

Polarization of Professionals? Class Analysis of Job Control in an Emergent “Knowledge Economy”

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Abstract

The literature on professionals is full of contending claims about the professionalization of the contemporary labour force versus the proletarianization of professional work. Two points are clear: first, the economic class structure of advanced capitalist economies has been shifting in recent decades with the decline of traditional working classes and growth of professional and managerial positions (Livingstone and Scholtz, 2016); secondly, prior research on professional occupations has conflated four distinct class positions relevant to professionalization and proletarianization claims: *professional employers; self-employed professionals; professional managers; and professional employees* (see Livingstone 2014). This paper focuses on a comparative analysis of these four professional classes and particularly on change and continuity in their differential job control. The analysis is based on a series of national surveys in Canada conducted between 1982 and 2016, and supplemented by recent surveys and in-depth interviews with engineers and nurses.

Introduction

Professional and managerial occupations have both become increasingly prevalent in advanced capitalist economies. Some analysts have argued that the “professional-managerial class” is becoming more influential in the development of such “knowledge economies” (Bell, 1973; Ehrenreichs, 1977). Others have suggested that as professionals have become more common and bureaucratized, their relative influence has diminished and they have become proletarianized or de-professionlized, more similar to traditional working-class employees (Derber et al., 1990; Coburn 1994). Others now note two contrasting forms of professionalism in knowledge base-economies: organizational professionalism which is a form of regulation and control of professionals’ work by a managerial hierarchy, versus occupational professionalism by which collegial groups of professionals primarily exercise their own discretionary judgement and regulate themselves guided by collegial codes of practice (e.g. Evetts, 2013, p. 788). Still others have observed increasing hybrid professional managerial roles (e.g. Noordegraaf, 2007).

The basic argument of this paper is that, particularly under the impact of globalization, automation and credential proliferation, the job control of the growing numbers of professionals

in different class positions has experienced divergent trends. The increasing number of employers with professional qualifications can use their specialized knowledge claims to enhance their ownership power over their employees. Self-employed professionals have more diminished power as more of them are compelled to sub-contract their services to more concentrated larger corporations. As the managerial hierarchy has expanded, most managers except those at the very top are likely to have lost relative power with lower titular managers having most constrained and ambiguous supervisory roles. Professional employees are becoming more like traditional working-class employees in terms of job control as the distinctiveness of their specialized knowledge claims diminishes. Both professionalization and proletarianization theses and subsequent contrasting models and hybrid perspectives are misleading unless they are seen in the context of these professional classes in advanced capitalism.

Comparisons will be made among professional classes generally as well as among engineers and nurses as two of the most prominent professions. Data sources include a series of five national surveys of the entire labour force in Canada conducted in 1982, 1998, 2004, 2010 and 2016, as well as surveys and in-depth interviews conducted with engineers and nurses in Ontario in 2017. All five national surveys have very similar design in terms of questions about occupation, production relations, working conditions and economic attitudes. The Canadian Class Structure Survey (CCS) conducted in 1982 by Clement and Myles (1994) provided a basic template for these questions in the later surveys. The later surveys began in 1998 (NALL 1998 Survey), including a larger focus on unpaid as well as paid work and formal and informal adult learning (Livingstone, 1999). The following national surveys in 2004 (WALL 2004 Survey) and 2010 (WALL 2010 Survey) used the same format and permitted documentation of trends in relations between these dimensions of work and learning (Livingstone, 2012). The 2016 survey was conducted as part of the SSHRC-funded Changing Workplaces in a Knowledge Economy project (CWKE 2016 Survey). The 2016 survey focuses only on the employed labour force (Livingstone and Raykov 2016). In all of these surveys, all respondents are over 18 years of age and coverage is limited to those who speak English or French and reside in a private home in one of the 10 Canadian provinces. In all surveys, the data reported are weighted by the best available population estimates for age, sex, educational attainment, and regional distributions. Differences in levels and trends cited in the text are all significant at the ninety-nine percent level of statistical confidence. Further information on the research design, data sources in this paper and related analyses may be found at: www.oise.utoronto.ca/clsew/research/changing_work_in_a_knowledge_economy.

Growth of Professional Occupations and Professional Classes

The distribution of occupations in the Canadian employed labour force changed significantly from the early 1980s to the present. As summarized in Table 1, professional and managerial occupations made up around a quarter of the labour force in 1982, increasing to about half by 2016. The increasing proportion professional occupations based on specialized knowledge has been widely noted as indicative of an emergent 'knowledge economy'. But equally important has been the comparable growth of managerial occupations, indicative of increasing surveillance of the non-managerial labour force.

Table 1 Professional and Managerial Occupations as Proportions of the Employed Labour Force, Canada, 1982-2016 (%)

Occupation	1982	1998	2004	2010	2016
Professional	16	21	24	28	25
Manager	11	14	22	19	24
Other	73	64	54	54	52
Total	100	100	100	100	100
N	1758	958	5733	1256	2979

Sources: CCS 1982; NALL 1998; WALL I 2004, WALL II 2010; CWKE 2016.

Occupations are far from identical with employment classes (Wright, 1980). Most occupations can include the self-employed working entirely for oneself; business owners who employ one or more hired labourers; managers in someone else's business; or non-managerial employees working for someone else. Beyond the conventional occupational features used to identify professional occupations (i.e. specialized advanced education; association membership and self-regulated licencing), these *class-based* positions of ownership, management and non-managerial employee are indicative of differential capacities to exercise power and draw upon specialized knowledge claims for recognition and rewarded. Most prior research on professional occupations has largely ignored these underlying relations of workplace power among employment classes. Table 2 summarizes the changing distribution of general employment classes in the Canadian labour force between 1982 and 2016.

Between 1982 and 2016, owners, including tiny numbers of large and small employers but larger numbers of self-employed, all of whom control their own businesses, continued to make up around 15 percent of the employed labour force, albeit with movement between employer and self-employed positions. Managerial employees doubled overall, to about 20 percent of the

labour force. In addition to upper managers who control a plant, branch or division of an entire organization, this includes middle and lower managers, supervisors and forepersons. Middle and lower managers appear to have increased the most, now making up over half of all managerial employees.

Table 2 General Class Distribution, Employed Labour Force, Canada, 1982-2016 (%)

General class location	Employment class	1982	1998	2004	2010	2016
Owners						
	Large/small employer	3	6	6	5	4
	Self-employed	13	10	13	12	10
	All owners	16	16	19	17	14
Managerial						
	Upper manager	1	1	2	2	2
	Mid/low manager	4	7	10	10	13
	Supervisor	4	6	6	6	5
	All managerial	9	14	18	18	20
Non-managerial						
	Professional employee	12	17	18	24	23
	Service worker	33	26	22	23	25
	Industrial worker	30	27	23	18	18
	All non-managerial	75	70	63	65	66
	Employed N	1758	873	5570	1192	2881

Sources: CCS 1982; NALL 1998; WALL I 2004, WALL II 2010; CWKE 2016.

Professional employees also roughly doubled in size to over 20 percent of the employed labour force. The traditional working class of industrial workers and service workers, who mainly provide their labour without formal specialized requirements, declined from a majority to a

minority of the entire employed labour force. Clerical, sales and service workers have declined somewhat since the 1980s but still make up around a quarter of the employed labour force. The declining numbers of industrial workers may now be smaller than the growing numbers of professional employees.

Overall, non-managerial employees have declined from almost three-quarters to around two-thirds of the employed labour force. Ownership and managerial functions now involve over a third of the employed labour force while a growing portion of the non-managerial majority of employees is assuming professional status. (A more general discussion of this class model and application to the Canadian labour force using the 1982-2010 national surveys referred to above may be found in Livingstone and Scholtz (2016).)

In terms of employment classes, there are now four basic types of professional classes: *professional employers, self-employed professionals, professional managers, and professional employees* (see Livingstone, 2014). All of these professional classes are embedded within the more general employment class structure. Professional employers typically run small businesses and continue to contribute their labour to the development of these enterprises. Self-employed professionals work on their own account utilizing their own specialized knowledge. Professional managers oversee the work of other non-managerial hired labour. Professional employees are a component of the non-managerial hired labour force. All of these professional classes are growing within the general owner, managerial and non-managerial classes. All of these professional classes exercise claims to specialized knowledge through some combination of their class positions in production relations and their membership in one or more professional and union organizations. Table 3 summarizes the distribution of professional classes per se.

Table 3 Distribution of Professional Classes, Canada, 1982-2016 (%)

Professional Class	1982	1998	2004	2010	2016
Employer	2	5	5	2	2
Self-employed	13	15	14	13	11
Manager	25	26	26	31	26
Employee	61	54	55	55	61
N	274	205	1365	350	735

Sources: Livingstone (2014); CWKE 2016

When we look at the distribution of professional classes over this period, professional employers and self-employed professional business owners together remained at around 15 percent of all professional occupations, very similar to the proportion of owners in the general labour force. The proportions of professional managers remained around one quarter, and professional employees remained the majority (around 55 percent) of all professional occupations. So, while the distribution of professional classes per se was fairly constant in this period, the proportions in each of the general class positions with claims to specialized professional knowledge grew significantly. One implication is that professional employees are becoming more prone to overarching control by employers and managers who have their own professional credential claims.

Specific institutional histories of various professions differ considerably and those within any given professional occupation in a given society will likely share some common employment interests. It is also very likely that location in work organizations of different sizes, in private or public sectors, as well as association and/or union memberships are important mediating factors in such issues as job control, all beyond scope of this paper. But we suggest that professional classes with different workplace powers are likely to have different views on various working conditions—however partial their class consciousness may be and in spite of mobility between professional classes. The data in the current series of national surveys permit an exploration of the changing relationships of different professional classes with job control.

Job Control

A central dimension of job control is the extent to which occupants are able to plan and design their own work; this has been a pivotal feature of professional autonomy. Different employment classes in general and different professional classes in particular are likely to have different perceptions of their extent of such job control. Recent studies based on time series surveys in several countries suggest there has been a decline in the discretion afforded to “upper white-collar workers” since the early 1980s but a rise in the autonomy of “blue-collar workers” (e.g. Mustosmaki et al, 2016). While such studies typically conflate occupations with economic classes, most upper white-collar workers are probably professional employees and most blue-collar workers are likely to be industrial workers in terms of general class location. We can posit that professional employees are experiencing more constraints on their job control as owners

and growing numbers of managers gain more access to their increasingly computerized specialized knowledge. Conversely, the declining numbers of industrial and service workers are increasingly doing less manual labour than previously and more machine-mediating mental labour with increasing levels of formal education and at least a sense that they have more choices than in standardized mass production processes.

Table 4 summarizes the extent to which respondents from the different professional classes, as well as service and industrial workers, perceive that they can plan and design their own work. Nearly all professional employers continue to perceive exclusive control over their own work, consistent with their ownership prerogative over their own firms. There appears to have been some decline from unanimity in self-employed professionals sense of planning control as growing proportions have sub-contracted their services to other businesses and become de-facto employees. (National survey data suggests an increase from a quarter to over a third of income of self-employed coming from wages and salaries since 1998.)

Table 4 Plan or design own work ``all or most of time``, Professional Classes and Other Non-managerial Workers, Employed Canadian Labour Force, 1982-2016 (% plan most)

Employment Class	1982	2004	2010	2016
Professional employer	-*	89	-*	92
Self-emp. professional	100	77	78	70
Professional manager	93	79	82	70
-- Professional supervisor	90	66	63	53
Professional employee	75	61	64	53
All professionals	78	67	69	58
Service workers	30	44	48	48
Industrial workers	29	48	46	45

Sources: CCS 1982; WALL I 2004, WALL II 2010; CWKE 2016.

*N < 5 cases.

As the managerial hierarchy has expanded, more managerial personnel are themselves managed. Managers generally are in intermediate class positions between employers and non-managerial employees. The marginal power status of supervisors and forepersons has been recognized for generations (e.g. Whyte and Gardner, 1945). But as the collective presence of

managers has grown in the class structure, their relative power as individual managers has diminished. More professional managers have themselves become prone to oversight by other managers and less likely to have a sense of planning control. In 1982, around half of all professional managers had managers above them to whom they were required to report; in 2016, the proportion had increased to over 80 percent. The proportion of professional managers who believe they can plan their own work most of the time has declined from over 90 percent in 1982 to 70 percent in 2016. Further analysis finds that the small minority who define themselves as top or upper managers are also likely to perceive somewhat reduced discretion. Upper level managers are increasingly subordinated to owners. In terms of the marginality of (professional) supervisors, comparisons suggest that their perceived discretion is decreasing to levels similar to that of professional employees, as well as other non-managerial employees.

Professional employees have consistently expressed less sense of autonomy than other professional classes, and this sense has declined from 75 percent in 1982 to around 50 percent in 2016. Similarly, in 1982, around two-thirds of professional employees said they reported to a manager who directs their work; in 2016, the proportion increased to around 85 percent. On both counts, professional employees' sense of planning control is becoming more comparable to that of other non-managerial employees (industrial and service workers) than to other professional classes (Livingstone and Watts, 2017). This pattern of declining discretion for the growing numbers of professional employees and increasing discretion for the declining numbers of industrial (and service) workers is consistent with other recent international surveys of "upper white-collar" workers and "blue-collar" workers.

Engineers and Nurses

Engineers and nurses are among the most prominent professions. Our current surveys of engineers and nurses in Ontario serve to confirm several of the patterns found among professional classes generally in the series in national surveys. These 2017 surveys have been conducted with the assistance of the Ontario Society of Professional Engineers and the Registered Nurses Association of Ontario, respectively and produced representative samples of engineers (N=627) and nurses (N=1201).

As Table 5 summarizes, the distribution of professional classes among engineers is distinctive in having a higher proportion of who have managerial positions (43%) and only a minority who are employees (40%). Nurses are more typical of professional classes in general with the majority being professional employees (62%), but atypical in the small proportion (less than 5%) who are employers or self-employed. It is also notable that 48 percent of engineers say they think they are “part of management”, contrasted with only 14 percent of nurses. This may be largely attributable to the opportunities for many engineers to assume project management leadership in directing various other workers, whereas nurses are typically subordinated to physicians and supervisors such as “charge nurses” engage in more collaborative work with other medical staff.

Table 5 Professional Classes of Engineers and Nurses, Ontario, 2017 (%)

Professional Class	Engineers	Nurses
Employer	3	< 1
Self-employed	14	4
Manager	43	32
Employee	40	62
N	627	1201

Sources: CWKE 2017

Table 6 summarizes the extent to which engineers and nurses in different professional classes perceive that they can plan and design their own work. Overall, engineers have a higher sense of planning control (85%) than nurses (57%). This is probably partly reflective of higher proportions of owners and managers with power prerogatives. In both instances, professional employers have the strongest sense of planning control. Self-employed engineers tend to have a greater sense of planning control than self-employed nurses, probably reflective of the fact that the majority of declared self-employed nurses (71%) are dependent on public agency contracts. Managers in general have a sense of planning control between employers and employees, as befits their intermediate class position. (But there is much variation within the managerial hierarchy, with upper managers among engineers (81%) and nurses (79%) having a sense of planning control closer to employers while lower level managers have a sense of control closer to professional employees.) As among professional classes generally, sense of planning control is lowest among engineers (61%) and nurses (43%) who are professional employees.

Table 6 Plan or design own work ``all or most of time``, Professional Classes of Engineers and Nurses, Ontario, 2017 (% plan most)

Professional Class	Engineers	Nurses
Professional employer	100	100
Self-emp. professional	93	58
Professional manager	74	53
Professional employee	61	43
Overall average	85	57
N (all professionals)	513	962

Sources: CWKE 2017.

While there are significant general differences between engineers and nurses in extent of planning control of work, differences between professional employers, self-employed professionals, professional managers and professional employees appear to be even greater and should not be conflated or ignored in further research on professional occupations generally or engineers and nurses in particular.

Some further insight into the sense of planning control of those in different professional classes is provided by the comments of engineers and nurses in recent in-depth interviews.

A self-employed engineering consultant feels he retains full control but is concerned about loss of respect from clients:

“I have total control of my own consulting business.... But there is a trend also to not trusting the technical experts to come up with an honest estimate. And now there seems to be a lot more dickering over the cost of the project. And there’s a lot of input from non-experts.”

Upper level managers typically also express continuing confidence in their capacity to plan their own work but with growing concern about increasing bureaucracy or workload pressure:

“I plan my own work 85% of the time, but recently the way we do things is more heavily based on decisions made by head office.... myself I find it a little frustrating, and other staff underneath me do as well. It really affects the way we go about our business prevents us from reacting quickly.” (Engineering manager)

I have a lot of autonomy and feel really empowered by it. But there are a lot of crisis that arise like outbreaks and HR shortages.... The pressure is mounting over the years to maximize patients through the system.... You always start everyday behind the 8 ball, trying to get patients in. (Chief nursing officer)

In contrast, professional employees commonly complain about increasingly severe limits on their planning capacity:

“The freedom that we have to plan our own work has decreased. I can propose a workplan at the beginning, but then the project managers break that down into individual tasks that will last no more than a week, let’s say ... so if I don’t deliver the deliverables on-time there are awkward questions.” (Engineering employee)

“The computer plans it. You have these meds at 8 o’clock, etc. You don’t plan now. You’d just plan that you’re to be giving your meds. That’s it.... the employees have no rights. An example: this administrator has some little idiom she brings up at the daily meeting. One time the idiom was, ‘*The lion doesn’t care what the sheep thinks.*’ I mean that’s the message right there.” (Nursing employee)

Concluding Remarks

As professional occupations grow more prevalent in the labour force, it becomes more pertinent to understand the extent to which these imputed “knowledge workers” control their jobs so widely heralded as strategic to productivity and sustainability of advanced capitalist “knowledge economies”. Theses about increasing professionalization of the labour force presume growing job autonomy for professionals; conversely, proletarianization theses assume decreasing autonomy. On the basis of this time series of national labour force surveys in one advanced capitalist country, we conclude that both of these theses are partially correct but for different professional classes. Professional employers are using their combination of ownership of firms and specialized knowledge claims to maintain superordinate control of the labour process in their workplaces. Some upper level professional managers are enabled to retain established levels of job control through a combination of specialized credentials and delegated priority from owners. However, most lower-level professional managers are finding there are too many “cooks in the broth” and professional supervisors especially are finding their job control reduced to the level of other hired non-managerial workers. At least some self-employed professionals who have had great job autonomy by dint of being sole proprietors have been compelled in growing numbers to reduce job control by sub-contracting their services to other larger firms. Professional employees, who remain the majority of all professionals, have increasingly been subjected to the proprietorial and increasing specialized knowledge claims of professional owners and the growing surveillance of professional managers, and consequently have seen their job control reduced to levels comparable to traditional industrial and service working class employees. So, we find increasing professionalization for the relatively small numbers of

professional employers and some upper-level managers; and, increasing proletarianization for the relatively large numbers of professional employees and most lower level professional managers, as well increasingly constrained self-employed professionals.

The surveys of engineers and nurses serve to point out important differences in class distribution of professionals in different occupational fields and the fact that levels of job control may differ greatly between class positions within the same profession. As noted previously, organizational size, private or public sector, and association memberships are other potentially important mediating factors in job control. But since professional employees are most likely to remain in this class position throughout their careers and their views on job control appear to be increasingly more polarized from those of professional employers and upper managers, the convergence of their views with those of other non-managerial employees, as well as lower professional managers, may be of significance for the future of “knowledge economies”.

To our knowledge, this is the first study to systematically investigate differences in aspects of job control between professional classes, and conclusions remain tentative until further investigations with a wider range of measures of job control are conducted. In any case, rather than continuing to ignore or conflate such professional class distinctions, further investigation of the job control of professionals in emergent “knowledge economies” should become more sensitive to these professional class distinctions.

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