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Article abstract

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Union and Firm Preferences for Bargaining Outcomes in the Private Sector

Richard P. Chaykowski

The relative importance that firms and unions place on bargaining issues in the long run is investigated for the Canadian private sector. Survey results suggest that rankings are similar for some outcomes, but diverge markedly for others. Variations in union rankings are more sensitive to economic conditions than are firm rankings, and union characteristics such as bargaining unit size and percentage of female membership determine union rankings over alternative outcomes, whereas a firm's industrial classification is an important determinant of management priorities.

The identification of both union and management priorities will essentially reveal the goals of the parties each bargaining calendar and hence the expected bargaining agenda. The identification of key issues and an understanding of the relative levels of importance the parties attach to various issues will provide insight into the tradeoffs each party will be willing to undergo during negotiations and the pattern of observed contract clauses. Further, an examination of the determinants of union and management

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goals will help explain why the parties have sought particular collective bargaining outcomes and will contribute to an understanding of the factors that influence the breadth of bargaining goals in general (Kochan, 1980, pp. 162-164).

It is therefore somewhat surprising that the growing literature on the economic, political and legal determinants of observed wage and nonwage collective bargaining outcomes has not stimulated further inquiry into the underlying determinants of the preferences of management and unions for particular bargaining outcomes[1]. For example, Jain and Janzen (1974) and Jain (1977) both examine observed individual employee preferences for alternative forms of pecuniary compensation. In contrast, Freedman (1979) investigates management wage and nonwage bargaining objectives, as well as the determinants of those objectives, in some detail. Finally, Godard and Kochan (1982) use a survey instrument to determine the relative importance to management of various issues in collective bargaining. However, both Freedman (1979) and Godard and Kochan (1982) concentrate only on firm objectives and neither study directly investigates the respective party's assessment of the long run importance of wage and nonwage bargaining outcomes; previous research identifies marginal bargaining objectives given existing levels of collective bargaining agreement outcomes.

In order to provide some insight into the relative importance that the parties place on various bargaining issues, this paper investigates a unique data set based on a survey of firm and union bargaining goals, from the Canadian private sector. In the survey, both firm and union respondents were asked to rate the absolute importance of obtaining twelve categories of bargaining outcomes if they were to negotiate an entirely new collective bargaining agreement with their current union and firm, respectively. Then the analysis is extended with an exploratory empirical analysis of a set of equations which characterize the determinants of union and firm rankings of each of twelve categories of collective bargaining outcomes; essentially, an inductive research methodology is followed in hypothesizing that various union, firm, and environmental control characteristics are expected to determine the rankings that the unions and firms associate with each of twelve bargaining outcomes[2].

1 A line of research on the determinants of collective bargaining outcomes originated with Kochan and Wheeler (1975) and Gerhart (1976) and was developed further in Kochan and Block (1977), Anderson (1979a), Anderson (1979b), Feuille, Hendricks and Kahn (1981) and Fiorito and Hendricks (1987). See Chaykowski (forthcoming) for a review of the bargaining outcomes literature in industrial relations.

2 A formal model of the underlying structure of the process that determines management and union preferences is beyond the scope of this paper.

While an object of this analysis is to identify and examine unions' and firms' differential valuations of particular outcomes, there is a virtual absence of empirical literature concerning the *determinants* of union and firm demands for collective bargaining outcomes. In a notable study of membership attitudes of unionized teachers in New York State elementary and secondary school districts, Bacharach and Mitchell (1983) conclude that the various organizational characteristics of the school districts have an effect on the types of *membership* demands made of their union. However, unlike the analysis of Bacharach and Mitchell (1983), the following examination focuses attention at a different level of analysis. In particular this research directs attention, on the employee side, to *union* organization (leadership) rankings of outcomes and analogously, on the employer side, the analysis focuses on management rankings of outcomes. An examination of the relative preferences of unions and firms for different outcomes provides an important step toward understanding the pattern of observed collective bargaining agreement clauses and the tradeoffs each party will be willing to undergo during negotiations.

The organization of the paper is as follows. A conceptual model of the process of bargaining outcome determination is first presented. Then the application and the results of the survey used to determine firm and union preferences for bargaining outcomes are discussed. The following step is to discuss the data used in the regression analysis of the ranking variables, the sign expectations associated with the variables expected to determine the ranking of outcomes by unions and firms, and the key results. Finally, concluding remarks are provided.

A PARTIAL MODEL OF THE ROLE OF PREFERENCES IN DETERMINING CONTRACT OUTCOMES

The emerging line of research concerning the determinants of bargaining outcomes analyzes the outcomes embodied in contracts essentially as a function of various environmental and sociodemographic factors, and organizational characteristics, in a legal context (see Kochan and Wheeler (1975) and Gerhart (1976) for early developments and Fiorito and Hendricks (1987), Chaykowski (forthcoming) and Delaney and Sockell (1989) for recent applications of this approach). This research relies on the view that the characteristics of the parties and the environment (economic, political and legal), and the bargaining process itself together affect the bargaining power of the parties and consequently their ability to achieve their desired outcomes. The framework developed in Delaney and Sockell (1989, p. 571, Figure 1) which reflects the approach underlying previous analyses of outcomes, is indicated by paths C and D of Figure 1.

However, as Delaney and Sockell (1989, p. 572) point out, the priorities of the parties will essentially determine which outcomes are sought after:

> On the other hand, simply because a party may be able to get an agreement on an issue on its own terms does not mean it will seek such an agreement. The party's constituents must attach some value to that agreement before they will pursue it. The preferences of a bargaining unit regarding contract outcomes are likely shaped by a myriad of sociodemographic characteristics of that group.

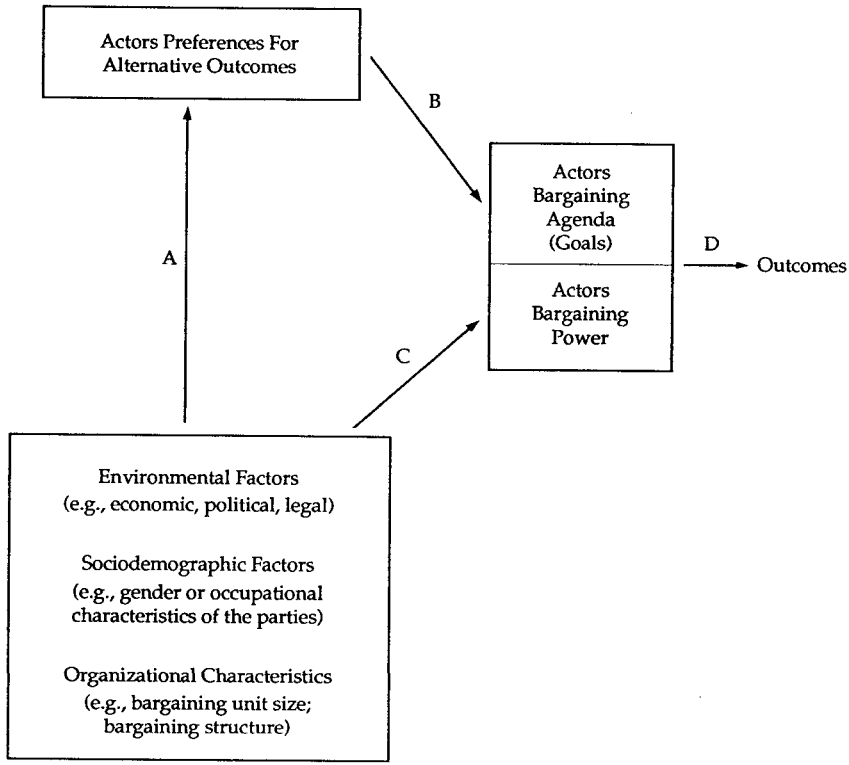
The model developed in this section draws upon the model used by Kochan (1980, p. 165) to explain the various factors that determine (union) bargaining goals in order to enhance the conceptual framework presented in Delaney and Sockell (1989, p. 571, Figure 1). Kochan (1980) presents a model that identifies environmental, economic, social and political pressures, public policy, leadership preferences, employer responses, and rank-and-file expectations as factors that determine (union) bargaining goals. For analytic convenience, the model depicted in Figure 1 incorporates only the environmental, sociodemographic and organizational influences identified by Kochan (1980) (while recognizing that union/employer responses to the goals of the other party and to collective bargaining outcomes may in turn also feed back to affect the bargaining preferences and goals of the other party)[3].

Importantly, the conceptual model of outcome determination depicted in Figure 1 combines these two perspectives of Kochan (1980) and Delaney and Sockell (1989) into a broader framework that illustrates the joint nature of the effects of first, the bargaining power of the parties and second, the actors' bargaining agenda (goals), on observed bargaining outcomes. Union and firm bargaining agendas are formed as a consequence of the preferences of the parties for particular outcomes, which are in turn separately determined by various environmental factors, sociodemographic factors, and organizational characteristics (paths A and B of Figure 1). The following analysis represents an exploratory investigation of paths A and B depicted in Figure 1 — first by examining union and firm preferences for different bargaining outcomes and second, by exploring the relationship between various exogenous environmental, sociodemographic and organizational factors, and the priority rankings that the parties associate with particular contract outcomes. This analysis, therefore, complements the developing line of research on the determinants of bargaining outcomes by analyzing which outcomes are likely to constitute part of the bargaining agenda of the parties as well as the determinants of union and firm preferences for bargaining outcomes.

3 Figure 1 is based on two simplifying assumptions including: first, no feedback loops; and second, that union leaders have no independent preferences or goals of their own.

Figure 1

Conceptual Model of Outcome Determination [a,b]



Notes:

a. This figure is an extension of Delaney and Sockell [(1989), p.571, Figure 1].

b. Feedback loops are omitted.

UNION AND FIRM BARGAINING PRIORITIES

The Survey Instrument

For purposes of the analysis, bargaining outcomes were organized into 12 possible categories[4]: Union Security; Employee Security; Grievance and Arbitration Procedure; Hours and Days of Work; Overtime and Premium Pay; Wages and Pay Guarantees; Vacations and Leaves; Allowances and Benefits; Technological Change; Health Safety and Disability Benefits; Worker-Management Relationship; and Fringe Benefits[5]. Separate questionnaires were used to obtain individual union and firm evaluations of the importance of each of the twelve broad categories of clauses. The questions on the firm and union questionnaire are essentially the same; differences arise from rewording each survey to correspond to a union and firm context, respectively.

The questionnaire consists of two parts. The first part presents eight background questions[6]. Three background questions referring specifically to the respondent are used to identify the person's position and whether the person is involved in either the supervision of bargaining or the formulation of bargaining goals. The second part of the questionnaire asks the respondent to rank each of the twelve categories of contract clauses on a Likert-type scale (Likert, 1932) of 1 (not at all important) to 7 (extremely important). The basis of the ranking is the respondent's perceived «absolute» or «overall» importance of each category to their organization. This notion is elicited by asking the respondent to suppose that their organization is to negotiate an entirely new contract with their current opposite and to have the respondent consider the importance of each of the twelve categories. In this way, the questionnaire elicits a better measure of the full range of clauses that are of continuing importance, as contrasted with a respondent's evaluation of the importance to the organization of a marginal point-in-time increase in a particular bargaining outcome, from one round of bargaining to the next over a well-established contract.

The construction of the scale used for each category of clauses follows Likert (1932) by using two extremes or «poles»; in this survey the poles are

4 A copy of the questionnaire is available from the author upon request. Also, tables showing the geographic distribution of firms and unions, and the characteristics of survey respondents (both of which are discussed below), are available from the author upon request.

5 Examples of clauses included in each category are presented in the notes to Table 1.

6 Five of these questions are used to identify, for each collective bargaining relationship, the firm, the industrial classification of the firm, the union, whether the unions is «craft» or «industrial» and whether the firm has more than one collective bargaining agreement.

presented in terms of extremes of «importance» for each item, with several intermediary positions between the poles. However, whereas Likert (1932) typically uses a five-point scale for this type of question, this survey scale consists of seven positions, primarily to increase the variance of the responses.

On the basis of the results of a pre-test, no changes to the survey instrument were made. The surveys were mailed directly to presidents of union locals and to industrial relations officers (typically directors) of firms, from across Canada. The list of union and firm officers for the complete survey sample consisted of 307 union and 280 firm personnel[7]. A geographic distribution of the mailings shows a proportionately greater emphasis upon sampling firms and unions in Québec, Ontario and British Columbia[8]. Taken together, these provinces represent both the dominant regions of economic activity and size of the labour force. The union sample included fifty-eight international and twenty-two national union locals. Therefore, many of the locals represented in the sample correspond to the same parent union. The firm and union mailings were conducted during 1986. The total response rates were 51,1% for the firms and 26,0% for the unions surveyed (total combined response rate of 38%).

Finally, survey respondents were asked to indicate whether they were currently or had in the past been involved in either the formulation of collective bargaining agreement goals or in the supervision of collective bargaining negotiations. Close involvement in goal formulation and a direct knowledge of those goals is particularly important since the survey asks the respondent to evaluate the importance of various bargaining outcomes to their organization. Approximately 99% of the firm respondents and 96% of

7 The list of union addresses was generously supplied by the Labour Unions Section and Corporations and Labour Unions Returns Act Administration Section of Statistics Canada. I am particularly grateful to Isabel Balon for her assistance. Several union addresses were obtained from the following provincial publications: *B.C. Labour Directory 1985,* Ministry of Labour, Province of British Columbia; *Membership in Labour Organizations in Alberta 1985,* Alberta Labour, Planning and Research Branch, Statistics and Information Services, *Directory of Labour Organizations in Manitoba,* Manitoba Labour, Research and Planning, September 1985; *Labour Organizations in Nova Scotia 1985,* Nova Scotia Department of Labour and Manpower Research Division; *Directory of Labour Organizations in New Brunswick,* 1984, Evaluation Branch, Labour Relations Service, Department of Labour and Human Resources.

Firm addresses were obtained from information made available by the Centre for Industrial Relations, Queen's University at Kingston, Ontario. The assistance of the Centre for Industrial Relations is gratefully acknowledged.

8 The management survey is subject to a relative over-sampling of Ontario firms which reflects the geographic distribution of firm addresses made available for the survey. The union survey is subject to a relative over-sampling of international unions which likely reflects the distribution of addresses available for that survey.

the union respondents indicated that they had at some time been involved in goal formulation. Based on these results, the assumption that the results accurately reflect the firms' or unions' preference rankings appears reasonable.

Survey Results

Over 71% of the firm respondents belong to the manufacturing sector while 48% of the unions negotiate with firms in that sector. The remaining firm and union respondents were distributed among the «forestry», «fishing and trapping», «mines, quarries and oil wells», «transportation, communication and other utilities», «trade», and «community, business and personal service» industries[9]. Among the firm respondents, approximately 59% bargain with international unions and approximately 41% bargain with national unions. Among the union respondents, roughly 69% are international unions and 31% are national unions. Rankings of each of the twelve categories of clauses is on a scale of 1 (not at all important) to 7 (extreme importance). A summary of results for the union and firm respondents (including mean, percentage of respondents assigning the highest ranks of 6 or 7 ($P_{6,7}$), and the percentage of respondents assigning the lowest ranks of 1 or 2 ($P_{1,2}$)) is presented in Table 1[10].

The greatest firm mean ranking is observed for Wages and Pay Guarantees (6,2; $P_{6,7}$ = 80,4), suggesting that it is clearly most important to the firm to obtain favourable pecuniary outcomes in this category[11]. The mean rank for this category is distinctly greather than the next highest mean rank; the percentage of respondents ranking a 6 or 7 is also highest. The next highest firm mean rankings are obtained for Employee Security (5,8; $P_{6,7}$ = 66,5) and Worker-Management Relationship (5,8; $P_{6,7}$ = 63,7), followed by Hours and Days of Work (5,6; $P_{6,7}$ = 58,8).

9 For both unions and firms, there were no respondents in either the «agriculture», «construction», or «finance, insurance and real estate» sectors. Note that the survey excludes all public sector employers (employees) as well as Crown corporations.

10 Tables of the union and firm response frequency by each level of importance are available from the author upon request. Also, in order to obtain a preliminary indication of whether or not correlations among categories may exist for the union or firm, Spearman correlation coefficients were calculated for the respondents' rankings of the twelve categories (not reported). In general, there is an ambiguous pattern of correlations among the categories, suggesting that there exists no related variation in the respondents' ranking of alternative categories.

11 The first number is the mean rank. $P_{6,7}$ denotes percentage of respondents assigning the highest ranks of 6 or 7. $P_{1,2}$ is the percentage of respondents assigning the lowest ranks of 1 or 2.

Examples of Employee Security, such as seniority on promotion and layoffs, recall procedure, job postings, and contracting out affect the firm's ability to manage various aspects of the operations of the workplace. These areas would therefore be expected to be perceived by the firm as constraints on its ability to manage the workplace and therefore influence the efficiency of operations. The importance of Worker-Management Relationship issues is somewhat surprising, unless one considers that this category includes management rights. Any clauses which would permit management to function in a strong position, vis-à-vis the union, would be highly valued by the firm. Note that $P_{1,2} = 2,1$ for this category, with no firms assigning a rank of 1. This suggests that firms may regard a management rights clause as essential.

The lowest firm priority is accorded to Union Security (3,7; $P_{1,2} = 32,9$; $P_{6,7} = 20,3$). The distribution of responses across ranks is fairly even, with a high proportion of total responses at the poles. Most issues in this category affect the union and its ability to function as an employee organization, and therefore does not directly affect remuneration levels or work practices. The low mean response suggests that many firms accept the union as the employee's bargaining agent and would prefer to concentrate on issues which directly affect the operation and productivity of the firm. However, the large percentage of firms assigning a rank of 6 or 7 suggests that to the extent that such clauses may influence union control over hiring practices or the ability of the union to survive in the long-run, this category becomes an important enduring issue.

In contrast to firms, unions ranked Employee Security highest (6,7; $P_{6,7} = 92,6$). The issues in this category include the following: the use of seniority in the workplace and job-posting (reflecting union concern for the principle of equity); contracting out (reflecting a desire to protect union jobs); and severance payments (which are expected to be of particular importance in industries experiencing long-run employment decline or which are susceptible to business fluctuations). The highest mean ranking attained by this category and the extremely large proportion of unions assigning a 6 or 7 rank suggests that these issues are highly on many union agendas.

The high mean union rank (second) of Union Security (6,2; $P_{6,7} = 78,8$) is also expected. From the union perspective, dues check-off, crossing of picket lines and the shop-status are important to their long-run effectiveness and survival. This result, combined with the low mean rank by the firms, suggests that (most) firms are less concerned with the long-run viability of the union (particularly once a union is established), than are unions; firms would rather concentrate on issues that directly affect its profitability and the efficiency of operations.

Finally, as might be expected, straight monetary issues are of great importance to both the union and the firm; the mean union Wages and Pay Guarantees rank was third highest (6,1; $P_{6,7}$ = 75,1).

The Worker-Management Relationship category (3,8; $P_{1,2}$ = 26,3; $P_{6,7}$ = 22,5) received the lowest mean rank by unions, suggesting that items relating to management rights, worker-management committees, or profit-sharing plans are of substantially less concern to most unions relative to categories that affect compensation, how work is carried on at the workplace, or the security of the union. The high percentage of respondents assigning a rank of 6 or 7 qualifies this conclusion.

It is interesting to note that Grievance and Arbitration Procedure (5,8; $P_{6,7}$ = 67,6) was not ranked particularly high by the union relative to other categories, although the mean rank and percentage of respondents assigning a 6 or 7 is in marked contrast to the firms' valuation of this category relative to others (4,2; $P_{6,7}$ = 21,0). The union and firm rankings of the Overtime and Premium Pay category were comparable [(5,7; $P_{6,7}$ = 58,8) and (5,4; $P_{6,7}$ = 58,1) for the union and firm, respectively, were mid-range ratings for both]. However, Health, Safety and Disability Benefits appeared to be rated high relative to other categories by unions (6,0; $P_{6,7}$ = 72,5) — particularly with a greater proportion of unions assigning a rank of 6 or 7 — than firms (5,4; $P_{6,7}$ = 57,4).

Taken together, the survey results provide considerable insight into collective bargaining issues which are likely to be of enduring importance to firms and unions. Specifically, firms on average ranked Wages and Pay Guarantees, Employee Security, Worker-Management Relationship and Hours and Days of Work categories highest, whereas unions on average ranked Employee Security, Union Security, and Wages and Pay Guarantees categories highest. Firms on average ranked Union Security the lowest category and unions tended to assign the lowest priority to Worker-Management Relationship.

The greatest divergence in rankings between the unions and firms occurs for both the Worker-Management Relationship and Union Security categories. All else equal, one would therefore expect that firms and unions would tend to reach agreement on these two issues more easily than they could achieve a settlement on categories which both parties rank as being very important in terms of obtaining favourable outcomes, particularly Wages and Pay Guarantees and Employee Security[12].

12 The importance of an issue to the parties is not the only factor influencing the ease (difficulty) of achieving an agreement over that issue. For example, some issues could be difficult to negotiate or reconcile because they involve discrete choices over outcomes, thereby limiting opportunities for compromises and tradeoffs that may be present for continuous issues.

Table 1

Firm and Union Collective Bargaining Objectives

	Management				*Union*			
Category	*Average*[a]		$P_{1,2}$	$P_{6,7}$	*Average*[a]		$P_{1,2}$	$P_{6,7}$
Union Security[b]	3,7	(1,9)	32,9	20,3	6,2	(1,4)	5,1	78,8
Technological Change[c]	5,1	(1,7)	9,1	49,7	5,7	(1,5)	3,8	62,6
Employee Security[d]	5,8	(1,5)	6,3	66,5	6,7	(1,1)	3,8	92,6
Grievance and Arbitration Procedure[e]	4,2	(1,5)	14,7	21,0	5,8	(1,5)	6,3	67,6
Vacations and Leaves[f]	5,2	(1,4)	6,3	44,1	5,5	(1,3)	2,6	48,8
Hours and Days of Work[g]	5,6	(1,5)	6,3	58,8	5,6	(1,3)	2,6	56,3
Allowances and Benefits[h]	4,2	(1,5)	16,1	20,3	4,5	(1,6)	11,3	25,0
Overtime and Premium Pay[i]	5,4	(1,5)	5,6	58,1	5,7	(1,3)	2,5	58,8
Wages and Pay Guarantee[j]	6,2	(1,4)	4,2	80,4	6,1	(1,2)	2,6	75,1
Health, Safety and Disability Benefits[k]	5,4	(1,3)	3,5	57,4	6,0	(1,4)	5,1	72,5
Worker-Management Relationship[l]	5,8	(1,3)	2,1	63,7	3,8	(1,9)	26,3	22,5
Fringe Benefits[m]	5,6	(1,2)	1,4	58,8	6,2	(1,0)	0	78,8

Notes:

a The ranking scale was 7-point where a rank of 1 indicates non-importance while a rank of 7 indicates extreme importance. The figures in parentheses are standard deviations. Total management responses are 143. Total union responses are 80

b e.g.: union shop; crossing of picket lines; dues checkoff

c e.g.: advance notice; retraining; reopener clause; employment security after technological change; relocation allowance

d e.g.: seniority on promotion; seniority on layoffs; recall procedure; job posting; contracting out; severance payments

e e.g.: grievance procedures; compensation for grievance work

f e.g.: paid vacation; travel allowance; number of paid holidays; maternity, bereavement, etc. leaves

g e.g.: schedule of daily or weekly hours; flexible hours; maximum hours

h e.g.: clothing; meals; paid wash-up; rest periods; tools

i e.g.: right to refuse overtime; overtime rates, shift and hazardous work premiums; holiday pay rates

j e.g.: wage rate; COLA; incentives; call-in pay; guaranteed employment

k e.g.: industrial safety; rehabilitation programs; sick leave; disability benefits

l e.g.: management rights; profit-sharing; productivity plans; labour-management committee

m e.g.: health benefits; life insurance; pensions

ANALYSIS OF FIRM AND UNION RANKINGS

Specification of the Ranking Regressions

The following section reports the results of an exploratory analysis of the relationship between indexes of the bargaining priorities of the parties and the factors that may give rise to the formulation of the parties' underlying preferences for particular outcomes (refer to Figure 1). Union ranking indexes, R^U, and firm ranking indexes, R^F, of each of the twelve bargaining outcomes in the survey are constructed and analyzed separately as a function of a vector of firm, union, and environmental control variables that are expected to determine the parties' rankings:

$$R^i_j = C^i + X^i + \mu \qquad (1)$$

where i = U,F and j = 1...12 categories of bargaining outcomes.

The empirical analysis consists of estimating 24 reduced form equations corresponding to the twelve outcomes for both the firm and union, respectively. Here, C^u is a vector of characteristics expected to influence the determination of union leadership rankings, C^F is a vector of characteristics expected to determine firm rankings, X^i is a vector of environmental (economic and demographic) and bargaining process control variables, and μ is a stochastic disturbance term.

The survey information is used to create the dependent variables (R^U and R^F) that capture union and management rankings, respectively, of the i'th category of clauses, yielding twelve union and twelve firm ranking index variables. The magnitude of each union (firm) ranking index proxies the enduring importance to unions (firms) of obtaining (or maintaining) a favourable contract outcome in that particular category, *ceteris paribus*. In order to analyze the determinants of the priorities of the parties, independent variables thought to determine preferences were separately derived both from a micro-data file of 2148 early collective bargaining relationships (contracts) negotiated in the Canadian private sector during the 1975-1984 period, as well as from various Canadian government publications. The unit of observation in the analysis is taken as the first occurrence of each employer-union collective agreement in the sample period[13].

13 Most contracts are negotiated as one of the early or mid-period contracts in the bargaining relationship; some of the contracts are first agreements and some contracts are associated with longer-standing bargaining relationships.

The employer-union relationship in the collective agreement data base was adopted as the unit of observation in the analysis because the independent variables correspond to an observed employer-union relationship and because of the significantly large sample size available. The survey data base does not contain the independent variables required for the regression analysis.

Since the survey respondents were asked to identify their priorities on the basis of the negotiation of an entirely new collective bargaining agreement with their current opposite, an attempt was made to match the ranking indexes to characteristics of organizations and the bargaining environment (that determine bargaining goals) that are associated with contracts negotiated early in a bargaining relationship. This was done under the assumption that the complete range of bargaining priorities that are of enduring importance to the parties, as embodied in negotiated outcomes, is more readily empirically approximated by observing early collective agreements rather than by observing nature contracts. By embodying either incremental or no changes to already established outcomes that nevertheless remain of high priority (e.g., union security clauses), mature contracts tend to obscure enduring priorities that may instead be more easily identified by examining contracts negotiated early in a bargaining relationship[14]. The union and firm ranking indexes (R^i_j) were matched to the separate data sample of union, firm, economic, and sociodemographic characteristics associated with each of the approximately 2148 early employer-union relationships on the basis of a group characteristic of the unions and firms,

14 The assumption that outcomes embodied in contracts negotiated early in a bargaining relationship are the best empirical measure of the range of enduring priorities is subject to important qualification. First, first-agreement bargaining rounds are often characterized by a disproportionate emphasis on issues such as union security or wages, thereby biasing objectives away from other issues that may be of enduring concern but which are pursued once the basic agreement is established. Second, the parties (particularly the union) may only wish to pursue some priority goals (e.g., union employment-related goals obtained through provisions that restrict contracting out or that provide protection from potentially adverse employment impacts of technological change) only after basic goals have been attained. In either case some priority goals may tend to be pursued during the negotiation of later contracts when the relationship is more mature.

However, focusing on *early* contracts permits the analysis to capture enduring priorities that the parties use their bargaining power to achieve during the early contract negotiations but which in mature relationships the union (firm) seeks to *maintain* and protect, or for which only marginal changes are desired; such outcomes could be *empirically* indistinguishable from low priority bargaining issues if the analysis focused only on mature contracts.

While focusing on early contract relationships may result in biases associated with the possibly unique objectives of some early bargaining rounds, it avoids biases associated with the failure to identify enduring goals obscured in mature contracts, but which were first achieved (and empirically identified) in the early contracts.

under the assumption that the bargaining priority indexes derived from the survey reflect the priorities of the parties in the sample of early collective bargaining relationships[15].

The vector of union equation control variables (X^u) consists of a set of dummy variables for each of year and region, and variables to capture demographic characteristics, per capita GDP, and the unemployment rate. The vector (C^u) includes the industrial classification of the establishment, the number of locals in the parent union in Canada, the presence of joint bargaining in achieving the collective agreement, the size of the bargaining unit, the magnitude of the parent union membership in Canada, the number of strikes and lockouts during the year, the percentage of the parent union membership that is female in Canada, and whether the local belongs to a union that is nationally or internationally based. The vector of (X^F) includes each of the variables included in the vector X^u as well as the joint bargaining and percentage female variables. These latter two variables are assumed to capture unobserved firm-specific environmental effects. The vector (C^F) consists of the size of the bargaining unit (as a proxy for size of the workforce) and the industrial classification of the firm. Variable definitions and data sources for each of the variables used in the empirical analysis are presented in Table 2.

Several methodological issues are inherent in the analysis[16]. First, bias will be introduced into the results to the extent that the observed pattern of rankings from the survey data may be partly measuring the point-in-time concerns and issues confronting the respondent. The basic assumption is that the survey rankings information accurately identifies enduring concerns and that these priorities are fairly stable over time. Second, outcome-ranking indexes used in the analysis are likely subject to significant bias

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15 The union and management ranking indexes were created so as to permit them to be matched to the data base of union, firm and environmental variables. Specifically, the ranking index for the j'th category by the k'th union across industries is given (suppressing the j-subscript) by R^u_k. If the k'th union in the survey database bargains with a firm in the sample of employer-union relationships database, then each firm is assigned the index R^u_k; however, firms that bargain with a union that is not in the sample of union survey responses are assigned the ranking index R^u_d as the average rankings of unions in the d'th industry. Similarly, the ranking index of the n'th firm in the d'th industry for the j'th category (suppressing the j subscript) was created (R^F_d). In this way the ranking indices are associated with a union/industry characteristic for unions and an industry characteristic for firms. Since the ranking variables are consequently measured with error, there will exist an errors-in-data problem for the dependent variable. However, under appropriate assumptions regarding the error terms in the regression equations, the coefficient estimates will be unbiased.

16 The following methodological issues, as well as others, are discussed in detail in Chaykowski (1989).

Table 2

Independent Variable Definitions*

1)	PLTU	= percentage of people 15 years without university certificate[b]
2)	PBRIT	= percentage of ethnic British[a]
3)	PURBAN	= percentage total urban population[c]
4)	PIMM	= percentage of the total labour force 15 years and over that immigrated[e]
5)	UR	= unemployment rate of experienced persons 15 years and over[d]
6)	LGDP	= logarithm of per capita gross domestic product[f]
7)	Y	= date collective bargaining agreement is effective[g]
8)	JB	= 1 = joint bargaining; 0 = no joint bargaining[g]
9)	REGION	= dummy (0-1) variables for five regions including: Ontario; Québec; Manitoba, Saskatchewan or Alberta; British Columbia; and Newfoundland, Prince Edward Island, Nova Scotia or New Brunswick[g]
10)	MANU	= 1 = manufacturing; 0 = nonmanufacturing[g]
11)	LUNITSIZE	= logarithm of the number of workers covered by the collective agreement[g]
12)	INTL	= 1 = affiliated with an international union; 0 = affiliated with a national union[h,j]
13)	LOCALS	= number of locals in Canada[h]
14)	LMEMBER	= logarithms of the number of union members in Canada[h]
15)	PFEM	= percentage of female union members in Canada[h]
16)	STRIKES	= number of strikes and lockouts in existance during the year[i]
17)	$PUSEC_i$	= union security outcome-preference
18)	$PTECH_i$	= technological change outcome-preference
19)	$PEMPSEC_i$	= employee security outcome-preference
20)	$PGRIEV_i$	= grievance and arbitration procedure outcome-preference
21)	$PVAC_i$	= vacations and leaves outcome-preference
22)	$PHOURS_i$	= hours and days of work outcome-preference
23)	$PALLOW_i$	= allowances and benefits outcomes-preferences
24)	$POVERT_i$	= overtime and premium pay outcome-preference
25)	$PAYGUAR_i$	= wages and pay guarantees outcome-preference
26)	$PHEALTH_i$	= health, safety and disability benefits outcome-preference
27)	$PWMR_i$	= worker-management relationship outcome-preference
28)	$PFRINGE_i$	= fringe benefits outcome-preference

Notes:

a Source: Statistics Canada, 1981 Census of Canada, Volume 1, *Population: Ethnic Origin*, Catalogue No. 92-911, September 1982, Table 1.

b Source: Statistics Canada, 1981 Census of Canada, Volume 1, *Population: School Attendance and Level of Schooling*, Catalogue No. 92-914, January 1984, Table 4.

c Source: Statistics Canada, 1981 Census of Canada, Volume 1, *Population: Age, Sex and Marital Status*, Catalogue No. 92-901, September 1982, Table 6.

d Source: Statistics Canada, 1981 Census of Canada, Volume 1, *Population: Worked Since January 1, 1980 — Industry By Labour Force and Work Activity*, Catalogue No. 92-924, January 1984, Table 1.

e Source: Statistics Canada, 1981 Census of Canada, Volume 1, *Population: Labour Force and Industry By Cultural Characteristics*, Catalogue No. 92-922, February 1984, Table 1.

f Source: Statistics Canada, *Gross Domestic Product By Industry*, 1984, Last Issue, Catalogue No. 61-213, September 1985, Table 3.

g Source: Labour Canada Data file on the Analysis of Collective Bargaining Agreements.

h Source: *Corporations and Labour Unions Returns Act, Part II — Labour Unions*, 1975-1982, Catalogue No. 71-202S, Table 1.

i Source: *Strikes and Lockouts In Canada*, 1975-1984, Labour Canada, Catalogue No. L2-1, Tables 4 (1975-76), 6(1977) 8(1978-84); and Wood, W.D., and Kumar, P., eds., *The Current Industrial Relations Scene in Canada*, 1981-84, Industrial Relations Centre, Queen's University, Kingston, Ontario.

j «National» unions are affiliated with the Canadian Labour Congress (CLC), the Canadian Federation of Labour (CFL), the Confederation of National Trade Unions (CNTU), the Centrale des syndicats démocratiques (CSD), the Canadian National Federation of Industrial Unions (CNFIU), the Confederation of Canadian Unions (CCU) and various independent unions. «International» unions are affiliated with the AFL/CIO, AFL, and various independents.

* For i = union, firm, respectively.

because the variable values were matched to bargaining-unit level observations on the basis of a group characteristic. Ideally, it would be most appropriate to create relationship-specific ranking indexes. Although cost and time considerations make this an extremely difficult task, this remains a source of significant potential error that deserves attention in future research. However, acknowledging the considerable difficulties inherent in the use of survey data to construct ranking variables, and of matching the two data bases, this portion of the analysis does represent the use of the best available data concerning the long run priorities of firm and union officers for alternative collective bargaining outcomes. Finally, Bacharach and Mitchell (1983) point out the problem that aggregating bargaining outcomes into groups may understate or conceal within-category variation between specific issues contained in different categories. While recognizing the validity of this issue, the relatively large number of outcomes analyzed (twelve) allows for a considerable level of disaggregation[17]. Taken together, these issues suggest that the results of this exploratory regression analysis be interpreted with circumspection.

The Union and Firm Outcome-Ranking Regressions

The discussion of results will include the key characteristics of the firm and union that are expected to have an effect in determining the rankings of the parties. Attention will focus only on the signs of the estimated coefficients which are found to be statistically significantly different from zero at the ,05 level in a two-tailed test. The expected signs of the coefficients of key explanatory variables in the outcome-ranking regressions, the observed signs of the coefficients, and whether or not the observed coefficients are statistically significant, is summarized in Table 3 for unions and Table 4 for firms[18].

Among the set of 12 categories of bargaining outcomes examined we may, for analytical convenience, distinguish four general areas of concern to the management and the union. The first area of concern is «pecuniary outcomes», including the Vacations and Leaves, the Allowances and Benefits, the Overtime and Premium Pay, the Wages and Pay Guarantees, the Health, Safety and Disability Benefits, and the Fringe Benefits

17 Since the ranking data is based on survey techniques, response accuracy did not permit further disaggregation. In asking survey respondents to rate the importance of obtaining favourable outcomes for each category of clauses, there is a potential tradeoff between the number of categories and accuracy of the responses.

18 Summary statistics for each variable and complete estimation results for the union and firm outcome-ranking regressions are available from the author upon request.

categories. The second area of concern is «nonpecuniary outcomes relating to (management) rights and (employee) control» concerning the range of work and shop floor practices that affects the scope of management rights that may reasonably be expected to prevail in the absence of a union; these outcomes include the Employee Security, the Grievance and Arbitration Procedure, the Hours and Days of Work, and the Worker-Management Relationship categories. The third area of concern is «nonpecuniary outcomes dealing with the status of the union» as a viable organization representing workers, including only the Union Security outcome category. The fourth area of concern is «nonpecuniary outcomes relating to the introduction and implementation of new technologies», including the Technological Change outcome category. This category is treated separately from control over work practices because recent collective bargaining developments relating to technological change are viewed as a response to extraordinary pressures brought to bear on firms and unions (for example, international competition from lower-cost producers), and as related to the widespread industrial restructuring occurring throughout the North American economy.

Expected Signs of the Union Characteristic Variables

In the union outcome-ranking equations, while the manufacturing control variable may proxy unobserved employee concerns related to employment in that sector, no fundamental difference in the intensity of union desire to obtain favourable pecuniary outcomes is expected between those unions organized in manufacturing versus non-manufacturing industries. However, two pecuniary categories which may be candidates for otherwise unobservable effects are the Overtime and Shift Premiums and the Health, Safety and Disability Benefits categories: continuous operations are prevalent in manufacturing, so that we would expect a positive coefficient on MANU in the Overtime and Shift Premiums equation; the variety of machinery operation and chemical hazards in manufacturing industries make membership demands for industrial safety initiatives, sick leaves and disability benefits a likely union bargaining objective.

One traditional desire of employees has been to limit managerial discretion and obtain some control over shop floor practices. However, the intrinsic desires of the membership for equitable systems of industrial discipline and to limit managerial discretion are not expected to vary by industrial classification; reflecting this, we have no *a priori* expectations regarding the coefficient of MANU in each of the Employee Security, the Grievance and Arbitration Procedure, the Hours and Days of Work and the Worker-Management Relationship categories.

Third, since union security clauses provide basic safeguards that ensure union survival, unions' valuations of a favourable outcome in the Union Security category is not expected to vary by industry (no expected sign). However, since we expect manufacturing firms to have experienced the strongest impetus for restructuring based on the infusion of new technologies, we expect unions in the manufacturing sector to more highly value contract provisions which provide layoff protection and retraining, relative to non-manufacturing firms. Therefore, a positive coefficient for MANU is expected in the Technological Change regression[19].

The joint bargaining variable (JB) reflects a process in which a single set of negotiations involves several unions but only one employer. Although not unambiguous, it is not unreasonable to expect the team to more highly value a favourable outcome for those categories which are likely to be of common importance across constituent groups, such as the Wages and Pay Guarantees, the Union Security, the Worker-Management Relationship and possibly the Grievance and Arbitration categories, *relative* to the situation in which there is no joint bargaining. Consequently, a positive coefficient for JB is expected in each of these four outcome-ranking regressions. Conversely, the remaining categories may vary considerably in their importance to different constituent groups, so that a favourable outcome could affect only a subset of the memberships that bargain together, relative to a situation without joint bargaining; there are no sign expectations associated with the coefficients of the joint bargaining variable in those regressions.

The number of locals variable (LOCALS) is a proxy for union structure and the Canadian union membership levels (LMEMBER) variable proxies the size of the Canadian union, where larger unions are expected to be more complex (with regard to structure and/or membership) and to be more likely to exhibit goals at the national leadership level that diverge from the goals of their component locals. We therefore expect the coefficients of both variables to have a positive coefficient for those outcomes which are likely to be of broad concern to both the parent and local union leaderships, including the Wages and Pay Guarantees, Worker-Management Relationship (particularly management rights), Union Security (various clauses that

19 One issue in this analysis concerns those clauses which are mandated by labour legislation in various jurisdictions. Examples of issues that may, depending on the jurisdiction, be associated with mandatory provisions include the resolution of rights disputes, technological change and union security. If respondents view such outcomes as inevitable, one possible impact of this may be to bias downward the priority rankings associated with a given issue. While acknowledging this potential bias, the maintained assumption is that while the existence of an outcome may be mandated, the favourability of a clause to either party could depend substantially upon the specific features and wording of clauses. For example, the number and wording of clauses related to technological change, and the range of inter-related issues addressed, are likely to vary significantly across agreements.

ensure the long-run viability of the union as an organization) and Technological Change (reflecting broad concerns at all levels of the union leadership for potential membership losses) categories. There are no *a priori* expectations regarding the effect of the number of locals or the size of the parent union on the priorities associated with the remaining categories.

The level of strike activity (STRIKES) is a proxy for the general level of membership militancy. While union «militancy» may be an important factor in effecting desired outcomes, it may also proxy individual tastes for alternative outcomes. For example, militant memberships may innately desire a strong union organization, thereby placing a high valuation on union security clauses in particular. Although in general we may expect a positive coefficient, there are no unambiguous *a priori* expectations regarding the pattern of the coefficients of STRIKES across categories of outcomes.

The international variable (INTL) indicates whether or not the union local is affiliated with an international versus a national union. We expect the executives of international unions to exhibit a different set of preferences across potential bargaining outcomes than the leadership of the constituent locals. In general, regarding the control exerted by internationals, Dunlop (1944, p. 56) states:

> International unions vary all the way from an extremely loose-knit alliance of locals to highly integrated and centralized bodies. The locus of decisions respecting wage rates shows the same variable pattern; several types of surveillance and controls are discernible over locals. (a) An international may simply require reports... (b) International representatives assist in negotiations and see that contracts conform to broad policies. (c) Each contract must be approved or countersigned by the International union. (d) All negotiations are in complete charge of the central office.

Assuming that the international union leadership exerts considerable influence over the demand of its constituent locals, we expect (tentatively) that locals affiliated with internationals would place a high valuation on obtaining favourable outcomes for the Worker-Management Relationship and Union Security categories, but a lower valuation on obtaining favourable outcomes over the range of all six pecuniary categories. One explanation for the expected negative effects of being «internationally based» on the various pecuniary outcomes is the view that United States based international unions, which are typically based in the manufacturing sector, placed less emphasis on many outcomes during much of the recessionary period of this analysis — hence, the advent of «concession bargaining», particularly on pecuniary items. Except for the Worker-Management Relationship, Union Security, and the six pecuniary categories (for which we expect signs under the maintained assumption of effective control by the international), we have no expectations regarding the signs of the coefficients of INTL in

the remaining four nonpecuniary categories. However, since it is not clear that the influence of the international leadership on the demands brought to the negotiations at local levels, where discernible, has been either strong or consistent, the expectations for the coefficients of INTL are tentative[20].

The «size of the bargaining unit» variable (LUNITSIZE) will proxy the degree of formality in worker-management relationships and the degree of disparity between interest groups within the union:

> The wider the bargaining unit on the union side, the larger the number of wage earners whose interests will be considered and, in general, the more distant the effects that will enter into decision-making (Dunlop, 1944, p. 57).

Given the expected worker-management formality effects associated with establishment size, we would expect leadership desire for achieving favourable outcomes in each of the nonpecuniary work practice categories, including Employee Security, Grievance and Arbitration Procedure, Hours and Days of Work and Worker-Management Relationship (expect positive coefficients). Given the expected worker diversity effects associated with unit size, we would expect the union to place a high valuation on those outcomes which affect the largest proportion of its membership. All else equal, we expect the leadership of large units to more highly value favourable outcomes for each of Wages and Pay Guarantees, Vacations and Leaves, and Fringe Benefits (especially pensions and life insurance), *relative* to the leadership of smaller units, since these outcomes are likely to appeal to the broadest group of constituents. Conversely, each of Allowances and Benefits, Overtime and Premium Pay, and Health, Safety and Disability Benefits (e.g., disability benefits or rehabilitation programs) are likely to be of importance to more particular sub-groups of employees, the larger the unit. Therefore, we expect positive coefficients for LUNITSIZE in the first three pecuniary regressions and negative coefficients in the latter three regressions. However, we expect bargaining unit size to have no effect on either Union Security or Technological Change rankings.

20 While international union leaderships based in the United States may often succeed in influencing the bargaining agendas of affiliated Canadian locals, this policy has often had mixed results. The continued distancing of the preferences of Canadian locals of international-based unions from the goals of their parents has resulted in frequent break-aways and moves by Canadian sections towards increased autonomy from their United States parents (see Thompson and Blum, 1983). For example, goal divergence could occur over issues which involve «made-in-Canada» concerns, which may in practice be manifested through any of the twelve categories.

A strong example of the depth of the divergence of interests of some Canadian and United States affiliated unions is the recent formation of the Canadian Automobile Workers (in 1986) under president Robert White, which was encouraged by the attempts of the international (United States) leadership to force the Canadian leadership to accept American bargaining positions which were viewed as unacceptable to the Canadian memberships.

Finally, we expect the leadership of those unions with a large proportion of female members (PFEM) to place a high valuation on obtaining favourable outcomes in categories clearly desired by that constituent group. One problem in assessing expected signs for the coefficients of this variable is that PFEM may proxy firm or industry specific characteristics — perhaps of the production process. (Examples would be a high proportion of female employment in textile manufacturing and in certain service-related fields.) Consequently, we have no expectations regarding the coefficients of PFEM for all but three categories: first, we expect that due to household and child-rearing activities, unions with large female memberships may place a higher valuation (than unions with large male memberships) on Hours and Days of Work outcomes (scheduling of hours and days of work and flexible hours) and Vacations and Leaves outcomes (maternity-related leaves); second, we may also expect greater emphasis on work practice systems that reduce discrimination in the workplace, such as seniority systems (Employee Security). We therefore expect a positive coefficient for PFEM in these three nonpecuniary outcome-ranking regressions.

Expected Signs of Firm Characteristics Variables

All else equal, firms presumably attempt to reduce aggregate labour costs[21]. We would expect that marginal increases in pecuniary labour expenditures are costlier to firms the larger the labour force: firms are therefore expected to more strongly prefer favourable outcomes across the range of pecuniary outcomes the larger the workforce (expect a positive coefficient for LUNITSIZE in each of the six pecuniary regressions).

The size of the bargaining unit variable (LUNITSIZE) may proxy the variety and complexity of employer concerns or the degree of formality of worker-management relationships at the firm. For example, the opportunity for formal teamwork may decline with the size of the workforce as occupations and duties become more clearly delineated and routinized, whereas the formality of systems of industrial discipline is likely to increase with the size of the workplace. Therefore, all else equal, we expect that in order to preserve the range of traditional management prerogatives as the size of the workforce becomes larger, firms will more highly value favourable outcomes in each of the nonpecuniary work practices categories (Employee Security, Grievance and Arbitration Procedure, Hours and Days

21 An underlying assumption is that while unionized firms will attempt to reduce labour costs relative to their product competitors (particularly if some of their competitors are not unionized), firms will tend to offer competitive wages in the labour market.

of Work, and Worker-Management Relationship). However, we cannot predict the expected bargaining unit size effect in either the Union Security or the Technological Change regressions.

In general we expect both manufacturing and non-manufacturing firms to be concerned with obtaining favourable outcomes across the range of pecuniary outcomes. Therefore, there are no *a priori* expectations regarding the signs of the coefficients of the MANU variable in the six pecuniary regressions.

However, except for union security, we expect manufacturing firms to be concerned with obtaining favourable outcomes across the range of nonpecuniary categories including work practices and technological change related outcomes, but for different reasons. First, manufacturing industries are inherently committed to production technologies which require large capital investments in equipment, machinery and production facilities. Consequently, management control over the production process will likely be more important to manufacturing firms than to non-manufacturing firms, *ceteris paribus*. Furthermore, to the extent that traditional or well-defined shop floor practices and discipline systems developed by management are more entrenched in manufacturing industries (in part related to regulated production processes and highly structured internal labour markets) than in non-manufacturing firms, we expect positive coefficients for MANU in each of the nonpecuniary work practice regressions (Employee Security, Grievance and Arbitration Procedure, Hours and Days of Work, and Worker-Management Relationship categories).

Second, while we expect manufacturing firms to be more concerned with the right to control shop floor practices and the production process, the presence/existence of a union may be viewed by both manufacturing and non-manufacturing firms as an inherent encroachment on management rights. Therefore, no expectation is associated with the coefficient of MANU in the Union Security regression.

Third, we expect manufacturing firms (for example, basic steel, automobiles, textiles and electronics goods industries) to have experienced the most intense international competition and consequently the greatest levels of technological innovation of the survivors, *ceteris paribus*. Consequently, we expect manufacturing firms to very highly demand a favourable outcome for Technological Change related outcomes.

Two variables that may proxy unobserved firm-specific effects are the joint bargaining and percent female variables. While there is no *a priori* reason to suggest that outcomes likely to be of general concern in the firm organization would assume greater (or lesser) importance as a consequence

of joint bargaining *per se,* the presence of joint bargaining may proxy such unobservable firm characteristics as unique occupations (represented by different unions), which may affect hours and days of work or overtime. However, there is no *a priori* basis on which to distinguish the effects of unobserved factors (proxied by joint bargaining) on the relative importance of the categories. Consequently, there are no expectations regarding the signs of the joint bargaining coefficients. There are no *a priori* expectations regarding the signs of the coefficients of PFEM, although this variable is expected to proxy otherwise unobservable effects, such as discrimination or the nature of the production process.

Principal Results

Several notable results emerge from this exploratory analysis. First, it appears that variations in the indexes of union rankings for outcomes are more sensitive to economic conditions than the indexes of management rankings. The effect on union rankings of being associated with a manufacturing establishment differs among outcome categories (the effect of industry is significant for all but one category) suggesting that the manufacturing control variable may in fact proxy unobserved employee concerns related to employment in that sector. For the union, higher female membership levels are associated with a higher ranking-index for each of Hours and Days of Work (consistent with expected tastes by females for schedules that accommodate household and child-rearing responsibilities), Vacations and Leaves (consistent with expected greater demands by females for maternity-related leaves), and Employee Security (possibly reflecting a desire for mechanisms that reduce or prevent gender discrimination). While the pattern of union results for the international affiliation variable are not consistent among categories, the results suggest that the influence of the parent union on the preferences of the locals is significant and that it varies by outcome. Notably, the coefficient of the international affiliation variable is negative in three of the union pecuniary regressions, lending support to a «concession bargaining» hypothesis. Finally, the effect of the size of the bargaining unit on union rankings of categories also varies considerably among groups of outcomes, perhaps suggesting that as the size of the bargaining unit varies, so too does the heterogeneity of preferences.

For the firm the results suggest that, relative to non-manufacturing firms, manufacturing firms have a different structure of preferences among some outcomes — particularly in the Technological Change category, for which we expected the management of manufacturing firms to place a higher priority on favourable outcomes, relative to non-manufacturing

firms. However, the differing effect (among categories) of being a manufacturing establishment likely reflects unobserved firm effects associated with that sector. As with the union results, the effect of bargaining unit size varies across outcome-ranking regressions, suggesting that unit size may reflect unobserved management concerns associated with the size of the workforce. Also in accord with the results for the union, the presence of joint bargaining at firms is associated with both high and low management rankings for various pecuniary and nonpecuniary categories with no consistent pattern of results.

Table 3

Summary of Expected Signs and Empirical Results For the Union Preference Equations[a]

Panel A

Dependent Variable/ Explanatory Variable[b]		$PUSEC_u$	$PTECH_u$	$PEMPSEC_u$	$PGRIEV_u$	$PVAC_u$	$PHOURS_u$
LGDP	E[c]	?	–	–	?	+	?
	R[c]	–	+	+	–	–	–
	S[c]	Y	Y	N	N	Y	Y
UR	E	?	+	+	?	–	?
	R	+	+	+	–	–	–
	S	Y	N	Y	N	Y	N
MANU	E	?	+	?	?	?	?
	R	–	+	–	–	+	–
	S	Y	Y	Y	Y	Y	Y
JB	E	+	?	?	+	?	?
	R	+	–	+	+	–	+
	S	Y	N	N	N	N	N
LOCALS	E	+	+	?	?	?	?
	R	+	–	–	+	–	–
	S	N	Y	Y	Y	Y	Y
LMEMBER	E	+	+	?	?	?	?
	R	–	+	+	–	+	+
	S	N	Y	Y	N	Y	Y
STRIKES	E	?	?	?	?	?	?
	R	+	–	–	+	+	+
	S	Y	N	N	N	N	Y
INTL	E	+	?	?	?	–	?
	R	+	+	+	–	+	–
	S	Y	N	Y	Y	Y	Y
LUNITSIZE	E	?	?	+	+	+	+
	R	+	–	–	+	–	+
	S	Y	Y	Y	Y	Y	Y
PFEM	E	?	?	+	?	+	+
	R	+	+	+	–	+	+
	S	Y	N	Y	Y	Y	Y

Panel B

Dependent Variable/ Explanatory Variable[b]		$PALLOW_u$	$POVERT_u$	$PPAYGUAR_u$	$PHEALTH_u$	$PWMR_u$	$PFRINGE_u$
LGDP	E	+	+	+	+	?	+
	R	-	+	-	+	+	+
	S	Y	N	N	Y	N	Y
UR	E	-	-	-	-	?	-
	R	+	-	+	-	+	-
	S	N	Y	Y	Y	Y	Y
MANU	E	?	+	?	+	?	?
	R	+	+	-	+	+	-
	S	Y	Y	Y	Y	N	Y
JB	E	?	?	+	?	+	?
	R	+	-	+	-	-	+
	S	Y	Y	N	Y	Y	N
LOCALS	E	?	?	+	?	+	?
	R	+	+	+	-	+	-
	S	Y	N	Y	N	Y	Y
LMEMBER	E	?	?	+	?	+	?
	R	+	-	-	-	-	+
	S	N	Y	Y	N	Y	Y
STRIKES	E	?	?	?	?	?	?
	R	+	+	+	-	-	-
	S	N	N	Y	Y	Y	N
INTL	E	-	-	-	-	+	-
	R	-	-	-	+	+	+
	S	Y	Y	Y	N	Y	N
LUNITSIZE	E	-	-	+	-	+	+
	R	+	-	+	-	+	-
	S	Y	N	Y	Y	Y	Y
PFEM	E	?	?	?	?	?	?
	R	-	+	+	-	-	+
	S	Y	N	Y	Y	Y	Y

Notes:

a Summary results are not provided for the year, economic, and demographic control variables.

b Variables are defined in Table 2.

c E = expected variable coefficient sign;
R = coefficient sign actually obtained;
S = Y if the coefficient obtained is statistically significantly different from zero at the ,05 level in a two-tailed test;
= N if the coefficient obtained is not statistically significant.

Table 4

Summary of Expected Signs and Empirical Results for the Firm Preferences Equations[a]

Panel A

Dependent Variable/ Explanatory Variable[b]		$PUSEC_f$	$PTECH_f$	$PEMPSEC_f$	$PGRIEV_f$	$PVAC_f$	$PHOURS_f$
LGDP	E[c]	?	-	-	-	-	-
	R	+	-	+	-	+	-
	S	Y	Y	Y	Y	Y	Y
UR	E	?	+	+	+	+	+
	R	-	+	+	-	-	+
	S	Y	Y	Y	Y	Y	Y
LUNITSIZE	E	?	?	+	+	+	+
	R	-	+	-	+	-	-
	S	Y	Y	Y	Y	Y	Y
MANU	E	?	+	+	+	?	+
	R	+	+	+	-	+	-
	S	Y	Y	Y	Y	Y	Y
JB	E	?	?	?	?	?	?
	R	+	+	-	+	+	+
	S	Y	N	N	N	N	Y
PFEM	E	?	?	?	?	?	?
	R	+	+	-	+	-	+
	S	Y	Y	Y	Y	N	Y

Panel B

Dependent Variable/ Explanatory Variable[b]		$PALLOW_f$	$POVERT_f$	$PAYGUAR_f$	$PHEALTH_f$	$PWMR_f$	$PFRINGE_f$
LGDP	E[c]	-	-	-	-	-	-
	R	-	+	+	+	-	-
	S	Y	Y	Y	Y	Y	N
UR	E	+	+	+	+	+	+
	R	+	-	-	-	+	-
	S	Y	N	Y	Y	Y	Y
LUNITSIZE	E	+	+	+	+	+	+
	R	+	-	+	-	+	+
	S	Y	Y	Y	Y	Y	Y
MANU	E	?	?	?	?	+	?
	R	+	-	-	+	+	+
	S	N	Y	Y	Y	Y	Y
JB	E	?	?	?	?	?	?
	R	+	+	-	-	-	-
	S	Y	Y	Y	Y	Y	N
PFEM	E	?	?	?	?	?	?
	R	+	+	-	-	-	+
	S	N	Y	N	Y	Y	Y

Notes:

a Summary results are not provided for the year, economic, and demographic control variables.

b Variables are defined in Table 2.

c E = expected variable coefficient sign;
R = coefficient sign actually obtained;
S = Y if the coefficient obtained is statistically significantly different from zero at the ,05 level in a two-tailed test;
= N if the coefficient obtained is not statistically significant.

CONCLUDING REMARKS

There has been very little study of the relative importance of particular contract outcomes to unions and firms. By making use of a unique data set based on a survey of the preferences of officers of union locals and firms located across Canada, this analysis has directly investigated the relative importance of various bargaining outcomes to the parties themselves.

Interestingly, the survey results show that among categories, firms on average ranked Wages and Pay Guarantees, Employee Security, Worker-Management Relationship and Hours and Days of Work categories highest, while the unions, on average, ranked Employee Security, Union Security, and Wages and Pay Guarantees categories highest. Significantly, these are areas which have been demonstrated concerns of unions and firms throughout the 1980s. The exploratory regression results for the determinants of individual outcome-rankings reveal that, generally, different variables were found to determine the rankings of the parties. Union characteristics, including the gender composition of the membership, affiliation and size of the unit, and firm characteristics, such as industrial category and bargaining unit size, had significant but differential impacts on the rankings of the various outcomes.

The pattern of contract outcomes ultimately observed depends in part on the relative importance the parties associate with particular contract outcomes, which is in turn determined by the characteristics of the union, the firm and the bargaining environment; the analyses of outcome preferences therefore complements the bargaining outcomes literature. The survey of bargaining preferences reveals a configuration of priorities for the union which is in some respects substantially different than the configuration of priorities for the firm, so that we would expect the corresponding bargaining agendas to also differ. However, a key element of the model of outcome determination (Figure 1) is that bargaining power, in the context of the respective parties' agendas, jointly determines observed bargaining outcomes. Therefore, while the results confirm that priorities vary among outcomes and that there appears to be an association between many of the characteristics of the parties and the rankings-indexes, future analyses should explore whether the preferences of the parties affect the actual outcomes of the bargaining process and how the respective actors' bargaining goals are combined with bargaining power to yield outcomes.

One implication concerns the need to incorporate the views of Dunlop (1944), Ross (1947a, 1947b, 1950) and Walton and McKersie (1965), that leaderships' attempt to maximize outcomes and that leaderships are reactive to internal interest groups, in the development of formal models of the

mechanisms which determine the priorities of the parties. Further, the regression results suggest that many explanatory variables in the analysis may capture unobserved and possibly confounding effects. Consequently, any model developed to explain priorities should allow variables to be more uniquely identified (empirically) as firm and union characteristics. Additional firm and union characteristics such as measures of employer size, firm capital intensity, degree of democracy in the union, and the presence of unique constituencies within the organization, would likely greatly enhance the explanatory power of a model of the determination of bargaining priorities.

The results of this analysis highlights the diversity of the goals of unions and firms as organizations with complex internal dynamics. Future research should therefore explore the distinction between the goals of the local union leadership and the preferences of the membership, the relationship between the preferences of the international leadership and local leaderships, and the ultimate effects of these internal dynamics on the goal formulation of local leaders. Finally, given the importance of public sector labour relations in Canada, future analyses of union and firm preferences should be extended to the public sector.

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Les préférences des syndicats et des employeurs touchant les résultats de la négociation dans le secteur privé

Afin de donner un certain aperçu de l'importance que syndicats et entreprises accordent aux différents enjeux en négociation, l'auteur examine un ensemble de données uniques, tirées d'une enquête portant sur les objectifs poursuivis dans la négociation par les parties dans le secteur privé au Canada. Suit une analyse empirique exploratoire d'un ensemble d'équations caractérisant le classement que font les parties de plusieurs enjeux de négociation. Essentiellement, l'auteur a adopté une méthode de recherche inductive en présumant que les particularités propres aux syndicats et aux employeurs, de même que le milieu ambiant susceptible de les influencer, sont sensés déterminer l'importance qu'ils associent à diverses modalités de règlement.

Des questionnaires distincts ont été utilisés pour obtenir des présidents des syndicats locaux et des directeurs des relations du travail des entreprises leur évaluation de l'importance de chacune des douze catégories de clauses suivantes: sécurité syndicale; sécurité d'emploi; procédure de règlement des griefs et d'arbitrage; heures et semaine de travail; heures supplémentaires et primes; salaires et garantie du traitement; vacances et congés payés; allocations et indemnités; changements technologiques; prestations de maladie, de sécurité et d'invalidité; relations patronales-

syndicales; avantages sociaux. On a demandé aux répondants tant patronaux que syndicaux d'évaluer l'importance d'obtenir des résultats dans chacune de ces douze catégories s'ils avaient respectivement à négocier dans sa totalité une nouvelle convention collective à ce moment-là avec leur employeur ou leur syndicat. L'échantillon total de l'enquête comprenait 304 syndicats et 280 bureaux du personnel. Le taux des réponses a atteint 51 pour cent pour les entreprises et 26 pour cent pour les syndicats.

Dans l'ensemble, les résultats de cette recherche fournissent une estimation valable des sujets de négociation susceptibles d'être d'une importance permanente pour les employeurs et pour les syndicats. D'une façon plus spécifique, les entreprises ont placé en tête de liste les salaires et la garantie du traitement, la sécurité d'emploi, les relations patronales-syndicales, les heures et la semaine de travail, alors que les syndicats ont opté pour la sécurité d'emploi, la sécurité syndicale, les salaires et la garantie du traitement. Les entreprises ont rangé la sécurité syndicale en queue de liste et les syndicats ont accordé la plus faible priorité aux relations patronales-syndicales.

Le plus grand écart dans l'ordre de rangement pour les parties se constate dans les catégories se rapportant aux relations patronales-syndicales et à la sécurité syndicale. Toutes choses égales, on pourrait alors s'attendre à ce que les employeurs et les syndicats puissent s'entendre sur ces deux points plus facilement que sur les sujets auxquels ils tiennent tous les deux davantage, principalement les salaires et la garantie du traitement ainsi que la sécurité d'emploi.

En second lieu, dans une analyse exploratoire du rapport entre les indices des priorités de négociation des parties et les facteurs susceptibles de donner lieu à la formulation de leurs préférences sous-jacentes en vue d'un règlement final, les indices de collocation des employeurs et des syndicats pour chacune des douze catégories d'enjeux de négociation de l'enquête ont été établis et analysés en fonction d'un vecteur de variables pour les entreprises, les syndicats et le milieu ambiant, ce dernier utilisé comme moyen de contrôle, de façon à prévoir le classement en tenant compte de chacune des parties. Les variables indépendantes avaient été tirées de 2148 conventions collectives négociées dans le secteur privé au Canada au cours de la période 1975-1984 ainsi que de diverses publications du gouvernement canadien. L'étude empirique consistait à évaluer 24 équations de forme abrégée correspondant aux douze enjeux précités, respectivement pour les syndicats et les entreprises. L'analyse exploratoire de l'établissement du classement des accords considérés individuellement révèle que, généralement, différentes variables concouraient à fixer le rang accordé par les parties: les caractéristiques propres aux syndicats, y inclus le sexe de ses membres, l'affiliation syndicale, l'importance de l'unité de négociation; les caractéristiques propres aux entreprises, tels que le type d'industrie et l'ampleur de l'unité de négociation, avaient des impacts significatifs mais différents sur le classement des divers enjeux.

Alors que les résultats de la recherche confirment que les priorités varient selon les enjeux en négociation et qu'il semble y avoir une relation entre plusieurs des caractéristiques des parties et leur classement de ceux-ci, de nouvelles études seraient nécessaires pour savoir si les préférences des parties exercent une influence sur l'issue finale du processus de négociation et sur la façon dont les fins de négociations recherchées se rattachent au pouvoir de négociation afin d'en arriver à une entente définitive.