by the diverse stakeholders, such as school administrators, school trustees, politicians at all levels, employers, university/college officials, parents, and students as well as teachers (see, e.g., Apple 1996; Hargreaves & Shaw 2000; Hatcher 2001). These expectations and agendas are very diverse and often conflicting. In that light, attempts to "develop" teachers to meet new, but very disparate, agendas, may in itself explain the antipathy to, and problems of, PD as we know it (OECD 2001; Slee & Weiner 1998; Vongalis-Macrow 2008).

At another level, however, we have been continually intrigued by and concerned with the ways in which teachers themselves have been portrayed in relation to the

implementation of schooling reform and change. More often than not, in jurisdictions around the world, they have been seen as the bottleneck – the intransigent sector which cannot, or will not, adapt to needed change. According to this view, attempts to retrain teachers have failed, not because of the purpose, planning, form or content of the in-service learning provided, but because of the purported incapacity and/or resistance of teachers and their unions. However, as a number of international studies have shown, in some cases there have been good reasons why teachers have resisted specific imposed changes. In addition, even where teachers have readily accepted the change ideas being floated, the concomitant professional development programs often turned out to be less than successful (e.g., Lohman 2005; Darling-Hammond et al. 2009). In any event, there has been little dispute that teachers remain important knowledge workers. There is much less agreement about the wider social context in which they do their work.

The increasing prominence of information processing has led many observers to conclude that we now live in a “knowledge economy.” For present purposes, it is sufficient to register the following social facts pertaining to all advanced market economies:

- declining minorities of jobs are in manufacturing and materials processing occupations and growing majorities of jobs and of tasks in jobs involve information processing with increasing amounts of the information being mediated by use of computers;
- growing proportions of jobs are designated as professional and technical occupations distinguished by forms of specialized knowledge;
- growing proportions of labour forces are attaining post-secondary education;
- participation in adult education courses is also increasing throughout the life course;
- as more married women enter the paid labour force, the significance of previously hidden unpaid household and community labours is increasingly recognized;
- with increasing recognition of information processing as a component of so many peoples’ paid and unpaid work, recognition of the importance of lifelong learning in work has also increased and knowledge management has become a high declared priority of private corporations and governments.²

The debate over whether such social facts constitute a distinctive transformation to a “knowledge economy” still rages (e.g., Carlaw et al. 2006; Kennedy 2010). There is an increasingly pervasive general assumption that many people will have to intensify and document their learning efforts in order to keep up with the rapidly growing knowledge requirements of a new “knowledge economy” driven by economic utility and individual career motives (OECD 1996; Brine 2006). Others argue that we are already living in a “knowledge society,” one in which the collective learning achievements of adults outpace the requirements of the economy as paid work is currently organized and that “the knowledge society dwarfs the knowledge economy” (Livingstone 1999b, p. 163). Sorlin and Vessuri (2011, p. 2) have recently observed that:

the two concepts imply radically different visions and ideals of the role of knowledge. Knowledge-based economies are growing all around us, but they do so without always acknowledging the democratic, ethical and normative dimensions of science and scientific institutions. The knowledge economy is market-driven and performs according to a market ideology, which stands in problematic but not necessarily conflicting relation to the norms and ideals of the knowledge society. The knowledge economies we live in suffer from a democratic deficit ... [T]he democratic deficit needs to be addressed if academic life and culture should survive in the era of fierce global competition.

In terms of the work of teachers in school systems, these social facts and the debate at least suggest that an increasingly high priority is being placed on effective transmission/introduction of varied forms of specialized knowledge to current generations of students. Normal expectations for teachers now include having post-secondary degree-level teaching qualifications, engaging in continuing education activities to keep up with changing knowledge in their fields, and having a sufficient grasp of the changing cultural conditions of their students to effectively transmit needed knowledge to them. Aside from increased formal qualifications, these expectations may not have changed hugely from earlier periods. But it is probably fair to say that general expectations of teachers' own knowledge levels required for the transmission of vital knowledge to their students are higher than ever before.

With the increasing emphasis on information processing in recent decades, dominant models of work organization have come to stress the importance of commitment to lifelong learning for all workers. Such commitment is typically seen as involving increased collaboration and shared leadership among organization members, including the sharing or "capture" of workers' previously private or tacit knowledge, in order to enhance productivity (e.g., Senge 1990). Research on workplace learning has blossomed in this period (Malloch, Cairns, Evans & O'Connor 2010). But, with regard to teachers, it is probably fair to say that most studies of their learning have retained a programmatic nature focused on what teachers should learn in formal teacher training and professional development (PD) programs (e.g., Borko 2004).

There has been some recent empirical research that begins to focus on teachers' learning in their workplaces. Retallick (1999) notes that:

The significance of the notion of workplace learning for teachers is profound. The idea of the school as an educative workplace for teachers (as well as students) represents a considerable advance on thinking about teachers' work. (p. 116)

The case studies of teachers' workplace learning by Retallick and colleagues (e.g., Retallick & Butt 2004) as well as several others (e.g., Lohman 2003; Jurasaitė-Harbisson 2008) have started to identify some situated learning practices and related organizational factors. Other recent studies have paid closer attention to how teachers learn through the activities they undertake when teaching classes

(Hoekstra, Beijaard, Brekelmans & Korthagen 2007; Maaranen, Kynäslähti & Krokfors 2008). Such studies are most welcome in beginning to identify some of the practices and factors involved in teachers' classroom-based learning; they may also point to bases of more effective linkage of teachers' workplace learning with formal teacher training and professional development programs. Jensen and her colleagues (2012), in another book in this series, provide extensive accounts of the learning processes involved in the professional learning cultures of novice school teachers, compared with those of computer engineers, nurses and accountants. But none of these studies address learning patterns among wider populations of teachers and other professionals or explicitly consider the influence of power on learning practices. This is the focus of the present study.

The present study, therefore, can be seen as a complement to these recent studies of teachers' paid workplace learning. But it begins from a wider perspective on both work and learning. 'Work' now includes 'earning a living' through *paid employment* in the production, distribution and exchange of goods and service commodities. But it also includes necessary unpaid work. *Household work* includes cooking, cleaning, childcare and other, often complex, household tasks. *Community volunteer work* sustains and builds social life through local associations and helping neighbours. All three forms of labour should be included in understanding contemporary working conditions for all workers, including teachers. The multiplicity of learning practices in each form of labour is also in need of study.

"Lifelong learning" is now widely regarded as essential to be an effective worker in the knowledge economy. But in generic terms, learning is the gaining of knowledge, skill or understanding anytime and anywhere through individual and group processes. Learning is the fundamental way in which our species has always coped with our changing environment and it occurs continually throughout our lives.

Several forms of learning can be distinguished in an *informal-formal continuum* ranging from spontaneous responses to everyday life to highly organized participation in official education programs. We all engage in *self-directed or collective informal learning*, explicit or tacit learning either individually or collectively done without direct reliance on a teacher/mentor or an externally organized curriculum. We also depend on *informal education or training* through mentors who instruct us without sustained reference to a pre-established curriculum in incidental situations. More formal learning includes instruction by teachers in *formal school systems* which now require continuous enrolment in age-graded curricula from early childhood to tertiary levels. Formal learning also includes *further adult education* with authorized instructors in a diverse array of further education courses and workshops in many institutionally organized settings, from schools to workplaces and community centres. Such continuing education, including professional development courses for working teachers, is the most evident site of lifelong learning for adults past the initial cycle of formal schooling. But it is now well documented for both adult learners generally and paid workers' job training specifically, that most of their learning occurs informally

(Tough 1979; Betcherman 1998). There is no compelling reason to presume that teachers or other professionals learn their jobs much differently.

Accordingly, the present study pays some attention to teachers' unpaid work as well as their paid employment conditions. More pertinently, the study documents a wide array of teachers' formal and informal learning practices and the interplay between them. These learning practices are related to changing general working conditions for different types of teachers. Prior to these accounts of teachers' work and learning, this study attempts to enhance general understanding of teachers' general work and learning conditions by offering empirically grounded comparisons with other major groups of professionals located across a wide global spectrum.

In sum, *Teacher learning and power in the knowledge society* offers: large-scale survey benchmarks to aid in situating teachers' work and learning in relation to other professionals; survey profiles and case study insights on different types of teachers' actual learning and work practices; and suggestive policy steps for improving professional development programs for teachers. In these respects, we hope to provide some broader contextual benchmarks for the emerging studies of teachers' learning in classroom settings and to increase appreciation of the complexity of teachers' work and learning in state schooling systems everywhere.

THE NALL/WALL TEACHERS' PROJECT

This study has involved extensive international literature reviews of prior research on work and learning relevant to teachers, including thematic analyses of professionalization, formal and informal learning activities, teacher knowledge, and the nature of teachers' working conditions and control over their own work. In addition to the recent emergence of exploratory case studies of teachers' workplace learning, there have been some insightful studies of the control of teachers' work (e.g., Ingersoll 2003). But there have been few studies of how teachers' working conditions and control of work relate to the array of teachers' learning practices.

The group of researchers contributing to this book – university faculty, graduate students and professional development field workers – first came together in 1997 to explore the complex issues related to teachers' work and learning. Since then, we have engaged in a number of empirical inquiries, all based on one dominant approach – *hearing out teachers themselves*.

Our journey has been broad, as we set out to explore the nature of teachers' engagement with learning, as well their opinions about this engagement and their own learning styles. We also inquired into the conditions of their workload, the social relations of their workplaces, and how these conditions may have affected their capacity to take advantage of meaningful formal and informal learning activities. Similarly, we also explored their perceptions about the nature and effectiveness of PD policies and programs.

The New Approaches to Lifelong Learning (NALL) network research developed an expansive conceptual framework for (paid and unpaid) work and (formal and informal) learning studies, and conducted the first national survey in the world of these forms of learning and work in 1998, as well as a series of over

30 exploratory case studies between 1998 and 2002. The Work and Lifelong Learning (WALL) research network conducted field research between 2003 and 2008. The WALL network further explored the array of learning activities of adults, relations between work and learning practices, and differences in these learning and work relations between socially disadvantaged groups and others. The WALL research team addressed these issues by conducting a large-scale, country-wide 2004 survey and 12 related case studies to provide unprecedented documentation of lifelong learning and work relations (see Livingstone 2010). The exceptionally large general population national survey conducted in 2004 ($N=9,063$) permitted unprecedented comparative analyses of the working conditions and learning practices of teachers and several other professional occupations. Closely related national surveys conducted in 1998 and 2010 found similar patterns of work and learning relations for the general labour force; however, their much smaller sample sizes (less than 2,000 respondents) did not permit reliable comparisons of teachers with other specific occupational groups.

The NALL and WALL Teachers' Projects have been an integral part of these research networks from the outset. Our data on teachers' work and learning were collected in a number of ways. In 1998, and then again in 2004, we conducted national surveys of representative samples of teachers – asking them to report on their involvement in formal and informal learning, their interests in further learning opportunities, and the nature and conditions of their work. These were the first large-scale national surveys ever conducted in Canada or elsewhere with teachers on this set of issues.

In addition, a small, purposive sample of regular full-time teachers recorded their work and learning over two weeks in time diaries, followed by in-depth interviews. Following the second national survey in 2004, focus group interviews were held across four provinces with randomly selected respondents. Finally, in 2007–2008, face-to-face interviews and focus groups were conducted with two different groups of teachers. The first of these were occasional teachers, including recent migrants with international qualifications, career occasional and retired teachers filling in on a daily basis. The second group included new teachers in their first and second year in the classroom. (For more information on our research group and the teacher project research methodology, see Appendix A.)

The general theoretical perspective that informs the NALL and WALL research networks posits an intimate connection between the exercise of workplace power and the recognition of legitimate knowledge. The greatest discrepancies between formal knowledge attainments and paid work requirements are expected for the least powerful, including members of lower economic classes, women, visible minorities, recent immigrants, older people and those identified as disabled (Livingstone 2004). These studies of work and learning have been inspired by contemporary theories of learning that focus on the learning capacities of adults outside teacher-directed classroom settings, such as Paulo Freire's (1970) reflections on collective learning through dialogue and Malcolm Knowles' (1975) work on individual self-directed learning. Both theorists stressed the active practical engagement of adult learners in the pursuit of knowledge or cultural change. Freire's projects generally illustrated the untapped and suppressed learning

capacities of rural peasants. Subsequent empirical studies of self-directed learning documented extensive intentional informal learning among diverse social groups (Tough 1979).

This focus on learning in practical activity is consistent with earlier general theories of learning by experience which emphasized either the development of individual cognitive knowledge (Dewey 1916) or tacit knowledge (Polanyi 1966), as well as with the cultural historical activity theory of cognitive development which takes more explicit account of subordinate groups' socio-historical context (Vygotsky 1978). Each of these approaches to adult learning advances a conception of informal learning practices as situated in the everyday lives of ordinary people. This perspective has been increasingly applied in recent studies of workplace learning carried out in a number of countries (e.g., Lave & Wenger 1991; Engestrom, Miettinen & Punamaki 1999; Livingstone & Sawchuk 2004).

Applying this perspective in the NALL and WALL Teacher Projects, we first predict that there are important differences in the exercise of workplace power between professional occupations, and that teachers have relatively little power in terms of organizational control of their work. We posit that those in professional occupations with relatively little power are likely to be most dependent on continuing formal efforts to maintain recognition of their specialized knowledge to reaffirm their status and, therefore, may exhibit greater concern over participation in further education and PD. Some prior research focused only on teachers suggests that variations among them in decision-making power may be associated with differing capacities for teachers to engage in "organizational learning" or social processing of knowledge, measured in terms of staff development and instructional improvement provisions in the workplace (Marks & Seashore Louis 1999). But there have been few prior studies that have compared teachers and other professions in terms of their differences in workplace power and opportunities for participation in further formal education.

ORGANIZATION OF TEXT

The book is organized in three distinct sections. The first part situates teachers' general professional status and working conditions as well as their learning practices in relation to other major professional groups. The second part looks more closely at the working conditions and learning practices of both regular, full-time teachers and more precariously employed teachers. The final part addresses promising initiatives and prospects for more effective professional development programs.

Section A: Comparative Perspectives on Professionals' Work and Learning

Chapter 1 first explores the criteria that have conventionally been used to designate *professional status*. Standard criteria (i.e., university programs in specialized knowledge, association membership and regulatory licensing requirements) are reviewed. We compare teachers and several other major professional occupations, including doctors and lawyers, engineers, nurses, and computer programmers, in

terms of these conventional criteria. But, in addition, professionals' negotiating and organizational powers are seen to be related to the class composition of these occupations. Class positions of professionals include: professional owners, self-employed professionals, professional managers and professional employees. Our distinctive general national survey data are used to develop profiles of the basic working conditions and workplace powers of these professions. Teachers are identified as predominantly professional employees with significantly less organizational decision-making power than some other major professional occupations. Evidence of recent class polarization of professional occupations and "deprofessionalization" of professional employees in terms of their workplace power is also offered.

Chapter 2 examines *formal and informal learning practices*, using comparisons of the same professional occupations and class positions with the national survey data. Teachers have among the highest rates of participation in further education. Further education rates are associated with negotiating power (based on ownership of firms for doctors and lawyers, high unionization for teachers and nurses). In addition, teachers are at least as likely as other professionals to engage in job-related informal learning. Teachers engage in both extensive formal learning and intensive informal learning to maintain their status as knowledge workers. But the integration of their formal professional development with their informal learning is found to be quite limited, perhaps partly because of their relatively limited organizational decision-making power. These general work and learning profiles of teachers and other professionals establish a comparative context for the rest of the book and, hopefully, for comparable studies in other countries.

Section B: Teachers' Work and Learning

This section provides the main empirical results and analyses of our case studies of teachers – a broad picture of teachers' engagement in their work and learning. The section begins with Chapter 3, a *review of literature* pertaining to teachers' engagement in their own learning, including theory and praxis of formal and informal learning, and a review of historical, descriptive, analytical and prescriptive literature related to the "field" of teacher professional development. Equally important is a review of pertinent literature examining factors which influence teachers' learning, including the social and material conditions of teachers' work, and the influences of professionalism and professionalization.

Chapter 4 presents a comprehensive profile of full-time teachers' engagement in their formal and informal modes of learning. It examines how teachers' shifting working conditions shape their commitments to and practices of learning and discusses limits of and possibilities for teachers' control over their professional learning. First, it presents teachers' participation in *formal learning* activities – workshops, PD days, lectures, seminars, courses, etc. – and teachers' perceptions about the quality and usefulness of these engagements. Then, by comparison, teachers' engagement in a broad array of *informal learning activities* is examined – one-on-one collaboration with colleagues, school administrators, students and parents; departmental and full-staff meetings; lunch room conversations; and

individual and collaborative inquiries using print or online resources and networking. With all of these various learning activities, we are careful to acknowledge how the conditions of teachers' work in Canadian schools and classrooms mediate their capacity to engage in their own further education. Reactive modes of informal learning and the challenges and prospects for teachers' autonomy in their learning are discussed in the final sections.

Chapter 5 describes two clusters of teachers who generally hold less than normal status among their classroom colleagues overall. The first cohort consists of those who, even though fully certified to teach full-time in public schools in Canada, work as "temporary" or "supply" teachers. Many are employed only on a day-to-day basis, filling in for regular teachers who are ill or attending PD sessions; others hold at best a temporary contract ranging from several weeks to months. (While some have desired and intentionally selected this status, increasing numbers engage in this temporary activity while applying and waiting (hoping) for permanent teaching employment). The second group consists of those who *have recently immigrated to Canada* having engaged in their teacher education program in another country, and who are now teaching in Canada, either as permanent employees or as temporary teachers. As this chapter demonstrates, each of these groups maintain very specific interests about, and engagement in, their own further learning – which very much reflect the very specific work experiences which they encounter in their jobs. Based on data collected through surveys, interviews and focus groups, these issues are explored in this chapter.

Chapter 6 focuses on *new teachers in the system* – those in their first and second year on the job following teacher education and initial certification. This group received considerable attention in our research during its latter phases – partly because there had been increasing concerns expressed by a number of provincial governments and school boards over the globally recognized problem of a high drop-out rate of new teachers in their early years. For example, the Ontario government has provided considerable funds to school boards and teacher unions for targeted professional development for this group. For these reasons, it seemed useful to examine more closely new teachers' perceptions of the challenges they faced, their perceived learning needs, and the ways in which they had sought out and engaged in this learning. The data for this chapter were generated in large part through interviews and focus groups conducted with new teachers in the context of their engagement in professional development workshops and seminars specifically for their cohort – thus allowing us to focus on their emerging interests and needs for further learning.

Section C: Implications and Applications

The final main section consists of two chapters. Chapter 7 is devoted to implications for policy makers and professional development educators. Not unlike the situation in other state schooling systems, the Canadian teaching population has faced considerable government interference and dealt with reform agendas which have impacted their learning, as they have struggled for professional control. However, since 2003, the Ontario government has moved away from this approach

to one more supportive of teacher professionalism, ceding more control over some professional learning programs to the teacher unions and teachers themselves. Thus, our research in this province has been able to synthesize what we heard from thousands of classroom teachers who have stated that they have benefitted from successful teacher development programs that are job-embedded, ongoing, based on teacher choice and continuous informal learning. Other recent studies support these conclusions (e.g., Darling-Hammond et al. 2009, Hargreaves & Shirley, 2009, Lieberman & Miller, 2001, and Broad & Evans, 2006). Several innovative programs which embody these principles, including the Ontario Teacher Learning and Leadership program, are briefly described as models.³

Chapter 8 provides a detailed case study of what we consider to be an innovative and successful model for provision of effective on-the-job learning for new teachers – a new teacher induction program which has been in effect for the past several years in one large urban school district (the Toronto District School Board).

The brief Conclusion to the book summarizes the main findings of all three sections and draws out significant implications, especially prospects for more integrated forms of formal and informal professional learning and more democratic decision-making beyond the classroom – findings which clearly have resonance for schools and teachers across the globe. It should be recognized that Canada represents a specific case in terms of its institutional history of educational development and particularly the relatively weak educational authority of a federal state regime in light of provincial governments' primary responsibility for provision of formal education. However, we believe that the findings of this study may well serve as a benchmark for further comparative research in many countries on the range of teachers' and other professionals' learning practices and the influence of professionals' power on these practices.

Various parts of this book may appeal to readers with different combinations of interests in research and practice. But *Teacher learning and power in the knowledge society* as a whole is intended to address the diverse stakeholders – teachers, school administrators and personnel involved with developing and implementing teacher professional development programs, faculties of education, university/college instructors and researchers, school board members and concerned citizens – who have an interest in making more effective connections between teachers' knowledge and its use and transmission in their workplaces. Different stakeholders may adhere to conflicting views of the demands of the “knowledge economy” or the potential of the “knowledge society.” But, hopefully, increasing understanding of the learning practices of working teachers can encourage both genuine reforms of schools as workplaces and the creation of professional development (PD) programs that can link more effectively with teachers' continual pursuit of knowledge.

**SECTION A: COMPARATIVE PERSPECTIVES ON
PROFESSIONALS' WORK AND LEARNING**

1. TEACHERS AND OTHER PROFESSIONALS

A Comparison of Professionals' Occupational Requirements, Class Positions and Workplace Power

INTRODUCTION

Yes, I love being in front of the kids and I love to think that my work will have a positive effect on the people I come into contact with, especially the students. It's noble work. So, the noble nature of the work is what keeps me going. But I find that the type of compromises we have to make as teachers, and the limits put on us by the needs of bureaucracy and the administration are very stifling and defeating. We are increasingly asked to do administrative bureaucratic work that is time consuming and ultimately just drains us, and does zero in terms of helping our students in any way. (Moishe, teacher)¹

Notions of professionalism have been problematic in occupations such as teaching compared with the classical professions of law and medicine (Hargreaves & Goodson 1996). Continuing debates about professional status have centred on technical knowledge content, control of entry to work, autonomy and accountability (Sachs 2003). Most recent comparisons of professional occupations have been quite ahistorical, ignoring the fact that notions of professional status have changed over time. "Professionalism" can also be used at the same time by different interests with quite different meanings: for example, notions of professionalism have been invoked by employers as a strategy of worker control and by employees to resist decreasing control of their work (Ozga & Lawn 1981).

Most prior comparisons of professions have focused on the strength of their claims to possess a specialized body of knowledge but ignored important aspects of underlying *relations* of workplace power that heavily influence any given profession's capacity to assert such claims. Our contribution starts with standard definitions and conventional criteria of professional status. We will offer a comparative empirical examination of these criteria, using a unique data set for several specific professional occupations, including teachers as well as doctors and lawyers, engineers, nurses, and computer programmers. But we will go further. We argue that class distinctions between *self-employed professionals*, *professional owners*, *professional managers* and *professional employees* must also be used in order to understand the limits of power for different professional occupations today. In fact, commonly recognized professional occupations differ widely both in class composition and extent of consequent workplace power. In particular, we will

argue that teachers' contemporary professional status is intimately related to their predominant class position as employees.

CONVENTIONAL DEFINITIONS

A standard definition of a profession is an occupation that requires a specialized body of knowledge acquired by extensive academic preparation. Occupations with claims to specialized practical or spiritual knowledge have emerged in virtually all human societies with a division of labour – priests, witch doctors, apothecaries, court scribes, craft guilds and so on. Such claims often have been contested by sceptics and those with contending sources of knowledge. But occupational groups that have gained control over access to specialized training programs and development of a complex codified field of knowledge have been able to exclude many aspirants from entry into the field and also effectively mystify their professional field to the general public. Derber, Schwartz and Magrass (1990) cite the general importance of such appropriation of a field of knowledge as a key characteristic for the 'enclosure' of a profession, making access very difficult for others in society. Self-regulation by a governing professional association has also generally been regarded as the optimal means to control standards for entry into and adequate performance in professional practice.

The classical professions in medieval European society were divinity, medicine and law. In each case, full-time practitioners: (1) organized training schools; (2) formed associations; and (3) established regulatory bodies. The combination of these factors enabled such professions to claim overarching authority in their fields of knowledge, to make independent judgments about their work and to exclude those without such approved training and certification from legitimate practice in these fields. The status and power of divinity in secular societies now recedes. But medicine and law have continued to be generally recognized as the most fully developed professions in these terms, with widespread agreement that they are "callings" that require a specialized body of knowledge acquired by extensive academic preparation and that these occupations should be primarily self-regulating (Friedson 1986).

In early modern times, dentistry, civil engineering, architecture and accounting followed similar paths. With nineteenth-century industrialization, other specialized occupations began to claim professional status: pharmacy, veterinary medicine, nursing, librarianship, optometry, social work, and teaching. Throughout the twentieth century, these specialized occupational groups and others proceeded varied distances along paths of full professionalization with training schools, some form of group association and quasi-self-regulating bodies.²

With the growing centrality of information and knowledge production to advanced market economies, the opportunities for advanced training in strategic areas of specialized knowledge and for those who obtain such training to assert claims to professional authority have multiplied. The relatively new occupation of computer programmer is a pertinent case in point. There is much dispute over dividing lines between professionals and semi-professionals, as well as over which among all newer occupations deserve semi-professional designation. Indeed, there

is an evident tendency in current advanced market economies for most occupations to want to designate themselves as ‘professionals.’ There could also be a counter-argument that current technologists could be considered as the skilled trades of the twenty-first century. For current purposes, we restrict attention to occupations whose claims to professional status are widely accepted by the general public.

Most of the prior research literature has distinguished professionals by relying on the aforementioned criteria: organized educational programs for advanced academic education; legitimate group associations; and self-regulatory licensing bodies.³ In this chapter, we will first compare professional occupations in terms of these criteria and general working conditions. However, we will then go on to argue that additional employment distinctions that are historically and class-based distinctions be made among professional occupations in order to understand the differential capacities that professionals have to exercise power within their workplaces, whatever the popularly perceived status of the professional occupation *per se*. We will suggest that there are now four basic types of professionals: *self-employed professionals*; *professional employers*; *professional managers*; and *professional employees*.⁴ Teachers in particular must be understood to be predominantly professional employees.

REVIEW OF PRIOR RESEARCH ON PROFESSIONAL WORK

Our literature review reveals few comparative studies of professionals’ working conditions and job control. The few comparative empirical studies tend to be based largely on secondary analysis of evidence such as census classifications (e.g., Rowen 1994). Chan et al. (2000) conducted a rare comparative study of stress levels across six ‘professions’ and semi-professionals (emerging professionals) in Singapore: general medical practitioners; lawyers; engineers; teachers; nurses; and life insurance personnel.⁵ This study concluded that stress affected each occupational group differently depending upon the hierarchical structure of the employing organization. Teachers, nurses and engineers experienced high levels of stress from their employers, leading these occupational groups to be “more psychologically vulnerable to the impacts of this problem than other professional groups” (Chan et al. 2000, p. 1431). However, they discovered that the source of stress varied across “professional occupations.” The primary source of stress for teachers and nurses was employer-related, while lawyers mainly received stress from performance anxiety and client satisfaction. As we will see later, these differences in stress are likely a reflection of the employment class locations of these different professional occupations.

More generally, the literature on professionals’ workplace power has been divided between those who argue that professionals are asserting ever greater control of modern workplaces and those who suggest that professionals are losing much of their control. These approaches can be termed *professionalization* versus *proletarianization* or *deprofessionalization*.⁶

Theorists who perceive the emergence of a ‘post-industrial society’ or ‘knowledge-based economy’ tend to see growing numbers of professionals with growing control of their work and the increasing centrality of their specialized

bodies of knowledge in workplaces. There is much emphasis in the literature on the emergence of a 'knowledge-based economy,' with increasing discretionary thought being required of all workers to perform their jobs (e.g., Machlup 1980; Cortada 1998). Over the past century, capital intensification in most industries has put an increasing premium on human mediation of expensive machinery. The rise of the service sector has been contingent on increasing use of 'mental' as opposed to 'manual' labour. The proliferation of information technologies has now made a wider array of work tasks dependent on the self-monitoring use of workers' minds in the processing of ideas rather than material objects. Steelworkers, for example, are now more likely to be watching computer control panels than moving steel. In short, there has been a secular trend for the motives and learning capacities of the workforce to play a more strategic role in the capitalist labour process. In this context, Bell (1976) argues that the post-industrial society has placed professionals in a privileged position with increasing power because of the specialized knowledge they possess to contribute to this process. Unlike the proletarianization of craft workers in the nineteenth century, Bell argues, professionals have been able to secure their organizational position and independence because of the critical importance of their technical knowledge in the maintenance of modern organizations. Professionals bring a skill set that insulates their autonomy and preserves their immediate control over their work. Professionals are not dependent on the organization that employs them; rather they are individuals who possess a level of specialized knowledge that makes them increasingly valued and influential guides for society. In this context, teachers have frequently been characterized as doing highly complex and specialized work that requires increasing training and job autonomy (Sykes 1990).

Conversely, other theorists see professional occupations as increasingly fragmenting and falling into more constrained working conditions with less control and autonomy: a situation described as either *proletarianization* or *de-professionalization*.

The *proletarianization thesis* applied to white collar employees (Oppenheimer 1973; Derber et al. 1990) argues that the power of an individual to control his or her work is directly tied to the relation he or she has to the form of production. Over time, all employees (i.e., those without ownership control) will be reduced to the status of hired wage earners, completely dependent upon the selling of their own labour. The inability to own one's own work diminishes the ability for an individual to be involved in autonomous work. The proletarianization argument posits that all non-managerial employees over time will enter into a bureaucratized structure (Derber et al. 1990), lose control over the final product and find their work routinized and their skill levels diminished. As Oppenheimer (1973, p. 214) put it:

The bureaucratized workplace ... tend[s] to replace in the professionals' own workplace factory-like conditions – there are fixed jurisdictions, ordered by rules established by others; there is a hierarchical command system ... The gap between what the worker does, and an end product, increases.

In a manner similar to the declining power of craft workers with the demise of medieval guilds, those in professional occupations today may be losing control over their specialized knowledge in the hierarchical structure of modern organizations. For example, Carey (2007) finds that social workers are increasingly subjected to deskilling and intensified workloads. Teachers have been characterized as workers who are subjected to increasingly simplified and standardized routines that permit very limited autonomy (Apple 1988). Derber (1983) postulated that the proletarianization of a professional occupation can occur both technically and ideologically:

The lack of control over the process of the work itself (i.e., the means), incurred whenever management subjects its workers to a technical plan of production and/or a rhythm or pace of work which they have no voice in creating, can be called *technical* proletarianization ... The lack of control over the product can be reconceptualized more broadly as the lack of control over the ends of one's work. Called here *ideological* proletarianization, it will refer to the appropriation of control by management over the goals and social purposes to which work is put. (p. 313)

This argument emphasizes erosion of control over the products of professional work. Although professionals may still retain, for the most part, a modicum of technical skill and control over their immediate working conditions, control of the final product and goals of the organization have been lost to bureaucratized authority. Professionals, like craft workers in the past, are considered to have been placed in a position where their specialized knowledge or skill is used like a tool in the operations of the organization, leaving them without control of the overall operations of the organization and the final product.

The *deprofessionalization thesis* argues more specifically that professional occupations are experiencing an erosion of their control over their specialized knowledge (Haug 1973). Two key components of the deprofessionalization thesis are general technological standardization and the general advancement of knowledge of laypersons in society. In terms of technologies, recent case studies have found evidence that computerized administrative duties and standardized auditing of performance are impeding the provision of direct services to clients and undermining control over work (Easthope & Easthope 2000; Aziz 2004; Lewis et al. 2003; Carmelli & Freund 2004; Dickens et al. 2005; Lingard 2003). Even the most privileged professional groups are found to face increasing technical and commercial constraints on their self-regulation as well as increasing state regulatory procedures (Hanlon 1999). In terms of laypersons' knowledge, Haug (1975) presents the argument that growth of information technologies have allowed knowledge that was at one time kept distant from the general public to be stored and retrieved easily. A loss of control for professionals stems from the increasing level of knowledge of the general public. Essentially, it becomes difficult for professionals to enclose their control over a specialized body of knowledge and exclude the general public from an understanding of the profession when a growing proportion of this knowledge is no longer mystifying. Internet medical sites, for example, now allow people to type their symptoms into a

database to reveal a list of potential ailments. On that same site, upon self-diagnosing his or her ailment, a person may then retrieve advice on how to treat the ailment. All of this does not require the family doctor and may be of benefit to people suffering from mild ailments. Toffler (1990, p. 8) even suggests that “the knowledge monopoly of the medical profession has been thoroughly smashed. And the doctor is no longer god ... In many other fields, too, closely held specialists’ knowledge is slipping out of control and reaching ordinary citizens.” In any case, according to the deprofessionalization thesis, a greater level of lay person intelligence makes specialized knowledge more accessible and professional status prone to greater public scrutiny and less public deference.

These contending claims of the increasing or decreasing control over their work and their specialized knowledge by professionals have typically been empirically supported by selective use of aggregated data on occupational distributions or case studies of particular professional occupations, with little comparative analysis of either professionals versus other occupations or the relative control of different specific professions. The dispute between professionalization and deprofessionalization claims persists in terms of tendencies toward control from within occupational communities versus control from above by employers and managers of the service organizations in which many “professionals” work (see Evetts 2003). But, as Terence Johnson (1977) has observed in a much ignored earlier contribution on the subject, these views have quite antithetical implications for professionals’ place in the class structure of capitalist societies and neglect the dualism in the organization of knowledge as work. In his view, in advanced capitalist societies, those in professional occupations may play primarily a part of the global ownership and managerial functions of capital, or primarily be part of collective labour in a complex co-operative labour process, or be a combination of both. Professional occupational categories *per se* will not reveal the *class positions of professionals* without further examination of their relations in the production process.

Aside from Johnson’s work, there is a significant body of prior conceptual literature on teachers’ class position in particular. Three basic approaches have been identified (see Warburton 1986; Filson 1988): (a) schema that consider teachers as part of a *new middle class* or professional–managerial class serving to reproduce capitalist social relations in the next generation; (b) schema that focus on the *contradictory class position of teachers* as hired employees subject to intensification of their own labour at the same time as they play a role in shaping and controlling the future labour force of capitalism; and (c) those that claim that teachers are substantially *indistinguishable from other workers*, that “teachers are workers exploited like other workers by capital ... workers who have used professionalism strategically and had it used against them, that they have allied with organized labour ... (Ozga & Lawn 1981, p. 147). There is also a more recent critical assessment of such approaches that: (1) recognizes the increasing intensification of teachers’ work simultaneous with public educational systems becoming more subordinate to interests of capital and teachers serving as agents of capital; and (2) attempts to resolve these contradictory emphases through a class analysis that recognizes “the significance of teaching as state employment, the

growth of hierarchies within schools and the contradictory functions of education” (Carter 1997, p. 201).

All of Carter’s points are relevant for the development of our approach to the class positions of teachers and other professionals. While a corporatizing trend serving capitalist reproduction may be currently ascendant, schools and other public institutions in capitalist societies must also continue to respond to democratic demands of the general public (Carnoy & Levin 1985). The growth of managerial hierarchies and state employment needs to be understood historically in relation to the development of professional occupations generally and teaching in particular.

The most important historical point about the development of professional occupations is that the most enduringly powerful ones emerged in the period of entrepreneurial capitalism. These professions had the capacity to sell their own goods and services containing their specialized knowledge, to own the proceeds/profits, and to hire others to assist in producing these products, as well as to self-regulate the training, recruitment and disciplining of members (e.g., physicians, lawyers, architects). In short, *they generally owned their own means of production*. During the expansion of industrial capitalist corporate organizations and the modern state, those professionalizing occupations emerging in substantial numbers with claims to specialized knowledge related to provision of goods and services – notably teachers – were much more likely to be directly regulated by and/or employed by the state and lack ownership of products. Also, as both private corporations and state bureaucracies grew, managerial hierarchies developed to direct the growing numbers of most professional occupations, especially the newer ones. Indeed, most professional occupations have become increasingly state regulated, even those classical professions that may still own their own firms or organizations in a legal sense.

Later, we will outline current class positions of professionals in ‘knowledge-based economies’ based on criteria of ownership of enterprise; authority over others in labour process; and specialized knowledge claims. We will also situate teachers and other specific professional occupations in these terms. But first we will offer a comparative analysis of the working conditions and power over their work for several professional occupations *per se*. Then, we will argue and demonstrate that prevalent relations in the production process need to be taken into account to explain the differences among such occupations in workplace power. As Erik Olin Wright (1980), one of the more creative contemporary class theorists, has demonstrated, any given occupational designation may contain people in diverse class positions. For example, a carpenter might be self-employed, might owe a firm employing carpenters and others, might be a manager or supervisor in a construction company, or he might be a hired skilled worker. It is reasonably clear that most professional or aspiring professional occupational groups include many people making efforts to construct their fields of knowledge to ensure the highest degree possible of control of their own work (see Derber, Schwartz & Magrass 1990). But, as we shall see, differential class composition places significant limits on the extent of this control, not least for teachers as an occupational group.

DIMENSIONS OF POWER OVER WORK

Power can be defined as the capacity to enable oneself and direct others to achieve desired goals. A basic distinction should be made between the *power to negotiate terms of provision of service or labour* (e.g., price, quality, type of product) and the *power to make decisions within the labour process of an organization* (Livingstone & Raykov 2008). These may be termed “negotiating power” versus “organizational power.” Those who own their enterprises can negotiate terms of provision with possible clients; those who are employees must negotiate terms with their employers. Within organizations, owners have managerial prerogative; they may or may not delegate organizational power to employees.

Negotiating power for professional occupations has been conventionally treated as capacity to set terms for provision of services to clients while maintaining effective ownership of these services (e.g., doctors, lawyers). But for those in professional occupations who are employees, negotiating power has become limited to the extent to which they can bargain with their employers for workers’ rights and benefits, typically through associations and unions.

Organizational power to make decisions within the labour process has two aspects: the degree of *individual discretion and autonomy* in conducting one’s own labour tasks, and the *extent of authority one can exercise in relation to others’ labours*. Once again, differences between owners of enterprises and employees should be distinguished. Those in occupations who own their enterprises have wide discretion in their own labour and managerial prerogative over the labour of others they hire. Those in professional occupations who are employees may have autonomy in their own labour tasks to the extent that their specialized knowledge and workers’ rights have been negotiated with employers, but their organizational power beyond their immediate work stations remains delegated power from their employers.

Both *negotiating power* and *delegated organizational power* need to be considered in assessing the power of those who are employees especially, and therefore lack the prerogatives of proprietorial ownership. In the following empirical comparisons of professional occupations, we will examine negotiating power in terms of union and association membership strength, and delegated organizational power in terms of: (1) perceived choice in planning one’s own work; and (2) reported participation in organizational decision-making.

It should be noted here that much of the recent literature on “teacher empowerment” (e.g., Bogler & Somech 2004) is fixated on personal autonomy (such as taking charge of one’s own growth, feelings of self-efficacy), but ignores or underplays organizational decision-making and presumes participation in actual decisions about resources, types of programs, recruitment and so forth should be left to higher managerial prerogative. As we will see throughout this book, individual sense of workplace autonomy is very relevant for many teachers. But, in our view, sense of workplace autonomy for teachers and other professional occupations is best understood in the context of the negotiating power of their associations/unions and the extent of their organizational decision-making roles.

COMPARISON OF SPECIFIC PROFESSIONAL OCCUPATIONS

The empirical study of professionals has become quite complicated and difficult with proliferation of criteria and increasingly pragmatic definitions of what it means to be a 'professional' (Evetts 2006, p. 134). As noted earlier, our comparisons will focus mainly on occupations widely agreed to be professionals. In addition to teachers as the focal profession in this book, doctors, lawyers, engineers and nurses were selected for inclusion in this study because these are among the most commonly recognized 'professions.' In terms of the conventional criteria, all of these occupations exhibit high levels of specialized formal education and have well-established professional associations, but their extent of licensing control varies considerably (compare Friedson 1984). Doctors and lawyers have been able to establish clearly self-governing regulatory bodies with universal licensing requirements. Teachers' and nurses' regulatory bodies typically involve representation from other overarching authorities,⁷ licensing (or certification) is now quite widely practiced, but unqualified teachers and nurses can be hired by schools and hospitals with minimal training in particular fields and in times of labour shortage. While engineers' possession of specialized knowledge is widely assumed, they often do not possess a formal licence in order to work. Those who have completed advanced academic training but who are not professionally certified are able to work provided they are supervised by a licensed engineer (see Professional Engineers of Ontario n.d.).

In addition, among now emerging professions, computer programmers over the past generation are perhaps most widely recognized as possessing a high level of technical skill and specialized knowledge. Post-secondary training programs in computer science have rapidly become required for entry into most programming jobs. While professional associations and licensing bodies may still be nascent, the current pertinence of computer programmers' specialized knowledge provides opportunities for members of this occupation to limit entry and develop self-regulation.

The empirical comparisons of professional occupations in this and the following chapter are primarily based on the only known population survey to date large enough to allow statistically significant comparisons⁸ of the working conditions and learning practices of professional occupations. The 2004 Work and Lifelong Learning (WALL) survey included a representative random sample of the general Canadian adult population, over 9,000 respondents (see the Appendix for more information on the WALL survey). Many WALL survey questions were constructed to be comparable to the 1982–83 Canadian Class Structure (CCS) survey (Clement & Myles 1994). The CCS survey focused on issues of workplace power and comparable data will be used later to assess changes in workplace control between class positions over the 1983–2004 period. Our comparison of professional occupations begins with basic demographic features and work schedules drawn from the 2004 WALL survey.⁹

Demographic Variables

The demographic variables in Table 1-1 indicate clear gender differences among professional occupations. Engineering remains male-dominated, while the vast majority of nurses and teachers remain females. Majorities of doctors and lawyers are still males. So are most computer programmers. Majorities of many other aspiring professional occupations, such as health sector technologists, are predominantly female.

The age composition is similar across most of these professional groups, with an average age over 40. Computer programmers are somewhat younger and tend to have less work experience, reflecting the relative youth of this emerging professional occupation. Although the age profiles of the workers within each of the more established professions are similar, teachers and nurses tend to have somewhat more work experience (e.g., 46 per cent and 57 per cent respectively with over 15 years in the profession). This is partly related to the longer required training periods for doctors and lawyers who therefore begin their careers at later ages. Finally, the Canadian labour force remains predominantly white. Teachers are the most likely to be of white racial background – which may suggest somewhat greater racial bias in selection for teacher training programs and/or hiring processes. Computer programmers, the newest and least ‘enclosed’ of these specific professional occupations, are most likely to be from non-white backgrounds.

Table 1-1. Demographic profiles of specific professional occupations, Canada, 2004

<i>Occupation</i>	<i>Sex (% Female)</i>	<i>Race (% White)</i>	<i>Age (average years)</i>	<i>Career (average years)</i>
Doctors & lawyers	41	90	42	13
Teachers	75	95	42	15
Nurses	94	90	43	18
Engineers	17	81	40	10
Computer programmers	35	74	37	9
Other professionals	63	89	41	11
Total non-professional labour force	49	88	40	11

Source: WALL 2004 Survey (N=5,800)

Work Schedules

Comparison of work schedules finds that professional occupations are not very distinctive from the rest of the employed labour force in this respect. Over 80 per cent in most occupational groups worked full-time in 2004 and in the follow-up 2010 WALL survey – that is, over 30 hours per week – and at least two-thirds worked regular day schedules as opposed to alternating, night or irregular shifts. Teachers and nurses were more likely to work in part-time, short term and/or non-

permanent positions than the other selected professional occupations.¹⁰ Most professionals worked regular days. The most striking difference in terms of shift schedules is between nurses and the other selected professional occupations. Vast majorities of most professions – and nearly all teachers – work regular days, whereas the vast majority of nurses work rotating, split or irregular shift schedules and significant numbers work regular night shifts. This pattern is partly a reflection of the demands of patient care, especially in hospitals; however, most doctors with hospital responsibilities reported that they work regular days. In terms of average working hours of those working full-time, doctors and lawyers reported longer normal hours than the other selected professions. It should be noted that doctors and lawyers commonly have the capacity to bill clients for most of their work hours; conversely, teachers have been found to work more unpaid overtime than most other occupations and also tend to discount their class preparation time.¹¹

Table 1-2. Work schedules, Canada, 2004

<i>Occupation</i>	<i>Part-time (%)¹²</i>	<i>Regular days (%)</i>	<i>Ave. F/T hrs*</i>
Doctors & lawyers	8	72	50
Teachers	18	97	43
Nurses	17	26	40
Engineers	5	87	44
Computer programmers	6	78	41
Other professionals	17	72	43
Total non-professional labour force	13	68	45
Total <i>N</i>	5,671	4,838	4,776

Source: WALL 2004 Survey (*N*=5,800)

* Full-time hours includes those working over 30 hours/week

PROFESSIONAL OCCUPATIONS' CONTROL OF ENTRY

The literature on professional work has been most preoccupied with the question of forms of control over entry into work (Derber et al. 1990; Friedson 1984, 1994). More recently, scholars have argued that increasing diversity of settings for professional work (Leicht & Fennell 1997) and the formalization of social control especially through state regulation (Evetts 2002) require more complex conceptions of forms of professional control. An ideology of professionalism as dedicated service and autonomous decision-making now appeals to many occupational groups; but the reality of many professional occupations is likely to be both more complex and more constrained (Evetts 2003). In the current comparative analysis, we will first examine negotiating power in terms the conventional criteria for control over *entry*: requirements for advanced academic education; association membership and certification to practice by regulatory bodies. Then we will offer comparisons in terms of the two aspects of

organizational power: personal autonomy and participation in organizational decision-making.

Control over Training for Professional Entry

The most powerful professions have historically used the requirement of a high level of formal academic education as a primary criterion for entry into the profession and as a basis for subsequent claims to a greater degree of authority in relation to both other aspiring professional occupations and state regulation. Derber et al. (1990) cite the importance of formal possession of specialized knowledge credentials as a key characteristic for the ‘enclosure’ of a profession, making access difficult for others in society. University training programs have been the most pertinent vehicles for providing codified professional knowledge and of testing potential entrants to verify they have obtained a basic grasp of the body of knowledge of the respective professional discipline.

Table 1-3. Advanced degrees required for professional occupations, Canada, 2004

<i>Occupation</i>	<i>Post-bachelor professional/graduate degree attained (%)</i>
Doctors/lawyers	80
Engineers	33
Teachers	32
Computer programmers	15
Nurses	9
Other professionals	28
Total non-professional labour force	8

Source: WALL 2004 Survey (N=5,725)

Table 1-3 shows that doctors and lawyers have been far more successful than the other selected professional occupations in requiring a post-bachelor level professional or graduate university degree in their field as a basis for practices; eighty per cent have such degrees and most of the remainder are in the process of obtaining them. About a third of both engineers and teachers have such degrees but majorities in both fields are practicing their occupations with lesser formal qualifications, typically a bachelor-level university degree. (As we shall see in Chapter 2, most teachers have further specialized training but this is not recognized by completion of a further degree.) Only 15 per cent of computer programmers now have post-bachelor level degrees, but the majority of those practicing this occupation now have bachelor-level university degrees. Only ten per cent of nurses have post-bachelor university degrees; while bachelor-level degrees have become a requirement recently along with credential upgrading for older nurses, older nurses still rely on specialized practical training outside universities. Many aspiring professional occupations have imposed more stringent credentialing standards as a

means of making entry qualifications more difficult and also to elevate public perceptions of the “legitimacy” and “worth” of the profession (Wynd 2003). But only doctors and lawyers, along with a few other long-established occupational groups such as architects, dentists and veterinarians, have been able to insist on post-bachelor professional or graduate degrees to qualify for entry.

Table 1-4. Membership in union or professional association, Canada, 2004

<i>Occupation</i>	<i>Union member (%)</i>	<i>Professional association member* (%)</i>	<i>Professional association or union member (%)</i>
Doctors/Lawyers	15	85	87
Nurses	85	78	97
Engineers	13	53	59
Teachers	90	50	95
Computer Programmers	17	14	29
Other Professionals	34	37	59
Total Non-Professional Labour Force	26	20	42

Source: WALL 2004 Survey (N=5,775)

* Professional association membership only asked if respondent indicated not a union member

Association Membership

In order to implement control over entry, any occupational group needs the organizational capacity to do so. All respondents to the WALL national survey were first asked if they were members of a union. If they were not, they were asked if they were members of a professional association. As Table 4 summarizes, doctors and lawyers are distinctive in having very high professional association membership and very low union membership. Doctors and lawyers have little apparent need for unions since they are commonly regarded as independent professionals with the right to private self-regulation rather than as employees. Teachers and nurses are distinctive in having very high union membership as well as majority professional association membership for those who are not union members. Teachers' and nurses' nearly universally union membership strengthens bargaining demands in negotiations with the public institutions that commonly employ both groups, while perhaps diminishing their claims to professional status in the eyes of those who regard unions as “unprofessional.” Engineers have been the largest professional occupation in modern societies, with the skills most clearly needed for industrialization. But their dual origins in entrepreneurial–managerial work and skilled labour have long inhibited their ability to act as a cohesive group in support of their interests (see Collins 1979, pp. 159–170). Their very low union membership and modest professional membership proportions may be reflective of

this continuing ambiguity. Computer programmers are distinctive in having very low proportions as members of either unions or professional associations, which may be reflective of their recency, diverse training programs and scattered workplaces.

Required Licensing

Self-regulation has been regarded as essential for a professional occupation to establish control over a field of practice. Regulatory colleges are able to set the requirements for entry into practice of the profession, as well as performance standards for continuing to practice. Regulatory bodies not only define the roles allowed to be performed by member professionals, but also have the ability to limit, control, and exclude others from entering into similar domains of practice. For example, as noted by Kelner et al. (2004) in their study of professionalization in Ontario’s health care system, alternative health professions like chiropractors, midwives, naturopaths and homeopaths have faced very substantial challenges to legitimization of their skills by doctors. Recently, a number of these health-related occupations have been granted official status. But such status has come with tightly prescribed controls over the extent of their practice.

Table 1-5. Licensing for Professional Occupations, Canada, 2004

<i>Occupation</i>	<i>License required to practice (%)</i>
Nurses	93
Teachers	94
Doctors/Lawyers	89
Engineers	40
Computer Programmers	17
Other Professionals	48
Total Non-Professional Labour Force	37

Source: WALL 2004 Survey (N=5,775)

In Table 1-5, we see the extent of regulatory licensing among the selected professional occupations. Teachers, doctors, lawyers and nurses all report high levels of licensing at over 90 per cent, with most of their other practitioners in the process of obtaining official licensing. To continue to participate in these professional occupations, a person must obtain a license based upon completion of the criteria set out by the regulating college or government agency. Conversely, neither engineers nor computer programmers have yet been able to establish certification status as a normal criterion for practice by the majority of the members of their occupations. Recently graduated engineers must be supervised by licensed engineers for a minimum of four years prior to applying for certification and many continue to practice without achieving certification. Less than 40 per

cent of engineers and less than 20 per cent of computer programmers were fully licensed practitioners of their fields in Canada in 2004.

Two points should be noted here. First, while nurses and teachers have similarly universal licensing requirements for practice as doctors and lawyers, this is not comparable to self-regulation. In Canada, only Ontario and British Columbia have professional regulatory colleges of teachers, for example (see Chapter 7). Secondly, licensing requirements to practice occupations are becoming quite widespread as many occupational groups are increasingly relying on credentials as primary entry criteria (e.g., real estate salespeople).¹³ As we shall see, the credential society may be upon us but credentials and licences *per se* are no guarantee of greater control within the workplace for professional occupations.

PROFESSIONALIZATION AND WORKPLACE POWER

So what have been the actual general trends in the occupational composition of the labour force and in the workplace power exercised by its members? The professionalization thesis predicts that professional occupations are increasing significantly as a proportion of the labour force and that their workplace power is increasing accordingly. By contrast, the deprofessionalization thesis suggests that those in professional occupations are experiencing diminishing workplace power. Data from the 1983 CCS survey and the 2004 WALL survey offer some relevant estimates.

Table 1-6 summarizes the basic changes in professional-non-professional occupational composition over the 1983–2004 period. Consistent with the professionalization thesis, the proportion of professional occupations in the employed labour force increased slightly from about 17 per cent to 20 per cent. This marginal change is consistent with other analyses based on census data (Lavoie & Roy 2003; Bartel & Beckstead 1998). However, some occupational analyses distinguish between professionals and semi-professionals (see Pineo, Porter & McRoberts 1977). Undisputed professional occupations are established occupations that meet most of the above criteria for control of entry, including most of our selected professions as well as others such as architects, dentists and accountants. Semi-professional occupations include many that require training in advanced academic programs and are in the process of building associational strength to gain control of licensing requirements for practicing the occupation. In addition to computer programmers, prominent examples include early childhood educators, college instructors and medical technologists. According to the 1983 and 2004 national surveys, professional occupations made up about nine per cent of the employed labour forces in 1983 and eight per cent in 2004; semi-professionals increased from about seven per cent to 12 per cent during this period. The increasing numbers of semi-professionals might be considered a sign of increasing professionalization of the general labour force. But, as noted previously, there is considerable dispute over the categorization of these newer occupations as ‘professional.’

Table 1-6. Professional/Non-Professional Occupational Composition of the Employed Canadian Labour Force, 1983–2004

Year	1983 %	2004 %
Professionals	17	20
Other Labour Force	83	80

Source: Canadian Facts Survey 1983 (N=1,759); WALL 2004 Survey (N=5,800)

In any case, the second pertinent question in this regard is whether these increasing numbers of professional and professionalizing occupations are actually increasing their degree of workplace power. As discussed earlier, power within the workplace can be estimated in terms of the extent to which people have the opportunity to design their own work as well as the extent of participation in organizational decision-making (i.e., making organizational decisions on such matters as the types of products or services delivered, employee hiring and firing, budgets, workload, and change in procedure).

In terms of control of design of their own work, Table 1-7 shows that professional occupations as a whole appear to have lost some of their relative autonomy during this period. In 1983, 85 per cent said they designed their own work either all or most of the time. In 2004, 71 per cent said so. In contrast, the rest of the employed labour force generally increased its extent of stated participation in designing their own work, from 39 per cent to 57 per cent.

Table 1-7. Design work by professionals and other occupations, Canada, 1983–2004

Design work	All or most of the time (%)	
	1983	2004
Professionals	83	70
Other Labour Force	40	57

Source: Canadian Facts Survey 1983 (N=1,484); WALL 2004 Survey (N=5,690)

In terms of organizational decision-making, as Table 1-8 summarizes, professional occupations generally were no more likely to report having organizational decision-making authority in 2004 (47 per cent) than in 1983 (50 per cent). However, the rest of the labour force generally increased its stated participation in decision-making from a quarter to about the same level as professionals (45 per cent). At the same time as professional occupations appeared to be becoming more prevalent, there appears to be greater general participation among other occupational groups in decision-making and relatively less organizational authority granted to professionals in general.

Table 1-8. Organizational decision-making power by professionals and other occupations, Canada, 1983–2004

Make decisions	On own or as part of group (%)		
	Year	1983	2004
Professionals		50	47
Other Labour Force		26	45

Source: Canadian Facts Survey 1983 ($N=1759$); WALL 2004 Survey ($N=5,505$)

The general findings from these national surveys of respondents' subjective views of their extent of workplace power suggest that those in professional occupations have not increased their sense of power within the workplace during the past generation and may be experiencing some relative loss of control over opportunities to design their own work. Conversely, the remainder of the labour force may be experiencing a significant increase in their sense of workplace power. In other words, *the increasing proportion of professional occupations may be experiencing deprofessionalization in terms of workplace power.*

The extent of workplace power expressed by those in the selected professional occupations in 2004 is shown in Table 1-9.¹⁴ In terms of opportunities to design their work, *teachers express a greater sense of discretionary control than any of the other professional occupations.* Teachers arguably are granted a relatively high degree of autonomy within their classrooms to deal with a complex array of issues, from curriculum delivery to student counselling, beyond the direct scrutiny of supervisory personnel. But smaller majorities in most other professional occupations, as well as in the labour force in general, said that they have opportunities to design their work most of the time. The finding that a sense of autonomy in designing one's own work is shared by majorities in all occupational groups suggests that an ideology of discretionary control has become widespread in the labour force.

In terms of organizational decision-making power, small majorities of doctors and lawyers as well as engineers indicated a significant role, compared with only minorities of teachers and the other selected professional occupations. The expressed differences between professional occupations and between professionals and the rest of the labour force in terms of decision-making roles are quite small, which may suggest that a modest degree of delegation of organizational power is becoming more widespread in the labour force and now does not distinguish very clearly between professionals and other occupations. In any event, these differences do not correspond very closely with differences in control of entry between these professional occupations. It is notable that, in both discretionary control in their jobs and decision-making roles, nurses express the lowest sense of organizational power. Most pertinently, teachers express the greatest discrepancy between personal autonomy and organizational decision-making power: the highest sense of design control of their own jobs but much less organizational decision-making power.

Table 1-9. *Specific professional occupations by workplace power variables, Canada, 2004*

<i>Occupation</i>	<i>Make organizational decisions by self or as part of a group (%)</i>	<i>Design own work all or most of time (%)</i>	<i>Difference between columns 1 & 2</i>
Doctors & lawyers	61	74	13
Engineers	57	72	15
Computer programmers	42	66	24
Teachers	42	89	47
Nurses	35	51	16
Other professionals	50	73	23
Total labour force	46	60	14
Total <i>N</i>	5,548	5,756	N/A

Source: WALL 2004 Survey (*N*=5,725)

In summary, the findings from these national surveys confirm the prediction that a (very slowly) growing proportion of occupations are assuming features of professional status, most notably in terms of some of the basic criteria for control of entry. But the variations among specific professional occupations in these terms remain large. Moreover, professionalization in these terms has not led to an increasing sense of power *within* the workplace for professional occupations generally; rather, the remainder of the labour force has gained a greater sense of power while sense of power among professionals generally has remained similar to the level it was a generation ago. Other bases of workplace power are presumably involved. A class analysis of professional occupations may be a useful way to clarify the apparent contradiction between occupational professionalization and workplace deprofessionalization tendencies. The following class analysis of the general labour force is intended to provide a context for the later more specific class analysis of professional occupations, including teachers.

CLASS ANALYSIS OF THE GENERAL LABOUR FORCE

The purported death of classes based in workplace relations in advanced industrial societies has been heralded for generations. The decline of manufacturing employment with large concentrations of industrial workers and their labour unions, and the expansion of a diverse array service sector jobs, have inspired various arguments that the production process itself is extremely unlikely to generate class groupings with any social force, because of very diverse employment conditions, high occupational mobility and new, experience-diversifying technologies (e.g., Kingston 2000, p. 227). In contrast, we argue that classes stemming from relations between capitalist owners and hired employees are continually created and modified, and that we need to understand these underlying class relations in order to make sense of the *differential* powers of professional occupations, for example.

The basic class division in market economies proposed by Marx (1867) was between the owners of means of production and those who offer their labour to make a living. This division was qualified by his recognition of the existence of a shifting array of middle classes, including self-employed craftsmen and farmers, and the emergence of foremen and managers as well as those excluded from employment. Since then, scholars have identified a growing complexity of the structure of occupations and power. But Weber's (1928) later occupational class scheme was grounded in a similar tripartite distinction between the "market capacities" of those who owned property, those who possessed specialized skills, and those who possessed only their own capacity to labour, which was implicitly manual. More recent employment class models have often been derived from Marx, Weber or both. In the current analysis, we begin with a conceptual framework that examines the distribution of power in advanced market economies in terms of an underlying employment class structure that, similar to Marx and Weber, identifies positions based on ownership of property, other positions based on the provision of paid labour to produce goods and services, and middle classes in positions with formally delegated managerial authority or recognized specialized knowledge. Credential society approaches have argued that some professional and skilled occupational groups exercise greater power over external labour market exchange relations, thereby enabling job shaping possibilities and job-related learning activities (Collins 1979). But they have not explicitly recognized employment class differences among professional occupations.

The conceptual model of general employment class positions used to begin the research in this book is grounded in these ownership, delegated managerial authority and specialized knowledge distinctions.¹⁵ Eight main employment-based class groupings are distinguished: *large employers, small employers, the self-employed, managers, supervisors, professional employees, service workers, and industrial workers*. Among owners, large employers include owners of substantial capital and corporate executives who oversee investment in companies and corporations with multi-million dollar assets and many employees. Small employers, typically family firms or partnerships, tend to have exclusive ownership, small numbers of employees and continue to play active co-ordinating roles in the labour process of their firms. The self-employed remain in control of their small commodity enterprises but are primarily reliant on their own labour.

At the other end of the class hierarchy are those workers without substantial ownership claims and devoid of official supervisory authority or recognized rights to exercise specialized knowledge. This includes industrial workers who produce, distribute or repair material goods. It also includes service workers who provide a widening array of sales, business, social and other services, similarly without recognized supervisory authority or task autonomy. Between employers and those workers at the lowest level of an organizational authority structure, other employees tend to have mixed functions. Managers are delegated by owners to control the overall labour process at the point of production to ensure profitability but may also contribute their labour to co-ordinate this process. Supervisors are under the authority of managers to control adherence to production standards by industrial and/or service workers but may also collaborate directly with these

workers in aspects of this work. Professional employees have task autonomy based on their recognized specialized knowledge to design production processes for themselves and others and to execute their own work with a high level of discretion, and are sometimes subordinated to employer prerogatives. Furthermore, in advanced capitalist economies, the state has become a major employer and most state employees' power is not negotiated with or delegated directly from owners of capital. Rather, their power relations are with elected representatives and upper managerial civil servants who are supposed to act on behalf of the needs of all citizens, including the reproduction of capital and the democratic demands of other citizens. Teachers, it should be noted, are now largely state employees.

As noted earlier, these general employment class positions based on relations of ownership, managerial authority and recognized specialized knowledge are distinct from specific occupational classifications; but they obviously overlap with them. Those with the professional occupation designation of doctor, for example, could be small employers, self-employed, managers or "semi-autonomous employees" (see Wright 1980).¹⁶ If these general class divisions are not considered, employment class effects are likely to confound more specific analyses of workplace power among professional occupations as well as others.

One of the clearest illustrations of the structural effects of differential employment class powers on job definitions and designs is the almost total absence of analytical attention to assessment of the capacities of business owners to perform their jobs.¹⁷ Business owners generally have the managerial prerogative to impose competency assessments on subordinate employees, without any reciprocal privilege. Beneath the level of ownership, the less distinguishable managerial authority one holds, the more prone one tends to be to the competency assessments of those above. The assessments that owners make of hired managers are rarely known to lower level employees. Professional employees who are recognized as attaining specialized knowledge in established fields at least remain likely to have more autonomy over performance of their designated job tasks than industrial and service workers. (The extent to which teachers who are professional employees are widely recognized as having specialized knowledge to guide children will be addressed later in the book.)

Estimates of the general magnitude of these employment classes are provided by Table 1-10, which summarizes composition and changes over the past generation in Canada. Between 1983 and 2004, large and small employers grew slightly to make up around five per cent of the labour force while the self-employed increased to about 15 per cent. Managers doubled to over ten per cent of the labour force. Professional employees increased by half to make up over 15 per cent of the labour force. Conversely, the proportions of industrial and service workers declined substantially from being the majority (42+23=65 per cent) to a minority (27+19=46 per cent) of the entire employed labour force. It should be stressed here that classes are relational phenomena rather than static categories. In particular, many professional employees in occupations currently designated as "semi-professional" are engaged in contests with employers and government agencies to attain full professional status or at least to resist further deprofessionalization. In terms of the argument for general professionalization of

the labour force, the evidence indicates that professional employees in general increased from about 11 per cent to 16 per cent between 1983 and 2004. The trend is in the posited direction but they still made up a small proportion of the labour force.

Table 1-10. Employment class distribution, active labour force, Canada, 1983–2004

<i>Employment class</i>	<i>1983 (%)</i>	<i>2004 (%)</i>
Large employers	<1	1
Small employers	4	6
Self-employed	11	15
Managers	5	11
Supervisors	4	5
Professional Employees	11	16
Service workers	42	27
Industrial workers	23	19
Total	100	100
<i>N</i>	1,758	5,437

Sources: Canadian Facts Survey 1983; WALL Survey 2004. See Livingstone and Scholtz 2010

CLASS ANALYSIS OF PROFESSIONAL OCCUPATIONS

A shortcoming of prior analyses of professional occupations and workplace power is that they tend to treat professional occupations as homogeneous groups and for the most part ignore employment class positions. Professionals who own either large or small enterprises possess ultimate control over both their own work and the goals of the organization. Self-employed professionals without employees have full control of their own work, although they may now contract themselves to larger enterprises at times. Professional managers, without the privilege of ownership, lack the power of complete control over the direction of the organization but do possess a relatively high level of decision-making control within the organization compared with professional employees. Professional employees' relatively high level of specialized knowledge to perform the job makes them more difficult to replace than most other non-managerial employees. But they remain similarly vulnerable as sellers of labour without control over the final product/service.

Table 1-11 estimates the distribution of professional occupations among employer, self-employed, managerial and professional employee classes in 1983 and 2004. The small sample size in 1983 permits only limited trend inferences. While other census-based analyses confirm that professional occupations overall have increased somewhat as a proportion of the total employed labour force (see Lavoie & Roy 2003; Bartel & Beckstead 1998), our findings suggest that the

distribution of professional occupations across employment classes may also have altered somewhat.

As noted previously, professional employees increased (from 11 to 16 per cent of the total labour force). But Table 1-11 suggests that professional employees may have declined as a proportion of all professional occupations (from 62 to 52 per cent of all professionals), while the proportion of self-employed professional occupations has increased (from seven to 15 per cent). There may have been some increase in the general proportions of the self-employed class who are professionals (to 21 per cent from 12 per cent) and some decline in the proportion of managers who are professionals (from 40 per cent to 30 per cent). But the main conclusion to be drawn from this class analysis is that there is *no definitive trend* in the professionalization or deprofessionalization of the class structure. The overall proportion of more dependent professional employees in the labour force overall has increased at the same time as the proportions of more independent self-employed among professional occupations themselves has also increased.

Table 1-11. Employment class by percentage with professional occupations, employed labour force, Canada, 1983–2004

<i>Employment Class</i>	<i>1983</i>	<i>2004</i>	<i>1983</i>	<i>2004</i>
	<i>% of professionals within this employment class</i>	<i>% of professionals within this employment class</i>	<i>% of all professional occupations</i>	<i>% of all professional occupations</i>
Large/small employers	15	19	5	6
Self-employed	12	21	7	15
Managers	40	30	26	27
Professional employees	17	20	62	52
Total %	100	100	100	100
<i>N</i>	1,758	5,397	309	1,085

Sources: Canadian Facts Survey 1983; WALL Survey 2004

The proportions of the self-employed class, and perhaps of the employer classes, with claims to specialized professional knowledge grew. Business owners may have thereby enhanced their managerial prerogatives and the self-employed became somewhat more likely to base their entrepreneurial claims on specialized knowledge. However, the rapidly growing general ranks of managers may not have increased their relative capacity to co-ordinate the work of professional employees by having similar specialized knowledge claims. Conversely, those who remained professional employees became increasingly vulnerable to overarching direct control or influence by employers, self-employed consultants and managers who also had acquired claims to the same specialized knowledge. *There are virtually as many professionals now in employer, self-employed and managerial classes as there are professional employees.* These class differences surely should be

considered when analysing the workplace power of those in specific professional occupations.

PROFESSIONAL CLASSES AND WORKPLACE POWER

The current general differences between professional employers, self-employed professionals, professional managers and professional employees in terms of self-reported workplace power are summarized in Tables 1-12 and 1-13. Predictably, the differences in organizational decision-making control are quite pronounced. As Table 1-12 summarizes, virtually all professional employers have substantial decision-making control, unless they choose to delegate it to managers. Most self-employed professionals have decision-making control alone or with partners of their self-account businesses, unless they are working as consultants for others. About two-thirds of professional managers make significant organizational decisions, usually as members of a group. In clear contrast, most professional employees report no direct decision-making role and those that do have one are most likely to be part of a consultative group. Professional employees clearly have significantly less organizational decision-making power than employers, self-employed and managers, whether the latter are professionals or not.

While the smaller sample size for 1983 again limits detailed trend inferences, it appears that professional managers may have become more involved in organizational decisions over this period (from 54 per cent to 64 per cent) while professional employees' involvement may have declined somewhat (from 45 per cent to 32 per cent). As Table 1-12 suggests, professional employees by 2004 were little more likely than service and industrial workers to perceive themselves as having a meaningful organizational decision-making role.

Table 1-12. Organizational decision-making power by professional class, Canada, 2004

<i>Professional class</i>	<i>Make decisions (yourself) or as member of group (%)</i>	<i>No direct decision making role (%)</i>	<i>Total (N)</i>
Professional employers	(39) 84	17*	65
Self-employed professionals	(43) 61	39**	152
Professional managers	(14) 64	36	278
Professional employees	(8) 32	69	553
All professionals	(16) 47	53	1,048
Other non-managerial employees	(8) 21	79	1,771

Source: WALL 2004 Survey (N=5,800)

* Delegated to managers

** Consultants for other businesses

Opportunities to design one's own work also differ by professional class position but not in such a pronounced way as organizational decision-making. As Table 1-13 shows, professional employers almost all design their own work all or most of the time. Three-quarters of self-employed professionals and professional managers also design their work most of the time. Professional employees feel they are somewhat less able to design their work, but two-thirds say they do so most of the time. It should be recalled that, as per Table 1-9, about 60 per cent of all workers now say they can design their work most of the time. In a labour force in which a majority of workers now report they design their work most of the time and very few indicate no opportunities to design their work, professional employees are not distinct from most other workers in this regard.

Table 1-13. Design own work by professional class, Canada, 2004

<i>Professional class</i>	<i>Most or all of the time (%)</i>	<i>Sometimes (%)</i>	<i>Never (%)</i>	<i>Total (N)</i>
Professional employers	90	10	0	68
Self-employed professionals	75	22	4	167
Professional managers	75	24	1	295
Professional employees	64	33	4	563
All professional occupations	70	27	3	1,093

Source: WALL 2004 Survey (N=5,800)

In terms of extent of control over design of their work, limited comparison with the smaller 1983 survey suggests that professional employees generally may have experienced some decline in immediate control over design of their daily tasks. There is some indication that professional owners, self-employed professionals and professional managers have retained or increased their control.

Overall, there is support here for the deprofessionalization thesis in terms of professional employees experiencing an erosion of their organizational decision-making power and work design control. Conversely, professional employers, self-employed professionals and professional managers appear to be gaining greater workplace control over professional employees and retaining control over the remainder of the non-managerial labour force. In short, we see indications of increasing workplace power for professionals with ownership prerogatives as well as for those professionals with official managerial functions, but decreasing workplace power for professional employees.

CLASS ANALYSIS OF SPECIFIC PROFESSIONAL OCCUPATIONS

The professional occupations selected for this analysis differ widely in the extent to which they have ownership of the organizations in which they work. As Table 1-14 shows, about two-thirds of doctors and lawyers have ownership status, most operating either as small employers or self-employed. None of the other professional occupations in the study have more than 20 per cent with ownership

status; most of these are self-employed without employees. Only among engineers are there even significant numbers of small employers (nine per cent), while the other professional occupations, including teachers, report two per cent or less of respondents holding employer status. The fact that most doctors and lawyers own their own firms or practices gives their professions significantly more economic power than most other professional occupations.

Table 1-14. Professional occupations and class locations, Canada, 2004

<i>Professional class locations</i>	<i>Doctors & lawyers (%)</i>	<i>Engineers (%)</i>	<i>Computer Programmers (%)</i>	<i>Nurses (%)</i>	<i>Teachers (%)</i>	<i>Other professionals (%)</i>
Professional employer	41	9	2	1	1	5
Self-employed professional	23	8	16	3	3	19
Professional manager	18	43	28	31	16	33
Professional employee	18	40	54	65	81	43
Total	62	97	127	95	124	700

Source: WALL 2004 Survey (N=5,800)

All of these professional occupations contain significant numbers of professional managers to co-ordinate and control the work of both professional employees and other non-managerial employees. Engineers are just as likely to be managers (43 per cent) as employees (40 per cent), while the percentages for other professions with managerial positions are lower (between about 16 and 31 per cent). Computer programmers are more likely than nurses or teachers to be self-employed (16 per cent) which probably reflects the relative openness of entry to this new field. But a small majority of programmers (54 per cent) are professional employees.

Teachers and nurses are distinctive in this comparison in remaining mostly professional employees. Most are employed by public sector organizations without any prospect for ownership of their practices. Over 80 per cent of teachers and about two-thirds of nurses are professional employees. Nurses may be more likely to assume managerial positions (31 per cent) but often under the authority of doctors. In this respect, teachers and nurses are not much different in employment class terms than industrial and service workers – except for their specialized knowledge claims. Teachers' specialized knowledge claims will be examined in more detail in later chapters.

Simply viewing professional occupations in terms of general claims to authority in their fields of knowledge misses the underlying class dimensions of ownership control and managerial authority or conflates them with claims to specialized knowledge. The extent to which respective professional groups succeed in

achieving self-regulatory authority over a field of professional knowledge continues to be intimately related to gaining legal ownership. Doctors and lawyers ability to form private practices and partnerships continues to enable the enclosure of their professions, codification of their knowledge, promotion of their importance to the general public and self-regulation of their fields. Engineers' mixed employment class composition, with a few business owners but most evenly split between managerial and non-managerial class positions, continues to inhibit both association development and claims for professional self-regulation. Teachers and nurses now tend to be well organized in occupational groups but, given their dominant class position as employees, there is continuing priority within these groups to act as employees' unions bargaining with their employers rather than establishing self-regulating professional field claims with the general public. Computer programmers have highly topical claims to specialized technical knowledge that enable some to establish their own small businesses. But they currently have little associational strength to achieve self-regulation and wider legal ownership of their services. In sum, the class position of professional occupations is fundamental to success of their claims for full professional status. The dominant class position of teachers and nurses as employees continues to undermine such claims.

The fact that minorities of teachers and nurses indicate any role in organizational decision-making (see Table 1-9) is clearly related to their prevalent class position as professional employees. However, as Table 1-9 also summarized, being able to put one's own ideas into practice is not closely related to ownership or managerial position. Again, teachers report the *highest* level of design discretion among all these professions for putting their own ideas into practice. Behind classroom doors, teachers have to make continual decisions about a very complex array of tasks. Teachers engage in activities that range from teaching and assessing to counselling and coaching. Many of the decisions rest solely with teachers and need to be made on the spot with little time for consultation or reflection. In this respect, there is considerable discretionary control in the daily activities of teachers. But, as noted previously, the relatively great autonomy of teachers over classroom space contrasts markedly with their lack of organizational decision-making power. As argued by Reid (2003), the apparent control that teachers have over their immediate space must be tempered by the clear lack of control over their curriculum, classroom structure/size, course loads, among other organizational decisions that have considerable influence over their daily work lives. The following quote from a teacher expresses a common concern over work intensification and the lack of control over organizational decision-making and its impact on everyday job processes:

[There is] seemingly never-ending struggle to provide better education with less resources, or with increasingly fewer resources. We are discovering and learning more and more things about what good teaching practice and good education mean, but simultaneously we are provided less and less money and resources towards this. What ends up happening is that those of us teaching are expected to do a lot more. It's becoming more and more clear what good

education looks like... the quality of education and how things can get better. At the same time, governments are starving public education. Classroom and curriculum that is coming out is so convoluted. And yet, we neither have the time nor the training to try to digest it. Boy, I don't know where else to go. (EJRM, Moishe, 2005)

At least among teachers, who are very predominantly professional employees, the deprofessionalization thesis is supported by substantial empirical evidence.

CONCLUDING REMARKS

Prior studies of professionals' status and power have tended to focus on conventional criteria of control of entry into the specific occupation: advanced academic education, association membership and licensing requirements. Proponents of the growing influence of professionals as leaders in an emerging knowledge-based economy tend to assume that advance on these criteria will lead to fuller recognition of professional status. However, most of these studies tend to ignore the fact that we live in an advanced capitalist society in which economic class relations still have a major influence on what occurs in paid workplaces. Ownership of the means of production, whether by large corporations or small firms, still counts. The fact that doctors and lawyers (and a few others including dentists and architects) can command direct fees for their services, own their own business firms or practices and often employ others is hugely consequential for their status as fully developed professions. The superior professional power of doctors/lawyers is mediated by their self-regulating professional association membership (i.e., over 70 per cent exclusively association members and few employee-based union members) but grounded in the prevalence of proprietorial class positions (self-employed or employers). The struggle by increasingly more knowledgeable progressive popular forces for socialized provision of human services, notably medicare and public education but also legal services, led to increasing state funding and regulation of such services through most of the twentieth century. Conflict over socialized versus privatized provision continues, as well as conflict over control of the specialized knowledge contained in such services and the consequent professional status of their providers. Doctors and lawyers have also faced much more extensive oversight of their services (Krause 1996). But, with the negotiating power of their self-regulating associations, many continue to be paid their fees and retain prerogative over their use, as distinct from most other professionals who are paid salaries determined in negotiations with their employers and are more prone to challenges to their knowledge and status.

Even though many other professional occupations may also have specialized post-secondary education credential requirements as well as widespread association memberships and licensing, most others remain subordinated to either private employers or managers in public institutions. Engineers and computer programmers are typically hired experts in private firms and are empowered in their workplaces largely through high demand for their technical expertise. But their very limited ownership of their services coupled with lack of organizational

strength and licensing regulation seriously limits their professional power. Teaching and nursing have few prospects for general ownership of their services, typically work in public institutions under control of bureaucratic state administrations, and are mainly professional employees in female-dominated fields, with even more limited prospects for full professional status, even if they become managers of those in their own field.

Professionalism certainly needs to be understood partly in terms of the degree of technical skill and unique knowledge to perform particular specialized work, as well as the conventional entry criteria. But the relationship of this specialized work to employment class positions rather than to specific occupations *per se* should be considered both in assessing the power the profession is able to exercise in the workplace and in understanding the limited success many occupations have had in asserting their claims to full professional status. At the same time, ownership of one's own work in itself is no guarantee of professional status. Consider the many highly trained visual artists whose works compete with unschooled amateurs in the private marketplace and who remain among the poorest paid of all occupations because of the lack of associational strength.

Teachers in particular have to exercise a high level of technical and social skills in their complex pedagogical work with often diverse groups of students. But they lack sufficient control over their occupation to convince much of the general public that they deserve full professional status. Teachers also contend with popular notions that others could teach much of their curricular content to children if they only had the time. Teachers are employees, not self-regulating except in a few jurisdictions where self-regulatory bodies have been created and remain highly subject to governmental intervention (see Chapter 7). Teachers do hold distinctive control within their own classrooms in relation to their students. But such control is continually in jeopardy because of organizational decisions made outside the influence of classroom teachers.¹⁸ Educational practices such as standardized curricula, testing and reporting, bigger classroom sizes, and increased administrative duties, just to name a few, have an enormous impact upon the immediate workspace of teachers. If teachers' strong sense of discretionary control within the classroom is to retain much substance, they may need to exercise greater influence over the organizational decisions made outside these walls. Otherwise, teachers, like many other professional (and semi-professional) employees are in danger of losing more control over their *immediate* workspaces.

Further comparative studies are surely needed. However, it should now be appreciated that both the professionalization and deprofessionalization theses are serious simplifications with regard to the workplace power of current professional occupations. The evidence presented here suggests that professional occupations are gradually increasing as a proportion of the labour force. But it also suggests that increasing class polarization of professionals is occurring: on one hand, professional employers and self-employed professionals are gaining relatively greater workplace power; on the other hand, professional employees are losing workplace control and facing continuing challenges to asserting wider claims to professional status. Teachers are clearly on the losing side of this divide. Perhaps

C. Wright Mills (1951, p. 129) was right when he observed that “School teachers ... are the economic proletarians of the professions.”

2. TEACHERS' AND OTHER PROFESSIONALS' LEARNING PRACTICES

A Comparative Analysis

INTRODUCTION

Do we want to be blue collar or do we want to be professionals? ... If you are ... going to be a professional, then you have to take responsibility for professional learning ... even though there may be moments when you put on your blue collar and thump around, and start to want to refuse to do these things. I just am not sure that it should really be this or that. I think that you can do both, to some degree. But a lot of people will almost argue that they need to shut down their professionalism, their professional development because, you know, we're without a contract, we're not doing anything. So ... it's almost like being bipolar, I guess ... Learning with colleagues is really important, the biggest problem is that you are just going hell-bent for leather and sometimes you really don't have the chance to sit down and have that dialogue ... It's really tough to say when informal learning will come into play, but it does. The amount of informal learning a teacher uses is probably huge, probably huge! (Neil, Secondary School Teacher)¹

The purpose of this chapter is to provide an extensive comparative analysis of professional learning. As Chapter 1 has documented, professionals depend greatly on formal education entry credentials for their legitimacy. Professionals are also widely assumed to engage in continual learning to upgrade their specialized knowledge and skills to remain current in complex and changing jobs. We posit that, since professional occupations remain highly dependent on recognition of specialized knowledge, continuing participation in further job-related *formal* education (usually called “professional development”) is likely to be higher than in most other occupations. As noted in the Introduction, workplace learning can be seen as occurring on an *informal-formal continuum*, with much of it taking place informally (see Betcherman 1998; Livingstone 2009). All workers are likely to require continuing learning in relation to changing job conditions, so we expect that the incidence of job-related *informal* learning will be quite extensive among all occupations. Most of the attention in this chapter will be devoted to comparing formal provision of professional development for teachers and other specific professional occupations and by class positions of professionals.

We will also examine relations between professionals’ (negotiating and organizational) power and variations in further job-related formal professional

development. As noted in the Introduction to the book, our general theoretical perspective posits that, other things being equal, greater power is associated with more opportunity for formal professional development. The threshold for professional occupations' participation in continuing formal education courses is now relatively high because continuing re-legitimation of specialized knowledge through re-certification is now widespread among most professions; in addition to the increased role of the state in standards regulation, the growing recognition of the role of formal knowledge in contemporary work has led to heightened certification requirements across the board (Evetts 2002). Professionals who are predominantly in proprietorial class positions (i.e., self-employed or employer) and in self-regulating associations should have managerial prerogative to take further formal education courses at their own discretion. Whereas, among professional employees, the greater negotiated bargaining power *with* their employers and the more delegated organizational decision-making power *from* their employers, the greater opportunity there is likely to be for participation in formal continuing professional development courses. For example, as Chapter 1 documents, teachers have high negotiating bargaining power through their unionization but typically tend to have low delegated organizational decision-making power from school boards and principals. Teachers are highly reliant upon their unions for negotiated power in the workplace and their professional development provisions. We expect that variations in delegated organizational power may also be associated with teachers' professional development provisions but in more secondary ways.

This chapter reviews the prior research literature on professional learning and then presents the findings from our national surveys of the workplace learning activities of doctors/lawyers, teachers, nurses, engineers and computer programmers, other professional occupations and the rest of the labour force as well as by class positions of professionals.

REVIEW OF LITERATURE

Prior empirical research on professional learning suffers from two basic limitations. First, many studies either conflate formal and informal learning or focus on one to the exclusion of the other. Secondly, learning practices are rarely considered in the context of working conditions, particularly power relations. In addition, previous studies have dealt primarily within individual professional occupations. Very few studies to date have explored comparisons in learning across professions (see Cheetham & Chivers 2001). Two studies of note (Gear et al. 1994; Eraut 1997) examined professional learning across professions, but did not delve into the potential links between workplace conditions *per se* and forms of workplace learning. As well, no prior studies have explicitly explored the different class positions of professional occupations in relation to learning.

Cheetham and Chivers' (2001) extensive comparative study helps inform further research in terms of the *informal* learning practices of a sample of professional occupations. Much of Cheetham and Chivers' study was an exploration of patterns of informal learning (method of delivery and content of subject material) across 20 professional groups. Although not explicitly comparing

professional occupations in terms of organizational structures, Cheetham and Chivers (2001) hint at differences in workplace environments as a major influence on the ways professionals learn and their ability to implement what they have learned into their everyday work practices. But the most general findings of their study stressed commonalities across the selected professional groups in terms of their informal learning practices. What surfaced as a very common thread among the professional groups was their ability to learn the unique and site-specific practices essential for their work among colleagues as job-embedded learning (Cheetham & Chivers 2001). More specifically, the authors found that the professional groups they studied learned most effectively through a combination of experiential and interactionist workplace practices. Interviewees would refer to being more “rounded professionals” after they had experienced and struggled through the early part of their career and dealt with difficult clients (or “diverse classrooms” in the case for teachers), or situations that made them apply past knowledge and experiences quickly and creatively. Not surprisingly, those respondents who were better able to manage their daily work practices in the early years of their professional careers were also in a better position to apply prior learning to their workplace practices. Participants in this study generally reported that colleagues were the best source of information for navigating through the profession and daily work routines. Some differences were found among professional occupations in the ways they took up learning as well as preferred methods for job training. For example, professionals in church and dentistry occupations differed in the worth they placed on “pre-entry experience,” with the clergy valuing lived experience as an important element of work within the profession. Dentists felt that previous lived experience was of little importance to their work and instead the technical aspects of performing their work took precedence.

But studies focused on informal learning practices of professionals have been relatively rare compared to studies of formal professional development. In addition to Cheetham and Chivers (2001), and the earlier smaller comparative studies of Gear et al. (1994) and Eraut (1997), most prior studies of professionals' informal learning have focused on individual professions (e.g., Lave & Wenger 1991; Gopee 2002; Billet 2003). Most commonly, these studies have examined the practice of collegial learning, citing the benefits of support mechanisms within organizations – including but not limited to mentoring, job shadowing, and learning groups or communities. These support networks in some cases provided greater opportunities for learning than did more formal learning programs. Both Cheetham and Chivers' (2001) study as well as some others have discussed the importance of networking within formal PD sessions. Group PD sessions provide a space for professionals to congregate and compare notes on the way things are done in their specific situations. For teachers, it seems that this is a highly valued component of PD sessions. Because pedagogical practices are dependent upon specific and unique classroom scenarios – such as curriculum content and student needs – teachers often face disparate and varied classrooms that demand equally varied pedagogical practices.

Some of the most recent studies of teachers (e.g., Hoekstra et al. 2007) emphasize the importance of informal learning in the pedagogical practices of public school teachers. Working with a teacher population not involved in formal professional development programs, the authors were able to explore the “active learning” in which Dutch teachers participated, most notably at the classroom level. Specifically, the authors chose to examine the informal learning teachers undertook through the processes of their classroom teaching. Through self-directed and in some instances tacit learning, teachers were able to learn a great deal from the interactions with students, particularly as it relates to what works well in the classroom. This type of informal learning involves considerable experimentation and reflection to determine best practices for various settings and scenarios. For the teachers involved in this study, many learned through what did *not* work in the classroom, accordingly adjusting their practices to better suit the needs of students.

Both Maaranen et al. (2009) and McNally et al. (2008) view the importance of informal learning among new practicing teachers in shaping their pedagogical practices and stress its value over more formal avenues for learning. Maaranen et al. (2008) look at teacher candidates who were employed as classroom teachers prior to and during their time in teachers’ college. The beginning teachers in this study noted the invaluable experience of classroom teaching (the informal, self-directed aspects of their learning), an experience helping to inform the formal learning that took place in their program. The self-reflective and collegial moments of learning experienced while working in their schools helped teacher candidates explore and uncover the nuanced and irregular aspects of teaching so critical for developing classroom practices. McNally et al. (2008) echo many of these sentiments of collegial learning, while adding an emotional learning and coping component to beginning teachers’ experiences. They viewed the supportive elements of mentoring and collegial support as it pertains to the emotional elements (such as performance anxiety) related to the work. In this way, the self-reflective learning of pedagogical practices was, in part, understood through interactions with colleagues.

Jensen (2007) compares the general, mainly informal learning practices of four professions (teachers, nurses, accountants and computer engineers) and finds that learning is mediated through the practices of the organization and the profession as a whole. General findings indicate that professionals in the first six years of employment understand knowledge expansion to be essential for their career development, with members of all professions citing a need to keep “current” with knowledge, almost as an obligation to a self-perceived “professional standard.” As well, Jensen finds the learning that took place across the professional groups was consistently tied back to practice. Effectively, Jensen is suggesting that professionals adhere to a professional ethos (a standard they think is associated with the profession). At the same time however, their “self-regulated learning” is mediated by the demands placed upon professionals by associations, organizations and the public to remain current in their understanding of professional expectations and practices. Knowledge on its own is not seen as relevant unless it can be tied to their everyday work practices. Tied to the idea of practicality, Jensen discovers that the participants from the four professions she studies often cite feeling unable to

completely understand everything they would need to fully participate in their profession. Jensen notes that in Norway, where the study took place, professionals do not have rigid standards for knowledge attainment set by professional associations, resulting in a less restrictive environment for knowledge acquisition. The perceived limitless expanse of opportunities for knowledge attainment by professionals controls both their desire for learning and the approaches to obtain and implement new knowledge. Respondents in her study cite an inability to “know everything” and instead simply learn “enough to get by.”

Overall, the increasing number of studies that have attended to informal learning among professionals have found it to be very extensive, highly reliant on work colleagues and not very different in basic patterns between professions. In these respects, research on informal professional learning merely replicates what has been known for some time in general research on workplace learning (see Betcherman 1998; Livingstone 2009).

In contrast to recent studies that have focused on expansive informal learning among professionals, most prior studies have stressed the drive for greater formal learning credentials. Freidman and Phillips (2004) argue that formal professional development programs are a way for professional associations to assure the public that its members are up to date with current knowledge and can be trusted. They also noted that some professionals have felt the bureaucratic process and accountability measures associated with formal professional development programs were, in fact, a threat to their autonomy. Rather than be in control of their knowledge base and relational workplace practices, professional development programs initiated by a governing body outside of the control of workers were viewed by some as simply another control mechanism. For example, Hodkinson and Hodkinson (2004) examined the differences between two teachers in England on the ways they took up learning in the workplace. The authors identified that teachers will perform individual learning as a response to external factors (e.g., curriculum change). Changes were perceived to originate out of the hands of teachers, leaving the teacher in a reactionary position to participate in PD. Although the authors were not implying that teachers regularly practice reactive learning, it is worth noting that teachers because of the lack of control over their organizational practices can sometimes be placed in coping positions regarding their professional development. The authors see formal PD in England as primarily regulating professionals, tying their learning to financial accountability, and utilizing arbitrary outputs to measure return on investment and generally acting as a mechanism for control of professionals, rather than an impetus for professional growth, general interest, and self-actualization (Hodkinson & Hodkinson 2005).

Expanding upon the idea of restricted agency, Tikkanen (2002) examined the learning of older IT workers and noted that, in their respondents' opinions, ‘new learning’ or reorganization of work may be a façade. Rather than feeling powerless in their learning, older IT workers and engineers in Tikkanen's (2002) study felt that many of the suggested workplace changes were simply a reorganization of old ideas. One experienced engineer, following the wishes of his clients, described his work as “organizing old bricks in new ways” (Tikkanen 2002, p. 92). As another engineer put it, “when you have done planning work for over 20 years, in every

problem situation you can surely come up with ten different solutions” (p. 92). To an extent, the agential opportunities to put their own learning into practice were tempered by the wishes of the client and the organization.

Daley’s (2001, 2002, 2005) comparative explorations of work and learning of nurses and other professions examined the integration of learning within professional practice in relation to organizational change and rationalization. Daley’s studies compared the working arrangements of nurses, social workers, teachers and lawyers and related these differences to the ways they engaged in formal professional development. These studies found that engagement in formal PD activities and subsequent implementation of knowledge gained from PD varied considerably across occupational groups because of the unique workplace practices associated with each profession, notably *their job autonomy*. For example, lawyers indicated that the autonomous nature of their practice resulted in the structure of their firm having little influence over their use of knowledge. Nurses, on the other hand, described the structure of the hospital as a “hurdle” and indicated that to implement new learning in their practice they often had to circumvent organizational rules (Daley 2002, p. 85). Hart and Rotem (1995) also observed the irregularity of nurses’ work scheduling – as documented in Chapter One – and found this led to particular difficulties for nurses in finding time for formal learning opportunities. These findings relate in several ways to teachers’ experience, as we will document in later chapters. However, the power relations within organizations that may lead to different formal PD practices were not much explored in most of the prior research studies.

One common theme found in the literature on formal professional development was the obstacle of ‘client satisfaction’ as a structural element of work that limited the opportunities to bring what was learned into practice. ‘Client satisfaction’ could be loosely defined as the interactions professionals have with the people and or public they serve. Often professionals cited “working around” organizational rules or learning more than was expected because of a commitment to serving the needs of their clients (Daley 2001, 2002; Svensson, Ellstrom & Aberg 2004; Ryan 2003). Daley’s (2002) study found that professional workers often saw their occupation as a calling. One nurse reported: “The idea of nursing as a career ... I guess that’s what I really see in it for myself. This is my calling” (Daley 2002, p. 82). The perception by professionals that they could be doing a disservice to their profession was compounded by the fear that clients would be receiving an “inferior” level of care if they did not continually keep up to date with current practices. Similarly, teachers are often compelled to go that “extra mile” in order to bring effective pedagogical practices in classroom for student success. The tie of learning to client satisfaction seemed to both empower and limit these professionals. In one way, professionals expressed that the learning was serving a personal purpose, helping to fulfill a desire or calling; however, this commitment to clients also acted as a restrictive and controlling agent, prompting many professionals to give an extra effort despite already being stretched too far.

Many of the studies dealing with client satisfaction noted that professionals would complete the learning process of formal PD sessions by implementing what was learned with their clients to determine the merit and worth of the new

information/practice. In a way, the client acted as a check. As Daley (2001, p. 50) notes: "Thus, a major component of how knowledge becomes meaningful in professional practice is determined by how the professionals' perspectives change through client interactions. In this study, it was evident that professionals did change how they viewed their practice following significant client interactions." However, as noted in Chapter One, client satisfaction likely has been a greater preoccupation for professionals who are proprietors and whose organizations' success is dependent on positive client response, as distinct from professional employees, who may express greater concern with employer-imposed conditions they must "workaround" to serve clients adequately.

While some of these prior studies allude to issues of organizational control or agency and learning, the relationship between professionals' power and learning practices has rarely been articulated. Marks and Seashore Louis (1999) have posited a link between teacher empowerment and more effective learning. With greater freedom and control by teachers in their everyday workplace practices, there is some evidence of more democratic and effective learning in the classroom. However, much of their study focused on institutional features of "organizational learning" as currently constituted in many private businesses and corporations, and overlooks the organizational power relations that can limit knowledge attainment and implementation. As a consequence, the authors advocate "stronger leadership," indicating that "organizational learning also requires strong and sometimes directive leadership in the articulation of organizational goals in ways that are meaningful and evocative for all participants" (Marks & Seashore Louis 1999, p. 714). This is a problematic recommendation since power is considered to derive from outside and above rather than from the classroom teacher, potentially jeopardizing the "democratic organization" so necessary for "democratic learning." As well, Marks and Seashore Louis, like most other research on formal PD, ignore the self-directed and informal learning practices that are increasingly recognized as integral for effective professional learning.

In sum, prior studies of professionals' continuing learning have found that professionals tend to be highly involved in continuing formal professional development courses and are similarly highly involved in informal collegial learning practices. Prior studies for the most part have paid little attention to differences in formal continuing education and PD between professional occupations, between professional classes, and between professionals and other workers. The few comparative studies of professions have stressed a widespread imperative for formal upgrading and recertification courses, as well as high motivation to confirm new knowledge through relations with colleagues and clients. But there has been little attention to differences in power among professional occupations that may affect their respective learning activities, not to mention the varied power dynamics between class positions of professional occupations (e.g., self-employed, employers, managers, and employees). Recent general studies of workers' intentional *informal* learning practices confirm that informal job-related learning practices are very widespread over the entire labour force, including both the most highly formally educated and the least formally educated workers (Livingstone 2009). Since display and affirmation of certifiable

specialized knowledge is central to professionals' legitimacy, we expect that their participation rates in further education will be greater than the rest of the labour force. But we also assume that some differences in opportunities for *formal* professional development are associated with the differential power of specific professional occupations and the class positions of these professionals.

FINDINGS

Using the general 2004 WALL survey data,² we present comparative analyses of the formal and informal learning practices of those in different general employment class positions, in different professional class positions (i.e., professional employers, self-employed professionals, professional managers and professional employees), and in the specific professional occupations of doctors/lawyers, teachers, nurses, engineers and computer programmers. We will first look at patterns of participation in job-related informal learning. Then we will examine formal learning, primarily in terms of job-related further education courses and formal professional development.

Job-Related Informal Learning

As Table 2-1 shows, those in all employment classes exhibit very high levels of reported participation in job-related informal learning. Over 80 per cent in all classes indicated that they engaged in intentional informal learning activities related to their jobs within the past year. Estimates of average hours devoted to such learning activities per week are also very similar among different employment classes (Livingstone 2009). These figures only reflect the learning activities that people recognize on brief reflection and undoubtedly underestimate the full extent, or represent only the tip of the "iceberg," of workplace learning activities. The richness and complexity of informal workplace learning is now being documented in a widening array of studies (e.g., Malloch, Cairns, Evans & O'Connor 2010), including fuller analyses of the general findings from the WALL 2004 survey and related case studies of learning in diverse forms of paid and unpaid work (Livingstone 2010). Professional employees in general may be marginally more likely to report engaging in intentional informal job-related learning than some other employment classes. But the central point is that virtually all workers are continually engaged in informal learning practices in the course of experiential change in their work.

If we compare professional and non-professional members of relevant employment classes, as in Table 2-2, again we find few differences. Self-employed professionals may be slightly more likely to report engaging in intentional job-related informal learning activities than self-employed non-professionals (91 per cent versus 77 per cent), but once more the vast majority of all self-employed are so engaged.

Table 2-1. Participation in job-related informal learning by employment class, 2004

<i>Employment class</i>	<i>Informal job-related learning (%)</i>
Large Employers	87
Small Employers	88
Self-Employed	87
Managers	92
Professional Employees	92
Supervisors	88
Service Workers	84
Industrial Workers	84
Total Labour Force	87

Table 2-2. Participation in job-related informal learning by professionals and other occupations in general employment classes, 2004

<i>Employment Class</i>	<i>Informal job-related learning (%)</i>	
	<i>Professionals</i>	<i>Other Labour Force</i>
Employer	84	85
Self-employed	91	77
Manager	89	84
Employee	80	71
Total labour force	84	78

Table 2-3. Participation in job-related informal learning participation by professional occupations, 2004

<i>Occupation</i>	<i>Informal job related learning (%)</i>
Doctors/lawyers	90
Engineers	89
Nurses	89
Teachers	89
Computer programmers	91
Other professionals	86
Other labour force	78
Total labour force	80

Finally, Table 2-3 compares teachers, other specific professional occupations, and the rest of the labour force in terms of participation in job-related informal learning. There is no discernible difference between the reported participation rates of any of the professional occupations. Those in professional occupations may be marginally more likely to report engaging in intentional informal job-related

learning than the rest of the labour force as a whole. But the basic pattern is that the vast majority of workers in all occupations, as in all employment classes, engage in substantial informal job-related learning practices in their work.

The most common finding of the prior research on professionals' informal learning has been the pertinence of collegial learning. Table 2-4 provides survey estimates of the most important sources of knowledge for professionals and the rest of the labour force. The most striking finding is the small proportions who consider formal training programs to be their most important source of knowledge, around ten per cent or less in most occupations. Most rely heavily on informal learning, either in their own independent efforts or with co-workers. The majority of doctors and lawyers find their own independent learning efforts to be most important. Engineers and computer programmers are also more likely to rely on their own efforts than on co-workers. Teachers and nurses report almost an even split in respondents who report their most important learning is from co-workers and those who consider their own independent learning as most important. But professional employees generally and teachers and nurses in particular are much like most other employees in relying heavily on more experienced co-workers to develop their working knowledge.

Table 2-4. Professional occupations by most important source of knowledge, 2004 (%)

<i>Most important source of knowledge</i>	<i>Co-workers</i>	<i>Independent efforts</i>	<i>Training program</i>	<i>Combinations</i>
Doctors & lawyers	18	61	7	14
Teachers	36	39	5	20
Nurses	35	30	14	21
Engineers	31	47	9	13
Computer programmers	30	47	11	12
Other professionals	24	51	8	17
Total non-professional labour force	27	42	16	15

The relatively high reliance of doctors and lawyers on independent efforts may be related to working in small independent practices or firms, or their position as employers of others with prerogative over employees, as well as the presumption that their expert knowledge does not require assistance by subordinates. The finding that teachers and nurses report that co-workers are equally important to their own efforts in developing their working knowledge is consistent with the finding from a growing number of empirical studies of employees documenting the centrality of mentoring from other experienced employees in a wide array of workplaces (see Betcherman, Leckie & McMullen 1998; Center for Workforce Development 1998). As a new teacher in a public secondary school put it:

With on the job training, it was somewhat helpful [laughter] in terms of me doing my job ... I had a formal mentor last year ... There were other people on the job who were not my formal mentors who, you know, did a significant

amount of mentoring for me and helped me in my job. It can be quite helpful.
(Goranna, secondary school teacher)³

We suggest that the more subordinated that professional or other workers are in their work organizations, the more likely they are to rely on other experienced subordinate employees or those with greater managerial authority to learn their jobs, and the more challenging it may be to integrate their formal and informal learning practices. We can further suggest that collegiality among fully developed professions like doctors and lawyers who also own their practices may focus on various matters of self-regulation such as fee structures, while professionals who remain employees may be preoccupied with more clearly identifiable learning tasks such as helping each other to cope with changing working conditions mandated by their employers.

Table 2-5. Professional class by informal learning topics, 2004 (% participating)

<i>Informal learning topics</i>	<i>Professional employers</i>	<i>Self-employed professionals</i>	<i>Professional managers</i>	<i>Professional employees</i>
New job tasks	68	73	74	64
Computers	70	66	72	64
New equipment	64	58	61	56
Organizational or managerial skills	52	46	60	39
Budgeting or financial Management	48	42	42	21
Teamwork, problem solving	52	55	66	68
Work conditions & workers' rights	40	27	42	41
Politics in the workplace	43	23	40	39
Language & literacy	20	33	26	32
Health & safety	39	35	64	50

Particular occupations and employment classes will obviously vary in the pertinence of specific topical knowledge required to meet changing job demands. When we examine the actual *content* of job-related informal learning, differences do emerge depending upon professional class. Table 2-5 shows that some learning topics like 'learning new job tasks' or 'learning about computers' have similar participation rates among professionals regardless of their class position. However, professional owners and managers participate at higher rates in informal learning topics that deal with organizational/managerial and budgetary skills. Self-employed professionals are less likely to be interested in learning about workers' rights or politics of the workplace. Managers and employees participate at higher rates in learning topics that deal with workers' rights and health and safety in the

workplace. Professional managers consistently report similar or greater participation in all work-related informal categories compared with owners and employees. It appears that managers, because of their mediatory role within workplace relations, must develop their knowledge in a relatively wide array of workplace learning topics.

As for specific professional occupations, it is to be expected that they devote more time in informal learning that relates to their specific types of work. As Table 2-6 shows, computer programmers report very high levels of learning informally about computers. Teachers report very high levels of informal learning on language and literacy issues, also hardly surprising considering the amount of their work time teachers devote to teaching language and literacy skills to students. Nurses, who frequently deal with potentially hazardous work situations, cite health and safety as their most prevalent work-related informal learning topic. Conversely, nurses and teachers report the lowest levels of participation in 'budgeting or financial management,' a consequence of their almost exclusive position as employees. Doctors and lawyers report relatively low levels of participation in 'teamwork and problem solving' learning. Again, this may be attributed to presumptions of superior expert knowledge and managerial prerogative over their employees.

Further Education and Professional Development Courses

Formal educational attainment has tended to reproduce pre-existing class standing. Families in higher employment class locations have been much more likely to send their children to university than families from lower employment classes (Curtis, Livingstone & Smaller 1992). Table 2-7 shows that current employment classes 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 ten per cent of service workers and four per cent of industrial workers. But completion of some form of post-secondary certification has grown rapidly in recent decades among younger people who still only get working class jobs (see Livingstone 2009).

Consequently, the long-established association between higher school attainment and greater participation in further formal education courses may be playing a somewhat diminishing role in the cycle of class reproduction. Table 2-7 also shows that the gap in further education participation between large employers, managers and professional employees, on the one hand, and service and industrial workers, on the other, is significant but is now much smaller than their differences in educational attainment. The further adult education gap appears to be decreasing as service and industrial workers have significantly increased their post-secondary education attainments, especially through community colleges (Livingstone 2002, 2009). In 2004, two-thirds of employers, managers and professional employees took further education, but around half of service workers and 40 per cent of industrial workers also did so. This is not to suggest that service and industrial workers' participation in further education can overcome prior exclusion from post-secondary schooling but rather that one of these workers are completing some

form of post-secondary schooling and continuing their further formal education, whether or not they have been able to use it to get jobs.

It should be noted here that the vast majority of participation in formal further adult education has been found to be job-related and therefore not very distinguishable from general participation in further education (e.g., Peters 2004). As Table 2-7 shows, around 80 per cent of further education in all employment classes is in job-related courses. Both figures will be presented in the following tables.

Table 2-8 goes beyond the general employment class analysis above to compare the formal educational attainments and further education participation rates of different professional classes. The majority of professional employers have at least an undergraduate university degree. Self-employed professionals, professional managers and professional employees have slightly lower levels of university degree completion. But all four professional classes are distinct from the rest of the general labour force in having much higher levels of university-level formal education. Each of these professional classes is also distinct from non-professional members of their general employment class positions: professional employers are three times as likely as other employers to have a university degree, as are self-employed professionals compared with the professional self-employed; professional managers are at least twice as likely to have university degrees as other managers. Professional employees are distinguished from working-class employees primarily on the basis of their advanced academic education, so it is not surprising that they are at least five times as likely as working-class employees (i.e., service and industrial workers) to have a university degree. But the fact that substantial and growing numbers of those in working-class positions, as well non-professional fractions of employer, self-employed and managerial employment classes have obtained university degrees should be noted. As suggested by advocates of the deprofessionalization thesis (see Chapter 1), the claims of those in professional class positions to exclusive specialized knowledge are weakened by the existence of growing numbers of other workers with versions of advanced formal education, knowledge that had been a primary basis of professionals' status claims.

As we expected, those in professional class positions have higher rates of participation in further formal education than the general labour force. As Table 2-8 summarizes, three-quarters of professional employers have taken a further education course in the past year, followed by lower proportions of professional managers, professional employees and self-employed professionals, respectively. The rest of the labour force generally has somewhat lower participation rates in further education, around 45 per cent. The gap in further formal education is much narrower than in levels of initial schooling, but professionals still have greater participation rates than the rest of the general labour force and also compared to non-professional fractions of all employment classes. Further education may be helping to close the gap between professionals and the rest of the labour force but only very gradually.

Table 2-6. Professional occupations by informal learning topics, 2004 (% participating)

<i>Informal learning topic</i>	<i>Doctors & lawyers</i>	<i>Teachers</i>	<i>Nurses</i>	<i>Engineers</i>	<i>Computer programmers</i>	<i>Other professionals</i>	<i>Total non-professional labour force</i>
New job tasks	66	75	71	70	81	68	57
Computers	71	78	63	75	90	65	56
New equipment	55	57	75	70	64	51	59
Organisational or managerial skills	33	48	42	61	54	49	45
Budgeting or financial management	38	25	17	36	32	37	34
Teamwork, problem solving	49	66	71	68	69	62	56
Work conditions and workers' rights	45	36	51	42	29	37	45
Politics in the workplace	40	32	46	32	26	38	32
Language & literacy	25	71	24	28	23	30	18
Health & safety	50	53	76	64	29	48	59

TEACHERS' & PROFESSIONALS' LEARNING PRACTICES

Table 2-7. Degree attainment, further education course participation and proportion of job-related courses by employment class, 2004

<i>Employment class</i>	<i>University degree (%)</i>	<i>Further education participation in past year (%)*</i>
Large employers	35	67 (86)
Small employers	23	46 (79)
Self-employed	22	46 (78)
Managers	34	68 (87)
Professional employees	46	67 (88)
Supervisors	14	54 (85)
Service workers	10	52 (78)
Industrial workers	4	41 (87)
Total labour force	21	53 (84)

* Percentage of job-related courses are in parentheses

Table 2-8. Degree attainment, further education course participation and proportion of job-related courses by general employment class and professional class, 2004

<i>Employment class</i>	<i>University degree (%)</i>		<i>Further formal education (% yes)*</i>	
	<i>Professional</i>	<i>Other labour force</i>	<i>Professional</i>	<i>Other labour force</i>
Employer	57	18	77 (81)	42 (80)
Self-employed	46	15	56 (81)	43 (78)
Manager	48	20	70 (87)	57 (87)
Employee	45	7	65 (88)	46 (84)
Total labour force	47	14	66 (86)	50(83)

* Percentage of courses that are job-related are in parentheses

Table 2-9 summarizes the formal educational attainments and further education of those in the selected professional occupations and the rest of the labour force. In terms of formal educational attainments, virtually all doctors/lawyers and teachers have university degrees, compared to over 80 per cent of engineers and nearly 60 per cent of computer programmers. Slightly less than half of nurses have university degrees. But only among doctors and lawyers do majorities have post-bachelor degrees.⁴ About a third of engineers and teachers have post-bachelor degrees, compared to 15 per cent of computer programmers and less than 10 per cent of nurses. Clearly, doctors' and lawyers' associations have been *much* more

successful than the other selected professional occupations in requiring advanced formal education for entry, while engineers and teachers have been more successful than computer programmers and nurses.

Table 2-9. Degree attainment, further education course participation and proportion of job-related courses by professional occupation, 2004

<i>Occupation</i>	<i>Any university degree (%)</i>	<i>Post-bachelor degree (%)</i>	<i>Further formal education (% Yes)*</i>
Doctors/lawyers	96	79	64 (84)
Teachers	94	32	65 (85)
Engineers	82	33	45 (96)
Computer programmers	58	15	47 (79)
Nurses	47	9	67 (90)
Other professionals	64	28	55 (86)
Other labour force	24	8	39 (83)
Total labour force	35	13	43 (84)

* Percentage of courses that are job-related are in parentheses

However, participation rates in further education generally and (job-related) formal professional development in particular are more similar between these professional occupations. Nurses are just as likely as doctors/lawyers and teachers to participate in further education (about two-thirds), and somewhat more so than engineers or computer programmers (less than 50 per cent). Around 40 per cent of the non-professional part of the labour force is also participating in further education and most of this participation, as noted above, is job-related (around 80 per cent). These small differences in further education rates are unlikely to make up for the large differences in formal educational attainments between employment classes or the large differences in post-bachelor degree attainments between doctors/lawyers and the other selected professional occupations.

Workplace Power and Further Education

General research on relations between workers' power and intentional learning practices has found that higher levels of negotiating power (as indicated by union or association membership) as well as greater delegated organizational decision-making roles are associated with higher rates of formal further education (Livingstone & Raykov 2009). The current findings on further education rates also suggest some differential effects of workplace power among professional occupations. Most notably, as Table 2-10 shows, greater negotiating power appears to be associated with higher rates of participation in further education. Doctors/lawyers, nurses and teachers, all of whom have nearly universal membership in either professional associations or unions, have majority

participation rates in further education. Engineers and programmers, who have much lower membership rates, also have only minority participation rates. Doctors' and lawyers' negotiating power comes distinctively from their very high membership in self-regulating professional associations without need for dependence on union membership. Nurses and teachers depend very predominantly on high union membership to deal with their employers. Engineers are much less likely than doctors/lawyers to be in professional associations, programmers even less so, and very few engineers or programmers are in unions; therefore, their collective negotiating power for further education provisions is more limited.

Table 2-10. Negotiating power by further education participation, 2004

<i>Occupation</i>	<i>Union or professional association member (professional association without union) (%)</i>	<i>Further education (%)</i>
Doctor/lawyer	87 (72)	64
Teacher	95 (5)	65
Nurse	97 (12)	67
Engineer	59 (46)	45
Programmer	29 (12)	47
Other professional	59 (24)	55
Other labour force	42 (15)	39

Doctors and lawyers, with their high levels of certification and professional association membership, are expected by their self-regulating colleges to frequently confirm the currency of their specialized knowledge. But, as predominantly employers and self-employed, they typically have wide discretion in their choices for professional development studies. The similarly high further education rates of teachers and nurses are consistent with their high levels of certification and requirements of both their colleges and their employers to continually upgrade their knowledge. But, as predominantly employees with near-universal union membership, they are typically expected to take more standardized forms of retraining. Engineers' and programmers' lower rates of further education are consistent with their more limited associational strength and certification requirements. As such, they are less encouraged or compelled by their negotiating power than these other professionals to participate in further formal recertification studies.

Differences in perceived organizational power may also mediate participation in further education among professional occupations. Among professional occupations generally, 70 per cent who design their work most of the time have taken a further education course in the past year, compared to 47 per cent of the smaller proportion who never do so. Among teachers, those who feel they have a great deal of personal choice in doing their jobs are more likely (72 per cent) than those who feel they have little choice (53 per cent) to have taken a further education course in the past year. Similarly, the small numbers of teachers who

have delegated organizational decision-making roles are more likely (82 per cent) than others to have taken a course. If we focus on those teachers who were excluded from further formal education (that is, they wanted to take a course but were unable to do so), they are predominantly found among those who are excluded from any meaningful organizational decision-making role. It should also be noted that course participation is higher for full-time permanent teachers (69 per cent) and lower for part-time temporary teachers (50 per cent) who generally have the least organizational power.

Although teachers and nurses participate in further education at similar rates to doctors and lawyers, there are substantial differences in accessibility of further education associated with their different class locations and organizational power. Among professional occupation respondents to the WALL survey, nurses and teachers are more likely to cite barriers, such as the expense of the course, the inconvenience of the time and place of the course, as well as the lack of employer support, as obstacles to further professional learning. Conversely, doctors/lawyers reported low levels of concern over matters such as cost, inconvenience, or support as obstacles to further education. Clearly the negotiating and organizational powers of doctors/lawyers afford them better control over their time, as well as the financial means to support further formal learning.

Differences in sources of financial support for further education are summarized in Table 2-11. It should be noted here that the extent of employer support has generally been much greater for professional and managerial employees than for other working-class employees (Livingstone and Scholtz 2010, p. 37). Consistent with their dominant class positions as proprietors, doctors and lawyers mainly self-finance their further education, whereas most other professionals are more likely to rely primarily on employer support. But teachers may be only marginally more likely to rely on employers than to have to self-finance their further education.

Table 2-11. Sources of financial support for further education by professional occupation, 2004

<i>Occupation</i>	<i>Employer (%)</i>	<i>Self (%)</i>	<i>Other (%)</i>
Doctor/lawyer	24	55	16
Teacher	44	40	16
Nurse	47	30	23
Engineer	66	24	10
Programmer	55	38	7
Other professional	51	33	16
Rest of labour force	53	33	16

As in the prior research on professionals' further education, the most common obstacles expressed by professional employees in our related case studies were structural impediments involving their employers. A computer programmer described his experiences with professional development in terms of the control over the timing, content and use being in the hands of management:

You have to take courses and its part of your manager's job to ensure that your education plan is set and that you do the courses. They have something called an individual development program that you do around the beginning of the year ...like it might not be your fault, it could be your manager's fault for saying, "No, you've been too busy, you can't go on that course," etc., it looks bad on him as well. So, it's like a team effort between you and your manager to get the education. (Isaac, computer programmer)⁵

A teacher explained the organization of the school and the profession that presented obstacles to her teaching and learning:

If I could walk into my job and teach children, I would be satisfied. But the extra layer of working with the administration ... is stressful, people get hypersensitive about issues. Just in delivery of the curriculum, how much freedom you have. With the administration ... I don't think they understand how my program can be successful. (Signe, secondary school teacher)⁶

INTEGRATION OF FURTHER EDUCATION AND INFORMAL LEARNING

As the prior tables show, those in professional occupations and professional class positions generally exhibit the most consistently high levels of participation in advanced schooling and further education courses. Given the sheer pervasiveness of informal workplace learning, professionals should have the greatest opportunity to integrate their formal and informal learning practices, whereas those in working-class jobs with little advanced schooling and lower rates of further education must rely relatively more heavily on continuing informal learning. However, this does not guarantee that such integration actually occurs.

Table 2-12 summarizes estimates of the helpfulness of both further formal education courses and job-related informal learning for doing one's job better. Doctors and lawyers are most likely to consider their further education courses as very helpful (62 per cent) and less likely to find their informal learning as helpful (50 per cent). This pattern is consistent with the earlier findings that they are most likely to pay for their own further education and least likely to rely on colleagues for informal workplace learning. Nurses are the only other professional occupation in which a majority find their further education very helpful (57 per cent) and informal learning less so (46 per cent). In this case, the more positive estimate of course helpfulness is likely related to substantial recent increases in certification requirements for nurses and the imperative for many experienced nurses to meet these new requirements through such courses. Most other professionals who have taken further education, as well as most others in the labour force, tend to find their informal job-related informal learning to be at least marginally more helpful than courses. In spite of the fact that teachers are somewhat more likely than most to pay for their own further education, they are more likely to rate their job-related informal learning as more helpful.

So, we can now see that teachers are among the professionals most frequently required to take formal upgrading courses (Table 2-9), but they are among the least likely to evaluate such courses as their most important source of professional

knowledge (Table 2-4). They are also less likely to rate further education as very helpful as compared to their job-related informal learning (Table 2-12). These findings are consistent with the increasingly frequent suggestion in the literature that there are chronic problems in integrating informal job-related learning with formal PD for the teaching profession.

Table 2-12. Helpfulness of further education and job-related informal learning to do job better by professional occupation, 2004

<i>Occupation</i>	<i>Further education “very helpful” (%)</i>	<i>Informal learning “very helpful” (%)</i>	<i>Further education-informal learning difference (%)</i>
Doctor/lawyer	62	50	+12
Teacher	47	52	-5
Nurse	57	46	+11
Programmer	41	58	-17
Engineer	27	46	-19
Other professional	46	53	-7
Other labour force	40	49	-9
Total labour force	42	50	-8

CONCLUDING REMARKS

Professionals are found to rely primarily on informal learning attained with aid of colleagues and on their own much more than on further formal education to remain competent in their jobs. In this respect, they are no different than others in the labour force. This finding should come as no revelation since the pervasiveness of informal learning has been documented for many years (Tough 1978). Professionals are more dependent than most others on formal educational qualifications for entrance into their jobs. So it should be little surprise to find that they also tend to participate more highly than most others in further education to maintain these qualifications. However, the “arms race” for educational credentials has become increasingly intense (Livingstone 2009). Among the consequences are a narrowing gap between the formal educational attainments of professionals and the rest of the labour force, and growing underemployment of formal education in relation to job requirements. There may be a diminishing reverence for the special character of many professionals’ knowledge, not so much because of “deprofessionalization” *per se* but the relative increase of the formal educational attainments of others and their greater accessibility to particular forms of knowledge.

There are some substantial differences in the educational attainments and further education of particular professions, differences that should be understood in terms of the differential power of specific professional occupations and class positions of professionals. Doctors and lawyers have attained much higher levels of completion of post-bachelor degrees than the other professional occupations we

have examined. They also maintain participation rates in further education that are as high as any other profession. The high rates of advanced degrees are intimately connected with similarly high memberships in self-regulating professional associations. We have further argued that this high level of self-regulation is grounded in the predominantly proprietorial class position of doctors and lawyers which has served to ensure direct control over sale of their services as well as training requirements for entry into their professions. Their proprietorial position also means that they are most likely to fund their own further education and to take only courses highly relevant to their particular needs.

Proprietorial classes generally have managerial prerogative over the working conditions and further education requirements of their employees. For example, doctors have retained considerable influence over the working conditions and further education requirements of nurses, whether as direct employers or as advisory authorities. Most of the professional occupations we have examined are mainly in the class position of professional employees whose working conditions and formal educational provisions are subject to negotiation with their employers. While a university degree has become a nearly universal criterion for entry into most professional occupations, variations in further education appear to be more related to differences in collective negotiating power with employers than to previous educational attainments. For example, nurses have relatively low completion of post-bachelor degrees. Their relatively high rates of participation in further education correspond more closely with their high rates of union membership. The relatively high further education rates of teachers also appear to be more closely related to their high unionization than to their level of post-bachelor degree completion.

Delegated power to professional employees, in terms of recognized discretionary choice in performing their own jobs or in designated participation in organizational decision-making roles, is also associated with and apparently enables somewhat greater rates of participation in further education. But it should be kept in mind that professional employees' greater general level of further education participation than working class employees is also influenced by employers' relatively high financial support for it. In any event, variations in further education related to delegated organizational power seem to be minor compared to those related to differences in collective negotiating power (compare Livingstone & Raykov 2009).

Differences in the negotiating power and organizational decision-making power of professional occupations have rarely been considered in prior research on professional learning. The current findings suggest that this has been a serious oversight.

Perhaps the most striking finding in terms of professional development programs is the very low importance accorded by most professionals to further education courses in relation to on-the-job informal learning. While many professionals who take further education consider such courses to be helpful, they tend to see their job-related informal learning as much more important and recognize it as far more extensive. There is clearly a challenge in many professions to more effectively integrate formal professional development with informal

learning. The evidence from this comparative analysis suggests that further genuine empowerment of professional employees may be one of the most likely ways to narrow this gap. Teachers may be particularly notable in this regard in terms of the large discrepancy between their high classroom autonomy and lower involvement in organizational level decision-making. Their greater involvement in decision-making beyond the classroom, especially in the design and delivery of professional development programs, might aid considerably in bringing informal and formal learning experiences closer together. More generally, a clear implication of these findings is the necessity for job-related further education programs, not only for professional groups but all workers, to give greater recognition to prior learning as it relates to everyday work practices.