

Do Unions Affect Pay Methods of Canadian Firms? A Longitudinal Study

Richard J. Long et John L. Shields

Volume 64, numéro 3, été 2009

URI : <https://id.erudit.org/iderudit/038551ar>

DOI : <https://doi.org/10.7202/038551ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Département des relations industrielles de l'Université Laval

ISSN

0034-379X (imprimé)

1703-8138 (numérique)

[Découvrir la revue](#)

Citer cet article

J. Long, R. & L. Shields, J. (2009). Do Unions Affect Pay Methods of Canadian Firms? A Longitudinal Study. *Relations industrielles / Industrial Relations*, 64(3), 442–465. <https://doi.org/10.7202/038551ar>

Résumé de l'article

Les syndicats ont-ils une influence sur les modes de rémunération des entreprises au Canada ? Une étude longitudinale

Au moment de convenir d'une politique de rémunération, les entreprises doivent prendre deux types de décisions. D'abord, elles doivent préciser le montant global de la rémunération qu'elles vont offrir à leurs salariés. Ensuite, elles doivent décider de la combinaison et du poids relatif des méthodes par lesquelles cette rémunération sera offerte (leur « régime de rémunération »). Cependant, contrairement aux nombreuses recherches portant sur les facteurs pouvant expliquer le montant de rémunération qu'une entreprise peut offrir, très peu s'intéressent aux raisons qui peuvent expliquer la façon dont une entreprise distribue ce montant global par le biais des diverses méthodes de rémunération. À ce sujet, on peut distinguer trois méthodes : la rémunération de base, la rémunération au rendement et la rémunération indirecte. Cette dernière peut aussi donner lieu à une distinction supplémentaire selon qu'elle est ou non associée à la rémunération d'un travailleur particulier, à une équipe ou un groupe, ou encore à l'entreprise dans son ensemble. La rémunération de base est l'élément garanti de la rémunération globale sur une base horaire, hebdomadaire, mensuelle ou annuelle, alors que la rémunération indirecte consiste en différents avantages, tels que les pensions et les régimes d'assurance, qui ne font pas partie de la rémunération directe en espèces, mais qui, par ailleurs, constituent une partie très importante des dépenses de l'entreprise au chapitre de la rémunération globale.

Pour cette étude, nous retenons deux courants de données recueillies auprès de 250 entreprises de taille moyenne à grande au cours des années 2000 et 2004, afin d'évaluer l'impact que peut avoir un syndicat sur les composantes de la rémunération dans la catégorie d'employés à temps plein, non cadres.

En ce faisant, nous avons contrôlé l'impact possible d'autres facteurs sur la composition de la rémunération, incluant le secteur industriel et quelques caractéristiques choisies de la main-d'oeuvre. À notre connaissance, il s'agit là d'une première étude sur la composition de la rémunération qui inclut le spectre complet de ses éléments en retenant la rémunération indirecte, ce qui permet de distinguer la rémunération au rendement selon trois paliers principaux où il est possible d'évaluer le rendement. Nous avons aussi utilisé une approche longitudinale. La contribution principale de notre étude consiste en une meilleure compréhension de l'impact des syndicats au Canada sur la mixité des méthodes de rémunération au niveau de l'entreprise dans un contexte canadien.

Notre attente principale est à l'effet que les syndicats joueront un rôle important au plan de la mixité choisie des modes de rémunération d'une entreprise. Elle est confirmée, d'une manière constante, seulement dans le cas de la rémunération indirecte. En effet, on constate que les salariés dans les entreprises les plus syndiquées ont une proportion de rémunération indirecte dans leur rémunération totale plus élevée que celle des salariés dans les entreprises les moins syndiquées, aussi bien en l'an 2000 qu'en l'an 2004. Cette conclusion corrobore l'argument à l'effet que les syndicats sont fortement enclins à privilégier la sécurité pour leurs membres, sécurité que procurent les avantages sociaux offerts aux employés.

Ces observations permettent de tirer des conclusions clés. D'abord, en l'an 2000, les syndicats ont possiblement été en mesure de capitaliser leurs préférences pour une proportion plus élevée de rémunération indirecte en recourant entièrement aux « économies » obtenues suite à une réduction de la rémunération individuelle au rendement, rendant ainsi inutile toute relation d'arbitrage entre la rémunération de base et la rémunération indirecte. D'un point de vue syndical, cela apparaît comme un résultat très fructueux. Ce résultat nous indique également que, quoique la recherche sur la majoration de salaire due à la présence syndicale semble montrer que la capacité d'un syndicat à obtenir de la part des employeurs une rémunération globale plus élevée qu'il n'obtiendrait autrement peut être en chute libre, les syndicats sont encore capables de jouer un rôle important au moment de l'allocation à l'intérieur de la rémunération globale en vue de rencontrer les préférences présomées de leurs membres.

Cependant, cette situation apparaissait moins vraie en 2004. Alors que les syndicats pouvaient encore aller chercher une proportion plus élevée d'avantages sociaux pour leurs membres en 2004, ce résultat a pu être obtenu au détriment de la rémunération de base plutôt qu'à celui de la rémunération au rendement. Il est aussi possible que le ralentissement économique qui est survenu en 2001 ait gêné la capacité des syndicats à avoir un impact sur la composition de la rémunération d'une manière aussi avantageuse pour leurs membres. Au moment où les syndicats continuent à préserver et même à accroître les avantages sociaux pour leurs membres (tel que l'indiquait le coefficient de corrélation beaucoup plus élevé en 2004 qu'en 2000), on constatait que cela ait pu survenir ainsi en « achetant » ces avantages avec des réductions de la rémunération de base.

En somme, on a fait beaucoup de cas de l'influence vacillante des syndicats du secteur privé dans bien des pays au cours de la dernière partie du 20^e siècle et également des défis que les syndicats ont à affronter. Alors que notre étude laisse croire que les syndicats au Canada sont encore en mesure de façonner certains aspects de la négociation des salaires (la composition de la rémunération) dans le sens des intérêts présomés de leurs membres, cette capacité est peut-être même sur le déclin. Quoique les syndicats canadiens soient apparemment capables d'avoir un impact sur la proportion de la rémunération indirecte dans la composition de la rémunération, leur habileté à influencer d'autres éléments de la mixité de la rémunération semble très limitée. En effet, même à l'intérieur de la période de quatre ans couverte par notre étude, les syndicats au Canada ont pu avoir perdu leur capacité d'influencer l'élément clé de la composition de la rémunération, soit l'emploi de la rémunération individuelle associée à la performance, une capacité qu'ils avaient possiblement au début du 21^e siècle.

Do Unions Affect Pay Methods of Canadian Firms? A Longitudinal Study

Richard J. Long and John L. Shields

Drawing on two waves of survey data collected from 250 Canadian firms in 2000 and 2004, this study examines union influence on the mix of compensation methods used by employers. As expected, firms with more unionization devoted a larger proportion of total compensation to indirect pay (also known as “employee benefits”) than did firms with less unionization, a finding that held in both time periods. However, while more unionized firms devoted a smaller share of compensation to individual performance pay in 2000, this was not true in 2004. Also surprising, more unionized firms did not differ significantly from less unionized firms in their proportions of base pay, group performance pay, or organizational performance pay in either time period. The paper concludes that although unions may still have the power to influence some aspects of the wage bargain (i.e. the compensation mix), this power may be declining.

KEYWORDS: unionization, wage bargaining, compensation policy, indirect pay

When deciding compensation policy, firms have two main types of decisions to make. First, they need to determine the total amount of compensation that they will provide to their employees. Second, they need to decide the mix and relative weighting of the methods through which this compensation will be provided (their “compensation mix”). However, as Gerhart and Rynes (2003) note, unlike the extensive research on factors explaining how much pay a firm will offer, relatively little research has been undertaken on the factors that may explain how that firm distributes that total amount across the various pay methods. This is an important omission, since many commentators (e.g., Lawler, 2000; Zingheim and Schuster, 2000) believe that the compensation mix utilized by a firm can be at least as important as the amount of pay in influencing firm performance. Moreover, as Gerhart and Milkovich (1990) have observed, while firms have some discretion in the amount of pay they offer, they have more leeway with the composition of their compensation mix.

Three main methods of pay can be distinguished—base pay, performance pay, and indirect pay—and performance pay can be further differentiated according to whether it is geared to the performance of the individual employee, a work group or team, or the organization as a whole. Base pay is the guaranteed hourly, weekly, monthly or annual component of total compensation, while indirect pay¹ consists of various benefits—such as pensions or health insurance plans—which are not part of direct cash compensation, but which often comprise a very significant part of a firm’s total compensation expenditure.

Richard J. Long is Professor of Human Resources and Organizational Behaviour at the Edwards School of Business of the University of Saskatchewan, Saskatoon, Canada (long@edwards.usask.ca).

John L. Shields is Associate Professor, Discipline of Work and Organisational Studies of the Faculty of Economics and Business at the University of Sydney, Australia (j.shields@econ.usyd.edu.au).

Although some research has examined the role of indirect pay relative to total compensation (Renaud, 1998), the little research that has been conducted on compensation mix has virtually ignored the role of the indirect pay component relative to the other pay components. This is a major omission, not only because of the magnitude of expenditures on indirect pay in many firms, but also because indirect pay represents an important source of variation in compensation mix across firms (Renaud, 1998). Simply examining the mix of base versus variable pay neglects an important part of the total pay picture.

In this paper, we utilize two waves of survey data collected from about 250 Canadian firms in 2000 and 2004 to examine the role of unionization in affecting a firm's compensation mix for full-time nonmanagerial employees. In so doing, we control for several other factors that may also affect compensation mix, including industrial sector and selected workforce characteristics. To our knowledge, this is the first study of compensation mix that includes the full spectrum of its components, including indirect pay, and that differentiates performance pay according to the three main levels at which performance can be measured. Another unique feature is the longitudinal nature of our study, which allows us to assess the consistency of our findings over time. Finally, besides examining the role of unionization in affecting compensation mix, this study also sheds some light on other factors that may influence compensation mix—such as employee gender and education level—which are important questions in their own right.

Before proceeding, it is appropriate to clarify our notion of “total compensation,” on which our concept of “compensation mix” is based. We note that “total compensation” is not the same as “total rewards” (Humber, 2005), since it does not attempt to capture all of the rewards—many of which are non-financial in nature—that may accrue to employees from a particular employment relationship (Vandenberghe, St-Onge and Robineau, 2008). The term “total compensation” is intended to capture only the financial rewards provided by an employer. So, for example, we would consider the financial value of an employer-provided pension plan as part of “indirect pay,” but we would not include an employer-provided games room. While a games room may well be considered an important benefit by employees, it is not practical to try to impute a financial value to it.

Unions and Compensation Mix

Because indirect pay is the component of the compensation mix that has received the least empirical attention, it is of particular interest in our study. There are several reasons why unionized firms may be more likely than non-union firms to provide a higher proportion of total compensation in the form of indirect pay. Given the traditional union focus on protecting the security of their members, unions are expected to bargain for a higher level of employee benefits, since benefits are typically oriented towards satisfying security needs. Moreover, the typical union voter tends to be older than other employees and will thus have a higher preference for benefits such as pension, health, and disability benefits (Renaud, 1998).

Although not extensive, the empirical evidence is consistent with this expectation. In his Canadian sample, Renaud (1998) found that employee benefits indeed constitute a much larger proportion of total compensation for unionized employees, with the indirect pay component of total compensation about 45 per cent higher for unionized employees than for non-union employees. Similarly, U.S. evidence (Milkovich and Newman, 2002) indicates that union presence adds 20–30 per cent to employee benefits, and that indirect pay accounts for almost 35 per cent of total compensation for unionized workers, compared to about 25 per cent for non-union workers.

Turning to base pay, unions have always preferred the security and predictability that comes with base pay that is geared to some unit of time worked (traditionally hours, but preferably a longer unit of time) to the uncertainty of performance pay, which can be highly variable (Freeman, 1982; Hanley and Nguyen, 2005). Moreover, it is generally much easier for unions to monitor base pay—to ensure that the employing organization lives up to its contractual obligations—than performance pay, which may be perceived as more amenable to management manipulation. In addition, unions have traditionally held that less pay differentiation among their members contributes to member solidarity, while higher pay differentiation among members may be divisive (Balkin, 1989; Freeman, 1982; Heery, 1997; Kessler and Purcell, 1995).

However, the extent of union aversion to performance pay may depend on the form that performance pay takes—in particular, whether it is geared to the performance of individual employees (as in the case of merit raises, piece rates, or sales commissions), whether it is geared to the performance of groups of employees (as in the case of gain sharing or goal sharing plans) or whether it is geared to the performance of the organization as a whole (as in the case of employee profit sharing plans and employee stock plans).

Although no single study has examined the full spectrum of performance pay plans, numerous studies have identified factors that may be linked to a firm's choice of particular types of performance pay. For example, Brown (1990) examined the process by which firms choose whether to adopt individual performance pay, and if so, in what form. He suggests that three alternatives available to employers are piece rates, merit raises based on appraised performance, and 'standard pay' (base pay) that does not incorporate any performance dimension, and argues that while merit pay based on supervisory appraisals will be opposed by unions because of the potential for arbitrary use and divisiveness among members, the case for piece rates is not as clear. Piece rates do create the potential for divisiveness through inequality of pay, but may be considered preferable to merit pay, since piece rates are assumed to be more objective. Of course, even with piece rates, there is potential for arbitrary supervisory behaviour, as supervisors may favour some employees by assigning them jobs with 'loose' rates, while assigning out of favour employees jobs with 'tight' rates. In addition, management may arbitrarily cut piece rates once workers increase their productivity.

What is the empirical evidence on union presence and use of individual performance pay? In his U.S. study, Brown (1990) found unionized firms more likely to have standard (time-based) rates and less likely to have merit pay than non-union firms, but

no more or less likely to have piece rates. This latter finding (regarding piece rates) is consistent with the results of studies of individual performance pay in Australia (Drago and Heywood, 1995), Hong Kong (Heywood and Wei, 1997), the United States (Geddes and Heywood, 2003) and Germany (Heywood, Hubler and Jirjahn, 1998; Heywood and Jirjahn, 2002), but not in Canada (Ng and Maki, 1994) or in Britain (Heywood, Siebert and Wei, 1997), where significant negative relationships between union presence and individual performance pay were found. In British studies, Wood (1996) found merit pay less likely in unionized firms, while Guest and Hoque (1994) found unionized firms less likely to use merit pay and other individual incentive practices. A recent interview-based Australian study by Hanley and Nguyen (2005) also showed a union aversion to appraisal-based merit pay, while another Australian study (Brown and Heywood, 2005), drawing on 1995 survey data, found a strongly negative correlation between union density and individual performance appraisal, a key condition for merit pay. In their U.S. study, Geddes and Heywood (2003) found that unionized employees were less likely to be paid by sales commissions, although they were no more or less likely to be paid by merit bonuses.

Overall, just one study could be found that showed a significant positive relationship between union presence and individual performance pay—a study of production incentives in Spain (Bayo-Moriones and Huerta-Arribas, 2002). Therefore, given the weight of theory and empirical evidence, our expectation is that unionized firms will show a lower proportion of individual performance pay in their compensation mixes than will non-union firms.

But what about pay plans geared to group or organizational performance? As discussed earlier, labour theory posits that unions will oppose individually-based performance pay in favour of standard base-pay rates, particularly to promote solidarity and to protect employees from arbitrary wage differences (Freeman, 1982). However, there are several possible reasons to believe that unions may not be opposed to performance pay if it is geared to performance at other than the individual employee level.

Utilizing group or organizational performance pay in addition to standard industry or occupational wage rates may serve as a means for helping union members to increase their earnings in those firms which can afford to pay more, while maintaining a standard industrial wage that does not unduly jeopardize less-profitable firms. Thus, the right combination of standard pay and group or organizational performance pay in a given industry may serve to maximize union member income in that industry, while still maintaining parity in hourly wages across the industry.

At the same time, because group and organizational performance pay plans are collective reward systems, they can be structured so as to avoid creating differences in pay between union members in the same work unit, and may thus avoid union concerns of divisiveness that apply to pay based on individual worker performance. But while both group-based and organization-based performance pay plans are similar in that they operate at a collective level, and gear employee earnings to some measure of the firm's ability to pay, there are also significant differences between these two types of performance pay. Would unions be equally amenable to both types of performance pay?

Since group pay plans tend to be based on 'objective' results-based criteria at the work group level, it is possible that unions will see them as being less susceptible to management manipulation than organization-based plans such as profit sharing (Heneman *et al.*, 1997) and may therefore prefer them to profit sharing or stock plans as a way of sharing organizational wealth. Moreover, many factors beyond worker behaviour can affect company profitability and stock price, which makes payouts from organization-based plans both less controllable by workers and more uncertain than those from group-based plans. For these reasons, unions may prefer group-based performance pay over organization-based performance pay.

Since theory is ambiguous on the possible relationship between union presence and group-based pay, we need to turn to the empirical evidence for guidance. Unfortunately, this evidence is sparse and rests mainly on four studies of one particular type of group-based pay, productivity gain sharing, and one study that examined group premium pay and group piece rates. Two U.S. studies (Eaton and Voos, 1992; Heneman *et al.*, 1997) found gain sharing more common in unionized than in non-union firms, but two Canadian studies (Jones and Pliskin, 1997; Long, 1989) found no relationship between union presence and presence of gain sharing. In the other study, Heywood and Jirjahn (2002) found unionized German firms more likely than non-union firms to have group piece rates, but no more or less likely to have group premium (bonus) pay.

Thus, while there is no empirical evidence for a negative link between union presence and group-based pay, the evidence for a positive link must be seen as inconclusive, especially when one considers that there is no evidence at all regarding some important forms of group pay, such as goal sharing. Therefore, while we are not expecting to find a negative relationship between union presence and proportion of group pay in the compensation mix, neither theory nor current empirical evidence permit firm expectations of a significant positive relationship. Perhaps, from a union perspective, the advantages and disadvantages of group-based plans balance out, and unionized firms will be no different from non-union firms in the extent to which group-based pay is incorporated in their compensation mixes.

While the empirical evidence on the relationship between union presence and organization-based performance pay is more extensive than that for group-based pay, it pertains mainly to one particular form of organization-based pay, employee profit sharing. However, there is some evidence regarding the other major form of organization-based pay, employee stock plans, so each form will be discussed in turn.

Although the evidence regarding profit sharing is mixed, it leans toward a negative relationship with union presence, particularly in North America. For example, in Canada, four studies show a significant negative association between union presence and profit sharing (Jones and Pliskin, 1997; Long, 1989; Ng and Maki, 1994; Wagar and Long, 1995), while one study shows no relationship (Long, 1997). In the United States, three studies show a negative association (Cheadle, 1989; Cooke, 1994; Kim, 1998), while a fourth (Kruse, 1996) shows a negative relationship when using cross-sectional data, but no relationship when using longitudinal data. In Britain, one study

reports a negative relationship (Poole, 1989), one study (Machin and Wood, 2005) shows no association (this being a longitudinal study including both profit sharing and stock plans), and one shows a positive relationship (Gregg and Machin, 1988). Finally, studies in Australia (Drago and Heywood, 1995) and Germany (Carstensen, Gerlach and Hubler, 1992) show no association, while a second German study shows a negative relationship (Heywood and Jirjahn, 2002), and a recent study in Brazil (Zylberstajn, 2002) shows a positive association.

Turning to employee stock plans, Kruse (1996) found that, as with profit sharing, unionized firms in the United States had a significantly lower incidence of employee stock plans, but longitudinal analysis showed that there was no significant difference in adoption rates during the period 1975–1991. In their analysis of Canadian data collected in 1986–87, Jones and Pliskin (1997) found stock plans significantly less common in unionized firms.

Therefore, given this result for stock plans, the generally negative relationships found between union presence and profit sharing, and the traditional union aversion to the uncertainty of variable pay, we would expect a negative relationship between union presence and proportion of organization-based pay in the compensation mix.

Thus, our expectations so far are that unionized firms will devote a significantly larger proportion of total compensation to indirect pay than will non-union firms, a significantly smaller proportion to individual performance pay than will non-union firms, and a significantly smaller proportion to organizational performance pay than will non-union firms. We expect unionized firms to devote either the same or higher proportion of total compensation to group-based performance pay as do non-union firms.

This just leaves our expectations in regard to base pay, which we have not specifically discussed so far. While unions are generally expected to prefer base pay over performance pay, especially individual and organizational performance pay, they may be willing to trade base pay for more indirect pay—up to the point where the marginal utility to their members of indirect pay and direct pay become equal. But they may not have to make any trade-off with base pay to reach this point if the reduced proportion of total compensation that is paid as performance pay covers the higher proportion of indirect pay in the compensation mix that they seek. Thus, the union effect on base pay proportion is an open question.

Industry and Workforce Characteristics

Of course, whether or not a firm has a union presence is only one factor that may influence compensation mix, and we will control for several other factors thought to be relevant, including industrial sector and certain characteristics of the workforce.

In respect to industrial sector, it seems likely that key characteristics of the industries in which firms operate will influence their pay policies. For example, pay based on individual results (such as piece rates or sales commissions) may be more likely to be found in industries where activity is focused on producing physical output (as in manufacturing) or is focused on sales (as in retailing). Service industries (such as

hospitality and finance) may also have a high incidence of individual performance pay, particularly merit pay, given the importance of high quality performance behaviours for many service firms. Industries characterized by revenue volatility, such as resources or retailing, may favour an organization-based pay plan such as profit sharing in order to match labour costs more closely with 'capacity to pay'. Firms in industries with stable technology may be attracted to group-based plans such as gain sharing, based as they are on performance against historical benchmarks, or goal sharing, since establishment of realistic goals is more feasible under stable conditions.

Since very little research has so far focused on industry effects on pay method choice, the importance of industrial sector as a relevant variable affecting company pay policy choices is mainly speculative. However, in the one study that could be located, Tremblay and Chenevert (2004) did find evidence for industry effects, as firms with higher technological intensity were more likely to use individual performance pay than other firms. Despite the paucity of evidence, however, it seems a reasonable possibility that industry factors may influence compensation mix, so controls for industrial sector will be included in our analyses.

Controls for three workforce characteristics—gender composition, education level, and workforce size—will also be included in our analysis. Gender composition is included because a pervasive finding in studies using firm or establishment level data is that firms with a higher proportion of female employees are more likely to use individual performance pay plans, particularly piece rates (Drago and Heywood, 1995; Heywood, Hubler and Jirjahn, 1998; Heywood and Jirjahn, 2002; Heywood, Siebert and Wei, 1997; Heywood and Wei, 1997). Using Australian data, Brown and Heywood (2005) find that a higher level of workforce feminization also correlates very strongly with greater use of individual performance appraisal, a precondition for merit pay.

Education level is included as a control variable because research suggests that this characteristic may affect worker preference for variable pay. For example, studies in Britain (Torrington, 1993) and Japan (Kato, 2002) found that educated workers are particularly interested in receiving rewards tailored to individual performance. On the other hand, however, recent research conducted in Quebec (Vandenberghe, St-Onge and Robineau, 2008) found educational attainment to be negatively related to employee preference for variable pay. As for employers, they may be interested in using performance pay to leverage their valuable investment in highly-educated employees. Overall, the empirical evidence on this issue is scant, but one U.S. study (Geddes and Heywood, 2003) finds that more highly educated employees are more likely to receive individual performance pay.

Education may also affect compensation mix in another way, if employers see use of indirect pay as a way of helping to protect their investment in highly-educated employees by improving retention. On the other hand, recent research in Quebec (Vandenberghe, St-Onge and Robineau, 2008) found educational attainment to be negatively related to employee desire for indirect pay.

Workforce size may also be a relevant factor in predicting compensation mix. Larger firms may have a greater propensity to adopt all forms of performance pay (as

well as indirect pay) since they are more likely to possess the resources to design and maintain such plans, and because they have more employees across whom to spread the fixed costs of plan development and administration (Brown, 1990). Indeed, in their study of British, Canadian, and French firms, Tremblay and Chênevert (2004) found that larger firms relied significantly more on both individual performance pay and group/organizational performance pay (they did not distinguish between group and organizational forms) than did other firms. In his study of fifteen European countries, Cowling (2001) also found workforce size positively related to the presence of individual performance pay. Brown and Heywood (2005) find that larger firms are also more likely to use performance appraisal, which is a key requisite for merit pay.

In their German study, Heywood and Jirjahn (2002) found that establishment size was significantly positively related to measures of individual performance pay and group performance pay, although not to organizational performance pay, which in their study was restricted to profit sharing. However, although there are studies in other countries that have also shown no relationship between firm size and employee profit sharing (Long, 1989; Wagar and Long, 1995; Kruse, 1996), numerous studies have shown a significant positive link between firm size and profit sharing (Poole, 1989; Carstensen, Gerlach and Hubler, 1992; Jones and Pliskin, 1997; Long, 1997; Poole and Jenkins, 1998), while one study has actually found a significant negative relationship (Kato and Morishima, 2003).

In regard to the other main pay plan geared to organizational performance, employee stock plans, research in Canada (Jones and Pliskin, 1997; Long, 1992) and in the United States (Kruse, 1996) has shown significant positive relationships between firm size and presence of these plans. In sum, given the weight of theory and empirical evidence, workforce size is clearly an important control variable to include in our analyses.

Data and Methodology

Data Collection and Sample

The sample included only for-profit business enterprises, thus excluding public sector organizations such as hospitals, universities, government departments, and other not-for-profit organizations. Data collection for the first wave of the survey utilized a mail survey to 1,744 medium to large firms having a head office in Canada, based on a list generated by Dun and Bradstreet, which incorporated a random sampling of industrial sectors. The survey instrument was pre-tested prior to administration, and the first wave was conducted in 2000.

The survey procedure involved an initial telephone call to confirm the name and contact details of the individual with primary responsibility for human resource management within the organization. The survey was then mailed to this individual. If responses were not received with four weeks of the mail-out, follow-up reminder letters were sent. If these elicited no response, reminder phone calls were

also made. Phone calls were also made to clarify ambiguous or incomplete responses. Overall, for the first wave, usable surveys were returned by 246 Canadian firms, giving a response rate of 14.1 per cent. While modest, this response rate is consistent with the usual response levels for this type of research. For example, in a recent study of human resource practices in the United States, Datta, Guthrie and Wright (2005) reported a 15 per cent response rate, and they note that Becker and Huselid (1998) found, in their review of published studies of human resource practices, that response rates ranged from 6 per cent to 28 per cent, with an average of 17.4 per cent.

Since the intent of this study is to examine compensation policies in medium to large companies, we decided to eliminate the small number of firms that reported fewer than 200 employees, leaving 240 firms in our first wave sample. About 44% are independent business units, while most of the remainder are subsidiary units of larger Canadian or foreign enterprises. The number of persons employed at the firms ranges from 240 to 30,000, with a mean size of 1,914 and a median of 911. In all, the firms in this sample employed 459,423 people. Just over half of these firms had at least some unionized employees.

One question that needs to be asked in any survey research is how representative is the sample relative to the population of firms under study—that is, for-profit firms of a medium to large size operating in Canada. We used the Workplace and Employee Survey (WES), conducted by Statistics Canada in 2001 (Statistics Canada, 2004) to address this question. The WES is a large-scale survey that is carefully designed to be representative of the population of for-profit workplaces in Canada.

The WES sample frame was generated from the Statistics Canada Business Register, which is a list of all businesses in Canada, updated monthly. Prior to sample selection, the business locations on the frame were stratified by industry, region, and size (based on estimated employment), and the sample was then selected using a Neyman allocation (Statistics Canada, 2004). To make our sampling frames more comparable, we eliminated workplaces that had less than 200 employees from the WES data set.

We then compared our first wave sample to the WES sample on several characteristics for which there were comparable measures in the two surveys, and this comparison is shown in Table 1. As can be seen, the distribution across industrial sectors is very similar in the two samples. Also similar is the proportion of unionized firms in each sample, as well as the proportions of firms that report having pay plans based on organizational performance and on group performance. Thus, six of the seven characteristics we examined show a close correspondence between the two samples. The seventh characteristic, presence of individual performance pay, is somewhat higher in our sample (reported by 88% of firms) compared to the WES (73% of firms), but this may be due to definitional differences, as our definition of individual performance pay may be somewhat more inclusive than that used by the WES. Overall, these comparisons provide some reassurance that our sample is reasonably representative of medium to large for-profit firms operating in Canada.

TABLE 1
Comparison of Sample Characteristics to Workplace and Employee Survey (WES)

	Sample Mean (2000)	WES Mean (2001)
Service Sector	.59	.60
Manufacturing Sector	.36	.37
Resource Sector	.05	.03
Union Presence	.54	.58
Organizational Performance Pay	.51	.52
Group Performance Pay	.36	.37
Individual Performance Pay	.88	.73

For our second wave of data, collected in 2004, our focus was to first retain as many of the respondent firms from our first wave of data collection as possible. In order to deal with sample attrition, we also used a mail survey procedure similar to that used for collection of the first wave of data. This procedure resulted in 255 respondent firms in the 2004 sample, of which 52% (132) are firms that were also respondents in the 2000 sample.

Variable Measures

To ascertain the typical compensation mix at each firm, respondents were first asked to identify, by job title, a "typical" nonmanagerial job in their organization. Firms usually selected a job title corresponding to their most numerous employee occupational group. For example, trucking companies tended to identify truck drivers, retail establishments tended to identify sales clerks, and insurance companies tended to identify underwriters. Then, for a typical employee in this job, respondents were asked to indicate the percentage of total compensation provided in the form of base pay, individual performance pay, group performance pay, organizational performance pay, and benefits, during the most recent fiscal year. Brief definitions were provided for each component, and it was emphasized that the total of these five components must sum to 100 percent. The definitions provided for each compensation component are as follows:

- Base Pay: "Pay provided on an hourly, weekly, monthly, or annual basis."
- Individual Performance Pay: "Payments in the form of piece rates, commissions, merit pay, individual bonuses, etc."
- Group Performance Pay: "Payments in the form of gain sharing, goal sharing, team incentives, etc."
- Organizational Performance Pay: "Payments in the form of profit sharing, share plans, etc."
- Retirement and Other Financial Benefits: "Other mandatory and optional compensation, such as employer pension contributions, health and life insurance, company car, parking, allowances, and other fringe benefits."

The key advantage of this measure of compensation mix is that the relative importance of each component can be ascertained. This provides a much more sensitive measure of the dependent variables than is normally possible, as many studies simply ascertain whether or not a given firm utilizes each compensation component, and use this dichotomous data as the dependent variable. To our knowledge, this is the first study to measure the relative importance of each compensation mix component. A subsidiary advantage is that our measure is designed to focus on the typical employee at each firm, thus potentially providing a more accurate reflection of the compensation mix policies within a firm.

The measure of unionization utilized in this study is the proportion of the firm's total workforce that is unionized. Compared to the dichotomous measure of union presence that is often used, this measure, by considering the intensity of union coverage at a given firm, should provide a more sensitive measure of the independent variable, and this sensitivity should provide a better chance to detect underlying relationships.²

For the industry and workforce controls, industrial sector is measured by whether the firm reported an operating presence in one of ten possible industrial sectors—resources, manufacturing, construction, utilities, wholesale/retail trade, accommodation/food, transportation, communication, finance/insurance, or "other services." (For the purposes of regression analysis, the "omitted" (comparison) category is "other services.") Gender composition is measured by the proportion of the firm's total workforce that is female. Education level is measured by the proportion of the firm's total workforce that holds university degrees. Workforce size is the total number of persons employed by the firm, with a logarithmic transformation applied for statistical purposes.

Finally, because the specific nature of the occupational group from which respondents have selected their "typical" non-managerial job may affect the way in which these employees in this job are paid, we control for occupational group in our analysis. The "typical" jobs were classified as either blue collar, clerical/administrative, professional/technical, or "other," and controls for the first three occupational groupings (with "other" as the omitted "comparison" category) are included in our multiple regression analyses.

Results

Table 2 provides the means and standard deviations for the independent and control variables, for both the 2000 and 2004 samples. As can be seen, the two samples are similar in most respects, and there are just two significant differences. There is a higher proportion of firms reporting their industrial sector as "other services" in 2004 compared to 2000, and firms are significantly larger in 2004 than in 2000. This latter result is not surprising, since most of the continuing firms in the sample showed growth in employment between 2000 and 2004.

TABLE 2
Means and Standard Deviations of Independent and Control Variables

Variable	2000		2004	
	Mean	(SD)	Mean	(SD)
Resources	.05	(.27)	.04	(.19)
Manufacturing	.37	(.48)	.33	(.47)
Utilities	.03	(.18)	.05	(.23)
Wholesale/retail	.15	(.36)	.16	(.36)
Accommodation/food	.04	(.20)	.07	(.26)
Transportation	.09	(.28)	.11	(.31)
Communication	.08	(.27)	.10	(.30)
Finance/insurance	.13	(.33)	.10	(.30)
Other services	.17	(.38)	.24*	(.43)
Proportion female	.40	(.23)	.39	(.22)
Proportion with university degree	.23	(.23)	.25	(.43)
Workforce size	1916	(3265)	3407**	(8778)
Blue collar	.26	(.44)	.29	(.46)
Clerical/administrative	.38	(.49)	.35	(.48)
Professional/technical	.20	(.40)	.23	(.42)
Other occupation	.15	(.36)	.13	(.33)
Proportion unionized	.29	(.34)	.29	(.34)

* $p < .10$; ** $p < .05$; *** $p < .01$; two tailed tests. Denotes the significance of the difference between the 2004 and 2000 means.

Table 3 reports the proportions of firms, in each data set, using each pay component for their designated employee group, as well as the mean proportions of total compensation accounted for by each component, for all firms, and for only those firms that actually have a given component. This second mean provides a better indication of the role that each pay component plays when that component is actually included within the compensation mix.

As Table 3 shows, almost all firms (93%) in the 2000 data set include some base pay in their compensation mixes for their “typical employees,” while the great majority (79% of firms) also provide indirect pay, in the form of financial benefits. Of the performance pay plans, individual performance pay is the most commonly used plan in 2000—albeit by only a minority of firms (42% of firms), followed by organizational performance pay (25% of firms) and then by group performance pay (17%). This relative ordering of performance pay plan usage is consistent with other research on compensation in Canada (Long, 2010).

In terms of proportion of total employee earnings accounted for by each pay component, taking only firms in which each pay component is actually used, 80% was provided by base pay in 2000, just under 16% was provided by indirect pay, 14% was provided by individual performance pay, about 6% by group performance pay, and 5% by organizational performance pay. The 2004 results show no significant differences in these proportions, nor do they show any significant change in the proportion of firms reporting the

TABLE 3
Compensation Mix in Canadian Firms (2000 and 2004)

	Mean Proportion of Firms using Each Pay Component		Mean Proportion of Total Compensation			
	2000	2004	2000	(SD)	2004	(SD)
BASE PAY	.93	.96	-	-	-	-
Mean of all firms	-	-	.786	(.181)	.794	(.170)
Mean of user firms only	-	-	.801	(.128)	.810	(.128)
INDIVIDUAL PERFORMANCE PAY	.42	.39	-	-	-	-
Mean of all firms	-	-	.061	(.165)	.048	(.139)
Mean of user firms only	-	-	.140	(.227)	.121	(.200)
GROUP PERFORMANCE PAY	.17	.15	-	-	-	-
Mean of all firms	-	-	.011	(.031)	.009	(.037)
Mean of user firms only	-	-	.062	(.047)	.056	(.079)
ORGANIZATIONAL PERFORMANCE PAY	.25	.23	-	-	-	-
Mean of all firms	-	-	.014	(.028)	.011	(.026)
Mean of user firms only	-	-	.052	(.033)	.046	(.035)
INDIRECT PAY	.79	.91***	-	-	-	-
Mean of all firms	-	-	.130	(.103)	.139	(.096)
Mean of user firms only	-	-	.156	(.093)	.152	(.091)

* $p < .10$; ** $p < .05$; *** $p < .01$; two tailed tests. Denotes the significance of the difference between the 2004 and 2000 means.

presence of the five pay components, with one exception. Results show a significantly higher presence of indirect pay as a pay component in the 2004 data set, as 91% of firms report the use of indirect pay in 2004, in comparison to 79% of firms in 2000. While this result may represent a continuation of a long-standing trend towards offering indirect pay, it is also likely to be at least partly due to the higher average size of firms in our 2004 data set. As will be seen shortly, firm size is a significant predictor of usage of indirect pay.

Table 4 presents the multiple regression estimates for each of the five components of compensation mix, based on the 2000 data set. As expected, unionization does affect compensation mix, as Canadian firms with higher union coverage devote a significantly higher proportion of their total compensation to indirect pay, and a significantly lower proportion to individual performance pay, than firms with less union coverage. However, more unionized firms do not have a significantly lower proportion of organizational performance pay than less unionized firms, which is contrary to expectations but consistent with arguments that unions will find this form of performance pay less objectionable than individual forms. More unionized firms also do not differ significantly from less unionized firms in the proportions of group performance pay in their compensation mixes, an issue about which expectations were unclear. Finally, more unionized firms do not differ significantly from less-unionized firms in their proportions of base pay, another issue about which we had no definite expectations. Overall, it appears that unions may be financing their presumed preference for more indirect pay by allowing less individual performance pay.

TABLE 4
OLS Regression Estimates for Components of Compensation Mix, 2000 Data Set

Variable	Base Pay		Individual Perf. Pay		Group Perf. Pay		Organizational Perf. Pay		Indirect Pay	
	Beta	Std error	Beta	Std error	Beta	Std error	Beta	Std error	Beta	Std error
INDUSTRY CONTROLS										
Resources	-.10	6.00	.03	5.42	-.03	1.17	.18**	0.98	.08	3.42
Manufacturing	-.25***	3.42	.15	3.09	-.06	0.66	.14	0.56	.22**	1.95
Utilities	-.04	6.29	.01	5.68	.02	1.23	-.07	1.03	.07	3.58
Wholesale/retail	-.16*	3.89	.20**	3.51	-.04	0.76	.07	0.63	.00	2.21
Accommodation/food	.05	6.97	.07	6.30	-.06	1.35	.07	1.13	-.16*	3.97
Transportation	-.15*	4.79	.05	4.32	-.01	0.93	.02	0.77	.18**	2.73
Communications	-.02	4.80	.05	4.33	-.06	0.94	.14	0.78	-.02	2.61
Finance/insurance	-.15*	4.58	.09	4.14	-.11	0.90	-.05	0.75	.13	2.69
WORKFORCE CONTROLS										
Proportion female	-.24***	0.06	.20**	0.05	.07	0.01	.10	0.01	.07	0.03
Proportion with degree	-.08	0.06	-.05	0.05	-.06	0.01	-.02	0.01	.20***	0.03
Workforce size	-.13*	3.52	.03	3.18	.02	0.69	-.02	0.58	.17**	2.00
OCCUPATIONAL CONTROLS										
Blue collar	-.12	4.56	.13	4.12	.19	0.88	.15	0.75	-.09	2.60
Clerical/administrative	.08	4.32	.03	3.90	.25*	0.83	.17	0.71	-.28**	2.46
Professional/technical	.10	4.72	.01	4.27	.11	0.91	.21*	0.77	-.27**	2.69
PROPORTION UNIONIZED	.03	4.00	-.14*	3.61	-.09	0.78	-.04	0.65	.18**	2.28
R ²	.131**	16.47	.115*	14.87	.056	3.22	.098	2.69	.211***	9.38
N	205		205		206		205		205	

* p < .10; ** p < .05; *** p < .01; two tailed tests.

Turning to some of the other possible predictors of compensation mix, our 2000 data set shows that firms with a higher proportion of female employees used significantly more individual performance pay, and significantly less base pay in their compensation mix, than firms with a lower proportion of female employees, but did not differ in the relative usage of the other three compensation mix components. Workforce education level significantly affected one component of the compensation mix in 2000, as firms with a higher proportion of university-educated employees utilized a significantly higher proportion of indirect pay in their compensation mix. Regarding workforce size, the 2000 data set showed that larger firms had a significantly higher proportion of indirect pay in their compensation mixes, as expected.

Turning to occupational group, Table 4 shows some significant relationships with pay mix in the 2000 data set. Clerical/administrative employees had a significantly higher proportion of group performance pay in their compensation mixes, and a significantly lower proportion of indirect pay. Professional/technical employees had a higher proportion of organizational performance pay in their compensation mixes, and a significantly lower proportion of indirect pay.

Table 5 presents the multiple regression estimates for each of the five components of compensation mix, based on the 2004 data set. As in 2000, unionization shows a significant positive relationship to indirect pay, and no relationship to base pay, group

performance pay, or organizational performance pay. However, unlike 2000, unionization shows no significant relationship to individual performance pay. This may suggest that by 2004, unions were less able to resist the use of individual performance pay than they were in 2000. While the regression coefficient for base pay does not attain statistical significance, we note that in 2004 it has a negative value ($r = -.11$), perhaps suggesting that unions are now being forced to fund indirect pay from reductions to the proportion of base pay in the compensation mix.

TABLE 5
OLS Regression Estimates for Components of Compensation Mix, 2004 Data Set

Variable	Base Pay		Individual Perf. Pay		Group Perf. Pay		Organizational Perf. Pay		Indirect Pay	
	Beta	Std error	Beta	Std error	Beta	Std error	Beta	Std error	Beta	Std error
INDUSTRY CONTROLS										
Resources	-.08	6.34	.15*	5.39	.23***	1.30	.05	0.93	-.18**	3.27
Manufacturing	-.15*	3.05	.13	2.59	.20***	0.62	.03	0.45	.00	1.57
Utilities	-.23***	5.38	.18**	4.57	.25***	1.11	-.04	0.79	.05	2.78
Wholesale/retail	-.06	3.96	.01	3.37	.29***	0.81	-.04	0.58	-.02	2.05
Accommodation/food	-.01	4.95	.03	4.21	.10	1.02	-.07	0.73	-.05	2.56
Transportation	.02	4.24	-.02	3.60	.21***	0.87	-.06	0.62	-.07	2.19
Communications	-.04	4.48	.00	3.80	.23***	0.92	-.04	0.66	-.03	2.31
Finance/insurance	-.07	4.71	-.01	4.00	.38***	0.97	-.01	0.69	-.01	2.43
WORKFORCE CONTROLS										
Proportion female	-.01	0.64	.22***	0.05	-.04	0.01	-.14*	0.01	-.25***	0.03
Proportion with degree	.04	0.07	-.06	0.63	.06	0.02	-.18*	0.01	.05	0.04
Workforce size	-.04	2.78	-.03	2.36	-.02	0.57	.01	0.41	.13*	1.43
OCCUPATIONAL CONTROLS										
Blue collar	-.02	4.22	.02	3.59	.05	0.87	-.23*	0.62	.04	2.18
Clerical/administrative	.12	4.12	-.04	3.50	.02	0.85	-.11	0.60	-.13	2.13
Professional/technical	-.14	4.65	.06	3.95	-.02	0.96	.02	0.68	.16	2.40
PROPORTION UNIONIZED										
R ²	.142**	16.64	.097	14.13	.353***	3.42	.073	2.44	.250***	8.59
N	200		200		200		200		200	

* $p < .10$; ** $p < .05$; *** $p < .01$; two tailed tests.

Turning to the workforce characteristics, as in 2000 the proportion female shows a significant positive relationship to individual performance pay and no relationship to group performance pay. However, unlike in 2000, proportion female shows no relationship to base pay, and significant negative relationships to indirect pay and organizational performance pay. Thus, while our results are very consistent with the virtually universal finding that female employees receive proportionally more individual performance pay than do male employees, they apparently no longer experience a significantly lower proportion of base pay, but they do show lower proportions of indirect and organizational performance pay than do male employees.

Unlike in 2000, education showed no relationship to proportion of indirect pay in 2004, and showed a negative relationship to organizational performance pay. But

consistent with 2000, education showed no relationship with individual performance pay in 2004. This runs contrary to expectations that employers would want to apply individual performance pay to highly educated employees, in order to leverage high performance from these employees. Finally, as in 2000, workforce size showed a significant positive relationship to indirect pay in 2004, and no relationship to individual performance pay, group pay, or organizational pay, but unlike in 2000, workforce size did not show a significant negative relationship to base pay in 2004.

We turn now to occupational groupings. As in 2000, "blue collar" showed no significant relationships to base pay, individual performance pay, group pay, or indirect pay in 2004. However, unlike in 2000, "blue collar" showed a significant negative relationship to organizational performance pay in 2004. As in 2000, "clerical/administrative" showed no relationship to base pay, individual pay, or organizational pay in 2004, but unlike in 2000, "clerical/administrative" showed no relationship to group pay and indirect pay in 2004. As in 2000, "professional/technical" showed no relationship to base pay, individual pay, or group pay in 2004, but unlike in 2000, "professional/technical" also showed no relationship to organizational pay or indirect pay.

Finally, compared to the results for 2000, those for 2004 show industry sector as being a far more significant determinant of variance in the proportional importance of group-based performance pay than in 2000. While the reasons for this are unclear, these results do suggest a substantial shift in the relative importance of group pay by industry sector.

Discussion and Conclusions

Our central expectation, that unions will play a significant role in affecting a firm's chosen mix of pay methods, is supported consistently only in regard to indirect pay, as employees in more unionized firms were found to have a significantly higher proportion of indirect pay in their total compensation than employees in less unionized firms in both 2000 and 2004. This finding is consistent with the argument that unions will be highly disposed towards the security to their members provided by employee benefits, and is consistent with previous research on this issue (Renaud, 1998).

Of perhaps greater interest is the apparent lack of union impact on other components of compensation mix. While there was support in 2000 for the argument that employees in more unionized firms would have a significantly lower proportion of individual performance pay, this was no longer true in 2004. And in both time periods—2000 and 2004—unionization showed no significant relationship to the proportions of base pay, group performance pay, or organizational performance pay in total compensation. While our expectations in regard to base pay and group pay had been unclear, we had certainly expected that organizational performance pay would be lower in more unionized firms.

Overall, these findings suggest several key conclusions. First, in 2000, unions in Canada may have been able to "fund" their preferences for a higher proportion of indirect pay entirely from the "savings" from reduced individual performance pay,

thus making any trade-off between base pay and indirect pay unnecessary. From a union point of view, this would seem a very successful outcome. This would suggest that, although research on the union wage premium appears to show that the ability of unions to extract greater total compensation from employers than they would otherwise pay may be declining (Fang and Verma, 2002), unions were still playing an important role in influencing the internal allocation of total compensation to conform to the presumed preferences of their members.

However, by 2004, this may have been less true. While unions were apparently still able to extract a higher proportion of employee benefits for their members in 2004, this may have now been at the cost of base pay, rather than individual performance pay. It may be that the economic downturn that occurred in 2001 hampered the ability of unions to control the pay mix as advantageously for their members. While unions continue to be able to preserve and even enhance employee benefits for their members (as indicated by a substantially higher regression coefficient in 2004 than in 2000) they may have been forced to do so by “purchasing” these benefits with base pay reductions.

Second, while Canadian unions no longer seem to inhibit variable pay plans based on individual performance, neither do they inhibit the use of variable pay plans based on group or organizational performance. While our expectations were unclear regarding group performance pay, our finding in regard to organizational performance pay is quite surprising, given the weight of empirical evidence suggesting a negative link between unionization and this category of performance pay. However, something to note is that studies showing a negative link between union presence and profit sharing or employee stock plans look only at the incidence of these plans. In contrast, our dependent variable is much more fine-grained than a simple dichotomous variable, and measures the relative amount of compensation that employees actually realize from these plans. It may be that while fewer union employers have employee profit sharing or stock plans, the union may cause their plans to be structured so as to produce more earnings for employees than do plans in non-union firms.

Still another possible explanation for the apparent discrepancy between our findings and previous Canadian findings is a time effect: it may be that organizational performance pay is becoming less objectionable to unions over time. The discrepancy between Kruse's (1996) cross-sectional data and his longitudinal data is consistent with this explanation.

Finally, although the major focus of our inquiry is the influence of unions in setting compensation mix, our study also provides some evidence regarding other possible predictors of compensation mix, an important question in its own right. In line with previous research, our results consistently support the expectation that the pay of female employees will be based more heavily on individual performance than is the pay of male employees. However, beyond that, our findings regarding employee gender differ over time, in three ways. In 2000, firms that employed a higher proportion of female employees paid a significantly lower proportion of base pay than other firms, but this relationship was no longer evident in 2004, perhaps suggesting that female employees are no longer giving up base pay for their higher individual performance

pay. Second, in 2004 (although not in 2000), firms with more female employees included a significantly lower proportion of employee benefits in their compensation mixes. This finding may suggest that female employees are “paying for” equality in base pay by receiving fewer benefits. Third, unlike 2000, female employees are receiving a lower proportion of total compensation in the form of organizational performance pay than male employees in 2004.

Regarding education level, firms that employed more highly-educated employees showed a higher proportion of indirect pay in their compensation mixes in 2000 (in line with expectations), but not in 2004. And the argument that firms will utilize relatively more performance pay for highly educated employees in order to leverage their investments in these employees received no support at all. In fact, in 2004, there is a significant negative relationship between education level and proportion of organizational performance pay in the compensation mix.

Finally, regarding workforce size, our results consistently confirm the expectation that larger firms will offer more indirect pay. Smaller firms are less able to enjoy economies of scale in purchasing employee benefits, or to have the necessary human resources for administering benefits plans, which are a much more complicated way of compensating employees than simply providing cash. But perhaps surprisingly, larger firms are not more likely to provide a higher proportion of individual, group, or organizational performance pay in their compensation mixes than smaller firms. However, one possible reason for this is restriction of size range in our sample, as firms with less than 200 employees were excluded from our sample. If the size range were less restricted on the low end, perhaps the expected effect (i.e., larger firms having higher proportions of performance pay) would show up.

As with all empirical inquiry, this study has both strengths and limitations. Strengths include the simultaneous measurement of all the major components of compensation mix within the same study, and measurement of the relative intensity of these components within the compensation mix, as well as the longitudinal design of this study. Limitations include sample size, response rate and model explanatory power. Although it falls within the current norms for survey research, a higher response rate would have been desirable, which would of course have had the subsidiary benefit of creating a larger sample size. However, comparison of key characteristics of our sample with the much larger Workplace and Employee Survey seems to suggest that our sample is reasonably representative of the population under study. Depending on the compensation mix variable under investigation, the model's level of explained variance ranges from 7 per cent to 35 per cent in 2004. Our model thus accounts for only a modest degree of variance in compensation mix, and suggests that numerous determinants have been omitted from this study.

There are several methodological issues about which readers should be aware. One issue is in regard to the “typical non-managerial job” chosen as the exemplar of compensation mix policy at each firm. In non-union firms, which comprise about half of our sample, we know that the “typical job” is not unionized. However, in unionized firms, we do not definitively know that the chosen job is a union job. While inspection of the

“typical job” titles selected by respondents in unionized firms suggests that these jobs are almost always consistent with what we would expect to be union jobs (for example, in unionized trucking firms the “typical job” is always “truck driver”; in unionized manufacturing firms the “typical job” is almost always “production worker”), to the extent that some of the “typical jobs” in unionized firms are not actually union jobs, this will attenuate relationships between unionization and compensation mix.

Another possible issue is that of endogeneity. In the case of our study, endogeneity would occur if, say, non-union firms altered their compensation mix from that of union firms in order to avoid unionization. To the extent that this occurs, then differences in compensation mix between union and non-union firms may not stem from union influence. The main impact of endogeneity would be to exaggerate the possibility of finding significant relationships between unionization and components of the compensation mix. However, our main finding is a lack of relationships between unionization and compensation mix, with the primary exception of indirect pay. Here, it is hard to see how non-union employers would seek to avoid unionization by offering fewer employee benefits than unionized employers, so endogeneity does not appear to be a problem here.

In sum, much has been made of the declining influence of private sector unions in many countries over the last part of the twentieth century, and the challenges that unions face (Gunderson, Ponak and Taras, 2005). While our results suggest that Canadian unions are still able to shape some aspects of the wage bargain (the compensation mix) in the presumed interests of their members, even this ability may be in decline. Although Canadian unions are apparently still able to affect the proportion of indirect pay in the compensation mix, their ability to affect other components of the compensation mix seems very limited. Indeed, even within the four-year time span of our study, Canadian unions may have lost their ability to affect a key component of the compensation mix—the use of individual performance pay—an ability that they appeared to possess at the beginning of the twenty-first century.

Notes

- 1 We much prefer the term “indirect pay” over the term “employee benefits” because “indirect pay” acknowledges that “employee benefits” have become an important part of total compensation for many firms, and should be considered as a form of pay, just as base pay and performance pay are so considered.
- 2 In analysis not included in this paper, we did run multiple regressions utilizing the dichotomous measure of unionization and found, as would be expected, substantial attenuation of key relationships.

References

- Balkin, D.B. 1989. “Union Influences on Pay Policy: A Survey.” *Journal of Labor Research*, 1, 299–307.
- Bayo-Moriones, A., and E. Huerto-Arribas. 2002. “The Adoption of Production Incentives in Spain.” *British Journal of Industrial Relations*, 40 (4), 709–724.
- Becker, B.E., and M.A. Huselid. 1998. “High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications.” *Research in Personnel and Human*

- Resource Management*, G.F. Ferris and K.M. Rowland, ed. Greenwich, CT: JAI Press, 53–101.
- Brown, C. 1990. "Firms' Choice of Method of Pay." *Industrial and Labor Relations Review*, 43 (3), 165–182.
- Brown, M., and J. Heywood. 2005. "Performance Appraisal Systems: Determinants and Change." *British Journal of Industrial Relations*, 43 (4), 659–679.
- Carstensen, V., K. Gerlach, and O. Hubler. 1992. "Profit-sharing in German Firms: Institutional Framework, Participation, and Microeconomic Effects." Paper presented at the WZB Workshop, Institutional Frameworks and Labor Market Performance, Berlin: Hanover University.
- Cheadle, A. 1989. "Explaining Patterns of Profit-Sharing Activity." *Industrial Relations*, 28 (3), 387–400.
- Cooke, W.N. 1994. "Employee Participation Programs, Group-Based Incentives, and Company Performance: A Union–Non-Union Comparison." *Industrial and Labor Relations Review*, 47 (3), 594–609.
- Cowling, M. 2001. "Fixed Wages or Productivity Pay: Evidence from 15 EU Countries." *Small Business Economics*, 16 (3), 191–204.
- Datta, D.K., J.P. Guthrie, and P.M. Wright. 2005. "Human Resource Management and Labor Productivity: Does Industry Matter?" *Academy of Management Journal*, 48 (1), 135–145.
- Drago, R., and J. Heywood. 1995. "The Choice of Payment Schemes: Australian Establishment Data." *Industrial Relations*, 34 (4), 507–531.
- Eaton, A., and P. Voos. 1992. "Unions and Contemporary Innovations in Work Organization, Compensation, and Employee Participation." *Unions and Economic Competitiveness*, L. Mishel and P. Voos, ed. New York: M.E. Sharpe, 173–205.
- Fang, T., and A. Verma. 2002. "Union Wage Premium." *Perspectives on Labour and Income*, September, 13–19.
- Freeman, R. 1982. "Union Wage Policies and Wage Dispersion within Establishments." *Industrial and Labor Relations Review*, 36 (1), 3–21.
- Geddes, L.A., and J. Heywood. 2003. "Gender and Piece Rates, Commissions and Bonuses." *Industrial Relations*, 42 (3), 419–444.
- Gerhart, B., and G. Milkovich. 1990. "Organizational Differences in Managerial Compensation and Financial Performance." *Academy of Management Journal*, 33, 663–691.
- Gerhart, B., and S. Rynes. 2003. *Compensation: Theory, Evidence, and Strategic Implications*. Thousand Oaks, CA: Sage Publications.
- Gregg, P.A., and S.M. Machin. 1988. "Unions and the Incidence of Performance Linked Pay Schemes in Britain." *International Journal of Industrial Organization*, 6, 91–107.
- Guest, D., and K. Hoque. 1994. "The Good, the Bad and the Ugly: Employment Relations in the New Non-Union Workplaces." *Human Resource Management Journal*, 5 (1), 1–14.
- Gunderson, M., A. Ponak, and D. Taras. 2005. *Union-Management Relations in Canada*. Don Mills, Ontario: Addison Wesley.
- Hanley, G., and L. Nguyen. 2005. "Right on the Money: What do Australian Unions Think of Performance-Related Pay?" *Employee Relations*, 27 (2), 141–159.
- Heery, E. 1997. "Performance-Related Pay and Trade Union Membership." *Employee Relations*, 19 (5), 430–442.
- Heneman, R.L. C. von Hippel, D. Eskew, and D. Greenberger. 1997. "Alternative Rewards in Unionized Environments." *ACA Journal*, 6 (2), 42–55.

- Heywood, J., and X. Wei. 1997. "Piece Rate Systems and the Employment of Women: The Case of Hong Kong." *Journal of Comparative Economics*, 25 (4), 237–255.
- Heywood, J., and U. Jirjahn. 2002. "Payment Schemes and Gender in Germany." *Industrial and Labor Relations Review*, 56 (1), 44–64.
- Heywood, J., W. Siebert, and X. Wei. 1997. "Payment by Results Systems: British Evidence." *British Journal of Industrial Relations*, 35 (1), 1–22.
- Heywood, J., O. Hubler, and U. Jirjahn. 1998. "Variable Payment Schemes and Industrial Relations: Evidence from Germany." *Kyklos*, 51 (2), 233–257.
- Humber, T. 2005. "Total Rewards: One Concept, Many Monikers." *Canadian HR Reporter*, February 14, R3.
- Jones, D., and J. Pliskin. 1997. "Determinants of the Incidence of Group Incentives: Evidence from Canada." *Canadian Journal of Economics*, 30 (4b), 1027–1045.
- Kato, T. 2002. "Financial Participation and Pay for Performance in Japan." *Paying for Performance. An International Comparison*, M. Brown and J. Heywood, ed. Armonk, NY: ME Sharpe, 214–235.
- Kato, T., and M. Morishima. 2003. "The Nature, Scope and Effects of Profit Sharing in Japan: Evidence from New Survey Data." *International Journal of Human Resource Management*, 14 (6), 942–955.
- Kessler, I., and J. Purcell. 1995. "Individualism and Collectivism in Theory and Practice: Management Style and the Design of Pay Systems." *Industrial Relations*, P.K. Edwards, ed. Oxford: Blackwell.
- Kim, S. 1998. "Does Profit Sharing Increase Firms' Profits?" *Journal of Labor Research*, 19 (2), 351–370.
- Kruse, D. 1996. "Why Do Firms Adopt Profit-Sharing and Employee Ownership Plans?" *British Journal of Industrial Relations*, 34 (4), 515–538.
- Lawler, E.E. 2000. *Rewarding Excellence: Pay Strategies for the New Economy*. San Francisco: Jossey Bass.
- Long, R.J. 1989. "Patterns of Workplace Innovation in Canada." *Relations Industrielles/Industrial Relations*, 44 (4), 805–826.
- Long, R.J. 1992. "The Incidence and Nature of Employee Profit Sharing and Share Ownership in Canada." *Relations Industrielles/Industrial Relations*, 47 (3), 463–488.
- Long, R.J. 1997. "Motives for Profit-Sharing: A Study of Canadian Chief Executive Officers." *Relations Industrielles/Industrial Relations*, 52 (4), 712–723.
- Long, R.J. 2010. *Strategic Compensation in Canada*. Toronto: Nelson Education.
- Machin, S., and S. Wood. 2005. "Human Resource Management as a Substitute for Trade Unions in British Workplaces." *Industrial and Labor Relations Review*, 58 (2), 201–218.
- Milkovich, G., and J. Newman. 2002. *Compensation*. New York: McGraw-Hill Irwin.
- Ng, I., and D. Maki. 1994. "Trade Union Influence on Human Resource Management Practices." *Industrial Relations*, 33 (1), 121–135.
- Poole, M. 1989. *The Origins of Economic Democracy: Profit-Sharing and Employee Shareholding Schemes*. London: Routledge.
- Poole, M., and G. Jenkins. 1998. "Human Resource Management and the Theory of Rewards: Evidence from a National Survey." *British Journal of Industrial Relations*, 36 (2), 227–247.
- Renaud, S. 1998. "Unions, Wages, and Total Compensation in Canada." *Relations Industrielles/Industrial Relations*, 53 (4), 710–729.

- Statistics Canada. 2004. *Workplace and Employee Survey Compendium: 2001*. Ottawa: Statistics Canada.
- Torrington, D. 1993. "Sweets to the Sweet': Performance Related Pay in Britain." *International Journal of Employment Studies*, 1 (1), 149–164.
- Tremblay, M., and D. Chênevert. 2004. "The Effectiveness of Compensation Strategies in International Technology Intensive Firms." *International Journal of Technology Management*, 10 (10), 1–17.
- Vandenbergh, C., S. St-Onge, and E. Robineau. 2008. "An Analysis of the Relation between Personality and the Attractiveness of Total Rewards Components." *Relations Industrielles/Industrial Relations*, 63 (3), 425–453.
- Wagar, T.H., and R.J. Long. 1995. "Profit-Sharing in Canada: Incidence and Predictors." *Proceedings of the Administrative Sciences Association of Canada (Human Resources Division)*, 16, 97–105.
- Wood, S. 1996. "High-Commitment Management and Unionization in the U.K." *International Journal of Human Resource Management*, 7 (1), 41–58.
- Zingheim, P., and J. Schuster. 2000. *Pay People Right! Breakthrough Reward Strategies to Create Great Companies*. San Francisco: Jossey Bass.
- Zylberstajn, H. 2002. "The Brazilian Case: Performance Pay as Workers' Rights." *Paying for Performance. An International Comparison*, M. Brown and J. Heywood, ed. Armonk, NY: ME Sharpe, 236–260.

RÉSUMÉ

Les syndicats ont-ils une influence sur les modes de rémunération des entreprises au Canada ? Une étude longitudinale

Au moment de convenir d'une politique de rémunération, les entreprises doivent prendre deux types de décisions. D'abord, elles doivent préciser le montant global de la rémunération qu'elles vont offrir à leurs salariés. Ensuite, elles doivent décider de la combinaison et du poids relatif des méthodes par lesquelles cette rémunération sera offerte (leur « régime de rémunération »). Cependant, contrairement aux nombreuses recherches portant sur les facteurs pouvant expliquer le montant de rémunération qu'une entreprise peut offrir, très peu s'intéressent aux raisons qui peuvent expliquer la façon dont une entreprise distribue ce montant global par le biais des diverses méthodes de rémunération. À ce sujet, on peut distinguer trois méthodes : la rémunération de base, la rémunération au rendement et la rémunération indirecte. Cette dernière peut aussi donner lieu à une distinction additionnelle selon qu'elle est ou non associée à la rémunération d'un travailleur particulier, à une équipe ou un groupe, ou encore à l'entreprise dans son ensemble. La rémunération de base est l'élément garanti de la rémunération globale sur une base horaire, hebdomadaire, mensuelle ou annuelle, alors que la rémunération indirecte consiste en différents avantages, tels que les pensions et les régimes d'assurance, qui ne font pas partie de la rémunération directe en espèces, mais qui, par ailleurs, constituent une partie très importante des dépenses de l'entreprise au chapitre de la rémunération globale.

Pour cette étude, nous retenons deux courants de données recueillies auprès de 250 entreprises de taille moyenne à grande au cours des années 2000 et 2004, afin d'évaluer l'impact que peut avoir un syndicat sur les composantes de la rémunération dans la catégorie d'employés à temps plein, non cadres.

En ce faisant, nous avons contrôlé l'impact possible d'autres facteurs sur la composition de la rémunération, incluant le secteur industriel et quelques caractéristiques choisies de la main-d'œuvre. À notre connaissance, il s'agit là d'une première étude sur la composition de la rémunération qui inclut le spectre complet de ses éléments en retenant la rémunération indirecte, ce qui permet de distinguer la rémunération au rendement selon trois paliers principaux où il est possible d'évaluer le rendement. Nous avons aussi utilisé une approche longitudinale. La contribution principale de notre étude consiste en une meilleure compréhension de l'impact des syndicats au Canada sur la mixité des méthodes de rémunération au niveau de l'entreprise dans un contexte canadien.

Notre attente principale est à l'effet que les syndicats joueront un rôle important au plan de la mixité choisie des modes de rémunération d'une entreprise. Elle est confirmée, d'une manière constante, seulement dans le cas de la rémunération indirecte. En effet, on constate que les salariés dans les entreprises les plus syndiquées ont une proportion de rémunération indirecte dans leur rémunération totale plus élevée que celle des salariés dans les entreprises les moins syndiquées, aussi bien en l'an 2000 qu'en l'an 2004. Cette conclusion corrobore l'argument à l'effet que les syndicats sont fortement enclins à privilégier la sécurité pour leurs membres, sécurité que procurent les avantages sociaux offerts aux employés.

Ces observations permettent de tirer des conclusions clefs. D'abord, en l'an 2000, les syndicats ont possiblement été en mesure de capitaliser leurs préférences pour une proportion plus élevée de rémunération indirecte en recourant entièrement aux « économies » obtenues suite à une réduction de la rémunération individuelle au rendement, rendant ainsi inutile toute relation d'arbitrage entre la rémunération de base et la rémunération indirecte. D'un point de vue syndical, cela apparaît comme un résultat très fructueux. Ce résultat nous indique également que, quoique la recherche sur la majoration de salaire due à la présence syndicale semble montrer que la capacité d'un syndicat à obtenir de la part des employeurs une rémunération globale plus élevée qu'il n'obtiendrait autrement peut être en chute libre, les syndicats sont encore capables de jouer un rôle important au moment de l'allocation à l'interne de la rémunération globale en vue de rencontrer les préférences présumées de leurs membres.

Cependant, cette situation apparaissait moins vraie en 2004. Alors que les syndicats pouvaient encore aller chercher une proportion plus élevée d'avantages sociaux pour leurs membres en 2004, ce résultat a pu être obtenu au détriment de la rémunération de base plutôt qu'à celui de la rémunération au rendement. Il est aussi possible que le ralentissement économique qui est survenu en 2001 ait gêné la capacité des syndicats à avoir un impact sur la composition de la rémunération d'une manière aussi avantageuse pour leurs membres. Au moment où les syndicats continuent à préserver et même à accroître les avantages sociaux pour leurs membres (tel que l'indiquait le coefficient de corrélation beaucoup plus élevé en 2004 qu'en 2000), on constatait que cela ait pu survenir ainsi en « achetant » ces avantages avec des réductions de la rémunération de base.

En somme, on a fait beaucoup de cas de l'influence vacillante des syndicats du secteur privé dans bien des pays au cours de la dernière partie du 20^e siècle et également des défis que les syndicats ont à affronter. Alors que notre étude laisse croire que les syndicats au Canada sont encore en mesure de façonner certains aspects de la négociation des salaires (la composition de la rémunération) dans le sens des intérêts présumés de leurs membres, cette capacité est peut-être même sur le déclin. Quoique les

syndicats canadiens soient apparemment capables d'avoir un impact sur la proportion de la rémunération indirecte dans la composition de la rémunération, leur habileté à influencer d'autres éléments de la mixité de la rémunération semble très limitée. En effet, même à l'intérieur de la période de quatre ans couverte par notre étude, les syndicats au Canada ont pu avoir perdu leur capacité d'influencer l'élément clef de la composition de la rémunération, soit l'emploi de la rémunération individuelle associée à la performance, une capacité qu'ils avaient possiblement au début du 21^e siècle.

MOTS-CLÉS : syndicalisation, négociation salariale, politique de rémunération, avantages hors salaire

RESUMEN

¿Los sindicatos afectan el método de pago de las firmas canadienses? Estudio longitudinal

Basándose en dos periodos de encuesta que colectan datos de 250 firmas canadienses en el año 2000 y 2004, este estudio examina la influencia sindical sobre los métodos de compensación utilizados por los empleadores. Tal que previsto, las empresas con mayor sindicalización dedican una mayor proporción del total de compensaciones a la remuneración indirecta (también conocida como beneficios marginales del empleado) comparativamente a las empresas con menos cantidad de sindicalizados; este resultado se mantiene en ambos periodos. Sin embargo, mientras las empresas con menos sindicalización dedican una parte más pequeña de la compensación a recompensar el rendimiento individual en el año 2000, esto no se confirma en el año 2004. Es también sorprendente que las empresas con mayor sindicalización no se distinguen de manera significativa de las empresas menos sindicalizadas en cuanto a los porcentajes de la remuneración de base, pago por rendimiento de grupo o pago por rendimiento organizacional en cada periodo. El documento concluye que a pesar que los sindicatos pueden aún tener un poder para influenciar algunos aspectos de la negociación salarial (i.e. la estructura de la compensación), este poder puede estar en declive.

PALABRAS CLAVES: sindicalización, negociación salarial, política de remuneración, salario indirecto