

Interrogating professional power and recognition of specialized knowledge: a class analysis

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Abstract

This article explores ignored dimensions of relations between professional power and recognition of specialized knowledge, specifically the relations of professional class positions and workplace power with advanced professional schooling and further education. Professional class positions, mediated by association and union memberships, are posited as and confirmed to be important determinants of both advanced educational certification and further education. The evidence is drawn from unique national surveys of the working conditions and learning practices of entire Canadian labour force including especially a 2004 survey with a large number of professional respondents. The major implication is that class positions should be incorporated in further studies of professional power generally and variations in professional learning in particular.

Keywords: professional classes; workplace power; professionals' specialized knowledge; further education

Introduction

Let me start with a few contextual facts about professionals' power and recognition of their knowledge in a "knowledge economy" in the advance capitalist world:

- growing majorities of jobs, and of tasks in jobs, involve information processing with increasing amounts of the information being mediated by use of computers while declining minorities of jobs are in manufacturing and materials processing occupations;
- growing proportions of jobs are designated as professional and technical occupations distinguished by forms of specialized knowledge;
- growing general proportions of labour forces are attaining post-secondary education;
- participation in further education courses is also increasing throughout the life course.¹

The most pertinent point is that professional occupations constitute a growing proportion of the employed labour force at the same time as non-professional occupations and people in general have been increasingly likely to obtain some higher educational credentials themselves, whether or not they are able to use such qualifications in their jobs. In short, we have an “educational arms race”, with those in professional streams trying to arm themselves to defend professional statuses, while others seek the most relevant knowledge certification they can to sustain themselves in a credential-oriented society.² My discussion will focus on the class positions of professionals, basic dimensions of their workplace power, and the relations of their class positions and workplace power with wider recognition of their specialized knowledge as indicated by their formal educational attainments and further education course participation.

Class analysis of professional occupations

Most prior comparisons of professions have focused on the strength of their claims to possess a specialized body of knowledge but have ignored important aspects of underlying *relations* of workplace power that heavily influence any given profession’s capacity to assert such claims. Most of the research has distinguished professionals by relying on three conventional criteria: organized educational programs for advanced academic education; legitimate group associations; and self-regulatory licensing bodies (see Adams, 2010). A review of the literature reveals few *comparative* empirical studies of professionals’ working conditions and job control. Chan et al. (2000) conducted a rare comparative study of stress levels across six professional occupations and concluded that stress affected each occupational group differently depending upon the hierarchical structure of the employing organization. These differences 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*.

Professionalization theorists tend to presume the emergence of a ‘post-industrial society’ or ‘knowledge-based economy’ and see growing numbers of professionals with growing control of their work and with increasing centrality of their specialized bodies of knowledge in workplaces (e.g., Machlup, 1980; Cortada, 1998). Bell (1976) most influentially argued 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 information-centered work. 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* (e.g. Derber et al., 1990; Carey, 2007) or *deprofessionalization*.³ Advocates of the deprofessionalization thesis argue that professional occupations are experiencing an erosion of their control over their specialized knowledge (Haug, 1973). There are two key components of this thesis. First, general technological standardization of working conditions is seen as impeding the provision of direct services to clients and undermining control over work (e.g. Easthope & Easthope, 2000; Lewis et al., 2003; Dickens et al., 2005; Lingard, 2003). Secondly, the general advancement of knowledge of laypersons in society aided by accessible information technologies is considered to

make it more 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 (Haug, 1975). Toffler (1990, p. 8) suggests that ‘closely held specialists’ knowledge is slipping out of control and reaching ordinary citizens.’

The dispute between professionalization and deprofessionalization claims persists in terms of tendencies toward greater 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 be primarily 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.

Neo-Marxist conceptions of classes in contemporary capitalist societies in terms of production relations have identified ownership classes of a capitalist bourgeoisie as well as a petty bourgeoisie of self-employed, a proletariat or working class of wage labourers, as well as intermediate or contradictory class positions combining capitalist managerial functions and specialized collective labour roles. Two particular intermediate class positions have been clearly distinguished. Wright (2005) identifies “managers” who exercise some of the powers of capital, hiring and firing workers and making specific production process decisions, and “professional employees” whose specialized skills and credentials confer semi-autonomous power over aspects of their own jobs. It should be noted here that the notion of a “professional-managerial class” promoted by some as an emergent force in advanced capitalism (e.g. Ehrenreich & Ehrenreich, 1978) conflated these two groups with quite different potential power. A variety of other schemas continue to be developed to reflect the complexity of class locations. Many of these focus on consumption relations and levels of wealth (e.g. Savage et al., 2013) rather than production relations in workplaces, the focus of the current research.

Various 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 effectively enclose such fields of knowledge. Self-regulation by a governing professional association has generally been regarded as the optimal means to control standards for entry into and adequate performance in professional practice (Friedson, 1988). However, we will argue that beneath and beyond the conventional features used to identify professionals, other *class-based* distinctions should be made among professional occupations in order to understand the differential capacities that professionals have to exercise power within and beyond their workplaces, as well as to have their specialized knowledge claims widely recognized as legitimate. We suggest that there are now four basic types of professionals: *professional employers; self-employed professionals; professional managers; professional employees*.⁴

Prior analyses of professional occupations and workplace power have tended to treat professional occupations as homogeneous groups and for the most part ignored employment class positions. Workplace power can be defined as the capacity to direct oneself and/or command others to achieve desired goals in an organization, a social entity linked to an external environment. *Professional employers* own either large or small enterprises and possess ultimate control over their own work and the goals of the

organization, and managerial prerogative over hired workers, subject mainly to environmental contingencies. *Self-employed professionals* without employees have ultimate 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 collective goals or command of their 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 secure and difficult to replace than most other non-managerial employees; but they still remain vulnerable as sellers of labour without control over the final product/service.

Specific institutional histories of various professions may vary considerably between different jurisdictions, but we suggest that the general pattern of relations between the power of professional classes and recognition of specialized knowledge found in this Canadian study is likely to be found in most advanced capitalist societies. Labour force surveys in most of these countries have found that professional occupations overall have increased significantly as a proportion of the employed population in recent decades (e.g. Lavoie & Roy, 2003). However, data from a series of Canadian national surveys permit assessment of professional occupations in terms of class positions as well as knowledge requirements.⁵

Basic research method

The 1998 New Approaches to Lifelong Learning (NALL) survey and the ensuing Work and Lifelong Learning (WALL) surveys in 2004 and 2010 were designed as integral parts of research networks intended to generate deeper, more inclusive understanding of the relations between work and learning. These networks were led by the author. The 1998 NALL survey of adult learning was the first large-scale survey in Canada and the most extensive anywhere to attend to the array of adults' self-reported learning activities, including formal schooling, further education courses and informal learning, and also to address paid and unpaid work. The 1998 survey included 1,562 Canadian adults. The much larger 2004 WALL survey included 9,063 adults. The 2010 WALL survey included 2,028 adults. These surveys all contained sufficient information on professionals to distinguish the aforementioned class positions. In each survey, the focus has been on adults' over age 18 because this age was a practical selection criterion for national survey samples. The samples were limited to those who speak English or French, and reside in a private home (not old age/group homes/penal or educational institutions) with a telephone. All Canadian provinces and households and individuals within households were given an equal chance of selection using random digit dialling. The final response rate for the 2010 survey was 40 percent including all eligible households, or 45 percent if including only completions plus definite refusals—as many survey organizations now do (Northrup and Pollard, 2011). The comparable response rates for the prior surveys were 52 percent in 2004 and 60 percent in 1998. Response rates are increasingly challenged by the proliferation of cell phones and commercial market research. The data presented in these reports are weighted by known population characteristics of age, sex, and educational attainment to ensure profiles are representative for Canada as a whole. The interview schedules, an integrated codebook and summary reports of all basic findings are available at www.wallnetwork.ca. In addition, a national Canadian survey conducted in 1982, the Canadian Class Structure

Survey (see Clement and Myles 1994), provided comparable information on the distribution of professional classes.

Survey findings

As Table 1 summarizes, the distribution of these expanding professional occupations across employment classes appears to have altered somewhat over the past generation. Between 1982 and 2010, professional employees may have declined as a proportion of all professional occupations (from 73 to 63 per cent), while the proportion of managers increased from (11 to 23 percent).⁶

Table 1
Distribution of professional classes, Canada, 1982-2010 (%)

Professional class	1982	1998	2004	2010
Professional employer	2	5	5	2
Self-employed professional	14	15	13	14
Professional manager	11	10	14	21
Professional employee	73	68	63	63
N	242	191	1173	314

Sources: Clement and Myles (1994); Livingstone (2012).

During this period of expansion of professional occupations as a portion of the labour force, professional employers and self-employed professional business owners remained at around 15 percent of all professional occupations, but the proportion of all owners with claims to specialized professional knowledge grew and thereby enhanced their entrepreneurial claims and managerial prerogatives. Both the proportion of the labour force who were managers and the proportion of managers who were professionals grew, creating a greater presence of managers with claims to professional specialized knowledge. Conversely, the decreasing majority who remained professional employees became more vulnerable to overarching direct control or influence by employers and professional managers. Most professionals are in the employee class and increasing proportions are being managed by professional managers.

Dimensions of professional power

A basic distinction should be made between the *power to negotiate or bargain terms of provision of service or labour and the power to make decisions within the labour process of an organization* (Livingstone & Raykov, 2008). "Negotiating power" for those who own their enterprises refers to the capacity to set terms of price, quality, type of product with possible clients; in addition, employers as well as their employees must negotiate terms of wages and benefits. "Organizational decision-making power" refers to capacity within the labour process to determine the design, content and pace of work; 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 can be more limited to the extent to which they can bargain with their employers for workers' rights and benefits, including relative autonomy, typically through associations and unions.

Organizational decision-making power within the labour process primarily involves the extent of power one can exercise in relation to others' labours. Once again, differences between owners of enterprises and employees are commonly distinguishable. Those professionals who own their enterprises have managerial prerogative over the labour of others they hire. The organizational power of professional employees beyond their immediate work stations remains delegated power from their employers, even if many professional employees remain relatively secure by the specialized knowledge and may exercise significant power over other workers.⁷

Both negotiating power and organizational decision-making power need to be considered in the capacities of professionals. In the following empirical comparisons of professional occupations, we will examine organizational power in terms of the extent of reported participation in organizational decision-making, and negotiating power in terms of union and association membership strength.

Professional classes and organizational decision-making power

Respondents in these surveys were asked whether they participated in organizational decisions about types of products or services delivered, budgets, workload, and changes in the way jobs are performed. The general differences in organizational power between professional employers, self-employed professionals, professional managers and professional employees are summarized in Table 2. Trend inferences can only be made tentatively because of the small numbers in all surveys except 2004, particularly for the small minorities in professional employer and self-employed classes. All professional employers appear to have consistently participated in such decisions and retained managerial prerogative over their employees. Self-employed professionals may have been losing organizational power, with participation rates declining from nearly 90 percent in 1982 to under 60 percent in 2010. Self-employed professionals retain their own-account enterprises but increasingly contract their services to larger organizations in which they have more limited organizational power. A growing majority of professional managers may be increasing their organizational decision-making roles during this period while only a minority of professional employees continue to indicate participation in organizational decision-making.

Table 2

Professional class by organizational decision-making power, Canada, 1982-2010 (% who participate)*

Professional class	1982	2004	2010
Professional employer	100	100	100
Self-employed professional	87	71	58
Professional manager	73	75	83
Professional employee	44	45	40
All professional occupations	51	58	50
<i>N</i>	242	1173	314

Sources: Clement and Myles (1994); Livingstone (2012).

*Comparable decision-making questions not asked in 1998 survey.

The larger 2004 survey permits some further inferences. About two-thirds of professional managers directly made significant organizational decisions, usually as members of a group. In clear contrast, most professional employees had only advisory roles as part of a consultative group. Professional employees had significantly less organizational decision-making power than employers, self-employed and managers. In addition, related analysis of the 1982 and 2004 surveys has found that increases in the participation of service and industrial workers are bringing them closer to the extent of organizational decision-making power of professional employees (Livingstone, 2009). But the most general conclusion from these surveys is that the organizational power of the growing proportion of professional managers is increasing while the organizational power of the declining proportion of professional employees is not. These about professionalization and de-professionalization should take account of these differences.

Only the large 2004 survey with over 1,000 professional respondents was large enough to permit reliable statistical comparisons between these four professional class groupings. Hopefully, future targeted surveys of professional occupations can further verify these patterns. Further findings in this article will focus on the 2004 survey.

Specific professional occupations differ widely in the extent to which they have ownership of the organizations in which they work. For example, most doctors and lawyers (and others including dentists and architects) have ownership status, most operating either as small employers or self-employed. Few other professional occupations have more than 20 per cent with ownership status; most of these are self-employed without employees. The fact that most in these professions own their own firms or practices gives their professions significantly more economic power than most other professional occupations. In contrast, most teachers and nurses remain professional employees. Most are employed by public sector organizations without any prospect for ownership of their practices. 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. 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 power or conflates them with claims to specialized

knowledge. The extent to which respective professional groups succeed in achieving self-regulatory power over a field of professional knowledge continues to be intimately related to gaining legal ownership.

In sum, prior studies of professionals' status and power have tended to focus on the conventional criteria of control of entry into the specific occupation: advanced academic education, association membership and licensing requirements. However, most of these studies tend to ignore the fact that 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 such professionals can command direct fees for their services, own their own business firms or practices and often employ others is hugely consequential for their organizational decision-making power and for the sustained as fully developed status of their professions.

Professional classes and negotiating power

When we look more broadly at the power to negotiate terms of provision of service or labour (e.g., price, quality, type of product), we can see that this power is commonly mediated today through membership associations and trade unions. But the roles of these organizations are complicated by the class composition of their memberships. When a professional association is comprised mainly of those in class positions with effective ownership of services provided (e.g., doctors, lawyers), negotiations are mainly with either clients directly or state regulators about matters of price, quality, type of product. When the professionals are mainly employees, bargaining with employers may include issues of discretion over work processes but it is contingent on the extent to which they are able to mobilize into either an association or a union and, especially in times of financial constraint, bargaining tends to focus on workers' rights and benefits.

Table 3 summarizes association and union membership status for professional classes, as well as for others in the same general employment classes. While general class positions involve a variety of specific conditions and some people combine different class positions, a few points are evident:

- professionals generally are more likely than others in the labour force to be members of either associations or unions;
- professional employers are most likely to be members of associations;
- professional employees are less likely than professional employers to be members of associations, and more likely to be members of unions than associations;
- non-professional employees, most of the labour force, are more likely to be members of unions than associations but less likely to be organized than professional employees.

Table 3

General employment class and professional class by association and union membership, 2004 (%)

General employment class	Association member		Union member		Association or Union Member	
	Professional class	Other labour force	Professional class	Other labour force	Professional class	Other labour force
Employer	64	34	9	7	68	39
Self-employed	36	25	15	7	45	30
Manager	46	23	25	4	57	33
Employee	24	15	51	43	62	51
Total	33	19	40	28	60	42

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

The power of professions such as doctors/lawyers to negotiate terms of service is mediated by their self-regulating professional association membership (i.e., about two-thirds exclusively association members and few employee-based union members) but grounded in the prevalence of the professional employer class. Whether professional employees are members of associations or unions, where they predominate, workers rights and benefits are typically the focus of negotiations.

The struggle by increasingly well-educated progressive popular forces for socialized provision of human services, notably medicare and public education, 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. Even doctors and lawyers have faced 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 professionals who are paid salaries determined in negotiations with their employers and are more prone to challenges to their knowledge and status.

Professional status 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.

It can now be appreciated that both professionalization and de-professionalization theses are serious simplifications with regard to the power of current professional occupations. The empirical evidence 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 managers 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. Professional employees may continue to claim significant "expert power" commensurate with their use of their specialized credentials to cope with situations of uncertainty, but such organizational power has been continually undermined by their consequent contributions to development of bureaucratic rules (Crozier, 1964; Reed, 1996), and is now increasingly threatened both

by professional managers' oversight and a more knowledgeable general labour force and general public.

Professional power and specialized knowledge

We can distinguish four forms of intentional adult learning: formal schooling; further or continuing education in formal courses; informal education from mentors; and self-directed informal learning projects. Of course, there is a great deal of tacit informal learning that occurs beyond intentionality. The intentional and tacit informal aspects of adult learning continue to constitute the massive, mostly hidden part of the "iceberg" of adult learning. But the general incidence of participation in both advanced formal schooling and further education has increased very significantly in recent times.⁸

The threshold for entry into professional occupations increasingly entails higher credentials to differentiate entrants from an increasingly well-educated general public. The threshold for professional occupations' participation in continuing further education courses is also 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).

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 schooling and further education between professional occupations or 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 (Cheetham & Chivers, 2001).

But there has been little attention to differences in power among professional occupations that may affect their respective formal learning activities, not to mention the varied power dynamics between class positions of professional occupations. Since display and affirmation of certifiable specialized knowledge is central to professionals' legitimacy, one might expect that their participation rates in both advanced formal schooling and further education will be greater than most of the rest of the labour force. But we also expect that some differences in opportunities for advanced schooling and further education will be associated with the differential power of specific professional occupations and the class positions of these professionals.

In this section, we will briefly examine relations of professionals' class positions and negotiating and organizational power with variations in their formal educational attainments and further education/ professional development. Our general perspective posits that greater power is associated with more advanced educational credentials for entry and greater opportunity for further professional development. Professionals who are predominantly in proprietorial class positions and in self-regulating associations can have great direct influence on entry training requirements, as well as discretion to take further education courses of their own choosing. 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. Table 4 summarizes the basic patterns of degree attainments and further education by professional class and general employment class.

Table 4

University degree attainment and further education course participation by general employment class and professional class, 2004 (%)

General Employment class	University degree		Further education course	
	Professional class	Other labour force	Professional class	Other labour force
Employer	63	15	75	41
Self-employed	51	16	56	44
Manager	58	32	77	67
Employee	41	7	65	48
Total	46	13	66	51

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

Again, a few points are evident:

- professionals in all classes have higher educational attainments than others in the labour force regardless of their general employment class;
- professional employers are likely to have the highest degree attainments as well as highest participation rates in further education;
- the gap between professionals and others in participation in further education is much less than differences in degree attainments.

More specifically, 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 other 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 de-professionalization thesis, 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 that had been a primary basis of professionals' status claims.

As predicted, those in professional class positions have higher rates of participation in further formal education than the general labour force. As Table 4 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 formal schooling, but professionals generally 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 credential gap between professionals and the rest of the labour force but only very gradually.

But, as Table 5 illustrates, there are significant differences between professionals in extent of both formal schooling and further education. There are now majorities in numerous specific professions with university degrees. For example, 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. Of these professions, only majorities of doctors and lawyers have post-bachelor professional or graduate degrees. 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.

The greatest differences among professionals in formal schooling are between professional occupations dominated by proprietorial classes with well-established self-regulating associations and the rest. As Table 5 shows, only doctors and lawyers among the selected professions have majority membership in professional associations with little membership in unions. Doctors' and lawyers' associations have been *much* more successful than these other, mainly non-proprietorial professional occupations in requiring advanced formal education for entry. Among the mainly non-proprietorial professional occupations, engineers and teachers have been more successful than computer programmers and nurses. Engineers have relatively high numbers in managerial class positions and relatively high numbers in self-regulating associations. While teachers are very predominantly professional employees, they have nearly universal membership in strong unions with well-established bargaining processes with their employers. While nurses are also employees with high union membership rates, they have more precarious working conditions and remain subordinate to doctors in their workplaces. While computer programmers may have very pertinent specialized knowledge, they have yet to mobilize much collective negotiating power or be delegated much organizational power. These differences in extent of advanced certification of knowledge appear to be quite closely related to both professional class position and workplace power.

Table 5

Union or association membership by post-bachelor degree and further education, selected professional occupations, 2004 (%)

Occupation	Union or professional association member (professional association without union)	Any university degree	Post-bachelor degree	Further education
Doctors/lawyers	87 (72)	96	79	64
Teachers	95 (5)	94	32	65
Engineers	59 (46)	82	33	45
Programmers	29 (12)	58	15	47
Nurses	97 (12)	47	9	67
Other professionals	59 (24)	64	28	55
Other labour force	42 (15)	24	8	39

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

Research on relations between non-managerial 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 further education (Livingstone & Raykov, 2008). The current findings on further education rates also suggest some differential effects of workplace power among professional occupations. Most notably, as Table 5 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 lower membership rates, also have minority participation rates. Doctors' and lawyers' negotiating power comes distinctively from their prevalent proprietorial class position and 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 less likely than doctors/lawyers to be in professional associations, programmers much less so, and very few engineers or programmers are in unions; therefore, their collective negotiating power for further education provisions is more limited.

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. The similarly high further education rates of teachers and nurses are consistent with 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 or compulsory forms of retraining. Engineers' and programmers' lower rates of further education are consistent with their more limited associational strength and re-certification requirements. As such, they are less encouraged or compelled than these other selected professionals to participate in further formal recertification studies.

Differences in organizational power may also mediate participation in further education among professional occupations. For example, the small numbers of teachers who have delegated organizational decision-making roles are more likely than others to

have taken a course. But, as in prior general research (Livingstone & Raykov, 2008), delegated organizational power is found to be less pertinent than negotiating power in variations in further education. Furthermore, although teachers and nurses participate in further education at similar general rates as doctors and lawyers, there are substantial differences in accessibility of further education associated with their different class locations and workplace power. 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 (Clarke, Livingstone & Smaller, 2012). Clearly, the proprietorial negotiating and organizational powers of most doctors/lawyers afford them better control over their time, as well as the financial means to support further education.

Concluding remarks

Professional occupations 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 and further education of professionals and the rest of the labour force, and growing general 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 “de-professionalization” *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 formal schooling attainments and further education of particular professions, differences that can be understood in terms of differential class positions and workplace power. For example, doctors and lawyers have attained much higher levels of completion of post-bachelor degrees than the other specific 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 relatively 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 take only further education 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 specific 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 organizational decision-making power to professional employees 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 (Livingstone & Raykov, 2008).

Differences in professional class positions, 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.

A striking finding in terms of professional development programs is the very low importance accorded by most professional employees to further education courses in relation to on-the-job informal learning (see Clarke, Livingstone & Smaller, 2012). While many 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 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. A clear implication is the need 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.

At the same time, it should become increasingly clear that professionals' power based on their class positions and mediated through their association or union memberships has strongly influenced the extent to which their specialized knowledge is regarded as legitimate by those in their social networks, including their clients and themselves. Making these power bases of recognition of professionals' knowledge more visible may assist in valorizing really useful knowledge of those in less powerful class positions for benefit in their jobs and lives, while also increasing more specific appreciation of the truly complex aspects of professional knowledge in increasingly knowledge-based economies and societies.

Notes

¹ For critical analyses of the features of the "knowledge economy" and its' relation to the "knowledge society", see Livingstone and Guile (2012).

² The proliferation of credentials may be leading to their devaluation while more informal learning is increasingly stressed in knowledge societies. Nevertheless, popular demand for higher credentials shows little sign of diminishing.

³ These two terms both refer to the loss of control of working conditions. Deprofessionalization is more specific to loss of control by those with credible prior claims to professional status and will be used generally in the rest of this text.

⁴ For a full discussion of the more general analysis of economic classes on which this discussion of professional classes is based, see Livingstone (2009).

⁵ For the most accessible descriptions of the design and general findings of these surveys, see Clement and Myles (1994) for the 1982 survey and Livingstone (2012) for the three more recent surveys.

⁶ Statistical differences reported in this paper are significant at least at the .05 level of confidence, unless small sample size is noted. For further details on the data sources, see Livingstone (2009, 2010).

⁷ For a more detailed analysis of the characteristics of different professional classes, see Clarke, Livingstone & Smaller (2012). Some of the material presented in this paper is drawn from chapters 1 and 2 of this book.

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