Relations industrielles
Industrial Relations

Settlement Rates and Settlement Stages in Compulsory Interest Arbitration

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Volume 51, numéro 4, 1996

URI : https://id.erudit.org/iderudit/051130ar
DOI : https://doi.org/10.7202/051130ar

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Éditeur(s)

Département des relations industrielles de l'Université Laval

ISSN

0034-379X (imprimé)
1703-8138 (numérique)

Découvrir la revue

Citer cet article

Rose, J. B. & Piczak, M. (1996). Settlement Rates and Settlement Stages in Compulsory Interest Arbitration. *Relations industrielles / Industrial Relations*, *51*(4), 643–664. https://doi.org/10.7202/051130ar

Résumé de l'article

Dès qu'on traite de l'arbitrage obligatoire des différends, on se demande si cette procédure de règlement des conflits restreint la véritable négociation collective. La présente étude examine jusqu'à quel point des règlements sont atteints par la négociation et par les différentes étapes du processus de négociation en calculant les taux de ces règlements pour les différents stades ou étapes de négociation. Nous visons, entre autres, à établir jusqu'à quel point le comportement de règlement ou d'entente est différent selon que l'on soit dans un système d'arbitrage obligatoire ou de négociation avec droit de grève. Plus spécifiquement, nous cherchons à vérifier si les taux de règlement sont uniformément plus bas à tous les stades de règlement dans un système d'arbitrage obligatoire. Nous voulons aussi déterminer s'il y a des différences eu égard aux taux de règlement entre quatre systèmes d'arbitrage ontariens — la santé, les employés de la Couronne, les policiers et les pompiers. Enfin, nous comparons les taux de règlement dans le secteur de la santé, où il y a le plus grande nombre de règlements, avec les résultats d'une étude antérieure qui examine l'expérience initiale dans ce secteur suite à l'adoption de la loi sur l'arbitrage obligatoire.

Notre étude est basée sur des données compilées par le ministère du Travail de l'Ontario, pour la période allant de 1982 à 1990, portant sur le règlement des conventions collectives. Ces données couvrent 28 043 règlements impliquant 3 557 613 employés dans trois systèmes différents de négociation. Le système « secteur privé avec droit de grève » (secteur privé), représente 55 % des règlements couvrant 43 % des employés. Le « secteur public avec droit de grève » (secteur public-grève), pour sa part, reflète un peu plus de 20 % des règlements pour 30 % des employés couverts. Finalement, un autre 20 % des règlements pour environ 25 % des employés couverts est associé avec le système « secteur public avec arbitrage » (arbitrage public).

Nous distinguons cinq stades ou étapes de règlements : 1- la négociation directe, i.e. la capacité des parties de régler sans l'intervention d'un tiers ;

2- faute de règlement, les parties ont recours à la conciliation ;

3- un règlement final et volontaire est atteint après la conciliation ;

4- l'arbitrage ;

5- les arrêts de travail.

Nous pouvons résumer les résultats de la façon suivante. D'abord, les tendances de règlements sous un système d'arbitrage diffèrent grandement de ceux atteints sous un système basé sur la grève. Dans le système « d'arbitrage public », la négociation directe n'a produit que 38 % des règlements.

Par contre, le « secteur public-grève » a vu 59 % des règlements atteints par la négociation directe. Les règlements atteints durant les étapes intermédiaires de négociation comptent pour un peu moins de 25 % des règlements dans le système « secteur public-arbitrage ». Voici un contraste frappant avec le « secteur privé » où ces étapes de règlement ont eu des résultats positifs dans 44 % des cas. Cette proportion est de 38 % dans le secteur public-grève. Donc, le système d'« arbitrage public » produit moins de règlements volontaires. Le pourcentage de règlements atteints dans ce secteur sans recours aux procédures finales de solution des conflits est de 63 %, pourcentage beaucoup plus bas que les quelque 94 % dans le « secteur privé » et 96 % dans le « secteur public-grève ».

Ensuite, il existe de grandes variations dans les taux de règlement entre les différents systèmes d'arbitrage. Même si les taux globaux de règlements ont été constamment plus bas en système d'arbitrage qu'en systèmes basés sur la grève, on a eu recours à l'arbitrage de façon beaucoup plus prononcée dans le secteur de la santé. En effet, la proportion des règlements conclus à l'étape de l'arbitrage dans ce secteur était du double de celle atteinte pour les policiers et pompiers et du tiers plus élevé que pour les employés de la Couronne.

Ces résultats démontrent que les comportements de règlement varient considérablement selon les systèmes d'arbitrage. Ils suggèrent également que la véritable négociation collective est niée dans les systèmes d'arbitrage obligatoire. Alors que les taux de règlement étaient généralement plus bas dans les systèmes d'arbitrage par rapport à ceux basés sur la grève, le système d'arbitrage du secteur de la santé a produit le moins de règlements à l'occasion de la négociation directe et la plus haute dépendance à l'arbitrage. Les règlements volontaires étaient plus fréquents dans les petites unités de négociations. Cependant, la taille explique moins les comportements et règlements dans le secteur de la santé. La variation dans les taux de règlement entre les systèmes d'arbitrage dépend plus des différences dans les structures de négociation et autres particularités du processus de négociation que des différences dans les procédures d'arbitrage. Le volontarisme et l'indépendance étaient plus présents là où des pratiques de négociations étaient bien établies, l'arbitrage était prévisible et les conventions étaient de courte durée et de dates d'expiration communes. À l'opposé, les arrangements institutionnels dans le secteur de la santé (v.g. des pratiques de négociations plus complexes et diversifiées, moins de certitude eu égard aux résultats de l'arbitrage, des conventions plus longues et l'absence de date uniforme d'expiration) empêchent la négociation et accroissent la dépendance envers l'arbitrage.

Settlement Rates and Settlement Stages in Compulsory Interest Arbitration

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One of the prevailing concerns about compulsory interest arbitration is its possible effect on genuine collective bargaining. Numerous studies report overall settlement rates (i.e., the proportion of settlements achieved prior to the final impasse procedure) are lower in arbitration systems than in strike-based systems. This study attempts to provide a broader assessment of the effect of compulsory arbitration by calculating settlement rates for different settlement stages. Based on over 28,000 collective agreements negotiated in Ontario between 1982 and 1990, our results show that settlement rates were generally lower under arbitration. At the same time, settlement behaviour varied considerably across arbitration systems. These differences are associated with specific institutional and organizational aspects in bargaining.

A persistent theme in the literature on compulsory interest arbitration is whether this dispute settlement procedure inhibits genuine collective bargaining. One method for assessing the impact of arbitration on the bargaining process is to compare settlement rates (i.e., the proportion of settlements achieved prior to the final impasse procedure) between arbitration and strike-based bargaining systems. In a previous study (Rose and Piczak 1994), we reported that settlement rates in Ontario were substantially lower under compulsory arbitration.

This study adopts a different approach. It considers the extent to which settlements are achieved through direct bargaining and at various intermediate steps in the bargaining process by calculating settlement rates for the

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- The authors wish to acknowledge the research assistance of Cara MacDonald. In addition, we wish to thank Len Heywood and Doris Phillips of the Ontario Ministry of Labour for providing the data and technical assistance. Financial support was provided through a grant from the Social Sciences and Humanities Research Council.

different settlement stages. One of the objectives of the study is to determine just how different settlement behaviour is between compulsory arbitration and "right-to-strike" bargaining systems. Specifically, we seek to determine whether settlement rates are uniformly lower at each settlement stage under compulsory arbitration. The study also considers whether there are differences in settlement rates across Ontario's four arbitration systems - health care, Crown employees, police and firefighters. Finally, we compare settlement rates in health care, the arbitration system with the largest number of settlements, with an earlier study which examined the initial experience in health care following the adoption of a compulsory arbitration statute (Hines 1972).

LITERATURE REVIEW

Two major theoretical arguments have been advanced to explain why compulsory arbitration may inhibit genuine collective bargaining. First, there are substantially lower dispute costs associated with arbitration than with a work stoppage. Second, the impetus to bargain is adversely affected by the parties' perceptions of the arbitration process (e.g., "splitting the difference" is a predominant characteristic of arbitral awards).

The compatibility of collective bargaining and compulsory arbitration is often examined in terms of whether arbitration has a chilling and narcotic effect on negotiations. As described by Ponak and Falkenberg (1989: 278), the chilling effect reflects the unwillingness of the parties "to compromise during negotiations in anticipation of an arbitrated settlement" and the narcotic effect reflects "an increasing dependence of the parties on arbitration, resulting in a loss in the ability to negotiate." Research evaluating the possibility of a chilling effect typically employs three measures: (1) the number of issues settled bilaterally versus the number of issues referred to arbitration; (2) a comparison of the parties' initial and final impasse offers; and (3) examining settlement behaviour at intermediate stages in the negotiating process to determine the possible effect of non-binding procedures such as conciliation and mediation. Research assessing the possibility of a narcotic effect looks at whether the proportion of units using arbitration has increased over time or, more appropriately, whether there is increased dependence on arbitration at the individual bargaining unit level (Feuille 1979; Ponak and Falkenberg 1989).

Over the past twenty-five years, a large body of literature has been devoted to the effect of compulsory arbitration on the bargaining process. The empirical research has employed different definitions, measures and methodologies to study the "chilling" and "narcotic" effects (Downie 1979). A number of studies have examined settlement behaviour at various stages in the bargaining process to ascertain whether third party intervention prior to arbitration is effective in encouraging the parties to compromise and

settle (Ponak and Falkenberg 1989). More often, studies have calculated settlement rates based on the proportion of settlements reached without resort to the final impasse procedure. The research includes studies which compare settlement rates (1) prior to and following the introduction of a compulsory arbitration statute, (2) between arbitration and strike-based bargaining systems, (3) between similar arbitration systems (within or across jurisdictions), and (4) between different systems of arbitration, such as conventional and final-offer selection (FOS).

Not surprisingly, the variety of definitions, measures and methodologies have produced diverse results. Nevertheless, there is broad agreement that lower settlement rates are associated with bargaining under arbitration. In their review of the literature, Ponak and Falkenberg (1989) reported that settlement rates under arbitration ranged from 65 to 82 percent, with an overall average of approximately 75 percent. This was well below the estimated average settlement rate of 93 percent for public sector strike-based systems.

There is also evidence that settlement rates vary across arbitration systems. For example, Ponak and Falkenberg (1989) found that the settlement rate was higher under FOS (around 85 percent versus 75 percent for conventional arbitration), but that it remained below the settlement rate in strike-based systems. Chelius and Dworkin's review of the American experience (1980) also found settlement rates were higher in states using FOS (ranging from 84 to 94 percent) than in states using conventional arbitration (70 percent). Although these results must be viewed cautiously, it is noteworthy that experimental studies also indicate that greater concessionary behaviour takes place when bargaining occurs under FOS than under conventional arbitration (Swimmer 1992).

Research results with respect to Ontario are broadly similar. Early studies of Ontario's experience with conventional arbitration found either extensive dependence on arbitration or settlement rates considerably lower than in strike-based systems (Hines 1972; Adams 1981; Gunderson 1983; and Swimmer 1985). Our recent studies (Rose 1994; Rose and Piczak 1994) have revealed an overall settlement rate under arbitration substantially lower (60 percent) than in strike-based systems in the private sector (88 percent) and the public sector (96 percent). As well, settlement rates varied across arbitration systems, with health care recording the lowest settlement rate (53 percent) and other sectors having settlement rates ranging from 71 to 81 percent. Nevertheless, the settlement rates for the four arbitration systems were uniformly lower than those in the individual sub-sectors of the public sector with the right to strike (e.g., education, urban transit and electric power utilities). In a recent study using a panel of Canadian public sector contracts, Currie and McConnell (1991) found that dispute rates were considerably higher under compulsory arbitration systems than under strike-based systems. These results support the view that compulsory arbitration has a corrosive effect on bargaining.

METHODOLOGY

The study is based on contract settlement data compiled by the Ontario Ministry of Labour between 1982 and 1990. The Ministry produces two data sets. The first reflects settlements covering more than 200 employees and includes wage outcomes. This data set was utilized in our previous studies of arbitration. The second and larger data set includes settlements covering 200 or fewer employees, but is limited in some other respects (e.g., it does not contain wage results). However, since both data sets specify the bargaining stage at which settlements are achieved, we combined them. In addition to extending the analysis to a much larger number of settlements, the inclusion of smaller bargaining units offered a number of other potential benefits. First, as described in greater detail below, smaller units account for a substantial amount of collective bargaining activity and their inclusion offers some opportunity to assess the extent of pattern bargaining. Second, there are a large number of small bargaining units that are subject to arbitration, including nurses and service employees in nursing homes and the uniformed services in small municipalities. Third, a few studies have indicated that settlement behaviour varies by size of the bargaining unit (Thompson and Cairnie 1975; Adams 1981; and Swimmer 1985). At the same time, some researchers caution that the inclusion of smaller bargaining units might understate the corrosive effect of arbitration. According to Swimmer (1985: 175): "using smaller bargaining units will likely bias the impact of arbitration awards downwards, as an award that is adopted *in toto* by one of these groups will show up as a negotiated settlement."

From September 1982 to September 1984, the Ontario public sector was subject to a wage restraint program. Settlements from the restraint period are excluded from the analysis because collective bargaining in the public sector was sharply curtailed and virtually all settlements were subject to the restraint program. The exclusion of these settlements allow a clearer picture of the relative performance of bargaining in strike-based and arbitration systems. The settlement data are supplemented by interviews conducted with experienced union and management officials (and their advocates) in the four arbitration systems.

Table 1 provides a summary of settlements and employee coverage in the non-restraint period. The Ministry equates a settlement with a collective agreement. Accordingly, a single round of multi-employer or association bargaining results in multiple agreements or settlements.[1] There were 28,043

1. The most prevalent bargaining structure in Ontario is single employer-single union. The manner in which the Ministry defines settlements has implications for understanding settlement rates in sectors where voluntary association bargaining is practiced. This matter is discussed below with respect to health care.

settlements covering 3,557,613 employees in three bargaining systems.[2] The "private sector/right to strike" system ("Private Strike") accounts for 55 percent of the settlements covering about 43 percent of the employees. The "public sector/right to strike" system ("Public Strike") accounts for just over one-fifth of the settlements and 30 percent of the employees covered. This includes various public and parapublic groups (e.g., municipal, urban transit and educational employees) falling under private sector and public sector bargaining statutes. Finally, another one-fifth of the settlements covering about 25 percent of employees are associated with the "public sector/arbitration" system ("Public Arbitration"). The four employee groups subject to arbitration are Ontario Crown employees, health care workers (i.e., hospital and nursing home employees), police and firefighters.[3] As discussed below, the "Public Arbitration" system is dominated by the health care sector which accounts for just over 77 percent of these settlements.

TABLE 1

Collective Bargaining Settlements and Employee Coverage 1982 to 1990 (Excluding Restraint Period)

Bargaining System	*Number of Settlements*	*Percent (%)*	*Employees Covered*	*Percent (%)*
All Settlements	28,043	100.0	3,557,613	100.0
"Private Strike"	15,432	55.0	1,575,516	44.3
"Public Strike"	6,389	22.8	1,075,039	30.2
"Public Arbitration"	6,222	22.2	907,058	25.5

Source: Ontario Ministry of Labour, Office of Collective Bargaining Information.

The Ontario Ministry of Labour data identifies more than 20 settlement stages. Despite the wide variation in dispute settlement machinery across the private and public sectors and within the public sector, there are only a small number of distinct settlement stages (Auld et al. 1981). In order to permit meaningful comparisons across bargaining and arbitration systems

2. Smaller bargaining units figure prominently in the settlement data. In our earlier study, we reported a total of 3,112 settlements involving 200 or more employees (Rose and Piczak 1994). In the larger data set, settlements covering 50 or fewer employees accounted for nearly 62 percent of all settlements and settlements covering fewer than 100 employees accounted for about 78 percent of the total.

3. Interest arbitration is not mandated by law for firefighters. However, without exception, firefighters have adopted it as the preferred means of dispute settlement. In 1994, compulsory arbitration for Crown employees was lifted and the right to strike was granted. The right to strike is subject to the requirement that the parties will provide for the maintenance of essential services.

and to facilitate an historical comparison with Hines' study (1972) of health care arbitration, we combined settlements into five stages.[4] The first stage is direct bargaining (or what Hines called pre-conciliation bargaining) and reflects the parties' ability to settle without third party intervention. If direct bargaining fails to produce a settlement, bargaining normally proceeds to the conciliation-officer stage.[5] The third stage represents voluntary settlements achieved subsequent to the conciliation-officer stage, but prior to any terminal settlement stage. This stage embraces settlements achieved in post-conciliation negotiations and settlements that result from or are influenced by any of the other non-binding dispute procedures available to the parties (e.g., special mediation and factfinding). Taken together these three stages reflect voluntary settlements (with or without third party assistance). When aggregated they represent the settlement rate most commonly referred to in the literature. The remaining settlement stages are arbitration and work stoppages.

The foregoing approach offers some advantages over previous attempts to assess the effect of arbitration on the incentive to bargain. First, by calculating multiple settlement rates we can determine whether arbitration is associated with lower settlement rates at each stage of bargaining relative to strike-based systems. It also permits some consideration of the effectiveness of intermediate steps in promoting settlements. Second, it is possible to consider the effect of institutional and organizational factors (e.g., bargaining structure and arbitration characteristics) on settlement behaviour across arbitration systems. For example, although the four arbitration systems are broadly similar (e.g., all resort to conventional arbitration), there are differences in the intermediate steps of the bargaining procedure that could influence settlement rates. Third, the adoption of a classification scheme compatible with the one used by Hines (1972) allows a separate analysis of settlement rates in health care. Accordingly, we can compare arbitration in its formative years (1966–1970) and at a later stage of development.

In conclusion, the study relies on settlement rates across different settlement stages to evaluate the performance of arbitration systems. In doing so, no attempt is made to explicitly test for the "narcotic" effect (i.e., the dependence on arbitration by some parties over time).

4. Hines (1972) adopted the following settlement stages for health care: pre-conciliation bargaining, conciliation officer, conciliation board, post-conciliation board and arbitration awards.

5. Two arbitration procedures differ from the norm. Crown employees are subject to mediation as opposed to conciliation and the firefighters procedure contains no intermediate step between direct bargaining and arbitration.

RESULTS

Table 2 compares settlement behaviour between arbitration and strike-based systems of collective bargaining.[6] Settlement patterns under arbitration differ markedly from those in strike-based systems. In the "Public Arbitration" system, only 38 percent of the settlements were the result of direct bargaining. In contrast, a majority of settlements were achieved at the direct bargaining stage in the "Public Strike" system (59 percent) and in the "Private Strike" system (50 percent). Although settlement rates at the conciliation-officer stage are only marginally lower under bargaining systems featuring arbitration, overall the "Public Arbitration" system exhibits a much lower propensity to settle voluntarily as negotiations move beyond the direct bargaining stage. In particular, settlement rates at the post-conciliation stage were two to three times higher in strike-based systems than in the "Public Arbitration" system. Overall, settlements reached during the intermediate stages of bargaining accounted for just under one-quarter of the settlements in the "Public Arbitration" system. This contrasts sharply with the performance of strike-based systems where these settlement stages accounted for 44 percent of the settlements in the "Private Strike" system and 38 percent of the settlements in the "Public Strike" system. Thus, the "Public Arbitration" system exhibits a relatively low incidence of voluntary settlements. The percentage of settlements reached without resort to the final impasse procedure (i.e., the overall settlement rate) in the "Public Arbitration" system is 63 percent. This is far below the overall settlement rates of approximately 94 percent in the "Private Strike" system and 96 percent in the "Public Strike" system.[7]

The overall settlement rates reported above are somewhat higher than those in earlier studies (Rose 1994), suggesting that smaller bargaining units have a higher propensity to settle prior to either arbitration or a work stoppage. A comparison of settlements in smaller bargaining units (200 or fewer employees) with larger bargaining units (over 200 employees) reveals that a substantially smaller proportion of settlements are achieved at the direct bargaining stage in larger units. For example, the proportion of settlements declines from 52 to 27 percent in the "Private Strike" system and

6. As shown in Table 2, there were 27,879 settlements included in the analysis. A total of 164 settlements were dropped due to coding errors and because some settlement stages were designated as "other".

7. A small number of arbitrations occurred in strike-based systems (40 arbitrations or 0.2 percent of all settlements). These probably reflect either voluntary or first contract arbitrations. These arbitrations were incorporated into the work stoppage stage for the purpose of calculating the proportion of settlements at the final impasse procedure.

TABLE 2

Collective Bargaining Settlements and Settlement Rates by Settlement Stage, 1982–1990 (Excluding Restraint Period)

Settlement Stage	*All Settlements*								
	"Private strike"			*"Public Strike"*			*"Public Arbitration"*		
	Total Bargaining Units n=15,413	≤200 Employee Units n=14,071	>200 Employee Units n=1,342	Total Bargaining Units n=6,324	≤200 Employee Units n=5,220	>200 Employee Units n=1,104	Total Bargaining Units n=6,142	≤200 Employee Units n=5,485	>200 Employee Units n=657
Direct Bargaining	50.1%	52.3%	26.8%	58.7%	59.6%	54.5%	38.1%	39.7%	24.8%
Conciliation Officer	18.9%	19.3%	15.6%	19.4%	21.2%	10.8%	15.2%	15.5%	13.2%
Post-Conciliation	25.2%	23.4%	43.7%	18.1%	15.6%	29.6%	9.4%	9.0%	12.6%
Work Stoppage	5.8%	5.0%	13.8%	3.8%	3.6%	5.1%	–	–	–
Arbitration	–	–	–	–	–	–	37.3%	35.8%	49.3%

Note: Percentages may not add up to 100% due to rounding.

Source: Ontario Ministry of Labour, Office of Collective Bargaining Information.

from 40 to 25 percent in the "Public Arbitration" system.[8] The biggest size effect during the intermediate stages of bargaining is that the proportion of post-conciliation settlements is nearly twice as high in larger units than in smaller units in right-to-strike bargaining systems. As well, larger units proceed to the final dispute settlement stage more often than smaller units. Settlements achieved after a work stoppage increased from 5 to 14 percent in the "Private Strike" system and from 4 to 5 percent in the "Public Strike" system. In the "Public Arbitration" system, arbitrated settlements rose from 36 to 49 percent.

Taken together, these results indicate that settlement behaviour within the various bargaining systems is affected by size. The size effect is quite modest in the "Public Strike" system, where there was only a small decline in direct bargaining settlements and a slight rise in settlements following a work stoppage. In marked contrast, the proportion of direct bargaining settlements declined by half and the proportion of settlements in post-conciliation bargaining and following a work stoppage nearly doubled in the "Private Strike". These figures suggest that the parties' motivation to settle increases as they confront the prospect of a work stoppage and its attendant costs of disagreement. No similar pattern is found in larger units in the "Public Arbitration" system. Indeed, the decline in the proportion of direct bargaining settlements is not accompanied by a higher proportion of settlements during the intermediate stages of bargaining. Rather, settlement behaviour at the intermediate stages remains relatively constant with the result that nearly half of all settlements in larger units are the result of arbitration.

Turning our attention to the performance of individual arbitration systems, we observe considerable variation across settlement stages. Note that a somewhat different classification system is used for settlement stage in Table 3. The conciliation-officer stage has been modified to include mediation, which is used as an alternative to conciliation under the Crown Employees Collective Bargaining Act.

There are four major differences in settlement rates among arbitration systems. First, direct bargaining settlement rates vary considerably. Approximately 80 percent of the settlements for uniformed services were achieved without third party intervention. This is not only the highest settlement rate at the direct bargaining stage within the "Public Arbitration" system, but it is also considerably higher than strike-based systems. Crown employees had a settlement rate of 57 percent at the direct bargaining stage, a rate broadly similar to the "Public Strike" system. In marked contrast, health care settlements are infrequent at the direct bargaining stage, accounting for only

8. The decline was relatively modest in the "Public Strike" system from (60 to 55 percent).

TABLE 3

Collective Bargaining Settlements and Settlement Rates by Settlement Stage, 1982–1990 (Excluding Restraint Period)

Settlement Stage	*Arbitrated Settlements*											
	"Health Care"			*"Crown"*			*"Police"*			*"Firefighter"*		
	Total Bargaining Units n=4,747	≤200 Employee Units n=4,281	>200 Employee Units n=466	Total Bargaining Units n=94	≤200 Employee Units n=13	>200 Employee Units n=81	Total Bargaining Units n=965	≤200 Employee Units n=895	>200 Employee Units n=70	Total Bargaining Units n=334	≤200 Employee Units n=294	>200 Employee Units n=70
Direct Bargaining	26.1%	27.8%	10.3%	57.4%	69.2%	55.6%	81.2%	82.9%	60.0%	78.7%	79.9%	70.0%
Conciliation Officer/Med	19.3%	19.4%	18.5%	7.4%	7.7%	7.4%	1.9%	1.9%	1.4%	0.0%	0.0%	0.0%
Post-Conciliation/ Med	11.6%	11.4%	13.5%	5.3%	0.0%	6.2%	1.3%	0.4%	12.9%	0.3%	0.3%	0.0%
Work Stoppage	-	-	-	-	-	-	-	-	-	-	-	-
Arbitration	43.0%	41.4%	57.7%	29.8%	23.1%	30.9%	15.5%	14.7%	25.7%	21.0%	19.7%	30.0%

Note: Percentages may not add up to 100% due to rounding.

Source: Ontario Ministry of Labour, Office of Collective Bargaining Information.

26 percent of all settlements. This is one-half to one-third the rate experienced in other arbitration systems.

Second, only a modest percentage of settlements occur at the conciliation-officer/mediation stage and the post-conciliation/mediation stage. This is most evident in the case of the uniformed services, where the failure to settle at the direct bargaining stage normally results in an arbitrated settlement. A somewhat higher percentage of settlements were achieved at the intermediate stages for Crown employees (about 13 percent), but this was considerably below the settlement patterns in strike-based systems. Although a larger percentage of health care settlements were achieved at the intermediate stages (about 31 percent) than in other arbitration systems, this reflects to some extent the low incidence of direct bargaining settlements. Indeed, the proportion of settlements achieved in health care by the end of the conciliation-officer/mediation stage is substantially lower than in other arbitration systems. Additionally, the use of compulsory conciliation and other voluntary non-binding procedures (e.g., special mediation) in health care does not generate settlement rates comparable to those found in strike-based bargaining systems.

Third, with the exception of health care, overall settlement rates were broadly similar across arbitration systems. Specifically, the overall settlement rate in health care of 57 percent was considerably lower than settlement rates for police (85 percent), firefighters (79 percent) and Crown employees (70 percent).

Fourth, comparisons among arbitration systems also revealed important differences in settlement behaviour based on bargaining unit size, i.e., larger units settled less often at the direct bargaining stage and had lower overall settlement rates in all arbitration systems. Particularly noteworthy is the settlement behaviour in larger units in health care relative to other arbitration systems. The direct bargaining settlement rate in larger health care units was a mere 10 percent or about one-fifth to one-seventh the rate experienced in other arbitration systems. Moreover, the overall settlement rate in larger health care units was only 42 percent or less than two-thirds the rate achieved for police (74 percent), firefighters (70 percent) and Crown employees (69 percent). Thus, in contrast to other arbitration systems, a majority of health care settlements in larger units were achieved at the arbitration stage.

The results for health care are particularly noteworthy since this sector accounts for the majority of the settlements in the "Public Arbitration" system. Table 4 compares settlement behaviour with Hines' study (1972), which also included settlements covering bargaining units of fewer than 200 employees. Although settlement data are not available for the entire period during which health care has been subject to compulsory arbitration, it is

clear that there have been changes in settlement patterns over time. Hines examined settlement behaviour prior to and following the introduction of a compulsory arbitration statute. Prior to compulsory arbitration (1964–1965), over 50 percent of the settlements resulted from direct bargaining and only two work stoppages were reported. After compulsory arbitration was introduced (1966–1970), the direct bargaining settlement rate declined and arbitrated settlements increased. The direct bargaining settlement rate declined annually from a high of 63 percent in 1967 to 39 percent in 1970 while the proportion of arbitrated settlements rose from 15 percent to 25 percent between 1966 and 1970. Citing the growing use of arbitration over previous years, Hines cautioned "that when such a process is made available it tends to diminish the utility of the negotiation stages" (p. 544). Our results indicate there has been a further erosion of direct bargaining settlements and a commensurate increase in the proportion of arbitrated settlements. Indeed, Hines' direct bargaining settlement rate of 47 percent during the formative years of arbitration is higher than our cumulative settlement rate for the direct bargaining and conciliation officer stages. The proportion of arbitrated settlements reported by Hines in the first five years of the health care arbitration system was 20 percent or less than one-half the incidence of arbitration settlements we found (43 percent).

TABLE 4

Settlement Rates by Settlement Stage in the Health Care Sector

Settlement Stage	*1966–1970* *N=565*	*1982–1990* *(Excluding Restraint Period)* *N=4,747*
Direct Bargaining	46.5%	26.1%
Conciliation-Officer	25.3%	19.3%
Post-Conciliation	8.7%	11.6%
Arbitration	19.5%	43.0%

Sources: Hines (1972) and Ontario Ministry of Labour, Office of Collective Bargaining Information.

DISCUSSION

What do these results signify? First, they indicate that when smaller bargaining units are included in the analysis and settlements during the wage restraint period are excluded, the overall settlement rate in the "Public Arbitration" system is only marginally higher than previously reported (Rose and Piczak 1994). The overall settlement rate increased from 60 to 63 percent. Considering that the overall settlement rates in strike-based systems

were approximately 95 percent, these results provide further support that arbitration has a corrosive effect on bargaining. Second, settlement rates exhibit considerable variation across arbitration systems. Although overall settlement rates were consistently lower under arbitration than in strike-based systems, reliance on arbitration was far more pronounced in health care. Indeed, the proportion of health care settlements concluded at the arbitration stage was more than twice the level for uniformed services and one-third higher than for Crown employees. Third, settlement rates in the "Public Arbitration" system were not uniformly lower than in strike-based systems. For example, with the exception of health care, arbitration systems achieved higher or roughly comparable settlement rates at the direct bargaining stage in comparison with the "Private Strike" and "Public Strike" systems. At the same time, arbitration systems generally had lower settlement rates at the post-conciliation stage than strike-based systems.

These findings reveal that settlement behaviour varies considerably across bargaining systems. They also suggest that genuine collective bargaining is impeded under systems of compulsory arbitration. Unfortunately there is no standard of what is an acceptable settlement rate or at what level a bargaining system becomes impaired. Some argue arbitration does not destroy bargaining because a majority of settlements are negotiated (Feuille 1979). Others comment that "there is little evidence to support the view that collective bargaining will disappear when arbitration is used as a dispute-resolution mechanism" (Royal Commission 1985: 704). This may be so, but the gap in overall settlement rates between arbitration and strike-based systems in Ontario is about 32 percent (see Table 2). This is considerably higher than the approximately 18 percent gap reported in a review of studies comparing the relative performance of conventional arbitration (Ponak and Falkenberg 1989). At the same time, settlement rates may provide only a partial diagnosis of the health of bargaining under compulsory arbitration. This measure fails to capture what some critics characterize as the "parasitic" effect, i.e., the tendency for arbitrated settlements to establish a pattern or to dictate the terms of voluntary settlements. In other words, the "parasitic" effect arises when a settlement is based on another arbitrator's award rather than labour market comparability criteria (Adams 1981). This may be exemplified by a size effect (e.g., when smaller bargaining units seek to emulate the settlements of larger bargaining units) or inter-occupational comparisons (e.g., firefighters-police). To the extent that many voluntary settlements mirror arbitration awards or the parties' expectations about the arbitrator's preferences for a settlement, settlement rates may actually understate the corrosive effect of arbitration.[9]

9. It is difficult to determine the extent to which voluntary settlements are "parasitic" or are the result of pattern bargaining. Pattern-setting settlements, whether they result from voluntary

That said, it is still noteworthy that even where parasitic wage comparisons are prevalent, such as between police and firefighters and within health care (Adams 1981), there are tremendous differences in settlement rates across arbitration systems. In particular, the settlement gap between arbitration and strike-based systems is relatively modest for police and firefighters (about 10 and 16 percent, respectively), somewhat higher for Crown employees (25 percent) and substantially higher in health care (38 percent). These differences are not related to the arbitration process as all four systems rely on conventional arbitration. Nor do they appear to be systematically related to differences in the characteristics of conventional arbitration procedures (e.g., selection procedures for arbitrators, use of single arbitrators or tripartite boards, the existence of statutory arbitral criteria and whether the government funds arbitration proceedings) (Rose 1994).

To some extent, these differences may be linked to bargaining structure, the prevalence of pattern bargaining and contract duration. Interestingly, the highest incidence of direct bargaining settlements and the highest overall settlement rates occur where bargaining is decentralized, i.e., for the uniformed services. The diffusion of bargaining is, however, accompanied by some widely recognized and accepted pay comparators. For example, in the case of police, wage comparisons are made on the basis of size of the force and geographic location. The overall performance of police arbitration reflects the preponderance of smaller police forces (over 80 percent of the settlements cover 50 or fewer employees) and only 14 percent of all settlements are arbitrated. Elsewhere, voluntary settlements are less prevalent even though the wage structure and wage relativities among the twelve largest police forces are fairly well established. Personal interviews revealed one factor that may account for a higher incidence of arbitration among larger police forces (26 percent of settlements covering 200 or more employees): the intensely political atmosphere surrounding bargaining encourages the tendency to use arbitration as a face-saving device.

Although the wisdom of police-firefighter wage comparisons has been debated, there is, nevertheless, a well-established relationship between their wage rates within municipalities (Fisher 1984; Jackson 1995). To the extent that wage comparators in police and firefighter bargaining are recognized, the arbitration process is predictable. This knowledge contributes to a relatively high incidence of voluntary settlements. Indeed, the overall settlement rate for firefighters is nearly as impressive as the rate for police, even

agreement or an arbitration award, will exert pressures on negotiators to voluntarily settle on similar terms. Failing a voluntary settlement, arbitrators, who tend to rely on comparability as a criterion and seek to replicate settlements that would have been achieved in the absence of an arbitration procedure, will likely be influenced by voluntary settlements that they consider significant and relevant.

though a much smaller proportion of firefighter settlements involve 50 or fewer employees (54 percent). The firefighters' sector is particularly instructive because of the high settlement rate at the direct bargaining stage. The absence of a mandatory conciliation or mediation procedure may require the parties to face up to the prospect of settling sooner than in most other arbitration systems.

Another aspect of uniformed services bargaining is the prevalence of one-year collective agreements expiring at the end of the calendar year. The existence of a common bargaining timetable means the bargaining cycle is compressed and parallel bargaining occurs across municipalities, thereby facilitating coercive comparisons. As well, it minimizes the difficult task of making comparisons across bargaining units with vastly different contract dates. Shorter contracts may also encourage settlements in much the same way that they reduce the propensity to strike (Royal Commission 1985). As one study points out, not only may fewer problems accumulate during short-term contracts, but shorter contracts "would be subject to less uncertainty about the future, for economic conditions two or three years ahead are usually much less predictable than those of the next year" (Royal Commission 1985: 698). As well, there may be fewer accumulated grievances under shorter contracts thereby simplifying bargaining agendas and pressure tactics for modifying collective agreements.

Settlement rates for Crown employees were lower than for the uniformed services. Pattern bargaining and the prevalence of one-year agreements (expiring at the end of the calendar year) may account for a majority of settlements being reached at the direct bargaining stage. Given the highly centralized bargaining structure in this sector, one might have anticipated even higher settlement rates. There are several explanations for the settlement patterns in this sector. First, there is considerable autonomy and heterogeneity within this sector. Within the public service, there is a service-wide master agreement and separate negotiations to establish wage schedules for eight occupational categories. Accordingly, there is autonomous bargaining within a single public service unit and each occupational category may proceed to arbitration over wage levels. This process can make arbitration less predictable, particularly if the government is seeking a uniform wage increase across the public service and the Ontario Public Service Employees' Union (OPSEU) is seeking differentiation. Whereas OPSEU may wish to achieve pay levels equivalent to comparable private sector jobs, there may also be a diffusion of comparators among occupational categories. For example, Ontario prison guards have sought pay parity with federal prison guards and members of the Ontario Provincial Police, and employees in institutional care services look to the health care sector. The range of comparators, the lack of consensus about their relevance, and a

desire to test their validity at arbitration may lower settlement rates. Second, the Crown Employees Collective Bargaining Act is not confined to Crown employees *per se*, but includes employees who work for various Crown agencies, e.g., the Ontario Liquor Control Board, the Ontario Housing Corporation and the Niagara Parks Commission. Although these agencies bargain autonomously with different unions, they have been pattern-followers and less dependent on arbitration than the public service. Our interviews also reveal that bargaining assumes a lower profile and the political ramifications of monetary settlements are more benign among Crown agencies than is generally the case with the public service. Third, relative to other sectors, settlements cover larger groups of employees: whereas a majority of settlements in other sectors involve 50 or fewer employees, 80 percent of the settlements in the Crown sector cover 500 or more employees.

Several features distinguish health care bargaining, including a substantial degree of centralized bargaining by occupation within the hospital sector, longer-term collective agreements without common expiry dates (typically two years, occasionally three years) and less consensus about the appropriateness of arbitral criteria. One of the factors contributing to the relatively low settlement rates in health care is the heavy dependence on arbitration in central hospital negotiations. Both historical figures compiled by the Ontario Ministry of Labour and other studies (Adell et al. 1987) reveal that most central bargaining rounds have been settled at arbitration. This dependence on arbitration, coupled with the Ministry's procedure of counting a single round of central bargaining as multiple independent hospital settlements rather than as a single settlement, tends to lower the overall settlement rate in health care. The effect of central talks can be illustrated by the impact of nurses' bargaining (the largest group in terms of employee coverage) on overall settlement behaviour in health care. In 1986, negotiations between the nurses' union and 150 participating hospitals ended in arbitration. The overall settlement rate in health care that year was only about 44 percent. In 1988, when central talks produced a voluntary settlement with 167 participating hospitals, the overall settlement rate in health care was 81 percent.[10] The development of centralized bargaining in hospitals has been voluntary and, as such, it has not produced fully integrated sectoral bargaining. Accordingly, the number of hospitals participating in central talks varies from one bargaining round to the next and the number of participating hospitals varies across occupational groups, by union and,

10. Central bargaining appears to have a more pronounced effect on larger health care bargaining units (over 200 employees). For example, in 1986 when nurses settled at arbitration, the overall settlement rate was lower in larger units (22 percent) than in smaller units (47 percent). Conversely, when a voluntary nurses' settlement was reached in 1988, larger units had a higher overall settlement rate (88 percent) than smaller units (81 percent).

in some cases, by region. Additionally, there is no formal coordination of bargaining by the various hospital unions. According to our interview results, non-participants in central hospital bargaining tend to be pattern-followers and are more likely to settle prior to arbitration than participants in central hospital bargaining.

The low settlement rates in health care are influenced by factors beyond whether there are central hospital talks scheduled in any given year and the Ministry's method of calculating settlements. It will be recalled that the vast majority of health care settlements involve smaller bargaining units (see Table 3). Inevitably, there is the question of whether centrally bargained or arbitrated wage rates will spill over to other health care institutions, such as municipal homes for the aged and private nursing homes (i.e., the homes sector). Clearly the unions seek to establish and extend pattern bargaining based on the principle that employees performing the same duties across institutions should receive the same rates of pay. Employers in the homes sector advance alternative criteria, including local community comparators and, in the case of private nursing homes, ability-to-pay arguments based on differences in funding support relative to hospitals. These arguments, coupled with the large number of relatively small and autonomous bargaining units in the health care sector, create uncertainty and foster dependency on arbitration. These factors have also limited the ability of most unions to extend central hospital agreements (and the occasional central settlement in the homes sector) throughout the homes sector. Even in the smallest bargaining unit category (50 or fewer employees), the proportion of direct bargaining settlements is much lower and the dependence on arbitration is far higher than in all other arbitration systems.[11]

Another factor which may account for lower settlement rates in health care is that collective agreements are normally longer and expiry dates are not standardized as they are in other arbitration systems. Longer contracts may result in the accumulation of more problems and greater uncertainty about economic conditions. Further, even when there is general agreement between the parties over the appropriate comparators (e.g., health care institutions in a given community or region), there is likely to be greater uncertainty about pay levels in other institutions owing to variations in bargaining cycles (i.e., differences in contract duration and expiry dates among comparators) and the absence of timely and comprehensive compensation data. Indeed, the absence of an authoritative and accepted data bank (e.g.,

11. Bargaining is fragmented in the homes sector. It is conducted along occupational lines (e.g., nurses and services) and there are often separate agreements for full-time and part-time employees. Nearly 60 percent of all health care settlements cover 50 or fewer employees. The direct bargaining settlement rate for units of this size was 33 percent and the overall settlement rate was 63 percent.

the Education Relations Commission for school teacher bargaining in Ontario and the former Pay Research Bureau for the federal public service), tends to foster controversies over compensation.

CONCLUSION

In conclusion, the performance of collective bargaining exhibits considerable variation across arbitration systems. While settlement rates were generally lower under arbitration than in strike-based systems, the health care arbitration system produced the lowest incidence of direct bargaining settlements and the highest dependence on arbitration. Voluntary settlements were more prevalent in smaller bargaining units, although differences in settlement behaviour based on size were less evident in health care. The variation in settlement rates among arbitration systems is more closely associated with differences in bargaining structure and other features of the bargaining process than it is to differences in arbitration procedures. Voluntarism and self-reliance appeared more prevalent where well-established bargaining patterns existed, arbitration was predictable and shorter contracts and common expiry dates were the norm. In contrast, institutional arrangements in health care (e.g., more complex and diversified bargaining patterns, less certainty about arbitral outcomes, longer contracts and the absence of a uniform expiry date), appeared to inhibit bargaining and increase dependence on arbitration.

These results are consistent with previous studies insofar as they demonstrate that a large settlement gap exists between arbitration and strike-based systems. Even so, the settlement gap varies across arbitration systems, with some performing reasonably well (e.g., uniformed services) and others relatively poorly (notably health care). Considering the large number of settlements included in this study and the magnitude of the reported differences in settlement behaviour, the results offer strong evidence that arbitration inhibits bargaining. That said, the results must be put in perspective. While they support the view that arbitration has a corrosive effect on bargaining, our findings deal only with conventional arbitration and rely on only one measure of settlement behaviour. While settlement rates represent an important indicator of arbitral performance, we recognize other relevant measures exist. For example, our settlement data do not shed light on other aspects of the chilling effect (e.g., the degree of movement in negotiations and the number of issues settled voluntarily). Similarly, the results reported here do not reveal whether individual bargaining units become dependent on arbitration over time (the narcotic effect) or to what extent a narcotic effect would have lowered the overall settlement rate. Additionally, the data set would permit multivariate analysis using settlement stages as

the dependent variables. This might include an examination of the possible influence of independent variables such as bargaining structure, pattern settling/following, bargaining unit size, contract duration and union. Future research is needed in these other areas if we are to develop a broader understanding of the impact of arbitration on settlement behaviour.

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RÉSUMÉ

Taux et étapes de règlement dans l'arbitrage obligatoire de différends

Dès qu'on traite de l'arbitrage obligatoire des différends, on se demande si cette procédure de règlement des conflits restreint la véritable négociation collective. La présente étude examine jusqu'à quel point des règlements sont atteints par la négociation et par les différentes étapes du processus de négociation en calculant les taux de ces règlements pour les différents stades ou étapes de négociation. Nous visons, entre autres, à établir jusqu'à quel point le comportement de règlement ou d'entente est différent selon que l'on soit dans un système d'arbitrage obligatoire ou de négociation avec droit de grève. Plus spécifiquement, nous cherchons à vérifier si les taux de règlement sont uniformément plus bas à tous les stades de règlement dans un système d'arbitrage obligatoire. Nous voulons aussi déterminer s'il y a des différences eu égard aux taux de règlement entre quatre systèmes d'arbitrage ontariens — la santé, les employés de la Couronne, les policiers et les pompiers. Enfin, nous comparons les taux de règlement dans le secteur de la santé, où il y a le plus grande nombre de règlements, avec les résultats d'une étude antérieure qui examine l'expérience initiale dans ce secteur suite à l'adoption de la loi sur l'arbitrage obligatoire.

Notre étude est basée sur des données compilées par le ministère du Travail de l'Ontario, pour la période allant de 1982 à 1990, portant sur le règlement des conventions collectives. Ces données couvrent 28 043 règlements impliquant 3 557 613 employés dans trois systèmes différents de négociation. Le système « secteur privé avec droit de grève » (secteur privé), représente 55 % des règlements couvrant 43 % des employés. Le « secteur public avec droit de grève » (secteur public-grève), pour sa part, reflète un peu plus de 20 % des règlements pour 30 % des employés couverts. Finalement, un autre 20 % des règlements pour environ 25 % des employés couverts est associé avec le système « secteur public avec arbitrage » (arbitrage public).

Nous distinguons cinq stades ou étapes de règlements :

1- la négociation directe, i.e. la capacité des parties de régler sans l'intervention d'un tiers ;
2- faute de règlement, les parties ont recours à la conciliation ;
3- un règlement final et volontaire est atteint après la conciliation ;
4- l'arbitrage ;
5- les arrêts de travail.

Nous pouvons résumer les résultats de la façon suivante. D'abord, les tendances de règlements sous un système d'arbitrage diffèrent grandement de ceux atteints sous un système basé sur la grève. Dans le système « d'arbitrage public », la négociation directe n'a produit que 38 % des règlements. Par contre, le « secteur public-grève » a vu 59 % des règlements atteints par la négociation directe. Les règlements atteints durant les étapes intermédiaires de négociation comptent pour un peu moins de 25 % des règlements dans le système « secteur public-arbitrage ». Voici un contraste frappant avec le « secteur privé » où ces étapes de règlement ont eu des résultats positifs dans 44 % des cas. Cette proportion est de 38 % dans le secteur public-grève.

Donc, le système d'« arbitrage public » produit moins de règlements volontaires. Le pourcentage de règlements atteints dans ce secteur sans recours aux procédures finales de solution des conflits est de 63 %, pourcentage beaucoup plus bas que les quelque 94 % dans le « secteur privé » et 96 % dans le « secteur public-grève ».

Ensuite, il existe de grandes variations dans les taux de règlement entre les différents systèmes d'arbitrage. Même si les taux globaux de règlements ont été constamment plus bas en système d'arbitrage qu'en systèmes basés sur la grève, on a eu recours à l'arbitrage de façon beaucoup plus prononcée dans le secteur de la santé. En effet, la proportion des règlements conclus à l'étape de l'arbitrage dans ce secteur était du double de celle atteinte pour les policiers et pompiers et du tiers plus élevé que pour les employés de la Couronne.

Ces résultats démontrent que les comportements de règlement varient considérablement selon les systèmes d'arbitrage. Ils suggèrent également que la véritable négociation collective est niée dans les systèmes d'arbitrage obligatoire. Alors que les taux de règlement étaient généralement plus bas dans les systèmes d'arbitrage par rapport à ceux basés sur la grève, le système d'arbitrage du secteur de la santé a produit le moins de règlements à l'occasion de la négociation directe et la plus haute dépendance à l'arbitrage. Les règlements volontaires étaient plus fréquents dans les petites unités de négociations. Cependant, la taille explique moins les comportements et règlements dans le secteur de la santé. La variation dans les taux de règlement entre les systèmes d'arbitrage dépend plus des différences dans les structures de négociation et autres particularités du processus de négociation que des différences dans les procédures d'arbitrage. Le volontarisme et l'indépendance étaient plus présents là où des pratiques de négociations étaient bien établies, l'arbitrage était prévisible et les conventions étaient de courte durée et de dates d'expiration communes. À l'opposé, les arrangements institutionnels dans le secteur de la santé (v.g. des pratiques de négociations plus complexes et diversifiées, moins de certitude eu égard aux résultats de l'arbitrage, des conventions plus longues et l'absence de date uniforme d'expiration) empêchent la négociation et accroissent la dépendance envers l'arbitrage.