Abstract

In this paper we demonstrate that there is a substantial union representation gap in the United States. We arrive at this conclusion by comparing Canadian and American worker responses to questions relating to desired union representation. We find that a majority of the gap in union density between Canada and the US is a function of greater frustrated demand on the part of American workers. We then estimate potential union density rates for the United States and Canada and find that, given current levels of union membership in both countries, if effective demand for unionisation among non-union workers were realised, then this would imply equivalently higher rates of unionisation (37 and 36 percent in the US and Canada respectively). These results cast some doubt on the view that even minor reforms to labour legislation in the US, to bring them in line with those in most Canadian jurisdictions, would do nothing to improve the rate of organising success in the United States. The results also have implications for countries such as Britain who have recently moved closer to a Wagner-Act model of statutory recognition.

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Frustrated Demand for Unionisation: the Case of the United States and Canada Revisited

Rafael Gomez, Seymour Martin Lipset and Noah Meltz

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Rafael Gomez is a member of the Interdisciplinary Institute of Management, London School of Economics, email: r.gomez@lse.ac.uk. Seymour Martin Lipset can be contacted at George Mason University, email: s.m.lipset@gmu.edu. Noah Meltz is at Netanya Academic College and University of Toronto, email: meltz@wdw.utoronto.ca.

1. Introduction

> "Tastes neither change capriciously nor differ importantly between people. On this interpretation…the economist continues to search for differences in [constraints] to explain differences or changes in behaviour." Stigler and Becker (1977).

This paper employs a model of supply and demand for union representation in an attempt to better understand why union density in the United States is less than half of that in Canada; a country comparable in many respects, with similar collective bargaining laws and which in the mid sixties had a similar rate of unionisation. In our model we assume, in the spirit of neo-classical economic theory, that employees in the United States are much like their neighbours north of the border, what differentiates them are the constraints they face. In our model, however, we take constraints to mean not only differing material conditions (e.g., unemployment rates, income levels, industrial mix *etc.*,) but also deep-seeded value systems, which give rise to differing institutions, laws and their enforcement.

By controlling for differing constraints and by applying the similar-taste view of consumer theory to the question of union density differentials, we arrive at a rather intriguing implication: that preferences for union representation at the workplace should be the same in both countries. Given our assumption of homogeneous preferences, the divergence in union density between the United States and Canada can be explained by either greater frustrated demand for unionisation in the U.S. (under-representation), or, greater numbers of dissatisfied unionised workers in Canada (over-representation). Put simply, if workers have the same underlying preferences, then at present 'someone isn't getting what they want.'

Three testable propositions emerge from our model of supply and demand for unionisation. The first proposition builds on the notion that because of differing legal regimes, it should be more costly for US employees to gain representation at the workplace and more costly for Canadian workers to opt out of unionised environments. This assumption is fairly tenable given what we know about the American and Canadian versions of statutory recognition. In the US nearly 40 percent of American workers are covered by right to work laws; which forbid unions from signing collective agreements compelling all workers covered to pay dues. In Canada, on the other hand, a 'quasi' closed shop rule is operative in all ten provinces. This essentially prohibits individual workers from opting out

of the payment of union dues and hence, ensures (*de facto*) union membership for all employees working in unionised environments.[1] Given this small, yet crucial legal difference, one should therefore observe greater levels of frustrated demand for unionisation among non-unionised workers in the US and greater levels of dissatisfaction among unionised workers in Canada. Secondly, if opposition to union organising and legal impediments are greater in the US than in Canada (as is commonly assumed) then a majority of the density differential can be ascribed to supply side constraints south of the border. Finally, if one were to construct a potential 'market demand' for unionisation given data on actual union density and voting intentions of union and non-union workers, then levels of union density should be statistically similar in both countries.

2. The Supply and Demand Framework of Union Representation

A useful framework for analysing and testing our three propositions is the supply and demand framework of collective representation (see Farber and Krueger, 1993; Riddell 1993; Abowd and Farber, 1982). In this model workers may prefer to be unionised, but for various reasons, they are not. Following Riddell (1993), let z_i represent the difference between the expected utility of any job (union or non-union) for individual i. The utility loss or gain, which is unobserved, is dependent on a host of variables (X_i) such as differences in working conditions, job security and the wage differential between otherwise similar union and non-union jobs.

$$z_i = X_i b + \varepsilon_i \qquad (1)$$

If we let D_i be a dichotomous variable taking on the value 1 for individuals who would prefer to belong to a union, and hence prefer unionisation, and zero for those who do not, then,

$$Pr(D_i = 1) = Pr(z>0) = Pr(u_i > - X_i b). \qquad (2)$$

[1] Legally workers are free to have their names stricken from union membership lists, but since this will not affect the payment of dues there is little reason to do so. One can think of the Canadian system (where not all workers are covered, but those that are have to pay dues) as the opposite of the French and German systems where most everyone is granted coverage, but no one is compelled to pay dues or join the union.

Now let $U_i=1$ for individuals who are unionised and $U_i=0$ for non-union workers. If one assumes - as neo-classical labour economists often do - that labour markets are in equilibrium, then individuals have sorted themselves into the jobs of their choice. If this is so, then it would be the case that

$$Pr(U_i =1) = Pr(z>0) = Pr(u_i >- X_i b). \quad (3)$$

This equation implies that the factors determining the demand for unionisation could be estimated using information on union status alone.

However, there are several reasons why unions do not necessarily represent all individuals who prefer to be in a union job. One of the most obvious reasons relates to the costs of organising a union for an individual worker. If employers actively oppose unionising attempts, then from an employee's perspective, the costs of unionising may outweigh the benefits. Thus, even if a majority of current workers in a workplace prefer or would vote for unionisation, they may remain non-unionised as a result of organising costs.

The 'total' demand for union jobs is therefore defined by the fraction of workers who are either union members and who would remain so if a vote were held, or if non-union, who would vote for unionisation at their workplace. The supply of union jobs relative to demand is measured by the fraction of workers who are union members compared to those demanding union representation. If there were no queues for union jobs, the fraction would be one. To the extent that there are non-union workers who prefer union representation, this fraction will be less than one. The fraction of individuals in the non-union sector ($U_i=0$) who would vote for unionisation at their workplace ($D_i=1$) therefore constitutes a measure of "frustrated demand" (or an inverse measure of relative supply).

These two components can be more formally specified. Following Farber and Krueger (1993), the probability that a worker is unionised is given by

$$Pr(U=1) = Pr (D=1) – Pr(D=1, U=0). \quad (4)$$

The first term on the left hand side is the desire for unionisation among union and non-union workers and therefore represents the demand for union representation. The second term represents frustrated demand. The probability that a worker is unionised, therefore, is equal to the probability that he/she desires union representation minus the probability that the worker desires union representation but is not working in a unionised job.

3. Formalising Three Testable Hypotheses

The demand and supply framework is useful in evaluating competing explanations for the difference in unionisation rates between Canada and the US. Taking the case of the Canada/US difference in the probability of unionisation, an equation analogous to (4) can be specified,

$$\Pr(U_c=1) - \Pr(U_a=1) = [\Pr(D_c=1) - \Pr(D_a=1)] - [\Pr(D_c=1, U_c=0) - \Pr(D_a=1, U_a=0)], \quad (5)$$

where the subscript *c* refers to Canada and the subscript *a* refers to the US. The term in the first brackets measures the difference in demand for unionisation between Canada and the US. The term in the second brackets measures differences in frustrated demand. Based on (5) we can now test our first proposition (formalised below), by comparing levels of frustrated demand in both countries.

Proposition 1a: Given a higher rate of unionisation in Canada and our assumption of similar preferences for union representation, there should be more frustrated demand (less supply) for unionisation south of the border. That is, there are relatively more non-union workers in the US than in Canada who would prefer to be in a unionised workplace but who are not currently being represented.

Proposition 1b: Given a higher rate of unionisation in Canada and our assumption of similar preferences for union representation, there should be more frustrated union members north of the border. That is, there are relatively more union workers in Canada than in the US who would prefer not to be unionised but who are currently being represented.

If we take the difference in unionisation rates across both countries in 1996 - the term on the left hand side of (5) - and decompose it into differences associated with the desire for unionisation (demand) versus differences in relative supply (frustrated demand) then we can provide an estimate for the first and second terms on the right hand side of (5). Once again, based on (5) our second testable proposition can now be formalized:

Proposition 2: Given our assumption of greater levels of opposition to unions in the US than in Canada, if one were to decompose the difference in union density between the two countries according to supply and demand factors, a majority of the density differential can be ascribed to supply side constraints.

Clearly, if we find evidence of a supply side constraint in the US, then the idea of a hypothetical level of union density that would be more or less equal in both countries, emerges. As a consequence our third proposition is the following:

Proposition 3: If one were to construct a potential 'market demand' for unionisation - given data on actual union density and voting intentions of union and non-union workers combined with similar preferences and greater frustrated demand for unionisation in the US than in Canada - then levels of union density should be statistically similar in both countries.

Such a proposition can easily be tested by simply constructing a hypothetical union density rate based on the following equation:

$$(U^*=1) = [Pr(U=1)*Pr\ (D=1 \mid U=1)\ ] + [Pr(U=0)*(D=1 \mid U=1)] \qquad (6)$$

where U* is potential union demand as a function of the proportion of existing union members who would prefer to remain unionised (first term in brackets) plus the proportion of non-union workers who would vote to become unionised (the second term in brackets).

4. Results: Decomposing the US-Canada Union Density Differential

The data for this paper are drawn from a 1996 Angus Reid survey conducted for Seymour Martin Lipset and Noah Meltz, covering a total of 3,176 respondents: 1,681 in the US and 1,495 in Canada. A summary of this data can be found in Lipset and Meltz (1997).

At the time of the survey the probability that a Canadian employee was unionised was more than double that of an American worker (0.34 versus 0.15). Our measure of demand for unionisation is based on a question that asked our sample of employed workers (union/non-

union) to state whether they would 'prefer to belong/remain in' a union. Table 1 presents the results of our demand/supply framework.

4.1 There is greater frustrated demand for unionisation in the US than in Canada

In accounting for the union density gap, an important factor does seem to be greater frustrated demand for unionisation south of the border (0.31 in the US versus 0.22 in Canada). Our results also confirm that by far the greatest difference between the US and Canada is the greater supply of unionisation conditional on a worker's desire for union membership; (see row 5 Table 1). That is, a Canadian worker who desires union representation has a far greater chance (137 percent higher) of being unionised than an American worker who desires the same representation. These statistics indicate that Canada's greater union density is due to greater supply of union coverage than in the US.

4.2 There is a greater desire for 'free-ridership' in Canada than in the US

As expected there are more 'frustrated' union members in Canada than in the US. The probability that a Canadian union member prefers to remain in a union is 12 percent less than a comparable American worker (see row 3 in Table 1). This, as mentioned above, likely reflects differences in collective bargaining legislation in the two countries and the greater enforcement of labour legislation in Canada (Meltz 1985; Bruce, 1989). For example more than 20 states in the US have right to work laws that outlaw union shop agreements where every employee covered by a collective agreement has to belong to a union. In most Canadian jurisdictions it is the reverse: at the request of a union, collective agreements can require payment of dues by all employees (no free-riding). This is known as the Rand Formula, a compromise recommended by Justice Ivan Rand in 1946 to settle the strike by the UAW at Ford of Canada (Taras and Ponak, 2001).

4.3 Supply side constraints are the greatest cause of the Canada/US density differential

In order to assess the relative importance of demand and supply factors, the gap in union density can be decomposed using (5). In 1996, the difference in union density between Canada and the US in BLS and LFS data was 19 points (34 percent-15 percent). Using our

estimate of Pr (D=1| U=0), then Pr (Dc=1,Uc=0) = .22(1 - 0.34) = .15. The corresponding figure for the US is Pr (Da=1,Ua=0) = .31(1 - 0.15) = .27. Therefore, 12 points, of the 18-point gap in union density between Canada and the US, is attributable to less relative supply. The remaining difference (6 points) is due to greater demand for unionisation north of the border. Therefore, a full 67 percent of the Canada-US difference in union density is accounted for by supply-side factors, while only 33 percent is attributable to demand side differences. This result is in line with Riddell (1993) and Freeman and Rogers (1999).

4.4. The potential level of unionisation in both countries should be the same

In terms of desired representation, we find that potential levels of union membership are nearly identical in both countries (see row 2 Table 1). This result is slightly at odds with previous estimates by both Riddell (1993) and Farber and Krueger (1993) that pointed to greater demand for unionisation in Canada than the US. This, however, was due to the fact that 'dissatisfied union members' were not taken into account and so observed density was used as an indicator of desired representation. The reason for the upward bias in Canada is also partly attributable to the fact that previous studies were working with separate Canada-US data sets and differently worded questions. Whereas the US question in the Riddell and Farber and Krueger studies was similar to our own survey, the Canadian question was slightly more ambiguous.[2]

5. Conclusions

In this paper we began with an assumption borrowed from an often cited but controversial paper, in which consumer preferences were treated "…as stable over time and similar among people"(Stigler and Becker, 1977:76). Based on this interpretation of consumer preferences and applying it to the question of why America's union density is less than half the level of

[2] In the earlier studies, union members were assumed to have D=1 for all. In our study we factored in the dissatisfied members. In addition, the Canadian question read "Thinking about your own needs, and your current employment situation and expectations, would you say that it is very likely, somewhat likely, not very likely, or not likely at all that you would consider joining or associating yourself with a union or professional association in the future?"

that in Canada, we produced three testable propositions. In each case our propositions were confirmed. We found the following:

- there is greater frustrated demand for unionisation in the US (substantial under-representation) than in Canada and there is greater dissatisfaction among Canadian union members (some over-representation) although less important in relative terms than the representation gap (Towers, 1997) among non-union members in the US.
- a full 67 percent of the 18-point gap in union density between Canada and the US at the time of the survey, could be accounted for by unsatisfied demand (supply-side constraints). That is, a Canadian worker who desires union representation has a far greater chance (137 percent higher) of being unionised than an American worker who desires the same representation.
- given data on actual union density and voting intentions of union and non-union workers, potential levels of union density are higher than presently observed (4 and 23 points higher in Canada and the US respectively) and nearly identical in both countries.

We consider these results as direct confirmation that workers, at least in terms of preferences for representation at the workplace, are similar across borders and conform to the 'naïve' model of consumer choice. In both countries two-fifths of the population desire representation. In Canada 90 percent of those desiring representation are covered whereas in the US only 39 percent receive the same representation. We interpret these results as providing powerful, albeit indirect, confirmation that the legal environment and employer resistance pose greater obstacles to union organizing in the US than in Canada. We also feel, that deeper constraints, located in the value systems of both countries, may hold the key to understand why preferences for unionisation are not being realized south of the border. As a subject of future research it may be useful to construct models where the desire for unionisation is seen as an individual 'search cost', which requires some knowledge that has to be obtained (perhaps knowledge about whom to contact and/or how to circumvent employer obstacles) in order for worker preferences (frustrated demand) to become realized.

Table 1: Canada-US Comparison of Union Preferences: Based on the question "All things considered, if you had a choice, would you personally prefer to belong to (remain in) a labour union or not?"

	Canada	US
	n=938	n=1159
Probabilities		
Pr(U=1)	.34	.15
Pr (U*=1)	.36	.37
Pr (D=1| U=0)	.22	.31
Pr (D=1| U=1)	.65	.77
Pr (U=1| D=1)	.97	.44
Pr (D=1,U=0)	.14	.26

Definitions:

Pr (U=1): The probability that a worker is a union member. The percentages above are drawn from BLS and LFS estimates of union density. Pr(Uc=1) = .34 and Pr(Ua=1) = .15.

Pr(U*=1): Hypothetical level of union density or the probability that a worker desires and receives union representation. This is the sum of the probability that a worker is a union member and desires to retain union membership plus the probability that worker desires union representation but is not employed on a union job (union membership plus frustrated demand). Formally, this is Pr (D=1| U=1)*Pr(U=1) + Pr (D=1, U=0).

Pr (D=1| U=0): The probability that a non-union worker demands union representation. Computed from tabulations of the 1996 Angus Reid survey from the following question "Would you prefer to belong to a union or not?" Individuals who responded yes were coded D=1.

Pr (D=1| U=1): The probability that a union worker demands union representation. Computed from tabulations of the 1996 Angus Reid survey from the following question "Would you prefer to remain in a union or not?" Individuals who responded yes were coded D=1.

Pr (U=1| D=1): The probability of being unionised conditional on the desire to be unionised. This represents the ease of obtaining a union job given that a worker desires a union job. Riddell (1993) interprets this as a measure of relative supply.

Pr(D=1,U=0): The probability that a worker demands union representation but is not employed on a union job (frustrated demand). Computed as Pr (D=1| U=0)*Pr(U=0). (D=1| U=0) was obtained from this table but Pr(U=0) is obtained from BLS and LFS estimates of union density. Pr(Uc=1) = .34 and Pr(Ua=1) = .15.

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