Relations industrielles
Industrial Relations

Occupational Determinants of Professional Union Membership

Frank White

See table of contents

Explore this journal

Cite this article

Article abstract

Empirical studies of union membership usually group all professionals
together in one occupational category. This study uses a simultaneous
equations approach to analyze the union or collective bargaining association
membership status of a sample of 9,417 employed Canadian professionals and
managers from 16 different occupational groups. The results support the
hypothesis that there are significant differences among professions in the
probability of their members being in unions or collective bargaining
associations. The relative differences are explicable in terms of the
characteristics of the professions concerned.

Occupational Determinants of Professional Union Membership

Frank White

Empirical studies of union membership usually group all professionals together in one occupational category. This study uses a simultaneous equations approach to analyze the union or collective bargaining association membership status of a sample of 9,417 employed Canadian professionals and managers from 16 different occupational groups. The results support the hypothesis that there are significant differences among professions in the probability of their members being in unions or collective bargaining associations. The relative differences are explicable in terms of the characteristics of the professions concerned.

The employed professional faces many of the problems confronting other employed workers in the relationship with the employer. Because "exit" opportunities (Hirschman 1970) are limited in recessionary job markets, it is expected that professionals would turn toward Hirschman's "voice" option in the form of unions or some other means of collective representation. In 1989 the density of union or collective bargaining association membership for employed professionals and managers combined was 37.3% (table 1). At 51.3%, the density for all other professionals is similar to that in traditionally highly unionized blue-collar occupations such as machining (56.7%), construction (49.9%) and processing and fabricating (56.1%).[1]

1. Based on weighted cross-tabulations of a 30% subsample of all workers in the 1989 Labour Market Activity Survey.

Most union membership studies treat professionals as a homogeneous group, however there is substantial variation in density among professional groups, ranging from 4.1% for members of religious orders to 80.3% for elementary and secondary school teachers (table 1). These univariate differences suggest that it is inappropriate to group all professionals together.

Table 1

Union or Collective Bargaining Association Membership Densities by Professional and Managerial Categories, Canada, 1989

Occupation	% of Employed Professional & Managerial Work Force	Union or Collective Bargaining Association Membership Density %
Managerial and related		
Government administration	1.8	60.1
Other managers	25.8	12.1
Related to management	12.4	18.6
sub-total	40.0	16.3
All other professions		
Physical and life sciences	2.5	43.4
Maths, stats and related	3.5	21.5
Architects and engineers (AE)	3.7	21.2
Engineering and architectural technicians	3.0	28.5
Social science and related (SSR)	6.6	43.6
Religion	0.9	4.1
University teaching	2.8	39.5
Elementary and secondary teaching	11.2	80.3
Other teaching	3.5	57.3
Health diagnosing and treating (HDT)	0.8	48.1
Nursing, therapy and related	12.1	77.2
Other medicine and health	3.7	39.0
Artistic, literary and recreational	5.9	20.3
sub-total	60.0	51.3
Total	100.0	37.3

Source: Weighted cross-tabulations of all professionals and managers in the 1989 Labour Market Activity Survey.

The occupational determinants of professional union or association membership have policy implications for unions that are planning organizing strategies, for managers who are attempting to implement human resource policies for professional staff and for governments planning changes to labour relations legislation.

This paper examines the effect of membership in various professional occupations on the probability of union or collective bargaining association membership using the subsample of employed professionals and managers from the 1989 Labour Market Activity Survey (LMAS) (Canada 1991) who responded to the survey question: "In this job was (respondent) a member of a union or other group which bargains collectively with this employer?" Thus the dependent variable measures whether an individual employed professional or manager is a member of a union or an "association." It includes persons who, while not members of a formally certified union, are similar to union members in that they have some form of structured collective representation by an association, albeit without the protection of the prevailing labour legislation. It is possible that professionals and managers who join a union are somehow "different" from those who join an association but exploration of this question is not within the scope of the present study. The term "union" is used throughout to refer to both kinds of membership. The major thesis is that the professions have differing characteristics that will influence their probabilities of membership, in particular: specific legal inclusions or exclusions; socialization; and proximity to management.

The paper is organized into five sections. The first section introduces Lee's (1978) theoretical model and lists the major hypotheses. The second section describes the data subsample drawn from the LMAS, and the third section describes the empirical procedure. The next section presents and discusses the empirical results. The last section makes concluding observations and lists some areas for further research.

THEORY, ANALYTICAL FRAMEWORK AND MODEL

The Theoretical Model

The well-known theoretical model developed by Lee (1978) that takes into account the simultaneous nature of union membership and earnings is used. Unions usually cause higher earnings as part of their *raison d'être*. However, unionism may also result from workers in a high-wage sector wanting to stay in that sector. When there are aspects of the work situation that they do not like they are more likely to exercise the "voice" option to obtain better representation, than the "exit" option (Gunderson and Riddell 1988; Gunderson 1989).

The derivation of the theoretical model is described in detail in Lee (1978) and it consists of the following equations:

(1) the probit unionization equation

$$I_i^* = b_0 + b_1(lnW_{ui} - lnW_{ni}) + b_2X_i + b_3Z_i - e_i$$

(2) the structural earnings equations

Union: $\quad ln\ W_{ui} = p_{u0} + p_{u1}X_{ui} + p_{u2}Z_{ui} + e_{ui}$

Nonunion: $ln\ W_{ni} = p_{n0} + p_{n1}X_{ni} + p_{n2}Z_{ni} + e_{ni}$

Where: $\quad I_i^* \quad =\quad$ an indicator variable equal to 1 for union or association members and 0 for non-members;

$\quad\quad\ \ X_i \quad =\quad$ a generalized vector of individual characteristics;

$\quad\quad\ \ Z_i \quad =\quad$ a generalized vector of industry characteristics;

$\quad\quad\ \ W_{ui} \quad =\quad$ the individual's earnings in the union sector;

$\quad\quad\ \ W_{ni} \quad =\quad$ the individual's earnings in the nonunion sector.

X_i and Z_i are often expressed as a single vector for estimation purposes.

The Union Membership Equation for Professionals

Union membership studies in Canada and the U.S. either take the form of direct studies of membership (Kumar and Cowan 1989; Martinello and Meng 1992) or of studies arising from exploration of the union/nonunion earnings differential (Robinson and Tomes 1984; Simpson 1985; Grant *et al.* 1987; Abbott and Stengos 1987). Although there are several union membership studies for Canada, there are none that focus on professionals *per se*. The situation is similar in other English-speaking countries. The only membership study of professionals is an Australian study by Crockett and Hall (1987). This study, however, drew all its cases from graduates of the same training institution; did not differentiate among professions; and used a single equation approach. There is thus not a very extensive empirical union membership literature on professionals on which to draw for hypotheses and prior findings.

To determine which variables are appropriate in this equation for X_i and Z_i, a review of the empirical union membership literature was undertaken. Hypotheses were set up for each variable based on the literature but modified, where necessary, to reflect the special circumstances of professionals. Only those variables that pose unique problems or for which the hypotheses adopted differ from the norm in the literature are discussed here.

Three main groups of variables, or their proxies, were used to operationalize the generalized vectors X_i and Z_i: variables used by Lee

(1978); variables added in later studies that used the same model; and variables that were available in the LMAS and that were included in the analysis on an exploratory basis or, in the case of the detailed professional occupation variables, constituted the major focus of this study.

Variables Used by Lee (1978)

The *Potential Union/Nonunion Earnings Differential* faced by each individual has two possible theoretical effects. It increases interest in unionization by nonunion workers (Lee 1978; Duncan and Leigh 1980), but this increased interest in unionization on the part of employees is likely to be matched by an increased level of resistance by management (Hirsch and Addison 1986). The theoretical expectation is thus ambiguous. Empirical studies that have used this variable, usually in the context of correcting for self-selection into the union or nonunion sector, have generally found it to have a significant net positive effect on union membership, suggesting that the increased interest in unionization on the part of employees outweighs the increased resistance from management. In this study, the pattern of prior studies is followed and it is hypothesized that the potential earnings differential will have a significant positive effect on union membership of professionals.

The literature on *Gender* suggests that women are considered to be less likely to be unionized because: they have a weaker attachment to the work force due to their child rearing responsibilities (Fiorito *et al.* 1986); they are less likely to favour conflictual activities such as strikes (Fiorito *et al.* 1986); they are often ghettoized into less unionized occupations and industries; they are more likely to work in part-time jobs; and they may be victims of discrimination (Antos *et al.* 1980; Hirsch 1980). Empirical results for the effect of gender on union membership for the work force in general are mixed. However, among female professionals, many are to be found in the public sector where unions have championed employment equity programmes, so the hypothesis adopted here is that women are more likely to be unionized than men.

Canadian Province is used in place of *Region* of the United States. This variable captures economic, political and legal differences, and social attitudes towards unions and will apply to professionals in the same way as to other workers. In keeping with prior studies, it is hypothesized that all provinces are more highly unionized than Alberta, the reference category. The data set provides province of residence so does not reflect the federal labour relations jurisdiction.

No variable was available in the data set to indicate *Urban or Rural*. The omission of this variable is compensated for by the fact that Canada is

more highly urbanized than the U.S. and by the fact that ten detailed *province* variables were used in place of the four general U.S. regions used by Lee (1978).

Tenure in the job has been used in place of *Market Experience* as used by Lee (1978). There is a possible relation with *Age* (see below) but tests indicated no significant correlation. Depending on the membership specification used, tenure was specified as linear and/or non-linear with the hypothesis that the probability of union membership increases with tenure and decreases with the square of tenure.

In place of the *Number of Weeks Worked* as an indicator of full- or part-time status in the work force, a variable available in the LMAS was used that indicates *Desire for Full-Time Employment*. All full-time workers and those part-timers indicating a desire for full-time work were coded as wanting full-time work. Desire for full-time employment was hypothesized as increasing the probability of union membership for professionals.

Lee (1978) used the Industry Concentration Ratio on the basis that it is easier to organize firms that are more concentrated. The *Major Industry Group* dummies used in this study capture several characteristics of each industry as reflected in various prior studies, including: level of firm concentration (Lee 1978; Hirsch 1980); extent of unionization in the industry (Robinson and Tomes 1984; Bain and Elias 1985); capital intensity (Hundley 1989); whether regulated or not (Hundley 1989); and extent of union activity (Neumann and Rissman 1984; Dickens and Leonard 1985; Kumar 1986; Freeman 1988; Verma and Meltz 1990). In general, it is hypothesized that the same effects by major industry group will apply for the unionization of professionals as have been found in prior union membership studies.

Variables Introduced in Other Union Membership Studies

Education is a particularly important variable in this study, given the fact that it is one of the key factors that distinguish professionals from other workers. Its theoretical effect on union membership is ambiguous. It may act to increase both identification with management and individual bargaining power, thus reducing the likelihood of unionization. Conversely, it may increase the desire for a voice in the management of the workplace (Fiorito *et al.* 1986) and thus the desire for unionization. Empirical studies indicate a predominantly negative effect for education and training (Scoville 1971; Antos *et al.* 1980; Hirsch 1980; Fiorito and Dauffenbach 1982; Robinson and Tomes 1984; Simpson 1985; Bain and Elias 1985; Hundley 1989; Kumar and Cowan 1989). The hypothesis adopted here is that, given the tradition among professionals of independence and autonomy, education will increase the perception of individual bargaining power and thus decrease the likelihood of union membership.

For *Age*, older workers are more likely to appreciate the accomplishments of unions while younger workers are likely to be more militant (Fiorito *et al.* 1986). The theoretical effect is thus not clear. The empirical evidence seems to indicate a positive effect of age on union membership (Scoville 1971; Antos *et al.* 1980; Abbott and Stengos 1987; Moore and Newman 1988; Hundley 1989; Kumar and Cowan 1989). The hypothesis adopted in this study is that age, measured categorically, will have a positive effect on union membership.

Additional Variables Available in the LMAS

The major thesis of this study is that the probability of being unionized will vary according to *Professional Occupation*. There is no widely accepted theoretical definition of professionals. Freidson (1983: 33, 34) refers to professions as an "empirical entity" and adopts a pragmatic approach:

> In the selection of individual occupations for study, therefore, loose recognition as a profession by the general public, and even the occupation's own claim (so long as it is taken seriously by some consequential audience) may be employed to locate cases.

On these grounds, the categorization of professionals in this study is that adopted in the Standard Occupational Classification (SOC) (Statistics Canada 1981).

Hypotheses are required for each of the professional occupations used. In each case the reference category is *Engineering and Architectural Technicians*, a group that would not usually be considered professionals by Freidson's (1983) general public. However, because they are classified as such by Statistics Canada (1981), because their union density of 28.5% is fairly close to the average of 37.3% for all professionals and managers (table 1) and because the group consists entirely of technicians, it has been used as the reference category.

The key elements for hypothesizing the probability of union membership of each profession are: specific legal inclusions or exclusions (summarized in table 2); socialization in terms of a tradition of independent practice versus salaried employment; and proximity of its functions to management. While a legal exclusion from unionization will not prevent a particular professional group from forming an association, such an exclusion may interact with other characteristics of the profession to reduce its probability of union membership.

(1) *Officials and Administrators in Government*[2] are hypothesized to be more highly unionized than the reference category because legal exclusions

---

2. Persons such as government administrators, post office managers and officials unique to government.

TABLE 2

Professional and Managerial Unionization Exclusions (E) and Inclusions (I) by Labour Relations Jurisdiction by Private (Pr) and Public (Pu) Sectors 1989.[1]

Jurisdiction	Alta.		B.C.		Man. and Sask.		N.B.		Nfld.		N.S.		Ont.		P.E.I.		Qué. and Fed.[4]	
	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu	Pr	Pu
Managerial and related[2]																		
Government admin.		3																
Other managers		3																
Related to management		3																
Other professions																		
AE – architects	E										E		E	E	E			
– engineers	E										E			E	E			
SSR – lawyers: other	E		E	E				E		E	E	E	E	E	E			
– lawyers: crown	n/a	E	n/a	E	n/a		n/a	E	n/a	E	n/a	E	n/a	E	n/a	E	n/a	E
– others																		
HDT – physicians	E			E					E	E	E	E	E	E	E			
– dentists	E								E	E	E	E	E	E	E			
– others																		
Elem. and secondary teachers	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I
All other professions	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I	n/a	I

Notes:
1. Sources: Kumar et al. (1991), Thomason and Zwerling (1994), Weiler (1988).
2. The usual exclusions apply for employees deemed managerial or involved in confidential aspects of labour relations.
3. Financial officers are specifically excluded.
4. Except for elementary and secondary teachers, exclusions in the federal and Quebec jurisdictions are similar.

apply mainly to higher levels of the civil service and because there is a long tradition of association-consultation in the public service that will predispose these workers to collective activity.

(2)   *Other Managers and Administrators*[3] will be strongly less unionized than the reference category because of managerial exclusions, because of their socialization toward business values and individual performance and because of their obvious proximity to management.

(3)   *Management and Administration Related* professionals[4] will be relatively less unionized because their socialization is in management values and they will not wish to risk alienating their management clientele by adopting unionization. However, a coefficient less strongly negative than that expected for other managers and administrators is hypothesized because not all can enter the upper ranks of management.

(4)   *Physical and Life Scientists*[5] are assumed to be relatively neutral as regards the activities and values of management. No hypothetical expectation is set up for this group relative to the reference category.

(5)   Some professionals in *Mathematics, Statistics, Systems Analysis and Related*[6] perform functions that are very close to those of management, for example actuaries and systems analysts. Others, such as computer programmers, perform functions that may be little more than clerical in nature. The hypothesis adopted is that management values predominate in this group and it will be significantly less likely to be unionized than the reference category.

(6)   *Architects and Engineers.*[7] Architects in the private sector are excluded from unionization in Alberta, Nova Scotia, Ontario and Prince Edward Island and are excluded in the public sector in Ontario (table 2). Exclusions for engineers are similar except that they are not excluded in the Ontario private sector. Architects have a tradition of independent practice

---

3. Those in occupations in general management and management in: the natural sciences and engineering; social sciences; teaching and related fields; medicine and health; finance; personnel and industrial relations; sales and advertising; purchasing; services; production; construction; farming; and transportation and communications.

4. Professionals in auxiliary management functions such as accounting and finance. Based on the 1986 census, accountants, auditors and other financial officers were 57.5% of this group (Canada 1988).

5. Chemists; geologists; physicists; meteorologists; agriculturists; biologists; and related technicians.

6. Mathematicians; statisticians; actuaries; systems analysts; and computer programmers.

7. Chemical, civil, electrical, industrial, agricultural, mechanical, metallurgical, mining, petroleum, aerospace, and nuclear engineers; architects; and community planners. 1986 census data (Canada 1988) suggests that engineers constitute 94.5% of this category.

while engineers have traditionally been part of the management structure (Larson 1977; Derber 1982) dating back to F.W. Taylor. Engineers have a strong element of control over the rest of the work force through the technology used. However, they often work in large organizations and thus face the possibility of alienation from management values. Despite isolated pockets of collective bargaining among engineers, the hypothesis adopted is that this category will be significantly less unionized than the reference category.

(7) *Social Science and Related.*[8] Clearly the legal sub-group differs from all the other professions in this category, not only in the fact that most provinces specifically exclude them from unionization, but also in terms of a professional conditioning that is oriented toward independent practice. Given that members of the legal profession constitute less than one quarter of this category, the hypothesis adopted is that the probability of unioniza-tion will be higher than that of the reference category. Other reasons in-clude: the fact that social workers as a group have the title of profession without the usual benefits of professional status; the fact that their clients are not usually members of elites; and the fact that they are not particularly highly paid (Cohen and Wagner 1982). Librarians and archivists and social scientists fall between the extremes represented by lawyers and social workers.

(8) *Members of Religious Organizations*[9] are usually considered to be following a vocation in which a preparedness to reject material possessions and to demonstrate obedience are considered the norm; they are hypoth-esized to have a very low relative probability of unionization.

(9) *University and Related Teachers* are hypothesized to have a probabil-ity of unionization at or below the reference category, despite the relatively high density in Kumar's (1988) bivariate analysis because: due to the tradi-tion of "academic freedom", university teachers have a relatively high level of autonomy, at least in deciding what subjects they will research; tenured professors have an above average level of job security and the opportunity, depending on the field of specialization, to earn extra income from outside consulting; they have a high degree of freedom in setting their schedules,

---

8. Professionals in a wide range of social science related areas: social scientists such as economists, sociologists, anthropologists and psychologists; welfare, community and social workers; judges, magistrates, lawyers and notaries; librarians, archivists, conservators and their related technicians; and other social science related professionals such as educational and vocational counsellors. In the data set used in this study it is difficult to separate lawyers from the other groups. Census data from 1986 (Canada 1988), indicated that this category consisted of the following: legal profession 22.5%; social scientists 14.0%; social workers 46.8%; occupations in library, museum and archival sciences 10.8%; other occupa-tions in social sciences and related fields 5.9%.

9. Ministers in religion and nuns and brothers.

subject to teaching and administrative duties; they can periodically take sabbatical leaves albeit frequently used for research, course preparation and community service; and they are often involved in decision-making on a collegial basis.

(10) *Elementary and Secondary Teachers*, including kindergarden teachers, are hypothesized to have a level of unionization significantly above that of the reference category. First, in all provinces membership in a teachers' union is either mandatory or automatic (Thomason and Zwerling 1994). Second, they have not had a tradition of management-oriented service or of fee-for-service practice. Third, they are subject to a high level of control by members of other occupations, namely school board managers and administrators.

(11) *Other Teachers*[10] may also be expected to have a relatively high level of union membership. Their occupation is similar to that of elementary and secondary teachers while incorporating some of the autonomy of university teachers.

(12) *Health Diagnosing and Treating.*[11] With the exception of veterinarians and chiropractors, this category consists mainly of physicians and dentists who are specifically excluded in about half of the jurisdictions. Both professions have an extensive tradition of independent, fee-for-service practice. Physicians generally have a high level of involvement in the management of health care institutions. It is hypothesized that this group is highly unlikely to be unionized.

(13) *Nursing, Therapy and Related*[12] contains mostly nursing professionals and therapists. These groups have a long tradition of institutional employment in a subordinate capacity to physicians (Abbott 1988) and hospital administrators. An above average level of unionization is hypothesized for this group.

---

10. Teachers in community colleges and vocational schools; instructors and training officers; and teachers not elsewhere classified.

11. The higher status medical professionals: physicians and surgeons; dentists; osteopaths and chiropractors; and veterinarians. In 1986 this category consisted of the following: physicians and surgeons 66.5%; dentists 17.1%; veterinarians 5.9%; osteopaths and chiropractors 4.1%; others 6.4% (Canada 1988).

12. Supervisors in nursing and therapy; registered nurses, nursing assistants and nurses-in-training; audio and speech therapists; physiotherapists; occupational therapists; and nursing attendants and orderlies. Clearly the latter category are not generally considered professionals. In 1986 this group consisted of the following: nursing supervisors, registered nurses both graduate and in training, and registered nursing assistants 68.5%; nursing attendants and orderlies 20.1%; various therapists and others 11.4% (Canada 1988).

(14) *Medicine and Health Related Professions.*[13] The hypothesis adopted is that this group will have a probability of unionization not significantly different from that of the reference category; it is mixed in composition and does not have the homogeneous nature of, for instance, the nursing and therapy category.

(15) The final professional category is *Artistic and Recreation.*[14] The hypothesis adopted is that, because of its heterogeneity, membership in this group will not have an effect on professional union membership significantly different from that of the reference category.

The LMAS contains numerous variables that have not been included in previous studies including *Childhood Language.* Speakers of French and English are hypothesized to be more likely to unionize than others.

The Earnings Equations

Since the focus of this study is the union membership equation, no hypotheses are posited for the earnings equations. The variables in the earnings equations were obtained from a review of those used in previous studies (Duncan and Leigh 1980; Hirsch and Berger 1984; Robinson and Tomes 1984; Simpson 1985; Grant *et al.* 1987; Abbott and Stengos 1987) and from use of certain other variables available in the LMAS.

DATA

The data subsample was drawn from the 1989 LMAS (Canada 1991) that comprises the civilian, non-institutionalized population aged 16 and over

---

13. Pharmacists; dietitians and nutritionists; optometrists; opticians; denturists, dental hygienists and dental assistants; and radiological and medical laboratory technologists and technicians. The group is heterogeneous in terms of such factors as education and earnings. Figures from the 1986 census (Canada 1988) suggest that the lower status groups such as opticians dominate the higher status groups such as optometrists (2% of the category in 1986) who often have a doctoral diploma and are self-employed.

14. Occupations in fine and commercial art and photography such as painters, sculptors, photographers and advertizing illustrators; occupations in the performing and visual arts such as producers, conductors, composers, arrangers, musicians, singers, dancers, actors and radio and TV announcers; occupations in writing such as writers, editors, translators and interpreters; and occupations in sports and recreation such as coaches, trainers, instructors, referees, athletes, and sports and recreation attendants. In 1986 the composition of the group was as follows (Canada 1988): occupations in fine and commercial art, photography and related fields 35.6%; performing and visual arts 23.0%; occupations in writing 20.9%; occupations in sports and recreation 20.5%. Levels of unionization may be expected to be very low for high profile members such as orchestra conductors and well known solo musicians but relatively high for some professional athletes such as hockey players.

except for residents of Yukon and the Northwest Territories and residents of Indian reserves. For more complete details of the data set see White (1993).

All employed individuals classified as professionals or managers were selected from the survey. After elimination of observations with missing data a total of 9,417 useable observations remained, based on the last job held by the individual during 1989. There are three reasons for the addition of managers to the subsample of workers classified as professionals: to take account of the argument that management is a profession; to broaden the range of occupations examined; and to recognize the fact that, while most private sector managers are specifically excluded from union membership, many public sector managers are not.

EMPIRICAL PROCEDURE

Empirical methods of studying individual union membership have rapidly evolved from the cross-sectional method used by Kornhauser (1961) to Lee's method (1978) that Maddala (1983) has described as a general model. Several studies have used this method, including the recent article by Martinello and Meng (1992).

While Lee's method addresses the problems of self-selectivity and heteroskedasticity, it is very sensitive to the functional form of the specification (Lewis 1986). To address this issue two specifications were used: (1) Lee's method in full with selectivity correction; (2) Lee's method without correction for selectivity.

Two main specifications of the model were used for the earnings analysis. The "detailed" specification is the broader of the two and uses both endogenous and exogenous variables to determine the earnings of the individual. The rationale is that, while certain endogenous factors such as marital status, number of jobs held, family workforce characteristics and other sources of income are not chosen by the individual with the express purpose of influencing the level of income, these variables may nonetheless have an effect on the level of income. The "parsimonious" specification includes only those variables that are considered to be exogenously determined or to be exogenous in the short term such as province of residence and tenure. A similar approach was used for the membership equations.

EMPIRICAL RESULTS AND DISCUSSION

Table 3[15] reports the principal empirical results.[16] The three specifications reported all use Lee's method but without the selectivity correction.[17] As described by Green (1991), using the 1986 version of the LMAS, there is a high degree of correlation between the estimated selectivity correction variable and the firm size variable (not reported here), leading to unrealistic values of the union/nonunion earnings differential. Except for these unrealistic values, Lee's method with the selectivity correction gave union membership results similar to those reported in table 3.

1. The coefficient on the *Potential Earnings Differential*, originally hypothesized to be positive, was significantly negative, indicating that the negative effect of management opposition to the unionization of professionals exceeds the positive incentive of a higher wage. Several authors have recognized the increasing importance of management opposition as a determinant of changes in union density (e.g., Kochan, Katz and McKersie 1986, Freeman 1988, and Chaison and Rose 1991). The latter cite Blanchflower and Freeman's hypothesis (1990: 22) that, in the context of the higher differentials prevailing in the United States, "increases in the union differential should eventually reduce density by increasing employer opposition more than they increase the monetary benefits of unionism to workers."

This result is surprising for Canada given the lower earnings differentials and the fact that, as Chaison and Rose (1991: 24) point out: "union acceptance remains the norm among large Canadian employers." However, several authors in a series of industry studies mention the effects of employer resistance on unionization during the 1980s: Chaykowski (1992) mentions the effects of strong employer resistance to organization in the

---

15. All coefficients are expressed in the form of derivatives obtained from the probit estimation as follows:

    $\partial P / \partial X_i = f(Z)\beta_i$

    Where P is the probability of being a union member;
               X_i is the ith independent variable in the equation
               Z $= X\beta$
               X is the vector (usually evaluated at the means) of the independent variables in the equation
               β is the vector of coefficients from the probit estimation
               $f(\ )$ is the normal probability density function.

16. Complete tables of results for the three specifications reported may be obtained from the author on request.

17. This analysis is based on Statistics Canada microdata tape 7468NT that contains anonymized data collected in the 1989 Labour Market Activity Survey. All computations on these microdata were prepared by the author and responsibility for the use and interpretation of these data is entirely that of the author.

TABLE 3

Probit Estimates of Union Membership for the Subsample of Professionals and
Managers (N = 9,417)

| | Detailed Earnings and Membership Equations | Parsimonious Earnings — Equations With — | |
		Detailed Membership Equation	Parsimonious Membership Equation
Potential Earnings Differential	-1.2716 ***	-1.1760 ***	-1.4628 ***
Male	-0.0450 ++	-0.0707 ++	-0.0979 +++
Education:			
0 to 8 Years[a]	–	–	–
Some Secondary	0.0921	0.0430	0.0510
High School Graduate	-0.1206 ++	-0.1651 ++	-0.1846 +++
Some Post Secondary	-0.0316	-0.0802 +	-0.0827 +
Trade Certificate or Diploma	0.0313	-0.0339	-0.0292
Post Secondary Certificate or Diploma	0.0196	-0.0371	-0.0334
University Degree	0.0089	-0.0385	-0.0316
Member of Visible Minority	-0.1847 ***	-0.1885 ***	-0.2183 ***
Disabled	0.0761 ***	0.0916 ***	0.0983 ***
Childhood Language:			
Other[a]	–	–	–
English	-0.0582 **	-0.0596 **	-0.0768 ***
French	-0.0032	-0.0162	-0.0387
Professional Occupation:			
Religion	-0.5233 +++	-0.6136 +++	-0.6904 +++
Other Managers and Administrators	-0.2228 +++	-0.2091 +++	-0.2019 +++
Architects and Engineers	-0.2027 +++	-0.1937 +++	-0.2038 +++
Health Diagnosing and Treating	-0.1617 ++	-0.1409 +	-0.1770 ++
Management and Administration Related	-0.1221 +++	-0.1160 +++	-0.1094 +++
Physical and Life Scientists	-0.0692	-0.0758	-0.1062 *
Administrators, Government	-0.0407	-0.0135	-0.0144
Architecture and Engineering Technicians[a]	–	–	–
Artistic and Recreation	0.0113	0.0264	0.0329
University and Related Teachers	0.0323	0.0406	0.0870
Mathematics, Statistics and Computer	0.0347	0.0317	0.0655
Medicine and Health Related	0.0620	0.0479	0.0544
Other Teachers	0.0714 +	0.0856 ++	0.0855 ++
Social Science	0.1227 +++	0.1438 ++	0.1688 +++
Elementary and Secondary Teachers	0.3467 +++	0.3470 +++	0.3715 +++
Nursing and Therapy	0.4542 +++	0.4888 +++	0.5329 +++
$\partial U/\partial$ (Earnings differential)[b]	-0.0068	-0.0062	-0.0077
Log likelihood	-3898.5	-3894.5	-3910.5
Percentage correct predictions	82.2	82.3	82.1

+, ++, +++   significant at the 10%, 5% and 1% levels in a one-tailed test
*, **, ***   significant at the 10%, 5% and 1% levels in a two-tailed test
a   reference category
b   change in the marginal probability of union membership per 1% change in the
               union/nonunion wage differential.

mining industry; Rose (1992) describes the effects of several factors, including employer resistance, on the growth of the nonunionized sector in construction; Grant (1992) mentions increasing employer resistance as a factor in the decline in the unionization rate in the clothing industry; Fisher and Kondra (1992) allude to the resistance to unions that continues in regional and other small airline operations; and Thomason *et al.* (1992) note the tendency for firms in the textile industry to close the older, unionized plants. These findings seem to indicate that management resistance may be increasing and that some Canadian companies may be becoming more like their American counterparts.

2.   As hypothesized, and contrary to the results for *Gender* in some other membership studies, males in the professional subsample are less likely to be unionized than females. Approximately 32% of the subsample consisted of elementary and secondary teachers and nurses and therapists, two professions dominated by women, although profession and industry were controlled for in the analysis.

3.   In contrast with prior studies, for *Education* only the *high school graduate* variable had a significant effect for professionals. Chi-square tests on the block of education variables to determine their combined effect were inconclusive and varied with specification. Hundley (1988) explains a similar result by suggesting that between occupational categories it is those with lower educational requirements that are more likely to be unionized, while within occupational categories the opposite applies. Membership studies of the whole workforce will thus show a negative effect of education on union membership.

Because the present study focuses on professional groups that, compared with the work force as a whole, require similar levels of education, the differences between occupational categories were not large. Because the data set did not show graduate degrees and specialist training that are undertaken by many professionals such as physicians, lawyers and accountants, occupational differences within education were also not large. This would explain the inconclusive nature of the Chi-square tests.

4.   Members of *Visible Minorities*, for whom no significant effect had been hypothesized, were found to be significantly less likely to be union members. The theoretical effect of visible minority status on union membership is ambiguous. Visible minorities would be expected to favour unions because they serve to limit the effects of discrimination by employers; conversely, discrimination by unions and employers would be expected to limit the access of minorities to the better paying unionized jobs (Fiorito *et al.* 1986). Previous studies have shown mixed results: significant positive effects (Scoville 1971; Antos *et al.* 1980); significant negative effects (Lee 1978); and no

significant effect (Hirsch 1980; Fiorito and Dauffenbach 1982; Hirsch and Berger 1984; Moore and Newman 1988; Hundley 1989).

5. In contrast with members of visible minorities, the *Disabled* were found to be consistently more likely to be unionized than others. The theoretical reasoning for the effect of being disabled on union membership is analogous to that for visible minority status and provides similarly ambiguous predictions (Fiorito *et al.* 1986). The only empirical study that addressed disability was Lee (1978) in which a *health limitation* had a significantly negative effect on union membership. This study, however, related to semi-skilled operatives for whom a health limitation would constitute a greater disadvantage in the performance of the job and, hence, in access to unionized work. It would appear that a disability is less of an impediment to access to unionized work for professionals and managers.

It is possible that employment equity legislation acts as an intervening variable in that members of visible minorities may view it as a substitute for unions, but the same argument could apply to the disabled who, in contrast to visible minorities, were found to be more likely to be unionized than the reference category. It appears that unions may better serve professionals and managers who are disabled than those who are members of visible minorities.

6. Contrary to expectation, those who spoke French or English as their *Childhood Language* were less likely than others to be union members, although the result was not significant for French speakers. The implication is that professionals from other cultural backgrounds may have different perceptions of professions, professionalism and the role of unions.

7. The general hypothesis that the probability of union membership varies with *Professional Occupation* was supported. There was also considerable support for the hypotheses for particular occupations (arranged in ascending order of coefficients in table 3). *Other Managers and Administrators*, the group of mainstream managers, was significantly less likely to be unionized. *Architects and Engineers* were significantly less likely to be union members and the coefficients were of the same order of magnitude as those for the category of other managers and administrators, reflecting the close historical association of engineering with the management function. *Health Diagnosing and Treating* professionals illustrate the separate effects of sector and occupation. The coefficients are consistently negative but the level of statistical significance varies with specification. *Management and Administration Related* professionals were less likely to be unionized than the reference category. They were slightly more likely to be unionized than other managers and administrators to whom they frequently provide support services but whose values they may not share as strongly. *Officials and Administrators unique to government* were not significantly more likely to

be unionized, perhaps because the category consists of higher levels of government managers who, after correction for being in the public sector, may be subject to managerial exclusions. *University Related Teachers*, despite being in the highly unionized educational services sector, were not significantly different from the reference category although the coefficients were consistently positive. *Other Teaching and Related* professionals, while also in a highly unionized sector, were only marginally more likely to be unionized than the reference category. The regression coefficients for this category consistently fell between those for the group consisting of elementary and secondary teachers and the group of university teachers.

8. The results for other variables commonly used in union membership studies such as *Age, Marital Status, Province of Residence, Firm Size, Tenure*, and *Desire for Full-Time Employment* (not reported) were generally consistent with the findings of prior studies. *The Major Industry Group* (not reported) conformed with prior studies except for *Accommodation, Food and Other Services*. Low levels of market concentration, of union organizing activity, of union saturation and of capital intensity in this sector led to the hypothesis of a relatively low probability of union membership among its professionals. This was supported by bivariate cross-tabulations (not reported) but the multivariate results suggest that the level of unionization among professionals in this sector is between 19 and 35% higher than for the *agriculture and resources* reference category. It is not clear why this should be the case.

SUMMARY, CONCLUDING OBSERVATIONS AND RESEARCH NEEDS

The main contribution of this study is the finding of a significant effect of professional occupation on the probability of union or association membership. The implication for theory in industrial relations is that the specific characteristics of each profession in terms of: (a) legal inclusions and exclusions from unionization; (b) socialization; and (c) proximity to the management function should be taken into account in membership studies.

A further important result is that the increased management opposition caused by the potential earnings differential outweighs the increased interest in unionization or association on the part of professionals. The implication for theory is that management resistance may depend on which occupational group is proposing to unionize.

The finding that the negative effect on the probability of union membership did not increase with level of education supports the findings of Hundley (1988) that within occupational groups it is the most highly educated who are more likely to be unionized.

Several policy implications arise from this research. First, the organizing efforts of private sector unions should take into account the probability of union or association membership of each profession. In addition to specific legal exclusions, unions should study the socialization of a profession and its proximity to management to determine whether it is likely to be a suitable target for organization. Engineers, for example, are often seen as ripe for unionization but the results obtained here suggest that *ceteris paribus* this is not the case. The policy implication for management is to be aware of which groups of professionals and managers are more prone to unionization or association and to develop their human resource policies accordingly. The previous Government of Ontario made changes to the Ontario Labour Relations Act to remove the exclusion of certain professionals from unionization (Gauvin and Brennan 1993). This study suggests that the effects of these changes would have been minimal because some of the target groups such as physicians, dentists and architects have a low *ceteris paribus* probability of unionization.

The results suggest several areas for further research on professional union membership including: (1) measurement of and changes over time in management resistance to unionization of different occupational groups; (2) the effects of gender on unionization; (3) the effect of education by occupational group; (4) the possibility of discrimination by unions and employers in terms of access to unionized jobs by members of visible minorities and the disabled; (5) the effect of cultural origins on union status; and (6) the use of interactions between several of the variables such as gender and occupation, gender and industry, education and age, education and firm size, education and industry. As regards detailed occupational characteristics, the single dummy variable to describe a profession could be substantially extended to cover more detailed measures of: socialization; the detailed characteristics of the work performed, including its proximity to the management function; and labour market supply and demand factors.

Given the increasing role of professionals in the work force and the fact that they now face many of the same problems as other workers, but with higher expectations engendered by their higher level of investment in human capital, the determinants of professional union membership are of growing importance. This study has sought to add to the understanding of those determinants.

■ REFERENCES

ABBOTT, Andrew D. 1988. *The System of Professions*. Chicago: The University of Chicago Press.

ABBOTT, Michael G. and Thanasis STENGOS. 1987. "Alternative Estimates of Union-Nonunion and Public-Private Wage Differentials in Ontario, 1981." Kingston: Queen's University Industrial Relations Centre.

ANTOS, Joseph R., Mark CHANDLER and Wesley MELLOW. 1980. "Sex Differences in Union Membership." *Industrial and Labor Relations Review*, Vol. 33, No. 2, 162–169.

BAIN, George S. and Peter ELIAS. 1985. "Trade Union Membership in Great Britain: An Individual-level Analysis." *British Journal of Industrial Relations*, Vol. 23, No. 1, 71–92.

BLANCHFLOWER, David G. and Richard B. FREEMAN. 1990. "Going Different Ways: Unionism in the U.S. and Other Advanced O.E.C.D. Countries." Paper presented at the Symposium on the Future Role of Unions, Industry and Government in Industrial Relations, University of Minnesota, Minneapolis.

CANADA. STATISTICS CANADA STANDARDS DIVISION. 1981. *Standard Occupational Classification 1980.* Catalogue 12-565E.

CANADA. STATISTICS CANADA. 1988. *Dimensions: Occupational Trends 1961–1986.* Catalogue 93-151, Ottawa.

CANADA. STATISTICS CANADA SPECIAL SURVEYS GROUP. 1991. *Labour Market Activity Survey, 1989: Person Microdata File* [subset] [computer file]. Ottawa, Ont.: Statistics Canada. Special Surveys Group [producer and distributor] 1991. 1 data file [28009 logical records] and accompanying documentation.

CHAISON, Gary N. and Joseph B. ROSE. 1991. "The Macrodeterminants of Union Growth and Decline." *The State of the Unions.* G. Strauss, D.G. Gallagher and J. Fiorito, eds. Madison: Industrial Relations Research Association, 3–45.

CHAYKOWSKI, Richard P. 1992. "Industrial Relations in the Canadian Mining Industry: Transition under Pressure." *Industrial Relations in Canadian Industry.* R.P. Chaykowski and A. Verma, eds. Toronto: Dryden, 141–186.

COHEN, Marcia B. and David WAGNER. 1982. "Social Work Professionalism: Reality and Illusion." *Professionals as Workers.* C. Derber, ed. Boston: G. K. Hall, 141–164.

CROCKETT, Geoff and Ken HALL. 1987. "Salaried Professionals and Union Membership: An Australian Perspective." *Journal of Industrial Relations*, Vol. 29, No. 1, 49–65.

DERBER, Charles. 1982. *Professionals as Workers.* Boston: G. K. Hall.

DICKENS, William T. and Jonathan LEONARD. 1985. "Accounting for the Decline in Union Membership, 1950-1980." *Industrial and Labor Relations Review*, Vol. 38, No. 3, 323–334.

DUNCAN, Gregory M. and Duane E. LEIGH. 1980. "Wage Determination in the Union and Nonunion Sectors: A Sample Selectivity Approach." *Industrial and Labor Relations Review*, Vol. 34, No. 1, 24–34.

FIORITO, Jack and Robert C. DAUFFENBACH. 1982. "The Determinants of Occupational Unionization." *Journal of Labor Research*, Vol. III, No. 4, 473–485.

FIORITO, Jack, Daniel G. GALLAGHER and Charles R. GREER. 1986. "Determinants of Unionism: A Review of the Literature." *Research in Personnel and Human Resources Management*, Vol. 4, 269–306.

FISHER, E.G. and Alex KONDRA. 1992. "Canada's Airlines: Recent Turbulence and Changing Flight Plans." *Industrial Relations in Canadian Industry.* R.P. Chaykowski and A. Verma, eds. Toronto: Dryden, 358–404.

FREEMAN, Richard B. 1988. "Contraction and Expansion: The Divergence of Private and Public Sector Unionism in the United States." *Journal of Economic Perspectives,* Vol. 2, No. 2, 63–88.

FREIDSON, Eliot. 1983. "The Theory of Professions: State of the Art." *The Sociology of the Professions: Lawyers, Doctors and Others.* R. Dingwall and P. Lewis, eds. New York: St. Martin's Press, 19–37.

GAUVIN, Michel and Geoffrey BRENNAN. 1993. "Changes in Canada Labour Law." *Relations industrielles/Industrial Relations,* Vol. 48, No. 2, 336–354.

GRANT, E. Kenneth, Robert SWIDINSKY and John VANDERKAMP. 1987. "Canadian Union-Nonunion Wage Differentials." *Industrial and Labor Relations Review,* Vol. 41, No. 1, 93–107.

GRANT, Michel. 1992. "Industrial Relations in the Clothing Industry: Struggle for Survival." *Industrial Relations in Canadian Industry.* R.P. Chaykowski and A. Verma, eds. Toronto: Dryden, 220–243.

GREEN, David A. 1991. "A Comparison of Estimation Approaches for the Union-Nonunion Wage Differential." Discussion Paper No. 91-13, Department of Economics, University of British Columbia.

GUNDERSON, Morley K. 1989. "Union Impact on Compensation, Productivity, and Management of the Organization." *Union-Management Relations in Canada,* 2nd ed. J.C. Anderson, M.K. Gunderson and A. Ponak, eds. Toronto: Addison-Wesley, 347–370.

GUNDERSON, Morley K. and W. Craig RIDDELL. 1988. *Labour Market Economics: Theory, Evidence and Policy in Canada.* Toronto: McGraw-Hill Ryerson.

HIRSCH, Barry T. 1980. "The Determinants of Unionization: An Analysis of Interarea Differences." *Industrial and Labor Relations Review,* Vol. 33, No. 1, 147–161.

HIRSCH, Barry T. and Mark C. BERGER. 1984. "Union Membership Determination and Industry Characteristics." *Southern Economic Journal,* Vol. 50, No. 3, 665–679.

HIRSCH, Barry T. and John T. ADDISON. 1986. *The Economic Analysis of Unions.* Boston: Allen & Unwin.

HIRSCHMAN, Albert O. 1970. *Exit, Voice and Loyalty.* Cambridge, Mass.: Harvard University Press.

HUNDLEY, Greg. 1988. "Education and Union Membership." *British Journal of Industrial Relations,* Vol. 26, No. 2, 195–201.

HUNDLEY, Greg. 1989. "Things Unions Do, Job Attributes, and Union Membership." *Industrial Relations,* Vol. 28, No. 3, 335–355.

KOCHAN, Thomas A., Harry C. KATZ and Robert B. MCKERSIE. 1986. *The Transformation of American Industrial Relations.* New York: Basic Books.

KORNHAUSER, Ruth. 1961. "Some Social Determinants and Consequences of Union Membership." *Labor History,* Vol. 2, No. 1, 30–61.

KUMAR, Pradeep. 1986. "Union Growth in Canada: Retrospect and Prospect." *Canadian Labour Relations*. W.C. Riddell, ed. Toronto: University of Toronto Press, 95–160.

KUMAR, Pradeep. 1988. "Estimates of Unionism and Collective Bargaining Coverage in Canada." Kingston: Queen's University, Industrial Relations Centre.

KUMAR, Pradeep and David COWAN. 1989. "Gender Differences in Union Membership Status: The Role of Labour Market Segmentation." Kingston: Queen's University, Industrial Relations Centre.

KUMAR, Pradeep, David ARROWSMITH and Mary Lou COATES. 1991. *Canadian Labour Relations: An Information Manual*. Kingston: Queen's University, Industrial Relations Centre.

LARSON, Magali S. 1977. *The Rise of Professionalism*. Berkeley, CA: University of California Press.

LEE, Lung-Fei. 1978. "Unionism and Wage Rates: A Simultaneous Equations Model With Qualitative and Limited Dependent Variables." *International Economic Review*, Vol. 19, No. 16, 415–433.

LEWIS, H. Gregg. 1986. *Union Relative Wage Effects: A Survey*. Chicago: The University of Chicago Press.

MADDALA, G.S. 1983. *Limited-dependent and Qualitative Variables in Econometrics*. New York: Cambridge University Press.

MARTINELLO, Felice and Ronald MENG. 1992. "Effects of Labor Legislation and Industry Characteristics on Union Coverage in Canada." *Industrial and Labor Relations Review*, Vol. 46, No. 1, 176–190.

MOORE, William J. and Robert J. NEWMAN. 1988. "A Cross-Section Analysis of the Postwar Decline in American Trade Union Membership." *Journal of Labor Research*, Vol. IX, No. 2, 111–125.

NEUMANN, George R. and Ellen R. RISSMAN. 1984. "Where Have All the Union Members Gone?" *Journal of Labor Economics*, Vol. 2, No. 2, 175–192.

ROBINSON, Chris and Nigel TOMES. 1984. "Union Wage Differentials in the Public and Private Sectors: A Simultaneous Equations Specification." *Journal of Labor Economics*, Vol. 2, No. 1, 106–127.

ROSE, Joseph B. 1992. "Industrial Relations in the Construction Industry in the 1980's." *Industrial Relations in Canadian Industry*. R.P. Chaykowski and A. Verma, eds. Toronto: Dryden, 187–219.

SCOVILLE, James G. 1971. "Influences on Unionization in the U.S. in 1966." *Industrial Relations*, Vol. 10, No. 3, 354–361.

SIMPSON, Wayne. 1985. "The Impact of Unions on the Structure of Canadian Wages: An Empirical Analysis with Microdata." *Canadian Journal of Economics*, Vol. 18, No. 1, 164–181.

THOMASON, Terry and Harris L. ZWERLING. 1994. "Education and Collective Bargaining." Kingston, Ont.: Queen's University School of Policy Studies, Discussion Paper Series No. 94-04.

THOMASON, Terry, Harris L. ZWERLING and Pankaj CHANDRA. 1992. "Labour Relations in the Canadian Textile Industry." *Industrial Relations in Canadian Industry*. R.P. Chaykowski and A. Verma, eds. Toronto: Dryden, 244–283.

VERMA, Anil and Noah M. MELTZ. 1990. "The Underlying Sources of Union Strength: Certification Activity in Ontario 1982-1988." *Proceedings of the 27th Conference of the Canadian Industrial Relations Association*, June 3-5, 1990, University of Victoria, Victoria, B.C., 465-474.

WEILER, Paul C. 1988. *The Professional Employee in Government.* A Report to the Chairman, Management Board of Cabinet, Toronto: Government of Ontario.

WHITE, Frank. 1993. "The Union/Non-Union Earnings Differential for Professionals." *Proceedings of the 30th Conference of the Canadian Industrial Relations Association*, June 3-5, Carleton University, Ottawa, 269-279.

RÉSUMÉ

Facteurs occupationnels de la syndicalisation des professionnels

Les professionnels salariés peuvent très bien avoir besoin de la protection d'un syndicat dans leurs relations avec leur employeur. En 1989, la densité syndicale chez les professionnels comme groupe était de 51,3 %, un niveau comparable à celui des cols bleus, tels les machinistes (56,7 %), les travailleurs de la construction (49,9 %) et ceux de la fabrication (56,1 %). Il y a cependant de grandes variations dans la densité syndicale des diverses occupations professionnelles, même si la plupart des études les considèrent comme un groupe homogène.

Cet article est une étude du syndicalisme chez les professionnels. Il y en a relativement peu sur le sujet et celles qui existent sont limitées quant à leur étendue ou négligent de considérer la nature simultanée de la causalité entre les gains et le fait d'être membre d'un syndicat.

Nous appliquons ici le modèle simultané fort connu de Lee (1978). Nous avons choisi les variables ou leurs approximations pour suivre les études précédentes et également pour prendre avantage des variables additionnelles contenues dans l'*Enquête sur l'activité* de Statistique Canada, incluant 16 catégories différentes d'occupations professionnelles.

Notre hypothèse principale est à l'effet qu'il existe des différences entre les probabilités de syndicalisation des différentes professions, une fois corrigées les variables habituelles telles l'âge, le sexe, la scolarité, l'industrie, etc. La probabilité hypothétique de toute profession à se syndiquer dépend des caractéristiques de cette profession en termes d'inclusions ou d'exclusions juridiques, de socialisation et de proximité avec une fonction de gestion.

Nous avons choisi un sous-échantillon de professionnels et de gestionnaires à partir de l'*Enquête sur l'activité* de 1989. Après élimination des

données sans valeur exprimée, 9 417 observations représentant 16 occupations professionnelles et de gestion sont demeurées. Nous avons utilisé la procédure empirique avec et sans la correction de sélectivité pour le membership syndical. Cette correction a produit des valeurs irréalistes de différentiels de gains potentiels pour chaque travailleur.

Contrairement aux études antérieures, nous observons que le différentiel de gains potentiels pour chaque travailleur a un effet négatif sur l'adhésion syndicale. Cela suggère que l'opposition que tel différentiel génère chez l'employeur est plus grande que l'intérêt croissant pour la syndicalisation chez le travailleur. Nous avons aussi observé que les professionnelles seront plus tentées par la syndicalisation que leurs collègues masculins. Le niveau de scolarité a cependant peu d'effet. Alors que les membres des minorités visibles sont moins susceptibles d'être syndiqués, les professionnels handicapés connaissent une expérience contraire. De plus, les professionnels et gestionnaires dont la langue maternelle était l'anglais ont moins de chances d'être syndiqués que leurs collègues élevés dans une autre langue que l'anglais ou le français. Les autres cultures peuvent très bien percevoir la relation entre le syndicalisme et leur profession d'une façon fort différente des anglophones ou des francophones.

L'hypothèse principale, à l'effet que la probabilité *ceteris paribus* de se syndiquer varie selon l'occupation, trouve ici un fort appui. Par exemple, les ingénieurs traditionnellement plus proches de la fonction de gestion démontraient une probabilité aussi faible d'être syndiqués que les gestionnaires eux-mêmes. Par contre, les professionnels associés à des fonctions de gestion comme la comptabilité, la finance ou l'organisation et méthodes connaissaient une probabilité de se syndiquer de 10 % supérieure aux gestionnaires et de 8 % supérieure aux ingénieurs.

Ces conclusions confirment les études canadiennes antérieures dans le domaine pour d'autres variables telles l'âge, le statut civil, la province de résidence, la taille de l'entreprise, la sécurité d'emploi et le désir d'emploi à plein temps. L'exception était cette industrie majeure de l'alimentation et autres services où, contrairement à toute attente, les professionnels et les gestionnaires manifestaient une haute tendance à la syndicalisation comparativement à la catégorie de référence qui est l'agriculture et les ressources.

Cette recherche suggère qu'il y a des implications pour les syndicats, les employeurs et les gouvernements dans l'élaboration de politiques d'organisation, de ressources humaines et de législation. Il faudra examiner de plus près plusieurs aspects du membership syndical professionnel : la mesure et les changements de la résistance managériale, l'effet du sexe, l'effet du niveau de scolarité, le statut d'handicapé ou de minorité visible, l'interaction entre ces variables, ainsi que les caractéristiques détaillées des occupations professionnelles.