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An Empirical Comparison of Labour Relations Laws in Canada and the United States

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Executive summary

This study evaluates the extent to which labour relations laws bring flexibility to the labour market while balancing the needs of employers and employees. Balanced labour laws are crucial in creating and maintaining an environment that encourages productive economic activity. Labour relations laws inhibit the proper functioning of a labour market and thus reduce its performance when they favour one group over another or are overly “prescriptive,” that is, when they impose a resolution to labour disputes rather than fostering negotiation between employers and employees. Empirical evidence from around the world indicates that jurisdictions with flexible labour markets enjoy more productive labour markets (higher job creation rates, lower unemployment, and higher incomes) as well as a generally more prosperous economy.

This publication provides an empirical evaluation of labour relations laws in the private sector for the 10 Canadian provinces, the Canadian federal jurisdiction, and the 50 US states. In all, 10 components of labour relations laws are examined, grouped into three categories: (1) Certification and Decertification; (2) Union Security, and; (3) Regulation of Unionized Firms. A brief summary of the overall results as well as the performance in each of the three categories of labour relations laws are presented below.

Index of Labour Relations Laws

The Index of Labour Relations Laws provides an overall measure of how balanced a jurisdiction’s labour relations laws are and to what extent they promote labour market flexibility. The overall results suggest four groupings of jurisdictions. First are the 22 US Right-to-Work (RTW) states, which maintain the most balanced and least prescriptive labour relations laws. Each received a score of 9.2 out of 10.0 (Exsum table 1; Exsum figure 1).

The remaining 28 US states, which are not RTW states, represent the second grouping of jurisdictions. They could accurately be labelled as possessing balanced labour relations laws, although the balance is less secure than that provided by the RTW states. These states were tied for twenty-third position with an overall score of 7.5. The only difference between RTW states and non-RTW states in the United States is that the RTW states have added to, or expanded on, the US federal labour relations laws regarding union security (union membership and union dues payment).

Third is Alberta, which received a score of 6.0 and stood well ahead of other Canadian jurisdictions though it fell well short of competing with US states. Alberta’s basic failing is a number of provisions that are generally standardized within Canada, such as successor rights and the absence of worker choice laws. If Alberta is to improve its performance and pursue more balanced laws, it will have to diverge from the Canadian standard on these aspects of labour relations laws.

Finally, there are the remaining nine Canadian provinces and the Canadian federal government, which all failed to receive scores above 5.0. These jurisdictions have biased labour relations laws that impede labour market flexibility. The federal government and Quebec maintained the most rigid and biased labour relations laws, given their their overall scores of 1.0 and 1.2, respectively. Manitoba (2.7) Saskatchewan (2.3), and Prince Edward Island (2.2) also recorded very weak scores.

Exsum table 1: Index of Labour Relations Laws (scores out of 10; ranks out of 61)

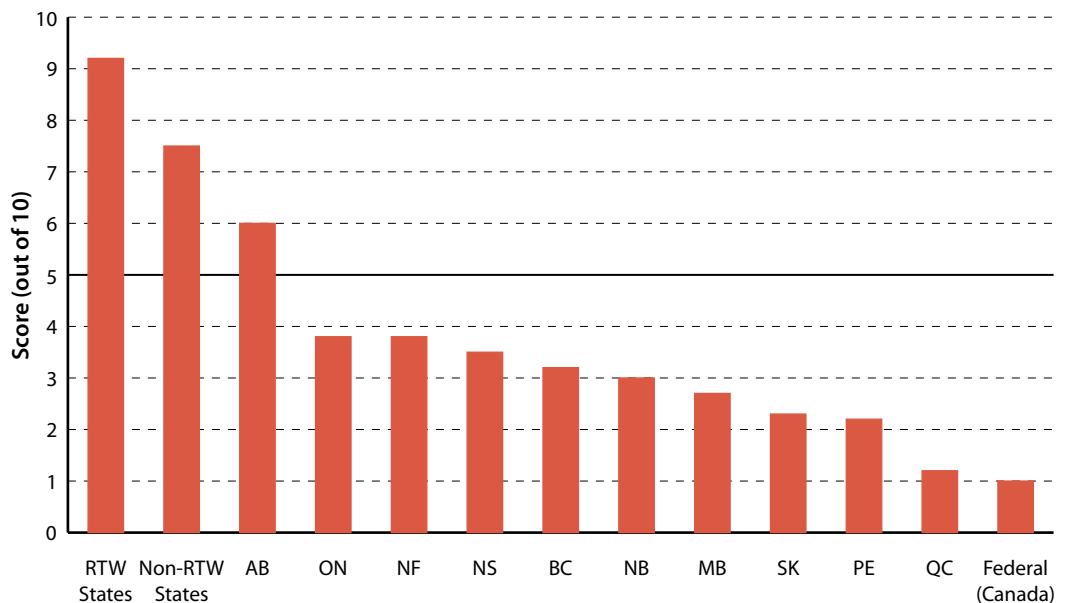
	Index of Labour Relations Laws		Certification and Decertification		Union Security		Regulation of Unionized Firms	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
British Columbia	3.2	55	7.5	2	0.0	51	2.0	58
Alberta	6.0	51	10.0	1	0.0	51	8.0	51
Saskatchewan	2.3	58	5.0	56	0.0	51	2.0	58
Manitoba	2.7	57	4.0	58	0.0	51	4.0	52
Ontario	3.8	52	7.5	2	0.0	51	4.0	52
Quebec	1.2	60	3.5	59	0.0	51	0.0	61
New Brunswick	3.0	56	5.0	56	0.0	51	4.0	52
Nova Scotia	3.5	54	6.5	55	0.0	51	4.0	52
Prince Edward Island	2.2	59	2.5	60	0.0	51	4.0	52
Newfoundland	3.8	52	7.5	2	0.0	51	4.0	52
Federal (Canada)	1.0	61	1.0	61	0.0	51	2.0	58
US Right-to-Work States [a]	9.2	1 [b]	7.5	2 [c]	10.0	1 [b]	10.0	1 [b]
US Non-Right-to-Work States	7.5	23 [d]	7.5	2 [c]	5.0	23 [d]	10.0	1 [b]

a Right-to-Work States include Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming (National Institute for Labor Relations Research, 2005).

b tied for first place; c tied for second place; d tied for twenty-third place.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39); calculations by the authors.

Exsum figure 1: Index of Labour Relations Laws



Overall the trend is clear. American states tend to maintain balanced labour relations laws focused on providing workers and employers with choice and flexibility. Canadian jurisdictions, on the other hand, with the exception of Alberta, generally maintain much more biased and prescriptive labour relations laws.

Components of the Index of Labour Relations Laws

1 Certification and Decertification

Certification and Decertification refer to the processes through which a union acquires and loses the power to be the exclusive bargaining agent for a group of employees. Alberta ranks first on Certification and Decertification rules with a score of 10.0 out of 10.0, indicating a well balanced set of regulations (Exsum table 1). Three Canadian provinces (British Columbia, Ontario, and Newfoundland) as well as all the US states tied for second place with a score of 7.5 out of 10.0. Unfortunately, five Canadian provinces (New Brunswick, Saskatchewan, Manitoba, Quebec, and Prince Edward Island) received a score of 5.0 or lower. The Canadian Industrial Relations Board (CIRB) received the lowest score of 1.0.

2 Union Security

Union Security pertains to regulations governing union membership and the payment of union dues. Specifically, union security relates to whether or not provisions regarding mandatory union membership and dues payment can be included in a collective agreement. The results for this component of the analysis indicate that there are three distinct groups of jurisdictions in Canada and the United States. The first group comprises US RTW states, in which workers are permitted to choose whether or not to join a union and pay any union dues. RTW states received a score of 10.0 out of 10.0 on union security clauses (Exsum table 1). They represent the jurisdictions that offer workers the greatest degree of choice and flexibility with respect to unionization.

The second group comprises US states without worker choice-laws (RTW legislation). These states scored 5.0 out of 10 on union security clauses as workers are permitted to choose whether or not to join a union but are required to remit at least a portion of union dues to cover costs associated with negotiating and maintaining the collective agreement.

The final group consists of all the Canadian provinces and the Canadian federal government. None of the Canadian jurisdictions provide workers with a choice regarding union membership or full dues payment. Specifically, none of the Canadian jurisdictions prohibits mandatory union membership or complete dues payments as a condition of employment.

3 Regulation of Unionized Firms

The third component of labour relations laws included in this study examines components of labour relations laws that come into effect once a firm is unionized. A number of provisions were examined, including Successor Rights, Technological Change, Arbitration, Replacement Workers, and Third-Party Picketing.

The results indicate two basic groups, one that generally promotes balance and flexibility and another that maintains heavily biased and prescriptive laws. The first group is

composed of all of the US states along with Alberta. The US states all received a score of 10.0 out of 10. Alberta received the second highest score of 8.0.

The second group is composed of the remaining nine Canadian provinces and the federal government, all receiving a score below 5.0. Six Canadian provinces (Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland) received a score of 4.0. British Columbia, Saskatchewan, and the CIRB received a score of 2.0 while Quebec ranked last with a score of 0.0.

The results from the analysis of Regulation on Unionized Firms indicate that the US states as well as Alberta impose relatively balanced requirements on firms once they are unionized. The remaining nine Canadian provinces as well as the Canadian federal government, on the other hand, tend to impose biased and prescriptive regulations on organized firms.

Labour relations laws and unionization

The relationships between labour relations laws and unionization rates were analyzed using basic correlation statistics. While a higher level of statistical analysis is needed to determine whether unbalanced labour relations laws lead to higher rates of unionization, correlations do provide some interesting insights. Correlations between private-sector unionization rates in Canadian provinces and US states and aspects of labour relation laws that apply to certification activities (automatic certification, certification and decertification application differential, remedial certification, mandatory dues payment, and mandatory union membership) were analyzed.

The two aspects of labour relations laws that showed the strongest relationship (negative) with unionization rates are both aspects of Union Security provisions: mandatory dues payment and mandatory union membership. This means that in jurisdictions where mandatory union dues and mandatory union membership are not permitted, there tends to be lower unionization. While the correlations for the other variables analyzed were not as strong, the relationships (positive versus negative) with unionization rates were still in line with expectations; remedial certification was the sole exception. On the whole, correlation estimates provide results that were aligned with expectations based on previous empirical research and economic intuition regarding the relationship between certain aspects of labour relation laws and unionization rates.

Conclusion

Canadian provinces generally lag their US counterparts in the level of flexibility accorded their citizens by labour relations laws. Such flexibility has proven to be of great benefit to citizens both in the United States and around the world. In order to promote greater labour market flexibility, Canadian provinces would be well advised to pursue balanced and less prescriptive labour laws.

Introduction to labour relations laws

Labour relations laws regulate the interactions among unionized employees, their collective representatives (unions), and employers. In addition, these laws control the process through which unions gain and lose the right to represent workers in collective bargaining. While the private and public sectors are both covered by labour relation laws, jurisdictions in Canada and the United States usually have separate legislation for each sector.

In 2004, labour relations laws directly covered over 4 million workers in Canada—31.8% of the total workforce—and over 17 million workers in the United States—13.8% of the workforce (Statistics Canada, 2004; Hirsch and Macpherson, 2005). [1] In both countries unionization rates in the private sector are significantly lower than those in the public sector. In 2004, Canada’s unionization rate in the private sector stood at 19.0% compared to 75.5% in the public sector (table 1). Likewise, the United States’ unionization rate in the private sector was 8.6% in 2004 compared to 40.7% in the public sector. It is important to note however, that the effect of labour relations laws extend well beyond unionized workers and firms. Indeed, labour relations laws affect any worker or employer who has the potential to become unionized.

One of the over-arching objectives of government in designing labour relations laws should be to establish an environment within which productive economic activities can flourish. Empirical evidence from around the world indicates that jurisdictions with more flexible labour markets enjoy better economic performance. For example, the Organisation for Economic Cooperation and Development (OECD) concluded that jurisdictions with more flexible labour markets had better job-creation records, enjoyed greater benefits from technological change, and experienced faster growing economies (OECD, 1994). Another important study, which appeared in the *Quarterly Journal of Economics*, concluded that increased regulation of the labour market is associated with lower labour-force participation and higher unemployment (Botero et al., 2004). Di Tella and MacCulloch (2005), using data for 21 OECD countries for the period from 1984 to 1990, concluded that increased flexibility of the labour market had a

Table 1: Union rates in Canada and the United States (2004)

	Canada [a]	United States	
		Non-Right-to-Work States	Right-to-Work States [b]
Total Union Rate	31.8	16.1	8.2
Private Sector Union Rate	19.0	9.9	5.0
Public Sector Union Rate	75.5	47.7	23.4

a Canadian numbers are weighted averages whereas the US figures are simple averages.

b Right-to-Work States include: Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming (National Institute for Labor Relations Research, 2005). See Union Security (page 14) for a detailed discussion of Right-to-Work laws.

Sources: Statistics Canada, 2004, Unionstats.com, and Clemens et al., 2005; calculations by authors.

positive impact upon both the employment rate and the rate of participation in the labour force. Alonso et al. (2004) found that income and capital (investment) per worker depended positively on the flexibility of the labour market. [2]

In addition, labour laws inhibit the proper and efficient functioning of the labour market when they favour one group over another, prevent innovation and flexibility, or are overly “prescriptive,” that is, when they impose a resolution to labour disputes rather than fostering negotiation between employers and employees. Besley and Burgess (2004), studied labour market regulation in India from 1958 to 1992 and found that jurisdictions that legislated labour relations in a direction favouring one group over another experienced lower output, employment, investment, and productivity, and increased urban poverty. Workers and, indeed, all citizens in jurisdictions with flexible labour markets enjoy the benefits of a stronger and more productive labour market (higher rates of job creation and lower unemployment) and a generally stronger economy.

Labour market flexibility determines how well labour markets respond to changes in economic conditions. In technical terms, flexibility permits employees and employers to reallocate resources to maximize productivity. In non-technical terms, flexibility means employees can shift their efforts to endeavours that provide the greatest return or benefit to them. For instance, workers in a flexible labour market would be able to shift their efforts easily from one industry to another in seeking improved compensation. Similarly, flexibility allows employers to change the mix of capital and labour to respond to market changes.

This paper is the second edition of a study by the The Fraser Institute that empirically quantified differences between Canadian and American private-sector labour relations laws (Karabegović et al., 2004a). [3] This study, like its predecessor, evaluates private-sector labour relations laws across Canadian and US federal laws, Canadian provincial laws (which cover the overwhelming majority of Canadian workers), and US state laws, which can expand upon but not contravene or supersede US federal law. The study evaluates whether or not labour relations laws as well as case law promote labour market flexibility while balancing the needs of workers and employers.

Organization of this publication

The first section of this publication compares the private-sector labour relation laws of the 10 Canadian provinces, the Canadian federal government, and the 50 US states. This section of the study is divided into three subsections based on the aspects of labour relations laws analyzed: (1) Certification and Decertification, (2) Union Security, (3) Regulation of Unionized Firms. This section also includes the Index of Labour Relations Laws, which presents an overall assessment of labour relations laws amongst the analyzed jurisdictions.

The second section, which is a new addition to the study, presents a basic statistical analysis of the relationship between labour relations laws and unionization rates. This is a first step towards a broader analysis aimed at gaining a deeper statistical understanding of what drives unionization rates amongst Canadian provinces and US states. The third section contains a detailed summary with conclusions and there is an appendix that provides detailed information about the methodology used to construct the Index.

Jurisdictional differences

Prior to the examination of labour relations laws in Canada and the United States, it is important to recognize that there is a marked difference between the two countries in terms of the level of government responsible for the regulation of labour relations. In Canada, the regulation and enforcement of labour relations laws is largely decentralized to the provinces. Each province has its own set of labour relations laws for both the private and public sectors and these laws are independent of those in other provinces as well as federal law. Approximately 1.3 million Canadian workers (8.2%) are employed in federally regulated industries such as banking, broadcasting, and telecommunications [3] and are thus covered under federal labour relation laws. [4]

The United States, on the other hand, has a highly centralized system of federal private-sector labour relations laws, which are enforced by the National Labor Relations Board (NLRB). [5, 6] However, federal laws allow individual states to clarify, expand upon, or introduce new laws in addition to, but not contravening, federal law. Like Canadian provinces, US states have the sole authority to regulate labour relations in the public sector. [7]

Labour relation laws in the private sector

This section compares the private-sector labour relation laws of the 10 Canadian provinces, the Canadian federal government, and the 50 US states. These elements are broken down into three main areas: (1) Certification and Decertification, (2) Union Security, (3) Regulation of Unionized Firms. Certification and Decertification clauses relate to how unions gain and lose the right to collectively represent workers. Union Security provisions pertain to worker choice with respect to union membership and dues payment once a firm is unionized. Finally, Regulation of Unionized Firms includes a series of requirements that apply to firms and workers once the employing firm has been unionized.

1 Certification and decertification

Certification [8]

Certification refers to the process through which a union acquires the power to be the exclusive bargaining agent for a group of employees. There are a number of important aspects of certification, including the use of mandatory secret-ballot elections, remedial certification, and differences between the thresholds for certification and decertification (table 2).

Application for certification

For a union to submit an application for certification to a Labour Relations Board, it must have written support from a prescribed percentage of workers. That is, unions need to collect a certain degree of support from affected workers in order to *apply* to become the representative of the workers. Eight of the 10 Canadian provinces as well as Canadian federal law require workers to complete union membership cards while the remaining two provinces require written petitions, individual letters, or membership cards. In the United States, written petitions, individual letters, or membership cards can all be used as support for an application (table 2). The threshold for indications of support, through membership cards, petitions, or individual letters, ranges from a low of 25% of workers in a bargaining unit in Saskatchewan to 50%+1 in Prince Edward Island. For all US states, the threshold is 30% (table 2).

Secret-ballot vote versus automatic certification

Another important aspect of the certification process is the means by which a union is certified or approved to be the representative of workers. In most jurisdictions in Canada and the United States, a secret-ballot vote is required to certify or approve a union. All 50 US states as well as five Canadian provinces (British Columbia, Alberta, Ontario, Nova Scotia, and Newfoundland) require a mandatory secret ballot vote to certify a union (table 2). The remaining five provinces (Saskatchewan, Manitoba, Quebec, New Brunswick, and Prince Edward Island) and Canadian federal law allow unions to be automatically certified if the initial indication of support (written petitions, individual letters, or membership cards) exceeds a specified threshold. The threshold for automatic certification varies from 50%+1 in Quebec, Saskatchewan, Prince Edward Island and federal law to 65% in Manitoba (table 2).

Table 2: Certification

	Is union membership required for application?	Threshold required for application	Is vote by secret ballot required for certification?	Threshold required for certification vote	Threshold for automatic certification [a]	Is remedial certification allowed?
British Columbia	Yes	45%	Yes	50%+1	n/a	Yes
Alberta	No	40%	Yes	50%+1	n/a	No
Saskatchewan	No	25%	No	50%+1	50%+1	No
Manitoba	Yes	40%	No	50%+1	65% [d]	Yes
Ontario	Yes	40%	Yes	50%+1	n/a	Yes
Quebec	Yes	35%	No	50%+1	50%+1 [e]	No
New Brunswick	Yes	40%	No	50%+1	60% [f]	Yes
Nova Scotia	Yes	40%	Yes	50%+1	n/a	Yes
Prince Edward Island	Yes	50%+1	No	50%+1	50%+1 [g]	Yes [i]
Newfoundland	Yes	40% [b]	Yes	50%+1	n/a	Yes [i]
Federal (Canada)	Yes	35%	No	50%+1	50%+1 [h]	Yes
All US States	No	30%	Yes [c]	50%+1	n/a	Yes

a Threshold for automatic certification is the threshold required to certify a union without a representation vote.

b In Newfoundland, a union has to have at least 50%+1 of the unit sign union cards in order to apply to the Labour Relations Board, but if the Board after investigation determines that the union has the support of only 40% of the bargaining unit, it will still conduct a vote.

c In the United States, a union can apply for certification without a secret ballot vote if it has enough (30%) employees in the unit as members. However, an employer is not obligated to accept membership cards as proof of majority status (see *NLRB v. Gissel Packing Co.*, 395 U.S. 575 (1969)).

d In Manitoba, if a union has membership cards for more than 65% of the unit, the workplace will be unionized and there will not be a vote.

e In Quebec, if a union has membership cards for more than 50% of the unit, the workplace will be unionized and there will not be a vote.

f In New Brunswick, if a union has membership cards for more than 60% of the unit, the workplace will be unionized and there will be no vote. If a union has membership cards between 50% and 60% of the unit, the workplace may be unionized without a vote; at the discretion of the Labour Relations Board.

g Prince Edward Island's legislation states that if the majority of employees in a unit sign union cards, the Labour Relations Board may certify the union without a representation vote. The definition of "majority" is left to the Labour Relations Board's interpretation but it is always more than 50%.

h The federal Labour Code states that if a union has membership cards for more than 50% of the unit, the workplace will be unionized and there will be no vote.

i Based on case law. There is nothing in Newfoundland or Prince Edward Island's labour legislation about remedial certification.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39).

The presence of automatic certification in labour relations laws is of particular concern for labour market balance since workers may be subjected to undue pressure from co-workers and union representatives to sign a union card or petition without recourse to an autonomous decision made in private by secret ballot. There is substantial academic evidence that automatic certification provisions increase unionization rates. [9] For instance, Johnson (2002b), examining nine of the Canadian provinces from 1978 to 1996, concluded that mandatory secret-ballot votes reduced union certification success rates by approximately 9 percentage points when compared to automatic certification. Similarly, Riddell (2004) investigated the experience of British Columbia between 1978 and 1998. This is an interesting period since mandatory voting was introduced in 1984, eliminated in 1993, and reintroduced in 2001. Riddell found that union success rates fell by 19 percentage points after mandatory secret-ballot voting was introduced. [10] Furthermore, Slinn (2004) examined Ontario's 1995 policy change from automatic certification to mandatory secret-ballot voting and concluded that there was a highly significant negative effect on the probability of successful certification. Johnson (2004) suggests that 17% to 24% [11] of the difference between unionization rates in Canada and the United States could be explained by the widespread use of mandatory votes in the United States compared to the less widespread use of such votes in Canada. [12]

Remedial certification

Remedial certification refers to situations in which the Labour Relations Board of a jurisdiction automatically and unilaterally approves a union to represent a group of workers. This normally happens only in extreme circumstances, such as when an employer has been deemed to have illegally interfered with a union's campaign in a way that irreparably damages the potential for a fair vote. In most cases, the Labour Relations Board will only automatically certify a union if, in their opinion, a fair and representative election is not possible.

The Labour Relations Boards in seven Canadian provinces (British Columbia, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland) and the federal Canadian Industrial Relations Boards (CIRB) have the power to certify a union automatically in the event an employer has been deemed to have committed an unfair labour practice. The appointment of officials to the Labour Relations Boards in these jurisdictions as well as the level of transparency exhibited by the Boards are, therefore, much more critical given their discretionary power. [13] The remaining three Canadian provinces (Alberta, Saskatchewan, and Quebec) do not permit remedial certification (table 2).

In the United States, the National Labor Relations Board (NLRB) has remedial certification authority but it is the US Supreme Court's position that the National Labor Relations Board has remedial authority only where the unfair labour practices of the employer are so outrageous and pervasive "that there is no reasonable possibility that a free and un-coerced election could be held" (395 U.S. 575). For the overwhelming majority of cases, the NLRB would issue an investigation and proceed to normal certification procedures. [14]

Decertification

Decertification is the opposite process of certification. It is the process through which a union ceases to be a bargaining agent for a group of workers. Similar to the certification process, workers must gather a prescribed percentage of support in order for the Labour Relations

Board to issue a decertification vote. The threshold required to issue a vote varies from a low of 30% of workers in a bargaining unit in US states to a high of 50%+1 in four Canadian provinces (Saskatchewan, Quebec, Nova Scotia, and Prince Edward Island) and the CIRB (table 3).

Secret ballot vote versus automatic decertification

Secret-ballot voting is required to decertify a union in every Canadian province except Prince Edward Island and Quebec as well as in all US states. Only Canadian federal labour relations laws as well as the provincial laws in Prince Edward Island and Quebec allow a union to be decertified without a secret ballot vote (table 3). [15]

Table 3: Decertification

	Threshold required for application	Is vote by secret ballot required for decertification?	Threshold required for decertification vote	Threshold for automatic decertification	Certification/Decertification differential in percentage points
British Columbia	45%	Yes	45%	n/a	0
Alberta	40%	Yes	50%+1	n/a	0
Saskatchewan	50%+1	Yes	50%+1	n/a	25
Manitoba	50%	Yes	50%+1	n/a	10
Ontario	40%	Yes	50%+1	n/a	0
Quebec	50%+1	No [b]	50%+1	50%+1	15
New Brunswick	40%	Yes	50%+1	n/a	0
Nova Scotia	50%+1 [a]	Yes	50%+1	n/a	10
Prince Edward Island	50%+1	No [c]	50%+1	50%+1	0
Newfoundland	40%	Yes	50%+1	n/a	0
Federal (Canada)	50%+1	No	50%+1	50%+1	15
All US States	30%	Yes	50%+1	n/a	0

a In Nova Scotia, a show of support is not needed in order for the union to apply for decertification. The application to the Labour Relations Board has to claim that there is majority of support (50%+1) but no petition or individual letters are needed.

b Note that in the first edition of this study (Karabegović et al., 2004), we indicated that a decertification vote was mandatory in Quebec, information that was confirmed by the Ministère du Travail du Québec. After the publication of the study, it was pointed out that a decertification vote is not taken in all cases. After inquiry to the Commission des Relations du Travail, we were informed that a decertification vote is not mandatory. The vote is taken only in those cases that the Commission deems it necessary.

c In Prince Edward Island, if the Labour Relations Board is satisfied that a majority of employees in the unit support the application for decertification, it may decertify the union without a vote. The interpretation of “majority” is left to the Labour Relations Board but it is always more than 50%.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39).

Decertification vote

The percentage of ballots cast in favour of decertification has to be at least 50%+1 in every Canadian province except British Columbia (45%) and all US states in order for the Labour Relations Board to decertify a union (table 3).

Differences between thresholds for certification and decertification

An important indicator of the degree to which labour relations laws favour one side at the expense of the other is the presence of a difference in certification and decertification requirements. That is, a jurisdiction that maintained a decertification threshold higher than its certification requirement would make it easier for a union to gain bargaining power than it would for the same union to lose such power. Four Canadian provinces (Saskatchewan, Manitoba, Quebec, and Nova Scotia) as well as the CIRB maintain a lower threshold for certification application than for decertification application (table 3). The remaining Canadian provinces and all US states maintain the same thresholds and requirements for certification and decertification, indicating a more balanced approach to the certification and decertification process.

Observations on certification and decertification

Alberta ranks first, receiving a score of 10.0 out of 10.0 for its well-balanced set of regulations regarding union certification and decertification. Three Canadian provinces (British Columbia, Ontario, and Newfoundland) as well as all the US states tied for second place with a score of 7.5 out of 10.0. Unfortunately, five Canadian provinces (New Brunswick, Saskatchewan, Manitoba, Quebec, and Prince Edward Island) received a score of 5.0 or less, indicating biased rules for certification and decertification. The Canadian Industrial Relations Board (CIRB) received the lowest score of 1.0 (table 4, figure 1).

2 Union security

Union security refers to regulations governing union membership and the payment of union dues by covered workers. Specifically, union security relates to whether or not provisions regarding mandatory union membership and dues payment can be included in a collective agreement. These provisions vary from restrictive, where all workers must be members of a union and pay full dues as a condition of employment, to flexible, where employees have the choice of becoming a union member and do not have to pay full union dues.

Allowing workers choice in the matter of union membership and payment of union dues increases the flexibility of the labour market in two ways. First, it makes unions more responsive to employees' demands since members and dues are no longer guaranteed. Second, it ensures competition for the right to represent workers. Differences in union security laws have a major impact on unionization rates. Scholars such as Daphne Gottlieb Taras and Allen Ponak (2001) have concluded that the difference in how Canadian and American labour relations laws address union security is one of the fundamental explanations for the divergence between the unionization rates of the two countries (table 5, figure 2). [16]

In all Canadian jurisdictions, including federal law, mandatory union membership is permitted in collective agreements and can be included as a condition of employment. In addition,

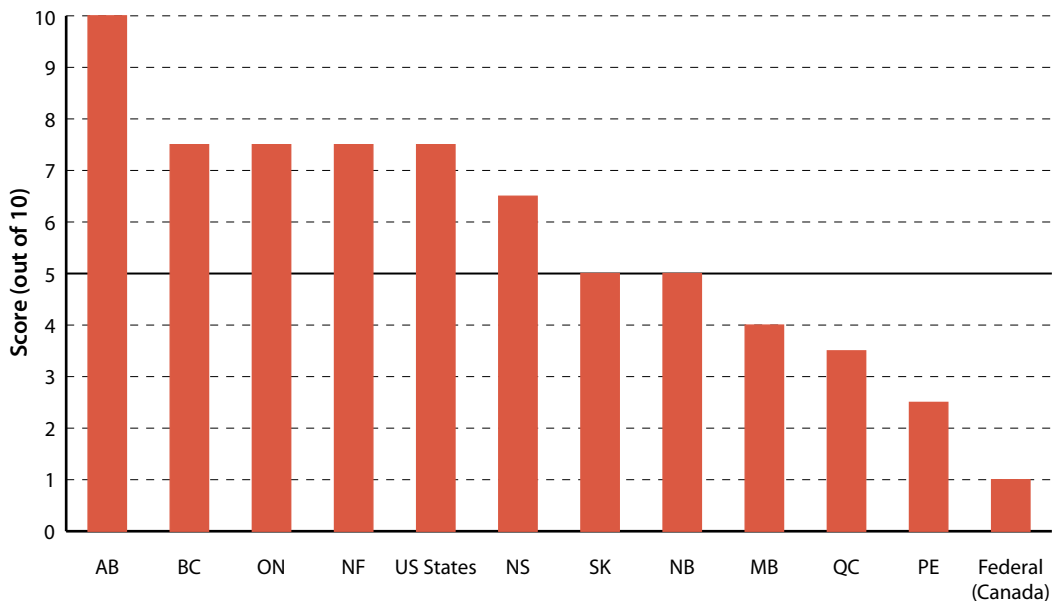
Table 4: Certification and decertification

	Score [a]	Rank (out of 61)
British Columbia	7.5	2
Alberta	10.0	1
Saskatchewan	5.0	56
Manitoba	4.0	58
Ontario	7.5	2
Quebec	3.5	59
New Brunswick	5.0	56
Nova Scotia	6.5	55
Prince Edward Island	2.5	60
Newfoundland	7.5	2
Federal (Canada)	1.0	61
All US States	7.5	2

a The score for Certification and Decertification is based on mandatory vote requirement for both certification and decertification, remedial certification, and certification-decertification differential. For further details, see Appendix A.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39); calculations by the authors.

Figure 1: Score for Certification and Decertification



all workers covered by a collective agreement are required to pay full union dues even if they are not members of the union. [17] The combination of allowing mandatory membership conditions and the remittance of full union dues results in a strong pro-union bias in Canadian labour relations laws (table 5).

In the United States, on the other hand, the National Labor Relations Act and complementary legislation makes two conditions explicit: (1) a union-security provision in a collective agreement cannot require that applicants for employment be members of the union in order to be hired; and (2) such an agreement cannot require employees to join or maintain membership in the union in order to retain their jobs. That is, the US federal law prohibits union membership clauses as a condition of employment (table 5). [18] In addition, the federal laws in the United States allow workers the choice of whether or not to give financial support to activities of their union such as lobbying and political support that are unrelated to representation. That is, workers in the United States can either pay full union dues or, if they

Table 5: Union Security

	Is mandatory union membership prohibited?	Are mandatory union dues allowed?	Score	Rank (out of 61)
British Columbia	No	Yes	0	51
Alberta	No	Yes	0	51
Saskatchewan	No	Yes	0	51
Manitoba	No	Yes	0	51
Ontario	No	Yes	0	51
Quebec	No	Yes	0	51
New Brunswick	No	Yes	0	51
Nova Scotia	No	Yes	0	51
Prince Edward Island	No	Yes	0	51
Newfoundland	No	Yes	0	51
Federal (Canada)	No	Yes	0	51
US Right-to-Work States [a]	Yes	No	10	1 [c]
US non-Right-to-Work States	Yes	Yes [b]	5	23 [d]

- a Right-to-Work States include: Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming (National Institute for Labor Relations Research, 2005).
- b In non-Right-to-Work States, partial union dues are allowed at the request of employees. Partial union dues cover union’s costs relating to representation employees during collective bargaining, contract administration, and grievance adjustment.
- c 22 states tied for first place.
- d 28 states tied for twenty-third place.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39); calculations by the authors.

choose, only pay the portion of dues directly related to representation costs such as bargaining and maintaining the collective agreement (NLRB, 1997). [19]

Twenty-two US states have extended worker choice by clarifying and expanding upon the federal law by introducing Right-to-Work (RTW) legislation—more accurately described as worker-choice laws. [20] The 22 Right-to-Work states have extended the federal provision that allows for partial payment of union dues by prohibiting any forced payment of dues regardless of its nature. That is, workers in the 22 RTW states can not only choose whether or not to be a member of a union but they also have full discretion with respect to the payment of any union dues.

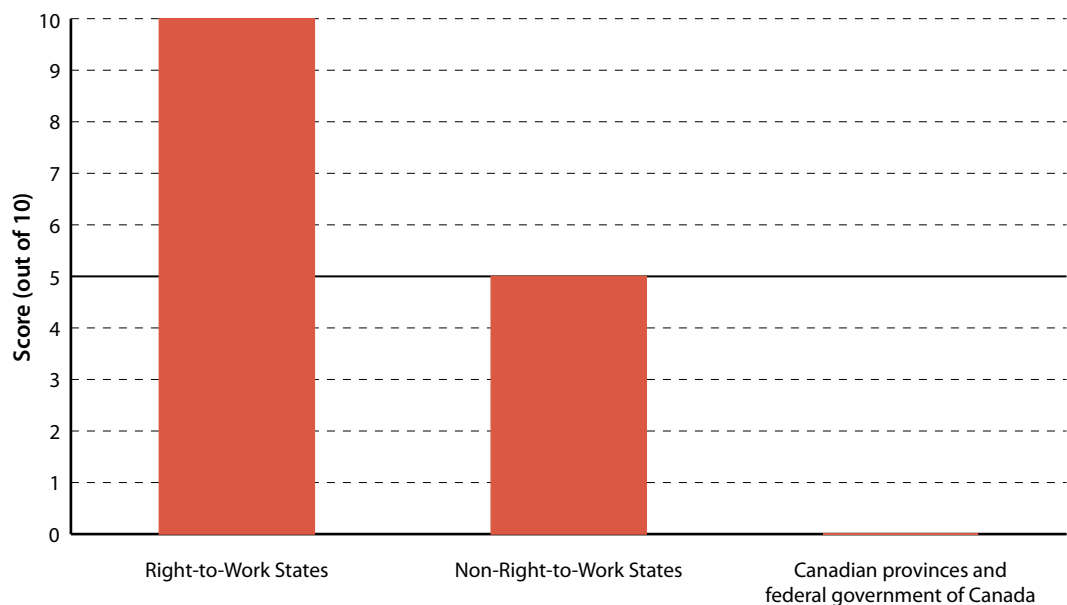
Observations on union security

The results for this area of labour relations laws indicate that there are three distinct groups of jurisdictions in Canada and the United States. The first group are American Right-to-Work states, in which workers are permitted to choose whether or not to join a union and pay any union dues. Right-to-Work states received a score of 10.0 out of 10.0 on union security clauses (table 5). They represent the group that offers workers the greatest amount of choice and flexibility with respect to unionization.

The second group are US states without worker-choice laws (RTW legislation). These states scored 5.0 out of 10.0 on union security clauses as workers are permitted to choose whether or not to join a union but are required to remit at least a portion of union dues to cover costs associated with negotiating and maintaining the collective agreement.

The final group consists of the Canadian provinces and federal government. None of the Canadian jurisdictions provide workers with a choice regarding union membership or full dues payment and, as a result, received a score of 0.0 for union security. Specifically, none of the Canadian jurisdictions prohibits mandatory union membership or full payment of dues as a condition of employment.

Figure 2: Union Security



3 Regulation of unionized firms

The final aspect of labour relations laws included in this study, regulation of unionized firms, examines components of labour relations laws that come into effect once a firm is unionized. These regulations apply only to existing unionized firms. Like all regulations, these impose costs on affected firms. In addition, these regulations can have important influences on the performance of affected firms, particularly in sectors of the economy where there is a mix of both unionized and non-unionized firms. Specifically, these regulations will impose costs on unionized firms whereas non-unionized firms will be unaffected and may, therefore, gain a competitive cost advantage.

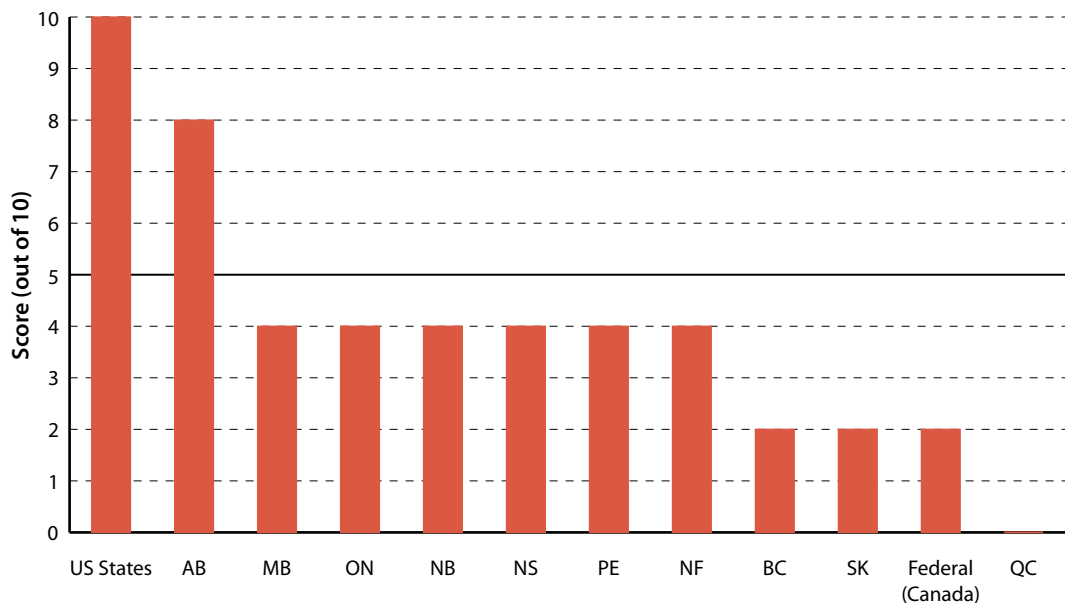
This section examines the following: successor rights, the status of collective agreements when a unionized business is sold or transferred; whether or not businesses are required to notify a union if it intends to invest in technological change; whether or not businesses and unions are forced into arbitration to resolve disputes; and whether or not replacement workers and second-site picketing are permitted (figure 3; table 6, page 20).

Successor rights

In technical terms, successor-rights provisions determine whether, and how, collective bargaining agreements survive the sale, transfer, consolidation, or other disposal of a business. This is an important aspect of labour relations laws and, to a larger extent, the process of capital reallocation. If a business or portion of a business is rendered uneconomical as the result of changes in the market, reductions in competitiveness, or other reasons, stringent successor laws will impede the reorganization of the business and the efficient reallocation of its capital.

Legislation in every Canadian province as well as the federal laws make an existing collective agreement binding upon a new employer when a business, in whole or in part, is sold,

Figure 3: Regulation of unionized firms



transferred, leased, merged, or otherwise disposed of (table 6). In other words, a purchasing employer (owner) is bound by a contract (existing collective agreement) that it had no part in negotiating. There is little variance in the treatment of successor rights across Canadian provinces. Some provinces provide the Labour Relations Boards with discretion in certain circumstances but the general direction of the laws in all provinces is to protect the collective bargaining agreement before and after a change in ownership.

Conversely, it is rare in the United States for a purchaser to be responsible for the incumbent collective bargaining agreement (table 6). The National Labor Relations Board decides whether the purchaser is a successor employer by taking into account a number of factors including the number of employees taken over by the purchasing employer, the similarity in operations and product of the two employers, the manner in which the purchaser integrates the purchased operations into its other operations, and the character of the bargaining relationship between the union and the original employer. While successor employers may be bound to recognize and bargain with the incumbent union, the general direction taken by the NLRB in the United States is not to consider successor employers to be bound by the provisions of a collective bargaining agreement negotiated by their predecessors.

Technological change

Technological change provisions in labour relations laws require a notice of technological investment and change be sent by an employer to the union (and, in some provinces, to the Minister of Labour). These provisions determine whether an employer must notify a union and the length of notice required. In addition, this provision allows the union to grieve or otherwise object to the investment.

A barrier to technological change can have serious and adverse effects on productivity and, thus, ultimately on workers' wages. [21] The productivity of workers is in part dependent on the capital (machinery and equipment) available to them. Since wages are ultimately determined by workers productivity, anything that affects productivity will eventually affect wages. Thus, any reduction of the capital available to workers in the form of plants, machinery, equipment, and new technologies will adversely affect the future wages and benefits of workers.

Five Canadian provinces (British Columbia, Saskatchewan, Manitoba, Quebec, and New Brunswick) as well as the CIRB require notice to be sent to a union in advance of proposed technological investment if it *might* affect either the collective agreement or employment. It further permits the union to lodge a complaint with the Labour Relations Board (table 6). There is no formal requirement for employers in the remaining five Canadian provinces (Alberta, Ontario, Nova Scotia, Prince Edward Island, and Newfoundland) or any of the US states to inform unions of technological change (table 6).

Arbitration of disputes

Although most collective agreements have provisions for resolving disputes (usually called a grievance procedure), it is important to recognize how disputes are resolved subject to labour relations law when both parties cannot, or no longer wish, to negotiate. Generally, there are three stages to resolving a labour dispute. The first is conciliation, whereby disputing parties meet separately with a third party to facilitate negotiation. The second is mediation, where parties meet face-to-face in the presence of a third party but any final decision is not legally

Table 6: Regulation of Unionized Firms [\[TO SEE THE FULL TABLE, CHOOSE VIEW > PAGE LAYOUT > FACING.\]](#)

	Successor rights: Is the existing collective agreement binding?	Is mandatory notice required for introduction of technological change?	Advanced notice of technological change
British Columbia	Yes	Yes	60 days
Alberta	Yes	No	n/a
Saskatchewan	Yes	Yes	90 days
Manitoba	Yes	Yes	90 days
Ontario	Yes	No	n/a
Quebec	Yes [a]	Yes [c]	not specified
New Brunswick	Yes	Yes [d]	not specified
Nova Scotia	Yes	No	n/a
Prince Edward Island	Yes	No	n/a
Newfoundland	Yes	No	n/a
Federal (Canada)	Yes	Yes [e]	120 days
All US States	No [b]	No	n/a

- a In Quebec, a small but important change was made to the legislation wherein, if only a portion of a firm is transferred, the existing collective agreement may not be binding.
- b In the United States, an employer who purchases or otherwise acquires the operations of another may be obligated to recognize and bargain with the union but rarely is the new employer bound by the existing collective agreement. In general, these bargaining obligations exist—and the purchaser is called a successor employer—where there is a substantial continuity in the employing enterprise despite the sale and transfer of business. Whether the purchaser is a successor employer is dependent on several factors, including the number of employees taken over by the purchasing employer, the similarity in operations and product of the two employers, the manner in which the purchaser integrates the purchased operations into its other operations, and the character of the bargaining relationship and agreement between the union and the original employer. There are circumstances where the employer is bound by the existing collective agreement but the mere fact the new employer is doing the same work in the same place with the same employees as its predecessor does not mean that this is necessarily so. Rather, it depends upon the new employer inheriting other liabilities and contracts of its predecessor.
- c The Quebec Labour Code requests that the employer send a notice to the union in cases where the technological change causes an employee's status to change from "employee" to "contractor." *An Act Respecting Labour Standards* (Government du Québec, Ministère des Relations avec les citoyens et de l'Immigration, Publications Quebec, 2005), however, has more detailed procedures with respect to technological change.
- d In New Brunswick, the technological change provision in the *Industrial Relations Act* differs from that in other provinces; it does not specify how much time in advance an employer has to send the written notice to the union before technological change is implemented nor does not define "technological change." The *Act* does require that the employer gives "reasonable advance notice" to the bargaining agent but it does not specify what "reasonable" is.
- e The notice does not have to be given when (1) the collective agreement contains provisions that specify procedures by which a technological change may be negotiated and settled during the term of the agreement or (2) the two parties specify that provisions pertaining to technological change in the *Canada Labour Code* do not apply during the term of the collective agreement.
- f Refers to disputes regarding collective bargaining agreement, its meaning, application, or alleged violation.
- g Ontario, New Brunswick, Nova Scotia, and Newfoundland have nothing in their legislation that either prohibits or allows the hiring of replacement workers during a legal strike or lockout. In Ontario and New Brunswick, this was interpreted to mean that replacement workers are allowed since they are not prohibited in the legislation. In Newfoundland and Nova Scotia, on the other hand, it was interpreted to mean that replacement workers are prohibited.

Is immediate binding arbitration the only option? [f]	Are temporary replacement workers allowed?	Is third-party picketing allowed?	Score	Rank (out of 61)
Yes	No	No [i]	2.0	58
No	Yes	No	8.0	51
Yes	Yes	Yes [j]	2.0	58
No	Yes	Yes [j]	4.0	52
Yes	Yes [g]	Yes [j]	4.0	52
Yes	No	Yes [j]	0.0	61
No	Yes [g]	Yes [j]	4.0	52
No	No [g]	Yes [j]	4.0	52
Yes	Yes	Yes [j]	4.0	52
No	No [g]	Yes [j]	4.0	52
No	Yes [h]	Yes [j]	2.0	58
No	Yes	No [k]	10.0	1 [l]

h The *Canada Labour Code* specifies that an employer cannot hire temporary replacement workers for the purpose of undermining a union's "demonstrational capacity" or bargaining power. An employer can, however, hire temporary replacements for legitimate bargaining objectives.

i In British Columbia, second-site picketing of an "ally" business is allowed. An "ally" business is one that is found to be assisting the employer by doing work done by the employees on strike or lockout.

j Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, and the Canadian federal Government have nothing in their legislation that either prohibits or allows third-party picketing. Since third-party picketing is not addressed, it falls under the jurisdiction of courts rather than the Labour Relations Boards. The Supreme Court of Canada's 2002 decision acknowledged the right of employees to picket third parties provided it does not constitute criminal or tortious (accidental or unintentional harm) activity (see *R.W.D.S.U., Local 558 v. Pepsi-Cola Canada Beverages (West) Ltd.* [2002] 1 S.C.R. 156, 8 S.C.C.).

k In general, secondary picketing is prohibited in all US states. The exceptions are as follows: (1) workers may picket a secondary "ally" employer where it is performing the work that would have been done by the striking employees; (2) workers may engage in consumer picketing, where they try to dissuade the public from patronizing retail establishments rather than employees from working, provided that the union's case is closely confined to the primary dispute and that the secondary employer can easily substitute another employer's goods/services; (3) secondary boycotts are allowed in the construction and textile industries; (4) informational picketing is allowed, even if such picketing interferes with deliveries or pickups, if the sole object of the picketing is to inform the public.

l Tied for first place.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39); calculations by the authors.

binding. The third is arbitration, which is characterized by face-to-face negotiations among all parties and a final, legally binding, decision by an arbitrator.

It is generally seen as beneficial to exhaust voluntary alternatives such as mediation before relying on mandatory arbitration. Proceeding immediately to binding arbitration without taking prior steps may not only result in increased costs for both parties but it may also create hostility between the parties. A stronger commitment to voluntary negotiation may increase the odds that both parties will be satisfied with the agreement.

In Canada, five provinces (British Columbia, Ontario, Quebec, Prince Edward Island, and Saskatchewan) require immediate, binding arbitration and do not allow parties to exhaust other avenues such as mediation or other less formal dispute-resolution mechanisms first (table 6). This is an important aspect of Canadian labour relations laws since it means that most disputes in these jurisdictions will be resolved immediately using binding arbitration. The selection of arbitrators and, indeed, the members of provincial Labour Relations Boards thus have the potential to exert great influence over the resolution of industrial disputes. The remaining five provinces and the CIRB permit the use of other resolution mechanisms before requiring arbitration (table 6).

In the United States, arbitration is voluntary. American legislation does not force the parties to include binding arbitration clauses in their labour agreements (table 6). [22] The National Labor Relations Board (NLRB) works in conjunction with the independent Federal Mediation and Conciliation Service and, depending on the significance of the dispute, with the American Arbitration Association and any state arbitration services to resolve disputes.

Replacement workers

In the event of a legal strike by workers or lockout by an employer, a firm may wish to hire replacement workers in order to continue at least partial operations while addressing reasons for the dispute. Several researchers have concluded that bans on the use of replacement workers can have significant economic impacts. For instance, Cramton et al. (1999) studied private-sector contract negotiations in Canadian provinces from 1967 to 1993 and found that negotiation costs were significantly higher in provinces that prohibited employers from using replacement workers. In addition, they found that wage settlements were, on average, 4.0% higher while the duration of strikes was, on average, 2 weeks longer compared to wage settlements in jurisdictions without bans on replacement workers. This implies an increase in average negotiation costs of around \$1.9 million (1993 Canadian dollars) per contract.

A recent study by John Budd and Yijiang Wang (2004) concluded that labour policies such as bans on replacement workers that increase the bargaining power of unions resulted in lower investment. Specifically, the study looked at provincial investment from 1967 to 1999 and found that the net investment rate (new investment minus depreciation) is 0.746 percentage points lower when a province bans the use of replacement workers during strikes. [23]

A previous study by Budd (2000) examined employment and bargaining-unit statistics for Canadian provinces from 1966 to 1994 and concluded that bans on replacement workers have adverse consequences on employment. Specifically, the study found that provinces that prohibit replacement workers tend to have a lower employment-to-population ratio and a drastically reduced number of employees in the bargaining unit over time.

Four Canadian provinces (Alberta, Saskatchewan, Manitoba, and Prince Edward Island) as well as the CIRB have legislation allowing replacement workers during legal strikes and lockouts. These four provinces and the CIRB also stipulate that striking or locked-out workers have the right to immediate reinstatement once the dispute has been resolved (table 6). Two provinces, British Columbia and Quebec, specifically prohibit the use of replacement workers. The remaining four Canadian provinces have nothing specifically dealing with replacement workers in their legislation although surprisingly the treatment of replacement workers differs among the four provinces: Ontario and New Brunswick generally allow replacement workers whereas Nova Scotia and Newfoundland interpret the absence of such provisions to mean employers do not have the right to hire replacement workers (table 6). [24]

The National Labor Relations Act in the United States allows replacement workers (table 6). Employees who strike for a lawful reason fall into two classes: economic strikers and strikers against unfair labour practices. While both classes continue as employees (that is, they cannot be discharged), economic strikers may be permanently displaced whereas those striking against unfair labour practices can be only temporarily replaced. However, upon resolution of the dispute, the employer must place economic strikers who wish to return to work on a preferential hiring list and offer to reinstate them when any job for which they are qualified becomes available. [25]

Third-party picketing

Third-party (or second-site) picketing refers to the ability (or inability) of striking workers and their union to picket and disrupt the operations of enterprises not covered by the collective agreement. For example, striking employees might engage in third-party picketing of suppliers to, or retailers of, the firm who is a party to the collective agreement. The ability to disrupt the operations of third parties means that the union and workers have the ability to affect not only the employer covered by the collective agreement but also any other company doing business with the primary firm. This may force the employer to settle a strike because of pressure from third parties instead of addressing the reasons for the strike.

Only two Canadian provinces, British Columbia and Alberta, specifically prohibit third-party picketing. The remaining eight provinces and the CIRB do not address third-party picketing and, therefore, regulation is achieved through court precedent. A decision in 2002 by the Supreme Court of Canada instituted a right for employees to picket third parties (table 6). [26]

For the overwhelming majority of cases in the US states, third-party picketing is prohibited; however, some loopholes exist in the current case law. The overall direction, however, of the National Labor Relations Board is to prohibit involving third parties as much as possible (table 6).

Observations on the regulation of unionized firms

All US states received a score of 10.0 out of 10, indicating a high degree of balance in the labour relations laws dealing with firms once they are unionized. Alberta received the second highest score of 8.0. Six Canadian provinces (Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland) received a score of 4.0. British Columbia, Saskatchewan, and the CIRB received a score of 2.0 while Quebec was the only jurisdiction that received a score of 0.0.

The results from the analysis of regulation on unionized firms indicate that the US states as well as Alberta impose relatively balanced requirements on firms once they are unionized. The remaining nine Canadian provinces as well as the federal government, on the other hand, tend to impose upon unionized firms regulations that are biased and “prescriptive,” that is, regulation mandating a resolution to labour disputes rather than fostering negotiation between employers and employees

4 Index of Labour Relations Laws

The Index of Labour Relations Laws provides an overall measure of the level of balance and promotion of labour market flexibility in the various jurisdictions’ labour relations laws. It is a composite measure of the three areas analyzed and discussed previously: (1) Certification and Decertification; (2) Union Security; and (3) Regulation of Unionized Firms (table 7; figure 4). [27]

The 22 US Right-to-Work states maintain the most balanced and least prescriptive labour relations laws amongst the 10 Canadian provinces, the Canadian federal government and 50 US states. Each received a score of 9.2 out of a possible 10.0. Recall that these states have added to, or expanded on, the US federal labour relations laws regarding union security (union membership and union dues payment). This is the only difference between RTW states and non-RTW states in the United States. The remaining 28 US states were tied for the twenty-third position with an overall score of 7.5.

Canadian jurisdictions fared poorly overall. The Canadian provinces and the CIRB occupied positions 51 to 61. The only province with a score above 5.0 was Alberta, with an overall score of 6.0. The remaining 10 jurisdictions all received scores below 5.0. The federal government and Quebec maintained the most rigid and biased labour relations laws and had overall scores of 1.0 and 1.2, respectively. Manitoba (2.7), Saskatchewan (2.3), and Prince Edward Island (2.2) also recorded very weak scores.

Overall the trend is quite clear. American states tend to maintain balanced labour relations laws focused on providing workers and employers with choice and flexibility. Canadian jurisdictions, on the other hand, generally maintain much more biased and prescriptive labour relations laws.

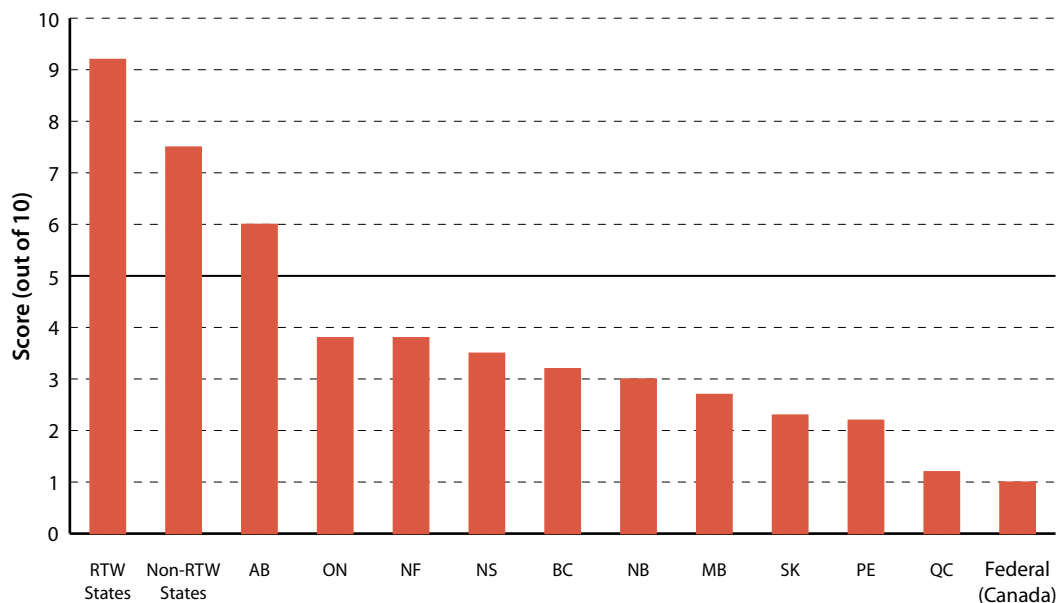
Table 7: Index of Labour Relations Laws

	Overall Index (out of 10)	Rank (out of 61)
British Columbia	3.2	55
Alberta	6.0	51
Saskatchewan	2.3	58
Manitoba	2.7	57
Ontario	3.8	52
Quebec	1.2	60
New Brunswick	3.0	56
Nova Scotia	3.5	54
Prince Edward Island	2.2	59
Newfoundland	3.8	52
Federal (Canada)	1.0	61
US Right-to-Work States	9.2	1 [a]
US Non-Right-to-Work States	7.5	23 [b]

- a Tied for first place.
- b Tied for twenty-third place.

Sources: Government of Canada, *Labour Code* (1985); Province of British Columbia, *Labour Relations Code* (1996); Government of Alberta, *Labour Relations Code* (2000); Government of Saskatchewan, *The Trade Union Act* (1978); Government of Manitoba, *The Labour Relations Act* (1987); Government of Ontario, *Labour Relations Act* (1995); Government of Quebec, *Labour Code* (1977); Government of New Brunswick, *Industrial Relations Act* (1973); Government of Nova Scotia, *Trade Union Act* (1989); Government of Prince Edward Island, *Labour Act* (1988); Government of Newfoundland and Labrador, *Labour Relations Act* (1990); National Labor Relations Board (for details, see *Labour Relation Laws*, p. 39); calculations by the authors.

Figure 4: Index of Labour Relations Laws



Labour relations laws and unionization rates

This section presents a basic statistical analysis of the relationship between labour relations laws and unionization rates. This is a first step towards a broader analysis aimed at gaining a deeper statistical understanding of what drives unionization rates in Canadian provinces and US states.

Basic statistics

We begin with a simple analysis the relationship between a jurisdiction's unionization rate and its scores in the Index for specific aspects of labour relations laws. [28] In order to determine the relationship between labour relations laws and unionization rates, simple correlations are used. A correlation is a statistical measure of the relationship between two variables. The value of a correlation can range from -1.0 to $+1.0$. A negative correlation means that the two variables are negatively related; that is, they move in opposite directions. In terms of labour relation laws and unionization rates, a negative correlation (between 0 and -1.0) indicates that a high score in the Index for a certain aspect of the labour relations laws is associated with lower rates of unionization. Alternatively, a positive correlation means that the two variables are positively related. The strength of a correlation is determined by how close the value is to 1.0 or -1.0 . That is, a negative correlation of -0.78 is stronger than one of -0.23 .

It is critical to note that because two variables are correlated does not mean that one causes the other. A higher level of statistics is needed to determine causation. In the future, we plan to move beyond the calculation of simple correlations and towards a more thorough statistical analysis that will allow us to determine the causal relationship between labour relations laws and unionization rates. As a first step, however, correlations do provide some interesting insights into how labour relations laws relate to unionization rates.

Results and analysis

Correlations were calculated to determine the simple statistical relationship between private-sector unionization rates in Canadian provinces and US states and five different aspects of labour relation laws: (1) automatic certification, (2) certification and decertification application differential, (3) remedial certification, (4) mandatory dues payment, and; (5) mandatory union membership. These aspects of labour relations laws were chosen because they all apply to certification activities: how a union gains and loses the right to represent workers and who gets covered when collective representation occurs. Jurisdictions that permit automatic certification, remedial certification, mandatory dues payment, and mandatory union membership and maintain different certification and decertification application thresholds received lower scores on the Index of Labour Relations Laws and are expected to have higher rates of unionization. As discussed above, other labour relations laws covered in this study (i.e. mandatory clauses and labour disputes) regulate the interactions between firms, unions, and workers once a business has been unionized and thus are not expected to be correlated with unionization rates.

Table 8 contains the results of the simple statistical analysis discussed above. Interestingly, the aspect of labour relations laws that shows the strongest relationship with unionization rates is the presence of mandatory dues payments. Specifically, the simple correlation for the private sector indicates a -0.773 relationship between mandatory payment of union dues and unionization rates. This means that jurisdictions where mandatory union dues is not permitted, there tends to be lower unionization. [29]

The other aspect of labour relations laws that results in a strong relationship is mandatory union membership. This is particularly interesting since the two aspects of labour relations laws showing the strongest relationship (negative) with unionization rates are both aspects of provisions for union security. The analysis indicates a negative correlation between private-sector unionization and the ability of unions to impose mandatory union membership of -0.656 . This means that in jurisdictions where mandatory union membership is not permitted, there tends to be lower unionization.

While the correlations for the other variables analyzed were not as strong, the relationships (positive versus negative) with unionization rates were still in line with expectations. For instance, the correlation between automatic certification and unionization is -0.458 , which indicates that a secret-ballot vote requirement for certification is associated with lower unionization rates. Along the same lines, the presence of a certification-decertification application differential was calculated as having a positive relationship with private-sector unionization rates (see table 8).

The correlation with remedial certification is the only aspect of labour relation laws whose correlation was different from what was expected. That is, the correlation between remedial certification and unionization was positive, meaning that unionization rates tend to be higher in jurisdictions that do not allow their labour relations boards to grant remedial certification. [30]

Overall, the correlation estimates provided results that were in line with expectations based on previous empirical research and economic intuition regarding the relationship between certain aspects of labour relation laws and unionization rates. However, a more thorough empirical test is needed in order to determine whether causal relationships exist between these aspects of labour relations laws and unionization rates.

Table 8: Statistical analysis of selected labour relations laws and unionization rates

	Private-sector unionization rates
Secret ballot required for certification	-0.458
Secret ballot required for decertification	-0.008
Certification-decertification differential	0.471
Remedial certification	0.413
Mandatory union dues allowed	-0.773
Mandatory membership allowed	-0.656

Sources: Statistics Canada, Labour Force Historical Review 2004 (CD-ROM); Hirsch and , 2005, <<http://www.unionstats.com/>>; calculations by the authors.

Summary: Labour relations laws and flexibility in the labour market

This study evaluates the extent to which labour relations laws bring flexibility to the labour market while balancing the needs of employers and employees. Balanced labour laws are crucial in creating and maintaining an environment that encourages productive economic activity. Labour relations laws inhibit the proper functioning of a labour market and thus reduce its performance when they favour one group over another or are overly “prescriptive,” that is, when they impose a resolution to labour disputes rather than fostering negotiation between employers and employees. Empirical evidence from around the world indicates that jurisdictions with flexible labour markets enjoy higher rates of job creation, greater benefits from technological change, and higher rates of economic growth.

This publication provides an empirical evaluation of labour relations laws in the private sector for the 10 Canadian provinces, the Canadian federal jurisdiction, and the 50 US states. In all, 10 components of labour relations laws are examined, grouped into three categories: (1) Certification and Decertification; (2) Union Security, and; (3) Regulation of Unionized Firms. Certification and Decertification relates to how a union gains and loses its right to collectively represent workers. Union Security includes provisions dealing with union membership and dues payment. The final category, Regulation of Unionized Firms, relates to regulatory requirements imposed on firms once they are unionized. In addition, an aggregate measure is calculated so as to present an overall indicator of jurisdictional performance.

Index of Labour Relations Laws

The Index of Labour Relations Laws provides an overall measure of how balanced a jurisdiction’s labour relations laws are and to what extent they promote labour market flexibility. It is a composite measure of the three areas analyzed: (1) Certification and Decertification; (2) Union Security; and (3) Regulation of Unionized Firms.

The overall results suggest four categories or groupings of jurisdictions. Among the 10 Canadian provinces, the Canadian federal government, and 50 US states, the 22 US Right-to-Work states maintain the most balanced and least prescriptive labour relations laws. Each received a score of 9.2 out of 10.0. The US Right-to-Work states maintain the highly balanced labour relations laws needed to insure flexible labour markets.

The remaining 28 US states were tied for the twenty-third position with an overall score of 7.5. Recall that the only difference between RTW states and non-RTW states in the United States is that the RTW states have added to, or expanded on, the US federal labour relations laws regarding union security (union membership and union dues payment). The 28 non-RTW US states possess balanced labour relations laws, although the balance is less secure than that provided by the RTW states.

Third is Alberta, which received a score of 6.0 and stood well ahead of other Canadian jurisdictions though it fell well short of competing with US states. Alberta’s basic failing is a number of provisions that are generally standardized within Canada, such as successor rights

and the absence of worker choice laws. If Alberta is to improve its performance and pursue more balanced laws, it will have to diverge from the Canadian standard on these aspects of labour relations laws.

Finally, there are the remaining nine Canadian provinces and the Canadian federal government, which all failed to receive scores above 5.0. These jurisdictions have biased labour relations laws that impede labour market flexibility. The federal government and Quebec maintained the most rigid and biased labour relations laws, given their overall scores of 1.0 and 1.2, respectively. Manitoba (2.7) Saskatchewan (2.3), and Prince Edward Island (2.2) also recorded very weak scores.

Overall the trend is clear. American states tend to maintain balanced labour relations laws focused on providing workers and employers with choice and flexibility. Canadian jurisdictions, on the other hand, with the exception of Alberta, generally maintain much more biased and prescriptive labour relations laws.

Components of the Index of Labour Relations Laws

1 Certification and Decertification

Certification and Decertification refer to the processes through which a union acquires and loses the power to be the exclusive bargaining agent for a group of employees. There are a number of aspects of certification and decertification included in the analysis, such as the use of mandatory secret-ballot elections, remedial certification, and differences between the thresholds for certification and decertification.

Alberta ranks first for its Certification and Decertification rules with a score of 10.0 out of 10.0, indicating a well-balanced set of regulations. Three Canadian provinces (British Columbia, Ontario, and Newfoundland) as well as all the US states tied for second place with a score of 7.5 out of 10.0. Unfortunately, five Canadian provinces (New Brunswick, Saskatchewan, Manitoba, Quebec, and Prince Edward Island) received a score of 5.0 or lower. The Canadian Industrial Relation Board (CIRB) received the lowest score, 1.0. In all there were four jurisdictions (Manitoba, Quebec, Prince Edward Island, and the Canadian federal government) that received scores lower than 5.0, indicating biased rules for certification and decertification.

2 Union Security

Union Security pertains to regulations governing union membership and the payment of union dues. Specifically, union security relates to whether or not provisions regarding mandatory union membership and dues payment can be included in a collective agreement. These provisions vary from restrictive, where all workers must be members of a union and pay full dues as a condition of employment, to flexible, where employees have the choice of becoming a union member and do not have to pay full union dues.

The results for this component of the analysis indicate that there are three distinct groups of jurisdictions in Canada and the United States. The first group comprises US Right-to-Work states, in which workers are permitted to choose whether or not to join a union and pay any union dues. Right-to-Work states received a score of 10.0 out of 10.0 on union security

clauses. They represent the jurisdictions that offer workers the greatest degree of choice and flexibility with respect to unionization.

The second group comprises US states without worker-choice laws (RTW legislation). These states scored 5.0 out of 10 on union security clauses as workers are permitted to choose whether or not to join a union but are required to remit at least a portion of union dues to cover costs associated with negotiating and maintaining the collective agreement.

The final group consists of all the Canadian provinces and the Canadian federal government. None of the Canadian jurisdictions provide workers with a choice regarding union membership or full dues payment. Specifically, none of the Canadian jurisdictions prohibits mandatory union membership or complete dues payments as a condition of employment.

3 Regulation of Unionized Firms

The third component of labour relations laws included in this study examines components of labour relations laws that come into effect once a firm is unionized. A number of provisions were examined, including:

Successor Rights To what extent are collective agreements imposed on purchasing owners (new) when a firm or a portion of a firm is sold, leased, or otherwise disposed?

Technological Change Is management required to notify a union in advance of technological investments and, if so, is the union able to oppose such investment?

Arbitration Are firms and unions able to pursue less costly, voluntary dispute resolution mechanisms before having to resolve to binding arbitration?

Replacement Workers Are firms able to use replacement workers during lock-outs and strikes?

Third-Party-Picketing Are unions and workers able to picket and otherwise disturb third parties such as suppliers to, or retailers of, the main firm?

The results indicate two basic groups, one that generally promotes balance and flexibility and another that maintains heavily biased and prescriptive laws. The first group is composed of all of the US states along with Alberta. The US states all received a score of 10.0 out of 10. Alberta received the second highest score of 8.0.

The second group is composed of the remaining nine Canadian provinces and the Canadian federal government. Six Canadian provinces (Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland) received a score of 4.0. British Columbia, Saskatchewan, and the CIRB received a score of 2.0 while Quebec ranked last with a score of 0.0.

The results from the analysis of Regulation on Unionized Firms indicate that the US states as well as Alberta impose relatively balanced requirements on firms once they are unionized. The remaining nine Canadian provinces as well as the Canadian federal government, on the other hand, tend to impose biased and prescriptive regulations on organized firms.

Labour relations laws and unionization

The relationships between labour relations laws and unionization rates were analyzed using basic correlation statistics. While a higher level of statistical analysis is needed to determine whether unbalanced labour relation laws lead to higher rates of unionization, correlations do provide some interesting insights. Correlations between private-sector unionization rates in Canadian provinces and US states and aspects of labour relation laws that apply to certification activities (automatic certification, certification and decertification application differential, remedial certification, mandatory dues payment, and mandatory union membership) were calculated.

The two aspects of labour relations laws that showed the strongest relationship (negative) with unionization rates are both aspects of Union Security provisions: mandatory dues payment and mandatory union membership. This means that in jurisdictions where mandatory union dues and mandatory union membership are not permitted, there tends to be lower unionization. While the correlations for the other variables analyzed were not as strong, the relationships (positive versus negative) with unionization rates were still in line with expectations; remedial certification was the sole exception. On the whole, correlation estimates provide results that were aligned with expectations based on previous empirical research and economic intuition regarding the relationship between certain aspects of labour relation laws and unionization rates.

Conclusion

Overall, Canadian provinces generally lag their US counterparts in the level of flexibility accorded their citizens by labour relations laws. Such flexibility has proven to be of great benefit to citizens both in the United States and around the world. In order to promote greater labour market flexibility, Canadian provinces would be well advised to pursue balanced and less prescriptive labour laws.

Appendix: Methodology

The Index of Labour Relations Laws provides an overall measure of how balanced a jurisdictions' labour relations laws are and to what extent they promote labour market flexibility. The Index is based on the scores obtained for the 10 components examined in the study. These components are grouped into three categories of labour relations law: (1) Certification and Decertification, (2) Union Security, (3) Regulation of Unionized Firms. Each component is given equal weighting within its category and each category is given equal weighting in the overall index.

1 Certification and decertification

a *Mandatory secret-ballot vote*

Mandatory vote by secret ballot for certification and decertification. If the legislation requires a mandatory vote by secret ballot for both certification and decertification, a jurisdiction gets a score of 10. If the legislation requires a mandatory vote for either certification or decertification, a jurisdiction gets a score of 5; otherwise, it gets a score of zero.

b *Remedial certification*

If the legislation gives the Labour Relations Board the power to certify a union without the mandatory vote by secret ballot when an employer commits an unfair labour practice, a jurisdiction gets a score of zero; otherwise, it gets a score of 10.

c *Differences between certification and decertification thresholds*

The value for this indicator is calculated as the difference between an application for decertification threshold and an application for certification threshold. The score for this indicator is calculated as follows:

$$(V_{\max} - V_i) / (V_{\max} - V_{\min}) * 10$$

The V_i is the actual threshold difference, while V_{\min} and V_{\max} are set to zero and 25 respectively. V_{\max} is set at 25 since the largest difference between decertification and certification threshold among the 60 jurisdictions is 25.

2 Union security

a *Mandatory union membership*

If the legislation does not prohibit a union and employer from including a clause in their collective agreement that requires membership in a union as a condition of employment, a jurisdiction gets a score of zero; otherwise it gets a score of 10.

b) Mandatory union dues

If the legislation requires or allows mandatory payment of dues by those employees who are not members of a union, a jurisdiction gets a score of zero; otherwise it gets a score of 10.

3 Regulation of unionized firms**a Successor rights**

If, in general, a new employer is bound by the existing collective agreement, a jurisdiction gets a score of zero; otherwise, it gets 10.

b Technological change

If the legislation requires an employer to inform the union (or the Minister of Labour) before technological change can take place, a jurisdiction gets a score of zero; otherwise, it gets 10.

c Arbitration of disputes

If the legislation has an intermediate step between procedures in the collective agreement for dealing with disputes (regarding the application, interpretation, or alleged violation of the existing collective agreement) and binding arbitration, a jurisdiction gets a score of 10, otherwise, it gets zero.

d Replacement workers

If the legislation allows an employer to hire replacement workers during a legal strike or lock-out, a jurisdiction gets a score of 10; otherwise, it gets zero.

e Third-party picketing

If the legislation allows striking employees to picket businesses other than their own employer, a jurisdiction gets a score of zero; otherwise it gets 10.

Notes

- 1 At the time of writing this paper, 2005 unionization data was not available.
- 2 Similarly, Caballero et al. (2004) found that job security regulations impeded investment and re-investment mechanisms.
- 3 Workers in the Canadian Territories are also covered by federal labour law.
- 4 Enforced by the Canadian Industrial Relations Board (CIRB); for information, see <www.cirb-ccri.gc.ca>.
- 5 Information on the United States National Labor Relations Board is available at <www.nlr.gov>.
- 6 In addition, those workers and employers in the United States involved in surface transportation (i.e. trains) and the airline industry are covered by the Railway Labor Act.
- 7 For an overview of public-sector labour relations laws in Canada and the United States, see Karabegović et al., 2004a.
- 8 It is also important to note that certification and decertification have a far greater impact on Canadian workers than on American workers. In Canada, mandatory union membership is permitted in collective agreements and can be included as a condition of employment. In addition, all Canadian workers covered by a collective agreement are required to pay full union dues even if they are not members of the union. In the United States, on the other hand, federal law prohibits union membership clauses as a condition of employment and allows workers the choice of whether or not to give financial support to union activities unrelated to representation. In addition, 22 US states have extended the federal provision by prohibiting any forced payment of dues regardless of its nature. Overall, certification has a substantially greater impact on labour market balance and flexibility in Canadian jurisdictions than in US states. See Union Security below for a more detailed discussion of mandatory membership and dues payment regulations.
- 9 For a summary of this research, see Clemens et al., 2005.
- 10 Riddell's previous study (2001), which used 1984–1993 data for British Columbia, similarly concluded that unionization success rates fell by 20% and the number of certification attempts fell by over 50% when mandatory secret-ballot voting was implemented.
- 11 The equivalent of 3 to 5 percentage points in total unionization rates (Johnson, 2004: 361).
- 12 Note that Johnson (2004) uses a theoretical model to determine the effects of mandatory voting on unionization rates.
- 13 For information on the relative levels of transparency of the Labour Relations Boards in Canada and the United States, please see Karabegović et al., 2005.
- 14 *NLRB v. Gissel Packing Co.*, 395 U.S. 575 (1969) is the primary precedent-setting case.
- 15 If the Labour Relations Board in Prince Edward Island or Quebec, or the CIRB is satisfied after reviewing the application for decertification that a majority of the employees in the unit support decertification, the Board may decertify the union without a representative vote.
- 16 For a summary of this research, please see Clemens et al., 2005.
- 17 A landmark case in the Canadian Supreme Court, referred to as the Rand Formula, resulted in the imposition of mandatory dues payment by Canadian workers as condition of employment, regardless of union membership status (Rand, 1958).
- 18 While section 7 and 8(a)(3) of the NLRA states that “union membership” may be required for employment, subsequent case law such as the Beck line of cases has clarified what exactly a union “member” is. For further explanation, see Karabegović et al., 2004a.

- 19 Note that in Canadian provinces unionized workers have no legal precedent or legislation supporting their preference to refrain from union spending they do not agree with. That is, in addition to representation costs, unions are free to spend workers' dues on political activism or any other myriad of activities workers may or may not agree with.
- 20 Right-to-Work States include Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming.
- 21 Empirical analyses based on cross-country comparisons tend to confirm that the employment record has been better in those countries where the pace of structural change, technological specialization, investment rates, and productivity gains have been high (OECD, 1994). Also, see Veldhuis and Clemens, 2006.
- 22 However, over 99% of collective bargaining agreements in the United States provide for arbitration as the final step in the grievance procedure (Sloane and Witney, 2004: 227).
- 23 Caballero et al. (2004) found that job security protection in labour laws prevented, or at least impeded, the Schumpeterian process of "creative destruction," or re-allocation of capital.
- 24 In the four jurisdictions that do not have specific legislation for replacement workers, a record of precedent or procedure regarding whether replacement workers are allowed or prohibited was compiled through personal communication with Board officers. Ontario and New Brunswick, as a matter of policy, generally allow replacement workers while in Nova Scotia and Newfoundland the Board does not generally allow replacement workers.
- 25 For a detailed discussion of replacement workers in United States and Canada, see Singh and Jain, 2001 and Cramton, Gunderson, and Tracy, 1999.
- 26 *R.W.D.S.U., Local 558 v. Pepsi-Cola Canada Beverages (West) Ltd.* [2002] 1 S.C.R. 156, 8 S.C.C.
- 27 The 2004 edition of this study (Karabegović et al., 2004a) grouped the components of labour relations laws into four categories: (1) Certification and Decertification; (2) Union Security; (3) Mandatory Clauses; and, (4) Labour Disputes. Each of the four categories was given equal weighting in the overall Labour Relations Laws Index. Since mandatory clauses and labour disputes apply only to firms that are already unionized, the two categories are collapsed into one larger category (Regulation of Unionized Firms) in this edition of the study. Each of the three categories was given equal weighting in the overall Index (see Appendix A). The change in methodology had little impact on the results.
- 28 In order to be consistent with the information available, correlations were calculated using 2004 unionization rates and data detailed in Karabegović et al., 2004a. The 2005 unionization rates for Canada and the United States were not available at the time of publication.
- 29 A jurisdiction receives a score of 10 if the legislation does not allow unions to require mandatory dues payment as condition of employment and receives a score of 5 if it allows partial dues collection; otherwise, it receives a score of zero. For further details on the scores, see Appendix A.
- 30 However, in further analysis it was found that the US jurisdictions are largely responsible for driving this unexpected outcome. If only Canadian jurisdictions are correlated with unionization, the coefficient has the expected negative sign and a value of negative -0.1 . This suggests that the forces driving differences in unionization rates are not only the presence of laws but also the context and manner in which they are used. Recall from section 2 that, although remedial certification is allowed in US states, it is rarely used.

References

- Ahlburg, Dennis A. (1984). "Majority Voting Rules and the Union Success Rate in National Labor Relations Board Representation Elections." *Journal of Labor Research* 5, 3 (Summer): 229–36.
- Addison, John T., and John Joachim Wagner (1993). "U.S. Unionism and R&D Investment: Evidence from a Simple Cross-Country Test." *Journal of Labour Research* 15, 2 (Spring): 191–97.
- Alonso, Alberto, Cristina Echevarria, and Kien C. Tran (2004). "Long-Run Economic Performance and the Labor Market." *Southern Economic Journal* 70, 4: 905–19.
- Becker, Brian, and Craig Olsen (1986). "Unionization and Shareholder Interest." *Industrial and Labour Review* 42: 246–61.
- Bennett, James T., and Marick F. Masters (2003). "The Future of Public Sector Labor-Management Relations." *Journal of Labor Research* 24, 4 (Fall): 533–44.
- Besley, Timothy, and Robin Burgess (2004). "Can Labour Regulation Hinder Economic Performance? Evidence from India." *The Quarterly Journal of Economics* 119, 1 (February): 91–134.
- Blanchard, Olivier, and Francesco Giavazzi (2003). "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets." *Quarterly Journal of Economics* 118, 3 (August): 879–907.
- Bloom, Gordon F., and Herbert R. Northrup (1977). *Economics of Labor Relations*. Richard D. Irwin.
- Botero, Juan C., Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer (2004). "The Regulation of Labor." *Quarterly Journal of Economics* 119, 4 (November): 1339–82.
- Budd, John W. (2000). "The Effect of Strike Replacement Legislation on Employment." *Labour Economics* 7: 225–47.
- Budd, John W., and Yijiang Wang (2004). "Labor Policy and Investment: Evidence from Canada." *Industrial and Labor Relations Review* 57, 3 (April): 386–401.
- Caballero, Ricardo J., Kevin N. Cowan, Eduardo M.R.A. Engel, and Alejandro Micco (2004). *Effective Labor Regulation and Microeconomic Flexibility*. NBER Working Paper 10744. National Bureau of Economic Research.
- Canada, Human Resources Development Canada [Canada, HRDC] (2004). *Industrial Relations Legislation in Canada*. <<http://www.hrsdc.gc.ca>> (as of April 15, 2004).
- Christensen, Sandra (1980). *Unions and the Public Interest: Collective Bargaining in the Government Sector*. The Fraser Institute.
- Clemens, Jason, Niels Veldhuis, and Amela Karabegović (2005). *Explaining Canada's High Unionization Rates*. Fraser Institute Digital Publication. The Fraser Institute.
- Craft, James A. (2003). "Future Directions in Public Sector Labor Relations: A 2020 Perspective." *Journal of Labor Research* 24, 4 (Fall): 545–60.
- Cramton, Peter, Morley Gunderson, and Joseph Tracy (1999). "The Effect of Collective Bargaining Legislation on Strikes and Wages." *Review of Economics and Statistics* 81, 3 (August): 475–87.
- Cramton, Peter, and Joseph Tracy (1998). "The Use of Replacement Workers in Union Contract Negotiations: The US Experience, 1980–1989." *Journal of Labor Economics* 16, 4: 667–701.
- Cutcher-Gershenfeld, Joel, and Thomas Kochan (2004). "Taking Stock: Collective Bargaining at the Turn of the Century." *Industrial and Labor Relations Review* 58, 1 (October): 3–26.
- Delaney, John Thomas, and Donna Sockell (1989). "The Mandatory-Permissive Distinction and Collective Bargaining Outcomes." *Industrial and Labor Relations Review* 42, 4 (July): 566–83.

- Delaney, John Thomas, Donna Sockell, and Joel Brockner (1988). "Bargaining Effects of the Mandatory-Permissive Distinction." *Industrial Relations* 27, 1 (Winter): 21–36.
- Di Tella, Rafael, and Robert MacCulloch (2005). "The Consequences of Labor Market Flexibility: Panel Evidence Based on Survey Data." *European Economic Review*, 49: 1225–59.
- Eaton, Adrienne E., and Jill Kriesky (2001). "Union Organizing under Neutrality and Card Check Agreements." *Industrial and Labor Relations Review* 55, 1 (October): 42–59.
- Fossum, John A. (2002). *Labor Relations: Development, Structure, Process*. McGraw-Hill Irwin.
- Freeman, Richard B. (1986). "Unionism Comes to the Public Sector." *Journal of Economic Literature* 24, 1 (March): 41–86.
- Fryer, L. John (1995). "Provincial Public Service Labour Relations." In Gene Swimmer and Mark Thompson, eds., *Public Sector Collective Bargaining in Canada* (IRC Press): 341–67.
- Gould, William B. (1982). *A Primer on American Labor Law*. MIT Press.
- Haggard, Thomas R. (1977). *Compulsory Unionism, The NLRB, and the Courts: A Legal Analysis of Union Security Agreements*. Industrial Research Unit, Wharton School, University of Pennsylvania.
- Hebdon, Robert, and Robert Stern (2003). "Do Public-Sector Strike Bans Really Prevent Conflict?" *Industrial Relations* 42, 3 (July): 493–512.
- Hirsch, Barry T. (1997). *Unionization and Economic Performance: Evidence on Productivity, Profits, Investment, and Growth*. Public Policy Sources 3. The Fraser Institute.
- Hirsch, Barry T., and David A. Macpherson (2005). *Unionstats.com: Union Membership and Coverage Database from the CPS [Current Population Survey] (Documentation)*. <<http://www.unionstats.com/>>, as of July 22, 2005.
- Johnson, Susan (2002a). "Canadian Union Density 1980 to 1998 and Prospects for the Future." *Canadian Public Policy* 28, 3 (September): 333–49.
- Johnson, Susan (2002b). "Card Check or Mandatory Representation Vote? How the Type of Union Recognition Procedure Affects Union Certification Success." *The Economic Journal* 112 (April): 344–61.
- Johnson, Susan (2004). "The Impact of Mandatory Votes on the Canada-U.S. Union Density Gap: A Note." *Industrial Relations* 43, 2 (April): 356–63.
- Karabegović, Amela, Jason Clemens, and Niels Veldhuis (2003). *Measuring Labour Markets in Canada and the United States: 2003 Edition*. Critical Issues Bulletin. The Fraser Institute.
- Karabegović, Amela, Keith Godin, Jason Clemens, and Niels Veldhuis (2004a). *Measuring the Flexibility of Labour Relations Laws in Canada and the United States*. Fraser Institute Digital Document. The Fraser Institute. <<http://www.fraserinstitute.ca/admin/books/files/MeasuringFlexLabRelLaw.pdf>>.
- Karabegović, Amela, Keith Godin, Jason Clemens, and Niels Veldhuis (2004b). *Measuring Labour Markets in Canada and the United States: 2004 Edition*. Fraser Forum Special Issue (September). The Fraser Institute.
- Karabegović, Amela, Jason Clemens, and Niels Veldhuis (2003). *Measuring Labour Markets in Canada and the United States: 2003 Edition*. Critical Issues Bulletin. The Fraser Institute.
- Karabegović, Amela, Milagros Palacios, Jason Clemens, and Niels Veldhuis (2005). *The Transparency of Labour Relations Boards in Canada and the United States*. Studies in Labour Markets 1. The Fraser Institute.
- Kearney, Richard C. (2001). *Labor Relations in the Public Sector*. Third Edition. Marcel Dekker.
- Kenny, John J. (1986). *Primer of Labor Relations*. The Bureau of National Affairs.
- Klassen, Thomas R., and Steffen Schneider (2002). "Reforming Labour Market Policies in Germany and Canada during the 1990s." *Canadian Public Policy* 28, 1 (March): 51–69.

- Kleiner, Morris M., and Hwiwon Ham (2002). *Do Industrial Relations Institutions Impact Economic Outcomes?: International and U.S. State-Level Evidence*. NBER Working Paper 8729. National Bureau of Economic Research.
- Laporta, Pasquale, and Alexander W. Jenkins (1996). "Unionization and Profitability in the Canadian Manufacturing Sector." *Relations Industrielles* 51, 4: 756–76.
- Maki, Dennis R. (1983). The Effects of Unions and Strikes on the Rate of Growth of Total Factor Productivity in Canada. *Applied Economics* 15 (February): 29–41.
- Maki, Dennis, and L.N. Meredith (1986). "The Effects of Unions on Profitability: The Canadian Evidence." *Relations Industrielles* 41: 55–67.
- Martinello, Felice, and R. Meng (1992). "Effects of Labor Legislation and Industry Characteristics on Union Coverage in Canada." *Industrial and Labor Relations Review* 46 (October): 176–90.
- Metcalf, David (2003). "Unions and Productivity, Financial Performance and Productivity: International Evidence." In John Addison and Claus Schnabel, eds., *International Handbook of Trade Unions* (Edward Elgar).
- Mihlar, Fazil, ed. (1997). *Unions and Right-to-Work Laws: The Global Evidence of Their Impact on Employment*. The Fraser Institute.
- Moore, William J. (1998). "The Determinants and Effects of Right-to-Work Laws: A Review of the Recent Literature." *Journal of Labor Research* 19, 3 (Summer): 445–69.
- National Institute for Labor Relations Research (2005). *Geography of Right to Work Laws* [map]. <<http://www.nilrr.org/rtw.htm>>.
- Organisation for Economic Cooperation and Development (1994). *OECD Jobs Study: Part 1*. Paris: OECD.
- Rand, Justice Ivan C. (1958). "Rand Formula." *Canadian Law Reports*: 1366–73.
- Riddell, Chris (2004). "Union Certification Success under Voting versus Card-Check Procedures: Evidence from British Columbia, 1978–1998." *Industrial and Labor Relations Review* 57, 4 (July): 493–517.
- Riddell, Chris (2001). "Union Suppression and Certification." *Canadian Journal of Economics* 34, 2 (May): 396–410.
- Schwarz, Joshua L., and Karen S. Koziara (1992). "The Effect of Hospital Bargaining Unit Structure on Industrial Relations Outcomes." *Industrial and Labor Relations Review* 45, 3 (April): 573–90.
- Singh, Parbudyal, and Harish C. Jain (2001). "Strikers Replacement in the United States, Canada, and Mexico: A Review of the Law and Empirical Research." *Industrial Relations* 40, 1: 22–53.
- Slinn, Sara (2004). "An Empirical Analysis of the Effects of the Change from Card-Check to Mandatory Vote Certification." *Canadian Labour and Employment Law Journal* 11: 258–301.
- Sloane, Arthur A., and Fred Witney (2004). *Labor Relations*. Pearson Prentice Hall.
- Statistics Canada (2004). *Labour Force Historical Review 2003*. CD-ROM. Statistics Canada.
- Swimmer, Gene, and Tim Bartkiw (2003). "The Future of Public Sector Collective Bargaining in Canada." *Journal of Labor Research* 24, 4 (Fall): 579–95.
- Swimmer, Gene, and Mark Thompson (1995). "Collective Bargaining in the Public Sector: An Introduction." In Gene Swimmer and Mark Thompson, eds., *Public Sector Collective Bargaining in Canada* (IRC Press): 1–19.
- Taras, Daphne Gottlieb (1997). "Collective Bargaining Regulation in Canada and the United States: Divergent Cultures, Divergent Outcomes." In Bruce E. Kaufman, ed., *Government Regulation of the Employment Relationship* (Industrial Relations Research Association): 295–341.
- Taras, Daphne Gottlieb, and Allen Ponak (2001). "Mandatory Agency Shop Laws as an Explanation of Canada-U.S. Union Density Divergence." *Journal of Labour Research* 22, 3: 541–68.

- Thomason, Terry (1994). "The Effect of Accelerated Certification Procedures on Union Organizing Success in Ontario." *Industrial and Labor Relations Review* 47, 2 (January): 207–26.
- Thomason, Terry, and Silvana Pozzebón (1998). "Managerial Opposition to Union Certification in Quebec and Ontario." *Industrial Relations* 53, 4: 1–22.
- Trudeau, Gilles (2002). "Changing Employment Relationships and the Unintentional Evolution of Canadian Labour Relations Policy." Paper from the Minister of Labour's Roundtable on "Modernizing Labour Policy within a Human Capital Strategy for Canada." *Canadian Public Policy* 28, 1 (March): 149–52.
- Veldhuis, Niels, and Jason Clemens (2005). *Productivity, Prosperity, and Business Taxes*. Studies in Economic Prosperity 3. The Fraser Institute.
- Weiler, Paul (1983). "Promises to Keep: Securing Workers' Rights to Self-Organization under the NLRA." *Harvard Law Review* 96, 8 (June): 1769–827.

Labour Relations Laws

Federal (Canada)

- Government of Canada, Department of Justice, *Canada Labour Code*, R.S. 1985, c. L-2. <<http://laws.justice.gc.ca/en/L-2/index.html>>
- Ford Motor Company v. United Auto Workers* [1972] S.C.R. 625; (1971) 25 D.L.R. (3d) 180.
- R.W.D.S.U., Local 558 v. Pepsi-Cola Canada Beverages (West) Ltd.* [2002] 1 S.C.R. 156, 8 S.C.C.
- Polar Foods v. Labour Relations Board et al.* 2002 PESCTD 78

British Columbia

- Province of British Columbia, Ministry of Management Services, Queen's Printers. *Labour Relations Code*, R.S.B.C. 1996, c. 244. <http://www.qp.gov.bc.ca/statreg/list_statreg.htm>.
- Lytle, Clive, Information Officer, The British Columbia Labour Relations Board (2003). Personal communication with K. Godin (Nov., Dec.).

Alberta

- Government of Alberta, Queen's Printer. *Labour Relations Code*, R.S.A. 2000, c. L-1. <http://www.qp.gov.ab.ca/documents/Acts/Lo1.cfm?frm_isbn=0779718232>.
- Brown, Tannis, Officer, Alberta Labour Relations Board (2003). Personal communication with K. Godin (Nov., Dec.).

Saskatchewan

- Government of Saskatchewan, Queen's Printer. *The Trade Union Act*, R.S.S. 1978, c. T-17. <<http://www.qp.gov.sk.ca/publications/index.cfm?fuseaction=home&c=1577&id=2>>
- Baldwin, Melanie, Board Registrar, Saskatchewan Labour Relations Board (2005). Personal communication with K. Godin and A. Karabegović (June, September).

Manitoba

- Government of Manitoba, Queen's Printer. *The Labour Relations Act*, R.S.M. 1987, c. L-10. <<http://web2.gov.mb.ca/laws/statutes/ccsm/lo10e.php>>.
- Duff, Janet, Registrar, Manitoba Labour Board (2003). Personal communication with K. Godin (Nov., Dec.).

Ontario

Government of Ontario, e-Laws. *Labour Relations Act*, S.O. 1995, c. 1. <http://www.e-laws.gov.on.ca/tocBrowseCL_E.asp?lang=en&selLetter=L#L>.

Stelmaszynski, Voy, Board Solicitor, Ontario Labour Relations Board (2003). Personal communication with K. Godin (Nov., Dec.).

Quebec

Government of Quebec, Publications Quebec. *Labour Code*, R.S.Q. 1977, c. C-27. <<http://www.publicationsduquebec.gouv.qc.ca/home.php>>, as of December 31, 2003.

Government du Québec, Ministère des Relations avec les citoyens et de l'Immigration, Publications Quebec (2005). *An Act Respecting Labour Standards*. <<http://www.publicationsduquebec.gouv.qc.ca/home.php>>.

Nadeau, Gaston, Quebec Labour Relations Board (Commission des relations du travail) (2005). Personal communication with A. Karabegović (June).

Pion, Danièle, Ministère du Travail du Québec (2003). Personal communication with K. Godin (Nov., Dec.).

Quebec Labour Relations Board (Commission des relations du travail) (2005). Formal communication with K. Godin (August).

New Brunswick

Government of New Brunswick, Department of Justice. *Industrial Relations Act*, R.S.N.B. 1973, c. I-4. <<http://www.gnb.ca/0062/acts/acts-e.asp>>.

Landry, Lise, Chief Executive Officer, New Brunswick Labour and Employment Board (2005). Personal communication with K. Godin and A. Karabegović (June, September).

Moore, Dave, Director, Industrial Relations Branch, Training & Employment Development, New Brunswick (2005). Personal communication with A. Karabegović (September).

Nova Scotia

Government of Nova Scotia, House of Assembly, Office of the Legislative Counsel, *Trade Union Act*, R.S.N.S. 1989, c. 475. <<http://www.gov.ns.ca/legislature/legc/>>.

Hartley, Diana, Senior Executive Officer, Nova Scotia Labour Relations Board (2005). Personal communication with K. Godin (July).

Stewart, Mary-Lou, Senior Executive Officer, Nova Scotia Labour Relations Board (2003). Personal communication with K. Godin (Nov., Dec.).

Prince Edward Island

Government of Prince Edward Island, Legislative Counsel. *Labour Act*, R.S.P.E.I. 1988, c. L-1. <<http://www.gov.pe.ca/law/statutes/index.php3>>.

Polar Foods v. Labour Relations Board et al. 2002 PESCTD 78.

Curly, Barry, Director, PEI Labour and Industrial Relations (2003). Personal communication with K. Godin (Nov., Dec.).

Doucette, Roy, Officer, Community and Cultural Affairs, Labour and Industrial Relations, Prince Edward Island (2005). Personal Communication with K. Godin (June).

Newfoundland and Labrador

Government of Newfoundland and Labrador, House of Assembly. *Labour Relations Act*, R.S.N.L., 1990, c. L-1. <<http://www.gov.nl.ca/hoa/sr/>>.

Andrews, Linda, Officer, Labour Relations Division, Labour Relations Agency, Newfoundland (2005). Personal communication with K. Godin (July).

Scott, Yvonne, Director, Labour Relations Division, Labour Relations Agency, Newfoundland (2005). Personal communication with A. Karabegović (September).

United States**Legislation**

29 USC TITLE 29 – LABOR x. 141–503.

Callahan, Cathy, Officer in Charge, Subregion 36, National Labor Relations Board (2005). Personal communication with K. Godin (June, July).

Ferrazzano Jr., Angelo, Information Specialist, Labor Law Section, Texas Workforce Commission (2003). Personal communication with K. Godin (Nov.).

Greer, Stanley, Senior Research Associate, National Right to Work Committee (2004). Personal communication with K. Godin (Nov., Dec.).

National Labor Relations Board (1997). *Basic Guide to the National Labor Relations Act*. National Labor Relations Board.

National Labor Relations Board (2002). *An Outline of Law and Procedure in Representation Cases*. National Labor Relations Board.

National Labor Relations Board (2003). *Rules and Regulations: Part 101*. National Labor Relations Board.

National Labor Relations Board (2003). *Rules and Regulations: Part 102*. National Labor Relations Board.

Ohanesian, Nicholas, Field Attorney, Subregion 33, National Labor Relations Board (2004). Personal communication with K. Godin (Feb.).

Smith, Michael, Field Attorney, Subregion 36, National Labor Relations Board (2003). Personal communication with K. Godin (Nov., Dec.).

Case law

Allentown Mack Soles & Service v. NLRB, 552 US 359 (1998).

Allied Chemical Corp., 165 NLRB 235 (1967).

Bloom v. NLRB, No. 97-1582, 8th Cir., (2000).

Clear Pine Mouldings, Inc., 268 NLRB 1044 (1984).

Communications Workers v. Beck, 487 U.S. 735 (1988).

Labor Board v. General Motors, 373 U.S. 734 (1963).

Levitz Furniture, 333 NLRB No. 105 (2001).

Marquez v. Screen Actors Guild, Inc., No. 97-1056 (1998).

NLRB v. Burns Security Services, 406 U.S. 272 (1972).

NLRB v. Fleetwood Trailer Co., 389 U.S. 375, 381 (1967).

NLRB v. Gissel Packing Co., 395 U.S. 575 (1969).

NLRB v. J.I. Case Co., 201 F.2d 597 (9th Cir. 1953).

O.D. Jennings & Co., 68 NLRB 516 (1946).

O.D. Jennings & Co., supra; *General Dynamics Corp.*, 175 NLRB 1035 (1969).
Pattern Makers v. NLRB, 473 U.S. 95 (1985).
Pike Co., 314 NLRB 691 (1994).
Potomac Electric Co., 111 NLRB 553, 554-555 (1955).
Produce Magic, Inc., 318 NLRB 1171 (1995).
S. Rep. No. 105, 80th Cong., 1st Sess., p. 6, 1 Leg. Hist. L.M.R.A. 412.
S. Rep. No. 105, 80th Cong., 1st Sess., p. 7, 1 Leg. Hist. L.M.R.A. 413.
San Diego Trades Council v. Garmon, 359 U.S. 236 (1959).
S.H. Kress Co., 137 NLRB 1244, 1248 (1962).
Stackhouse Oldsmobile, 140 NLRB 1239 (1963).

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