

*Measuring Labour Markets in Canada
and the United States:
2004 edition*

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Executive Summary

M *Measuring Labour Markets in Canada and the United States: 2004 Edition* is the second instalment in ongoing research to assess the performance of labour markets and explain why results differ among jurisdictions. First, the study provides a comprehensive measure of labour market performance, the Index of Labour Market Performance, which includes job creation indicators, unemployment measures, and average labour productivity. Second, it examines characteristics and regulations of the labour market that have been proven to affect labour market performance. Below are some of the main findings of the 2004 edition of *Measuring Labour Markets in Canada and the United States*.

I. Index of Labour Market Performance

The Index of Labour Market Performance is a composite measure of labour market performance based on five equally weighted indicators: average total employment growth (1999–2003), average private-sector employment growth (1998–2002), average unemployment rates (1999–2003), average duration of unemployment (1996–1998 & 2000–2001), and average labour productivity (1997–2001). Each indicator consists of the last 5 years of data.

1. Nevada tops the list of Canadian provinces and US states in terms of labour-market performance over the last five years. Its strong performance in total employment growth

(second out of 60 jurisdictions), employment growth in the private sector (first), and average labour productivity (ninth) enabled it to achieve the highest overall score of 8.2 out of 10.

2. The top-ranked Canadian province was Alberta, placing second overall with a score of 7.8. Ontario was the next highest-ranked Canadian province at 18th position with a score of 5.9.
3. West Virginia received the lowest score of any jurisdiction (3.3). It ranked poorly across all five measures of labour market performance: average total employment growth (48th), average private-sector employment growth (47th), average unemployment rates (48th), average duration of unemployment (55th), and average labour productivity (54th).
4. Newfoundland was the lowest-ranked Canadian province, occupying 56th position. It recorded the worst average unemployment rate (16.7%) and the second worst duration of unemployment rate (26.6%). Surprisingly, it fared relatively well on both measures of job creation, ranking 5th overall in both.
5. Regionally, the Canadian provinces performed relatively weakly: only four provinces—Alberta, Ontario, Prince Edward Island, and Manitoba—received scores above 5.0. The lack of stronger performances

by the Canadian provinces despite the fact that Canada has enjoyed a relatively robust economy over the past five years is particularly concerning.

6. The Southwestern US states (Nevada, Utah, Colorado, Arizona, New Mexico, and California) dominated the top rankings with four in the top 10. On the other hand, the Southern US states were mostly found in the lower rankings, receiving 3 of the 5 lowest scores (Mississippi, Alabama and Louisiana each received a score of 3.5 out of 10).
7. An additional point of geographic interest is that almost all Canadian provinces were out-performed by bordering US states. Most striking are the stark differences between Canada's Atlantic provinces and the Northeast US states.
8. There are clearly some national barriers to improved performance that affect all Canadian provinces. The national unemployment system is one example of a national policy that is impeding the ability of provincial labour markets to improve their performance.

II. Characteristics and Regulation of the Labour Market

The second section of this study identifies and measures key characteristics and regulations that affect labour mar-



Executive Summary

Executive Summary Table 1: Summary of Provincial and State Rankings

Jurisdiction	Index of Labour Market Performance		Average Total Employment Growth, 1999-2003		Average Private Employment Growth, 1998-2002		Average Unemployment Rates, 1999-2003		Average Duration of Unemployment, 1996-1998 and 2000-2001		Average Productivity per worker, 1997-2001	
	Rank (out of 60)	Score	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	Value
Newfoundland	56	3.5	5	2.4	5	3.5	60	16.7	59	26.6	50	65,809
Prince Edward Island	26	5.3	1	2.9	8	3.1	59	12.3	28	12.0	60	53,434
Nova Scotia	40	4.8	8	1.7	4	3.8	57	9.5	54	20.3	58	59,593
New Brunswick	43	4.7	9	1.7	7	3.2	58	10.5	49	16.5	57	60,364
Quebec	49	4.4	7	2.2	9	3.1	56	8.8	60	26.8	52	64,674
Ontario	18	5.9	4	2.6	6	3.3	52	6.5	57	20.8	33	73,494
Manitoba	27	5.2	19	1.2	13	2.5	35	5.1	39	14.6	56	61,764
Saskatchewan	47	4.5	36	0.5	33	1.4	46	5.7	42	15.2	43	68,936
Alberta	2	7.8	3	2.6	2	4.1	35	5.1	19	11.1	8	91,083
British Columbia	51	4.3	11	1.6	37	1.2	55	8.0	53	19.2	48	66,395
Alabama	58	3.5	56	-0.3	59	-0.5	39	5.3	38	14.2	45	67,926
Alaska	21	5.7	37	0.5	28	1.5	54	7.0	26	11.8	4	103,753
Arizona	3	7.3	6	2.2	3	4.0	32	5.0	14	10.2	26	79,645
Arkansas	41	4.7	45	0.3	31	1.4	33	5.1	16	10.7	51	65,392
California	19	5.8	16	1.4	23	1.9	47	5.8	50	18.3	7	99,629
Colorado	9	6.3	28	0.9	18	2.1	16	4.2	7	9.4	14	87,905
Connecticut	23	5.6	43	0.3	51	0.4	8	3.7	45	15.8	2	111,466
Delaware	5	6.6	27	0.9	20	2.1	10	3.9	48	16.4	1	117,900
Florida	10	6.1	12	1.5	10	2.8	22	4.6	35	13.1	30	75,756
Georgia	7	6.4	13	1.5	17	2.2	18	4.3	21	11.3	16	86,036
Hawaii	44	4.7	26	0.9	43	0.8	23	4.6	56	20.8	18	85,524
Idaho	17	5.9	23	1.1	15	2.3	40	5.3	4	8.3	42	69,775
Illinois	50	4.4	58	-0.4	45	0.8	44	5.4	43	15.2	12	88,812
Indiana	48	4.4	50	0.0	54	-0.3	14	4.2	11	9.9	37	72,180
Iowa	33	5.0	52	-0.1	30	1.5	4	3.4	6	9.2	46	67,257
Kansas	36	4.9	54	-0.1	44	0.8	19	4.3	5	8.4	35	73,317
Kentucky	52	4.1	51	-0.1	53	-0.2	37	5.2	29	12.6	34	73,451
Louisiana	59	3.5	57	-0.4	58	-0.4	49	5.8	51	18.5	20	83,160
Maine	35	4.9	18	1.2	38	1.2	15	4.2	44	15.4	49	66,189
Maryland	24	5.5	20	1.2	32	1.4	11	4.0	46	16.1	21	82,506
Massachusetts	25	5.4	53	-0.1	41	1.0	13	4.1	37	13.7	6	101,490

Executive Summary Table 1: Summary of Provincial and State Rankings

Jurisdiction	Index of Labour Market Performance		Average Total Employment Growth, 1999-2003		Average Private Employment Growth, 1998-2002		Average Unemployment Rates, 1999-2003		Average Duration of Unemployment, 1996-1998 and 2000-2001		Average Productivity per worker, 1997-2001	
	Rank (out of 60)	Score	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	Value
Michigan	54	3.9	60	-0.6	60	-0.6	38	5.2	10	9.6	31	75,117
Minnesota	14	6.0	30	0.8	16	2.2	9	3.8	18	11.1	24	80,148
Mississippi	57	3.5	40	0.4	57	-0.3	50	5.9	47	16.2	55	62,348
Missouri	38	4.8	34	0.5	48	0.6	21	4.5	32	12.6	36	73,315
Montana	42	4.7	31	0.7	27	1.5	27	4.8	25	11.8	59	57,887
Nebraska	20	5.8	33	0.6	26	1.6	2	3.3	2	6.9	38	71,606
Nevada	1	8.2	2	2.8	1	5.1	30	4.9	27	11.8	9	90,881
New Hampshire	8	6.4	15	1.4	19	2.1	7	3.6	24	11.8	19	83,305
New Jersey	34	5.0	39	0.4	49	0.5	28	4.8	52	18.5	5	101,527
New Mexico	16	5.9	21	1.2	14	2.5	44	5.4	33	12.8	23	81,091
New York	31	5.1	42	0.3	35	1.4	43	5.4	58	22.1	3	109,533
North Carolina	28	5.2	32	0.7	39	1.1	33	5.1	23	11.7	27	79,170
North Dakota	53	4.1	59	-0.4	55	-0.3	5	3.5	8	9.4	53	64,049
Ohio	45	4.7	41	0.4	52	0.3	29	4.9	29	12.6	28	77,738
Oklahoma	30	5.1	35	0.5	34	1.4	12	4.1	15	10.3	47	66,692
Oregon	32	5.0	44	0.3	42	1.0	53	6.5	17	10.9	17	85,870
Pennsylvania	39	4.8	46	0.2	36	1.3	31	4.9	41	15.0	25	79,896
Rhode Island	15	6.0	14	1.5	24	1.8	26	4.7	34	12.8	22	81,596
South Carolina	55	3.6	55	-0.2	56	-0.3	41	5.3	40	14.7	41	70,372
South Dakota	12	6.1	25	1.0	25	1.8	1	3.1	3	7.1	39	71,087
Tennessee	22	5.6	38	0.4	21	2.0	25	4.6	11	9.9	29	77,385
Texas	13	6.0	24	1.1	22	1.9	42	5.3	20	11.2	13	88,282
Utah	6	6.6	22	1.2	11	2.6	24	4.6	1	5.1	32	74,066
Vermont	29	5.1	29	0.9	40	1.1	6	3.6	31	12.6	44	68,205
Virginia	11	6.1	17	1.3	29	1.5	2	3.3	36	13.3	11	88,932
Washington	46	4.7	49	0.0	50	0.4	51	6.2	22	11.6	15	87,364
West Virginia	60	3.3	48	0.1	47	0.7	48	5.8	55	20.5	54	63,640
Wisconsin	37	4.8	47	0.1	46	0.8	20	4.4	9	9.5	40	70,944
Wyoming	4	6.9	10	1.6	12	2.5	17	4.3	13	10.0	10	89,773

Note: These rankings are based on data that contain several decimal places. In this table, there are cases where one jurisdiction appears to rank differently from another, even though their scores are the same. This is because the underlying data for the jurisdictions are different.



ket performance in each of the 60 jurisdictions: (1) average public-sector employment as a percent of total employment; (2) average minimum wage as a percent of per-capita GDP; (3) average unionized employment as a percent of total employment; and (4) Index of Flexibility in Labour Relations Law. Again, with the exception of the Index of Flexibility in Labour Relations Law, the last 5 years of available data were used. In addition to the measurement of each indicator, each section presents a review of the research into the effects of the characteristic or regulation on labour market performance.

Provincial/state and local government employment

The review of academic research into public-sector employment compared to private-sector employment generally indicates that the public sector operates under vastly different institutional arrangements and incentives that ultimately lead to differing outcomes. In particular, the public sector tends to operate as a monopoly to a much greater extent than the private sector, leading to the anticipated outcomes associated with monopolies such as higher costs, lower average quality, and less responsiveness to customers. In addition, a growing concern is the wage premium attached to public-sector employment when compared with similar positions in the private sector once productivity differences are accounted for.

1. Pennsylvania tops the list of Canadian provinces and US states with the lowest percentage of its employment in the public sector, 9.5%.
2. Ontario was the highest-ranked Canadian province. Unfortunately, it ranked 40th with 13.6% of its total employment represented by the public sector. Alberta followed On-

tario closely at 43rd position with 14.0% of employment in the public sector.

3. Newfoundland occupied the last position, with public-sector employment representing 22.1% of total employment, more than double the rate of the top-ranked jurisdiction, Pennsylvania.
4. The Northeastern US states generally dominated the top of the rankings, occupying five of the top 10 rankings.
5. The results for Canada in general were poor. Seven of the bottom 10 jurisdictions are Canadian provinces: Quebec, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, and Newfoundland. British Columbia ranked 50th, only one place above the bottom 10 jurisdictions.
6. There is a clear difference between the size of the public sector at the subnational level in Canada and that in the United States. Public-sector employment at the subnational level represents 16.0% of total employment in Canada, on average, over the five-year period covered by the study while it represents only 11.7% in the United States.

Minimum wage

There is a general consensus in the literature that high minimum wages have a negative impact on the labour market. For example, the literature concludes that high minimum wages reduce employment opportunities for young and unskilled workers and do not necessarily raise the incomes of the poor. In addition, increasing the minimum wage was found to result in reduced fringe benefits and on-the-job training. Fur-

thermore, high minimum wages are associated with higher school-dropout rates, as the increase in the minimum wage induces teenage workers to leave school in search of employment. Finally, data indicates that those receiving minimum wages are generally young: over 60% of men and women working at minimum wage are between 16 and 24 years old; over 60% of these young minimum-wage workers live at home with their parents.

1. Delaware ranks first with its minimum wage constituting the smallest percentage of average per-capita GDP (25.2%).
2. Alberta was the top-ranked Canadian province, occupying sixth position with a minimum wage of 27.2% of the province's average per-capita GDP.
3. Quebec held the last position, ranking 60th out of 60 Canadian provinces and US states. Quebec's minimum wage represented 50% of the province's average per-capita GDP.
4. The Northeastern US states generally dominated the top of the rankings, holding five of the top 10 jurisdictions.
5. The Canadian provinces generally fared poorly on this measure with six of the 10 Canadian provinces—New Brunswick, Nova Scotia, Newfoundland, British Columbia, Prince Edward Island, and Quebec—ranking in the bottom 10 jurisdictions. Manitoba narrowly escaped the bottom 10 by placing 50th.
6. There is a clear difference between minimum wages as a percent of average GDP in Canada and those in the United States: the average Canadian province has a minimum wage

that is 44.4% of its average GDP while the average US state has a minimum wage that is 32.1% of its average GDP over the last 5 years (1997-2001).

Unionization

Unionization has been demonstrated to have a wide effect on economic performance. For example, a major review of academic literature on unionization noted that the evidence indicates that unions tend to reduce employment growth, profitability, investment in physical capital and research and development. There is clearly growing consensus that unions in general reduce labour market flexibility, productivity, and adversely affect the overall efficiency of labour markets.

1. North Carolina maintains the lowest ratio of unionized workers to total employment, with 4.1% of its employment unionized. South Carolina ranks a close second, with 5.3% of its employment unionized.
2. The top-ranked Canadian province was Alberta. Unfortunately, it ranked 48th with 24.5% of its employment unionized; its rate of unionization was lower than only three US states: Alaska, Hawaii and New York State.
3. Quebec occupies last place with 40.3% of its total employment unionized.
4. The top 10 jurisdictions were mainly held by Southern US states (7) and Southwestern US states (2).
5. Not surprisingly, the Right-to-Work states—those states that permit workers to choose whether or not to join and financially support a union—dominate the top of the rankings.

RTW states occupied 10 of the top 10 rankings and 18 of the top 20 rankings.

6. The Canadian provinces performed quite poorly on this measure with nine of the bottom 10 positions occupied by Canadian provinces.
7. The divide between Canada and the United States is quite evident in unionization. The average unionization rate in Canada over the five years covered by this edition was 32.2% compared with 14.8% for the United States.

Part of the explanation for the Canadian provinces' poor performance is the first characteristic, public-sector employment. The public sector is much more likely than the private sector to be unionized. In 2003, 19.9% of the private sector was unionized in Canada while 75.6% of the public sector was unionized. The fact that Canada has a larger public sector than the United States is, therefore, an important explanation for the higher rates of unionization observed in Canada.

Another explanation for the difference between rates of unionization in Canada and those in the United States is the absence of Right-to-Work laws in Canada. Current labour relations laws in Canada, in one form or another, require workers in a unionized firm to join a union and pay full union dues as a condition of employment (see Characteristic 4: Index of Flexibility in Labour Relations Law for further information). A number of studies, including a recent Fraser Institute study have concluded that such differences in the choice afforded workers in the two countries accounts for some of the observed differences in unionization.

Flexibility of labour relations laws

This measure is based on The Fraser Institute's recent study, *Measuring the Flexibility of Labour Relations Laws in Canada and the United States* (Karabegović, et al., 2004). The study measures and evaluates labour relations laws in the private sector for the Canadian provinces and US states based on whether or not they facilitate flexibility and choice by balancing the needs of both employers and employees. Four areas of labour relations laws are examined: (1) Certification and Decertification, (2) Union Security, (3) Mandatory Clauses, and (4) Labour Disputes.

An overall Index of Flexibility in Labour Relations Law is presented for each Canadian province and US state. The overall index is based on the scores obtained on each of the four categories of labour relations laws. It represents a measure of each jurisdiction's overall labour relations policy. Jurisdictions with more flexible labour relations laws receive higher scores while jurisdictions with less flexible labour relations laws receive lower scores.

There are stark differences between jurisdictional authority over the regulation of relations among employers, unions, and employees in Canada and similar authority in the United States. In Canada, regulation and enforcement of labour relations is largely decentralized, and each province maintains its own set of labour relations laws. In the United States, on the other hand, private-sector labour relations laws are almost entirely centralized, regulated through federal law, and enforced under federal authority by the National Labor Relations Board (NLRB). There is, therefore, very little variance amongst US states regarding labour relations laws.



Executive Summary

Executive Summary Table 2: Summary of Provincial and State Rankings

Jurisdiction	Average Provincial/ State and Local Public Sector Employment* as a % of Total Employment, 1998-2002		Average Federal, Provincial/State and Local Public Sector Employment* as a % of Total Employment, 1998-2002		Average Minimum Wage as a % of per-Capita GDP, 1997-2001		Average Unionization as a % of Total Employment, 1999-2003		Index of Flexibility in Labour Relations Law, 2004	
	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	Score (out of 10)
Newfoundland	60	22.1	59	25.5	57	48.7	59	39.6	54	3.3
Prince Edward Island	55	18.9	58	24.3	59	49.5	55	29.9	53	3.8
Nova Scotia	54	18.4	55	22.4	54	47.1	54	29.2	55	3.0
New Brunswick	56	19.0	54	22.2	53	46.6	53	28.4	58	2.5
Quebec	53	17.9	50	20.0	60	50.0	60	40.3	60	1.6
Ontario	40	13.6	37	16.1	47	40.5	52	28.2	52	4.6
Manitoba	58	21.0	57	23.9	50	42.3	58	36.7	55	3.0
Saskatchewan	59	21.7	56	23.8	41	39.3	57	35.6	58	2.5
Alberta	43	14.0	33	15.5	6	27.2	48	24.5	51	6.7
British Columbia	50	16.2	47	18.0	58	49.2	56	35.0	57	2.9
Alabama	28	12.0	29	14.7	48	41.2	20	10.8	1	9.2
Alaska	57	19.7	60	25.8	5	27.1	49	24.9	23	7.9
Arizona	24	11.8	28	14.5	36	37.5	4	7.0	1	9.2
Arkansas	38	13.2	32	15.4	51	43.9	6	7.1	1	9.2
California	27	12.0	27	14.1	19	32.7	41	18.3	23	7.9
Colorado	12	10.8	19	13.6	9	29.5	17	9.8	23	7.9
Connecticut	13	10.9	7	12.2	2	26.4	36	17.3	23	7.9
Delaware	20	11.3	16	13.2	1	25.2	26	13.7	23	7.9
Florida	8	10.4	9	12.3	38	38.0	11	8.4	1	9.2
Georgia	15	11.0	18	13.6	15	31.4	9	7.9	1	9.2
Hawaii	37	13.1	49	18.6	18	32.5	50	25.3	23	7.9
Idaho	35	12.8	34	15.5	45	40.3	14	9.3	1	9.2
Illinois	4	10.1	5	11.9	11	29.8	44	19.4	23	7.9
Indiana	3	10.0	2	11.6	31	35.7	30	15.3	23	7.9
Iowa	33	12.4	25	14.0	32	35.9	28	15.1	1	9.2
Kansas	42	14.0	38	16.4	29	35.4	21	10.8	1	9.2
Kentucky	32	12.2	30	14.9	39	38.1	25	12.6	23	7.9
Louisiana	44	14.0	40	16.6	28	35.2	16	9.5	1	9.2
Maine	17	11.1	17	13.2	42	39.6	31	15.5	23	7.9
Maryland	26	11.8	53	22.1	17	32.1	35	16.9	23	7.9
Massachusetts	9	10.4	8	12.2	7	29.0	33	16.0	23	7.9

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Jurisdiction	Average Provincial/ State and Local Public Sector Employment* as a % of Total Employment, 1998-2002		Average Federal, Provincial/State and Local Public Sector Employment* as a % of Total Employment, 1998-2002		Average Minimum Wage as a % of per-Capita GDP, 1997-2001		Average Unionization as a % of Total Employment, 1999-2003		Index of Flexibility in Labour Relations Law, 2004	
	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	%	Rank (out of 60)	Score (out of 10)
Michigan	11	10.6	6	11.9	24	34.4	47	22.4	23	7.9
Minnesota	22	11.4	14	13.0	12	30.1	43	18.8	23	7.9
Mississippi	45	14.4	39	16.6	55	47.1	10	8.3	1	9.2
Missouri	21	11.3	21	13.7	27	34.9	27	14.6	23	7.9
Montana	46	14.5	45	17.9	52	46.0	32	15.7	23	7.9
Nebraska	25	11.8	26	14.0	22	33.9	22	11.3	1	9.2
Nevada	5	10.1	4	11.9	10	29.6	39	18.1	1	9.2
New Hampshire	2	9.8	3	11.8	13	30.2	23	11.4	23	7.9
New Jersey	23	11.7	23	13.9	4	26.8	46	21.4	23	7.9
New Mexico	51	16.3	52	21.7	37	37.8	18	9.9	23	7.9
New York	48	14.7	41	16.7	3	26.8	51	26.6	23	7.9
North Carolina	31	12.2	20	13.6	20	33.2	1	4.1	1	9.2
North Dakota	47	14.6	46	17.9	40	39.1	12	9.0	1	9.2
Ohio	10	10.6	10	12.3	21	33.9	42	18.6	23	7.9
Oklahoma	36	13.0	43	16.7	49	42.2	13	9.1	1	9.2
Oregon	16	11.0	15	13.1	43	39.7	34	16.7	23	7.9
Pennsylvania	1	9.5	1	11.5	23	34.3	37	17.6	23	7.9
Rhode Island	7	10.4	13	12.6	33	36.3	40	18.1	23	7.9
South Carolina	49	14.9	44	16.8	44	39.7	2	5.3	1	9.2
South Dakota	34	12.5	36	15.9	34	36.4	4	7.0	1	9.2
Tennessee	18	11.1	22	13.8	30	35.4	15	9.5	1	9.2
Texas	29	12.0	24	13.9	16	31.9	3	6.9	1	9.2
Utah	30	12.1	35	15.5	35	37.2	8	7.7	1	9.2
Vermont	6	10.3	11	12.4	46	40.5	24	11.6	23	7.9
Virginia	14	10.9	48	18.1	14	30.7	7	7.4	1	9.2
Washington	39	13.2	31	15.3	26	34.5	45	20.9	23	7.9
West Virginia	41	13.6	42	16.7	56	47.8	29	15.1	23	7.9
Wisconsin	19	11.2	12	12.4	25	34.5	38	17.7	23	7.9
Wyoming	52	17.1	51	20.6	8	29.4	19	10.3	1	9.2

*Including employment in government business enterprises.

Note: These rankings are based on data that contain several decimal places. In this table, there are cases where one jurisdiction appears to rank differently from another, even though their scores are the same. This is because the underlying data for the jurisdictions are different.



Executive Summary

Note that a score of 10 is not indicative of ideal labour relations legislation but rather is a relative measure of flexibility in labour relation laws across 10 Canadian provinces and 50 US states.

1. In addition to the choice of union membership afforded workers in all 50 US states, there are 22 US states that possess Right-to-Work laws, which also outlaw mandatory union membership and payment of dues as a condition of employment.

These 22 Right-to-Work states were deemed to have the most flexible labour relations laws amongst the 10 Canadian provinces and 50 US states, each receiving a score of 9.2 out of a possible 10.

3. The remaining 28 US states were tied for the 23rd position with an overall score of 7.9.
4. The Canadian provinces occupied the last 10 positions (51st to 60th).

5. The only province that gained a passing score (higher than 5) was Alberta, with an overall score of 6.7.
6. Quebec (score of 1.6) has the most rigid labour relations laws in all of Canada and the United States, followed closely by Saskatchewan (2.5) and New Brunswick (2.5).

Introduction: Labour Market Flexibility

Labour markets are one of the most important components of an economy. They are the mechanism through which societies allocate one of their most valuable and productive resources, human capital. Labour markets match human skills, supplied by individuals seeking to earn a living, with demand for labour of firms, governments, and households.

The key to a high performing, efficient labour market characterized by high rates of job creation, low unemployment, short durations of unemployment, and a highly productive workforce is flexibility. Flexibility allows the labour market to adjust to market changes and permits employees and employers to reallocate resources to maximize productivity. For employees, flexibility allows them to supply their labour as they wish and to shift their efforts to endeavours that provide the greatest return or benefit. Similarly, flexibility allows employers to change the mix of capital and labour to respond to market changes.

There are a great number of studies supporting the argument that labour flexibility leads to better outcomes for labour market. The main study among these was completed by the Organization for Economic Cooperation and Development (OECDa) in 1994; it is commonly referred to as the Jobs Study. It concluded that countries with more

flexible labour markets enjoyed better records for job creation and faster growth in their economies.

A number of studies support the OECD's conclusions. For example, Di Tella and MacCulloch (1999), using data for 21 OECD countries from 1984 to 1990, found that increasing the flexibility of a labour market resulted in increased employment and participation rates. Kiander and Viren (2001), using immigration numbers, tested the effect of population shocks on the unemployment rate of 22 OECD countries from 1960 to 1997. They found that the United States, which maintained the most flexible labour market, responded quickly to the population increases resulting in no change in the unemployment rate whereas European countries, with much less flexible labour markets, were slower to respond. A recent paper by Besley and Burgess (2004), using data from the manufacturing sector in India between 1958 and 1992, found that labour-relations laws that favoured one group over another led to lower output, employment, investment, and productivity. Another recent paper, by Alonos, Echevarria and Tran (2004), found that income and capital per worker depend positively on flexible labour markets. They also found that the steady-state unemployment rate depends negatively on the flexibility of the labour market.

A number of studies have examined the flexibility of labour markets from the perspective of wage flexibility. Bierhanzl and Gwartney (1998) found that higher rates of centralized wage-setting, stricter employee-dismissal policies, and generous employment insurance led to higher unemployment rates in OECD countries. Similarly, Bertola et al. (2002), using data for 17 OECD countries over the period from 1960 to 1996 found that union-wage-setting policies and accordant wage premiums effectively priced the young and elderly out of employment.

There is growing consensus among economists that labour-market flexibility does indeed result in better labour-market outcomes. This paper explores both the performance of the labour market at the sub-national level in Canada and the United States and a variety of labour market characteristics and regulations in order to further our understanding of why some labour markets perform better than others.

Organization

There are two main sections: (I) Performance of Labour Markets and (II) Characteristics and Regulation of Labour Markets. Each of these main sections is further divided into sub-sections. First, the Index of Labour Market Performance is presented followed by



Introduction

discussion on each of the five components from which the index is computed: (1) Average Total Employment Growth, (2) Average Private Sector Employment Growth, (3) Average Unemployment Rates, (4) Average Duration of Unemployment, and (5) Average Labour Productivity. For each of the components, the data are presented for all Canadian provinces and US states as well as their individual rankings. The second main section, (II)

Characteristics and Regulation of Labour Markets, is composed of four sub-sections, each presenting a unique aspect of Canadian and US labour markets: (1) public sector employment as a percent of total employment, (2) minimum wage as a percent of per-capita GDP, (3) unionized employment as a percent of total employment, and (4) the Index of Flexibility in Labour Relations Law. The final measure, the Index of Flexibility in Labour Relations Law, is

a summary of a separate study recently completed (2004) by the same authors for The Fraser Institute. In each of the four sub-sections a review of academic literature is presented alongside the data for each province and state and the overall rankings. The final section presents some concluding remarks and suggests areas for further research.

I. Labour Market Performance

This section of the study presents data on the performance of the 10 provincial and 50 state labour markets across five indicators for the last five years in which data is available: (1) average total employment growth (1999–2003), (2) average private-sector employment growth (1998–2002), (3) average unemployment rates (1999–2003), (4) average duration of unemployment (1996–1998, 2000–2001), and (5) average labour productivity (1997–2001).¹ Five-year averages were employed in order to balance the need for historical data while weighing current performance. In addition, an overall index of labour market performance is presented.

The format of the study is largely a presentation of the rankings coupled with a brief discussion. General observations, including a discussion of the top- and bottom-ranked jurisdictions, information specific to Canada, and general trends are offered for each of the indicators as well as the overall index.

Finally, it is important to understand the larger economic context within which the following analysis was undertaken. Canada has enjoyed a particularly strong economy over the last five years (1999–2003) relative to the United States. Specifically, Canada's average real GDP growth was 3.6% from 1999 to 2003 compared to 2.8% in the United States. Further, Canada's GDP growth rate was higher than that of the United States in four of the five years between 1999 and 2003. Typically, strong economic growth translates into robust

performances in other areas including labour markets.

Index of Labour Market Performance

The Index of Labour Market Performance provides an overview of each jurisdiction's overall labour-market performance, as measured by the five indicators discussed above: (1) average total employment growth, (2) average private-sector employment growth, (3) average unemployment rates, (4) average duration of unemployment, and (5) average labour productivity. Each component received an equal weighting in the index (for discussion of methodology, see Appendix: Methodology).

General observations

Nevada tops the list of Canadian provinces and US states in terms of labour-market performance over the last five years. Its strong performance in total employment growth (ranked second out of 60 jurisdictions), employment growth in the private sector (ranked first), and average labour productivity (ranked ninth) enabled it to achieve the highest overall score of 8.2 out of a possible 10.

The Southwestern US states (Nevada, Utah, Colorado, Arizona, New Mexico, and California) dominated the top rankings with four in the top ten. New Mexico and California, ranked 16th and 19th respectively, were the only Southwestern states outside of the top ten.

The top-ranked Canadian province was Alberta, placing second with an overall score of 7.8. Ontario was the next highest-ranked Canadian province at 18th position with an overall score of 5.9. There were only two other Canadian provinces that obtained a score in excess of 5.0: Prince Edward Island received a score of 5.3 and Manitoba received a score of 5.2, placing them 26th and 27th, respectively. Unfortunately, the remaining six Canadian provinces failed to achieve scores in excess of 5.0. Newfoundland ranked last among the provinces with a score of 3.5, ranking it 56th out of 60 jurisdictions.

The Southern US states in general dominated the lower rankings, garnering 3 of the 5 lowest scores (Mississippi, Alabama and Louisiana each received a score of 3.5 out of 10)

Right-to-Work states did well on the overall Index of Labour Market Performance.² Six of the top ten positions and 11 of the top 20 jurisdictions were RTW states even though they represent a little over one third of the total number of jurisdictions.³

The following section examines each of the components of the Index of Labour Market Performance in greater detail.

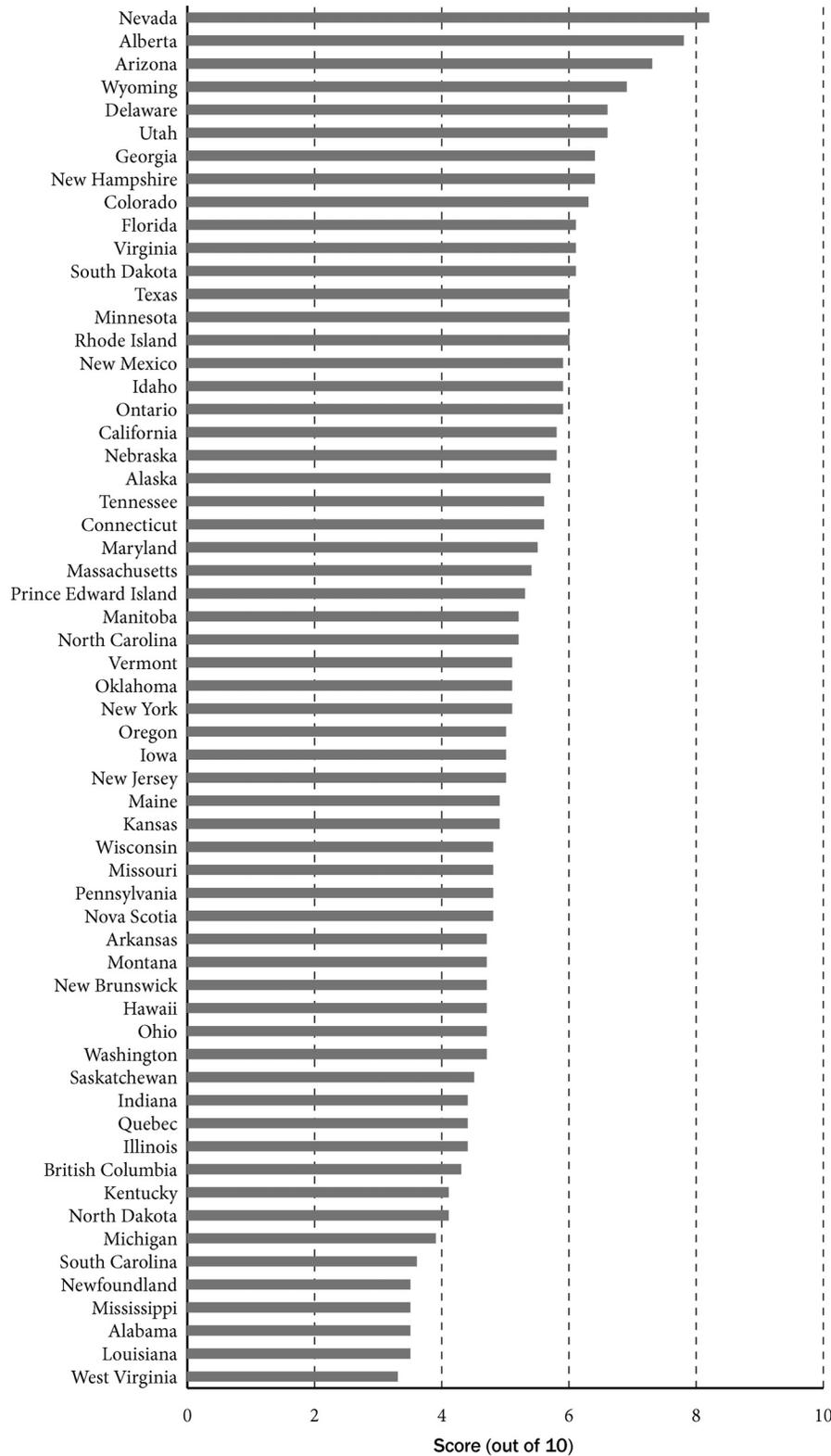
Indicator 1: Average Total Employment Growth (1999–2003)

Indicator 1 measures the average year-over-year growth rates of total



Labour Market Performance

Index of Labour Market Performance



Source: The Fraser Institute

employment for each jurisdiction over the last five years. Total employment includes full-time and part-time employment in both the public (government) and private (business and non-profit) sectors of the economy.⁴

Observations

Prince Edward Island tops the list of Canadian provinces and US states with average total employment growth of 2.9% over the last five years, followed closed by Nevada at 2.8% and Albert and Ontario, each at 2.6%.

It is important to recognize, however, that average total employment growth from 1999 to 2003 in both Prince Edward Island (2.9%) and Newfoundland (2.4%) was heavily influenced by an anomalous year of growth. Specifically, total employment in Prince Edward Island increased by 6.6% in 2000 and by 5.7% in 1999 in Newfoundland. These rather large increases in total employment significantly increased the average growth rates over the five-year period covered so as to make both jurisdictions appear to have relatively strong employment growth. In fact, both jurisdictions had weak-to-average growth in total employment between 1999 and 2003 with the exception of the years mentioned above. For example, Prince Edward Island's total employment growth was 1.7% in 1999, 6.6% in 2000, 1.5% in 2001, 1.5% in 2002, and 3.0% in 2003 for an average growth rate of 2.9%. Put differently, the province's average total employment growth, excluding 2000, was 1.9%, far less than the 2.9% recorded when 2000 employment growth is included.

On the other hand, third-place Alberta had strong and consistent total employment growth throughout the five-year period. For example, Alberta's total

employment growth was 2.5% in 1999, 2.3% in 2000, 2.8% in 2001, 2.6% in 2002 and 2.9% in 2003 for an average growth rate of 2.6%. Consistent total employment growth in Alberta, albeit producing a slightly lower average, is more desirable than that of Prince Edward Island.

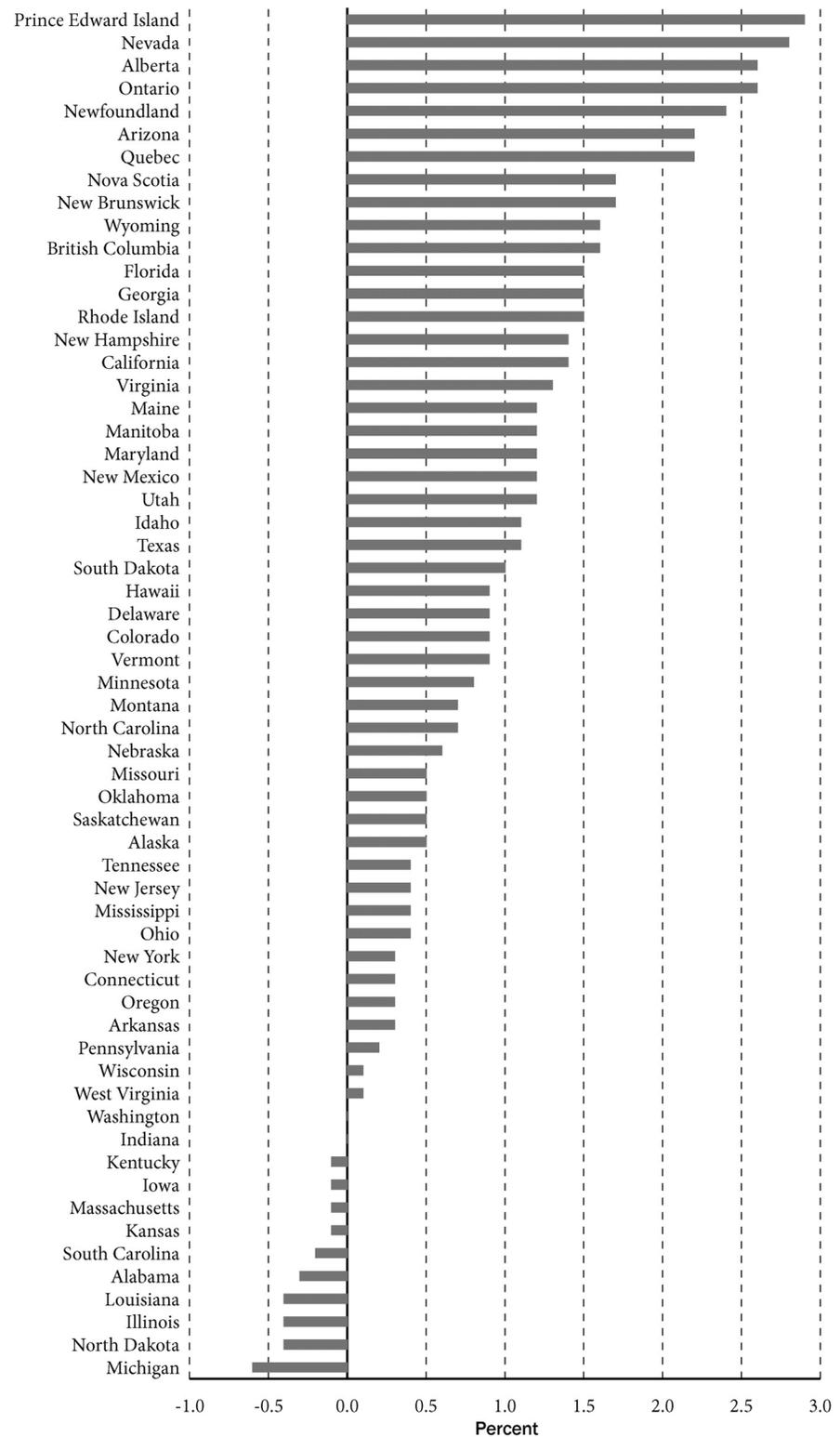
The top-10 jurisdictions for average total employment growth are dominated by Canadian jurisdictions. Seven of the top 10 jurisdictions are Canadian: Prince Edward Island, Alberta, Ontario, Newfoundland, Quebec, Nova Scotia, and New Brunswick. British Columbia ranked just outside of the top-10 jurisdictions at 11th. The lowest ranked Canadian province was Saskatchewan, which recorded average total employment growth of 0.5% from 1999 to 2003, ranking it 36th among Canadian provinces and US states.

The states of the industrial belt (those surrounding and including Michigan) as well as the Southern US states ranked poorly for average total employment growth over the last five years. Michigan placed last, recording average total employment growth of negative 0.6% over the last five years. In all, ten US states recorded negative average total employment growth figures: Kentucky, Iowa, Massachusetts, Kansas, South Carolina, Alabama, Louisiana, Illinois, North Dakota, and Michigan.

Indicator 2: Average Private-Sector Employment Growth (1998–2002)

There is an important aspect missing in the first indicator of labour-market performance: the nature of employment growth. How employment growth is split between the public and private sec-

Indicator 1: Average Total Employment Growth, 1999–2003

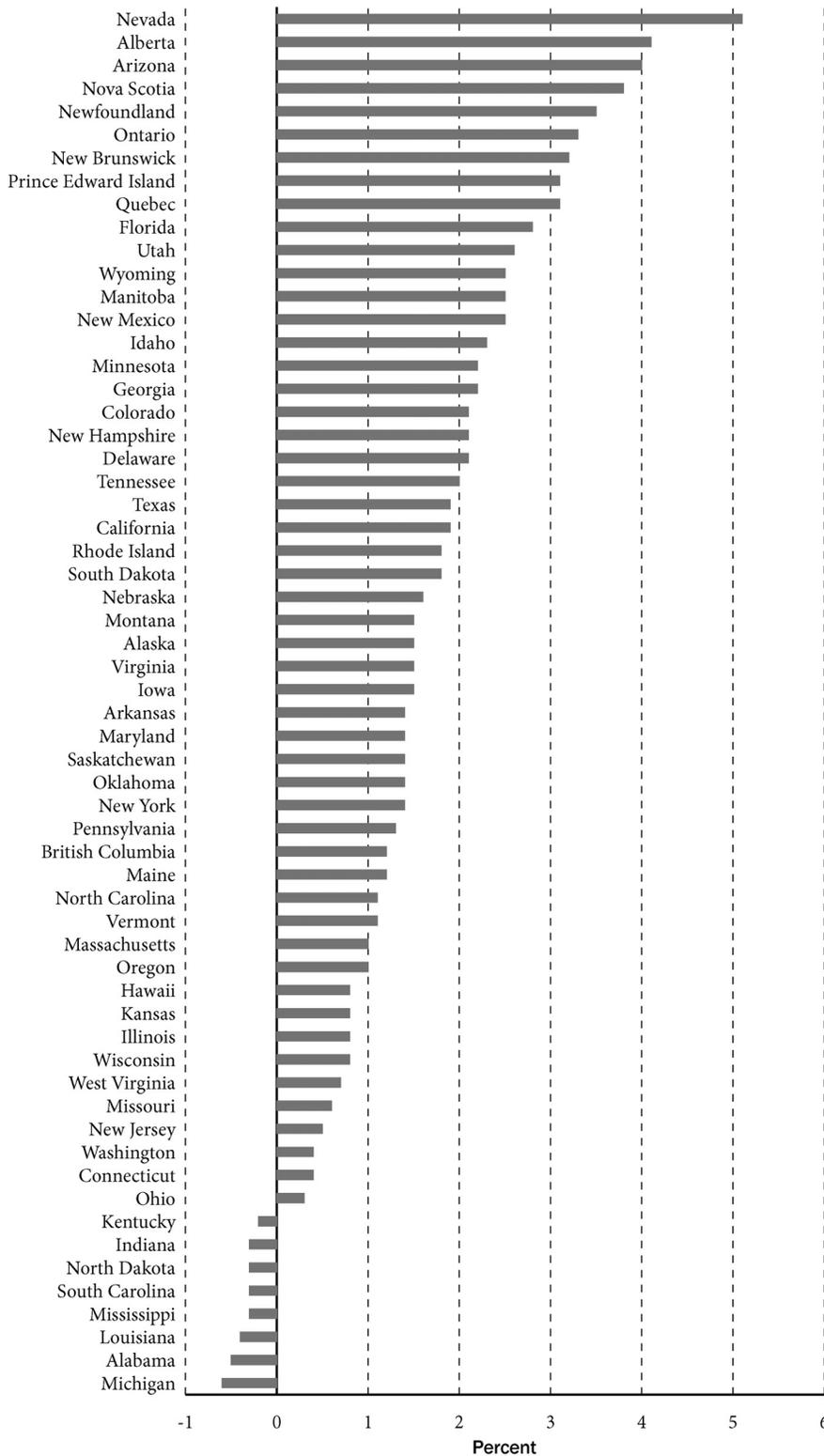


Sources: Statistics Canada, Provincial Economic Accounts, 2003; US Department of Labor, Bureau of Labor Statistics, 2004a; calculations by the authors.



Labour Market Performance

Indicator 2: Average Private-Sector Employment Growth, 1998–2002



Sources: Statistics Canada, *Labour Force Historical Review 2003* (CD-ROM); US Department of Labor, Bureau of Labor Statistics, 2004b; calculations by the authors.

tors is an important aspect of labour-market performance. Strong employment growth that is largely fuelled by the public sector can have negative economic consequences.⁵

The second indicator of labour-market performance measures the average private-sector employment growth for each jurisdiction over the last five years; growth is defined as new full-time and part-time private-sector employment.⁶

Observations

Nevada, the top-ranking jurisdiction, had average private-sector employment growth of 5.1% over the last five years. The top-ranked Canadian province is Alberta, which ranked second, with average private-sector employment growth of 4.1%.

The Canadian provinces again fared well in terms of top-10 rankings. Seven of the jurisdictions ranked in the top 10 were Canadian: Alberta, Nova Scotia, Newfoundland, Ontario, New Brunswick, Prince Edward Island, and Quebec. Interestingly, four of the seven Canadian provinces are Maritime provinces. Average private-sector employment growth rates in these provinces are again significantly influenced by anomalous years.

British Columbia was the lowest ranked Canadian province at 37th, recording average private-sector employment growth of 1.2%.

As was the case for average total employment growth, Michigan ranked last with average private-sector employment growth of negative 0.6%. In all, eight US states recorded negative average private-sector employment growth figures: Kentucky, Indiana, North Dakota, South Carolina, Mississippi, Louisiana, Alabama, and Michigan.

The Southern US states generally performed poorly on this indicator, occupying four of the bottom five positions. In addition, seven Northeastern US states (New York, Pennsylvania, Maine, Vermont, Massachusetts, New Jersey, and Connecticut) also performed poorly ranking in the bottom half on this indicator.

One of the interesting observations to note is the relationship between the results in the first labour market performance indicator, average total employment growth, and the second indicator, average private-sector employment growth.

There are several jurisdictions that were in the process of altering the size of their public sector. There is, therefore, a stark contrast between the two indicators. For example, Iowa's average total employment growth was negative 0.1% but its private-sector employment growth was 1.5%, indicating a rather large reduction in public-sector employment in the state. Similarly, Tennessee records average total employment growth of 0.4% while averaging 2.0% private-sector employment growth, again indicating a rather large decline in the public sector.

Mississippi exhibits the opposite: negative private-sector employment growth coupled with much higher positive average total employment growth, indicating an expansion in the public sector.

Indicator 3: Average Unemployment Rates (1999–2003)

Indicator 3 is partially a reflection of the first two indicators, in that an economy unable to generate employment growth will also, to a certain extent, experience higher unemployment rates. Indicator 3 specifically measures the five-year aver-

Indicator 3: Average Unemployment Rates, 1999–2003



Sources: Statistics Canada, Provincial Economic Accounts, 2003; US Department of Labor, Bureau of Labor Statistics, 2004a; calculations by the authors.



Labour Market Performance

Indicator 4: Average Duration of Unemployment, 1996–1998; 2000–2001



Sources: Statistics Canada, *Labour Force Historical Review 2003* (CD-ROM); US Department of Labor, Bureau of Labor Statistics, 2004b; calculations by the authors.

age percentage of citizens actively seeking work who were unable to secure employment.

It is important to recognize that a certain portion of the differences between the Canadian provinces and the US states are due to the differences in the two countries' employment insurance programs.⁷ In general, Canada has a more generous employment insurance program than the United States, which provides higher benefits, for longer periods, for a greater percentage of its unemployed. The result, not surprisingly is that Canada tends to have higher average unemployment rates. In addition, the Canadian federal government made changes to the Employment Insurance system in 2000 that benefit workers in Atlantic Canada.

Observations

South Dakota records the lowest average unemployment rate for the last five years at 3.1%. Five of the Plain States (South Dakota, Nebraska, Iowa, North Dakota and Minnesota) and five of the Northeastern states (Virginia, Connecticut, New Hampshire, Vermont, and Delaware) make up the top 10 jurisdictions.

Alberta and Manitoba tie for the highest-ranking Canadian provinces. Unfortunately, they tie for 35th place overall with a five-year average unemployment rate of 5.1%, two percentage points higher than first-place South Dakota.

Newfoundland ranks last, with an average unemployment rate of 16.7% over the last five years. Newfoundland's average unemployment rate is over three times higher than that of top-ranked Canadian provinces, Alberta and Manitoba, and over five times higher than that of top-ranked South Dakota.

Further evidence of Canada's poor performance on this indicator is that the bottom six positions are all Canadian provinces: British Columbia, Quebec, Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland.

One of the facts that emerges from the bottom of the rankings is how high average unemployment rates are in Atlantic Canada. Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland recorded average unemployment rates of 9.5%, 10.5%, 12.3%, and a startling 16.7%, respectively, over the last five years. These averages diverge significantly from the average for the top 20 jurisdictions (3.9%) or even the Canadian average (7.4%).

It is interesting to note the contrast between the bordering Northeastern US states, which dominated the top of the rankings, and the Canadian Atlantic provinces. The Northeastern US states generally maintained low average unemployment rates while the bordering Canadian Atlantic provinces placed at the bottom of the unemployment rate rankings with high average unemployment rates.

Indicator 4: Average Duration of Unemployment (1996–1998, 2000–2001)

The fourth indicator of labour market performance is an adjunct to the previous measure, average unemployment rates.⁸ It is meant to indicate the severity of unemployment. That is, two jurisdictions with similar unemployment rates (inability of job seekers to secure employment) may have differing labour-market problems if the duration or spells of unemployment are drastically different. This indicator measures

the percentage of the labour force experiencing unemployment for 27 weeks or longer.

Observations

Utah ranks first with the lowest percentage of its unemployed (5.1%) experiencing unemployment in excess of 27 weeks. The top-ranked Canadian province was Alberta, ranking 19th with 11.1% of its unemployed experiencing unemployment in excess of 27 weeks.

Quebec attains the dubious distinction of being last, with 26.8% of its unemployed experiencing unemployment in excess of 27 weeks. Worse still for Canada, five of the bottom 10 jurisdictions were Canadian: British Columbia (19.2%), Nova Scotia (20.3%), Ontario (20.8%), Newfoundland (26.6%), and (Quebec 26.8%).

The Right-To-Work (RTW) states ranked high on this indicator of labour-market performance. Specifically, seven of the top 10, and 13 of the top 20 jurisdictions were RTW states.

The large percentage of unemployed experiencing unemployment in excess of 27 weeks in Canada stands in stark contrast to the general experience of the United States. For example, the top 10 jurisdictions, all US states, averaged 8.3% of their unemployed experiencing unemployment in excess of 27 weeks.

This is significantly lower than even the highest-ranked Canadian province, Alberta, to say nothing of those provinces that ranked lower. It is important to note that part of the explanation for differences in the duration of unemployment in Canada and the United States is the differences in the two countries' unemployment insurance programs.⁹

Indicator 5: Average GDP per Worker, 1997–2001 (Labour Productivity)¹⁰

The ultimate goal of a well-functioning labour market is high and growing labour productivity, which in turn translates into higher wages and salaries for workers.¹¹ The final indicator of labour-market performance measures the average total value of goods and services (GDP) per worker over the last five years (1997–2001). Purchasing Power Parity (PPP), a unique conversion rate calculated by Statistics Canada (see Statistics Canada 2002c) to account for price differences between Canada and the United States, was used to convert US dollars to Canadian dollars.

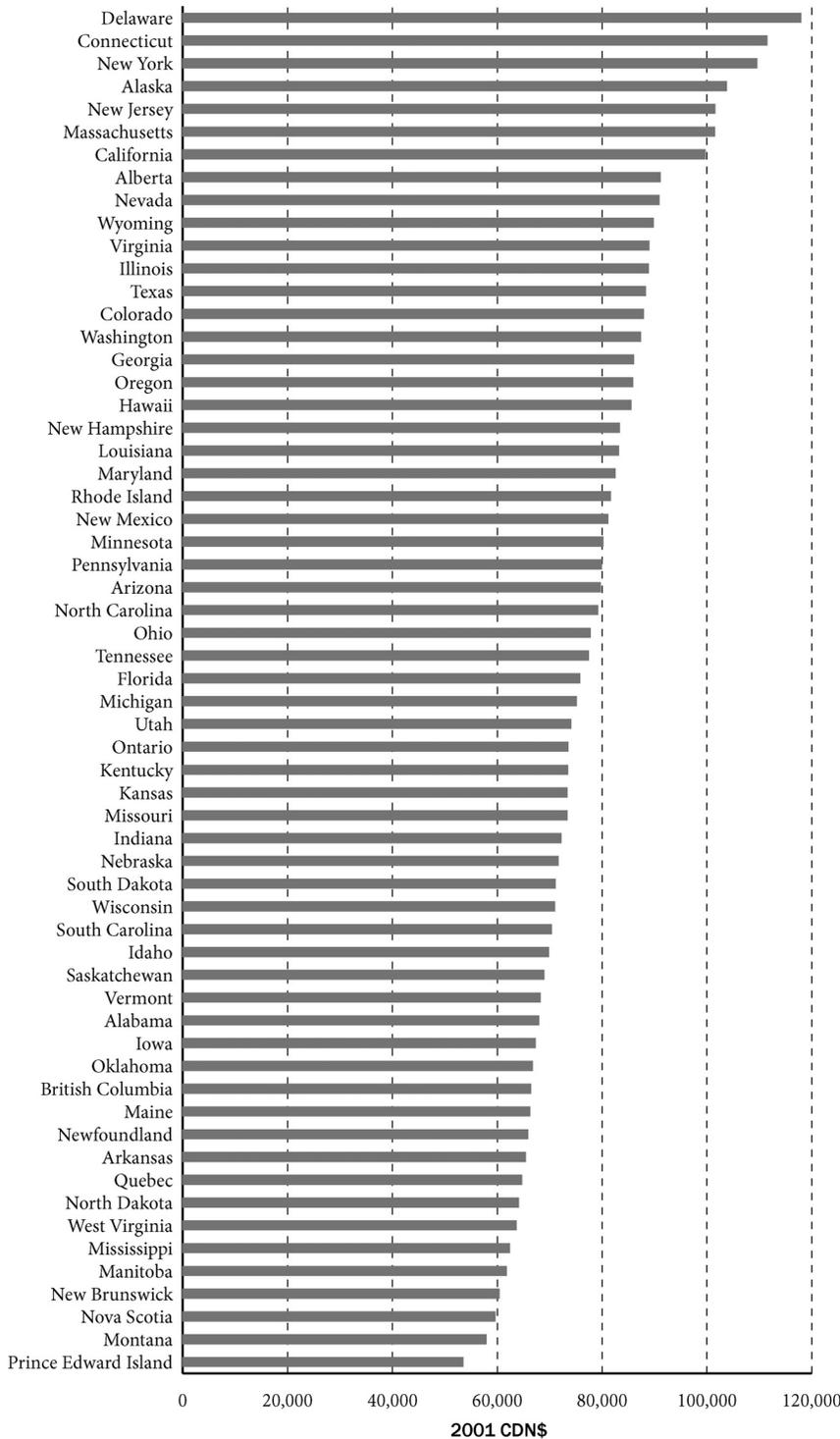
Observations

Delaware ranked first out of the 60 jurisdictions with average GDP per worker totalling \$117,900. The Northeastern states, such as Delaware, Connecticut, New York, New Jersey and Massachusetts, dominated the top of the rankings with four of the top five, and five of the top 10 jurisdictions. Alberta was the top-ranked Canadian province at 8th place, with average GDP per worker of \$91,083. The next highest-ranked Canadian province was Ontario at 33rd place with \$73,494 per worker in GDP.

Prince Edward Island ranked last with GDP per worker of \$53,434, less than half that of the top-ranked jurisdiction, Delaware. Sadly, five of the 10 jurisdictions at the bottom of the rankings were Canadian: Quebec, Manitoba, New Brunswick, Nova Scotia, and Prince Edward Island. The Southern states are generally poorer (i.e., have lower productivity) than the other US states but



Indicator 5: Average GDP per Worker, 1997-2001



Sources: Statistics Canada, Provincial Economic Accounts, 2003; Statistics Canada, *Purchasing Power Parities and Real Expenditures, United States and Canada, 1992-2001*, 13-604-MIB no. 39, June 2002; US Department of Commerce, Bureau of Economic Analysis, 2003; US Department of Labor, Bureau of Labor Statistics, 2004a; calculations by the authors.

they still outperform most of the Canadian provinces.

Migration: An Important Factor to Consider

Although not specifically included in the Index of Labour Market Performance, the flow of citizens into, and out of, jurisdictions is an important indicator of the performance of the labour market and, indeed, of general economic performance. A key explanation of these flows of people is the labour opportunities or lack thereof that exist in their home province or state. For example, Finnie (1999), using data on interprovincial migration from 1982 to 1995, found that interprovincial migration is generally “the route to better labour market opportunities for men, particularly for those coming from the lower income provinces and moving to higher income ones, and especially in the case of younger men” (1999: 259). Thus, the net addition or subtraction of citizens due to mobility can be an important indicator of larger macroeconomic successes or challenges.

The following section presents information on the net flow of citizens, excluding immigration, from one Canadian province to another and from one US state to another, and compares these flows with the labour-market performance of the jurisdictions. The data incorporated in this analysis is based on census information from both countries.¹² Net migration refers to the difference between the number of people migrating out of a particular jurisdiction compared with the number of people migrating into the same jurisdiction. It is normally presented as a percentage of the base year’s population. Please note that the figures provided throughout this section refer exclusively to

Table 1: Canadian Net Migrants^a and Net Migration Rates by Province^b, 1976–2001

Province	1976-1981		1981-1986		1986-1991		1991-1996		1996-2001	
	Number	Rate (%)								
Newfoundland	-19,860	-3.7	-16,550	-3.1	-13,945	-2.6	-23,240	-4.3	-31,055	-6.1
Prince Edward Island	-15	0.0	1,540	1.4	-850	-0.7	1,455	1.2	135	0.1
Nova Scotia	-8,420	-1.1	6,275	0.8	-4,885	-0.6	-6,450	-0.8	-1,275	-0.2
New Brunswick	-8,505	-1.3	-1,370	-0.2	-6,060	-0.9	-1,950	-0.3	-8,425	-1.2
Quebec	-141,725	-2.4	-63,295	-1.1	-25,560	-0.4	-37,430	-0.6	-57,315	-0.9
Ontario	-78,070	-1.0	99,355	1.2	46,965	0.5	-47,025	-0.5	51,905	0.5
Manitoba	-43,600	-4.6	-1,555	-0.2	-35,260	-3.5	-19,390	-1.9	-18,560	-1.8
Saskatchewan	-5,820	-0.7	-2,830	-0.3	-60,365	-6.4	-19,780	-2.1	-24,940	-2.7
Alberta	197,645	11.3	-27,675	-1.3	-25,005	-1.1	3,575	0.1	119,420	4.7
British Columbia	110,930	4.8	9,515	0.4	125,870	4.6	149,935	4.5	-23,630	-0.7

^aDifference between the number of incoming and outgoing migrants.

^bThese numbers are for internal migration only. They do not include the number of people who were outside Canada in 1996 and entered Canada between 1996 and 2001.

Source: Statistics Canada (2002b).

domestic migration; foreign migration is excluded.

Table 1 contains the migration data for the Canadian provinces for the last five census periods, covering 1976 to 2001. Given the period covered by the Index of Labour Market Performance, our analysis of migration data will focus on the last five-year period covered by the Canadian census, 1996 to 2001. Alberta recorded both the highest positive number and percentage of net migration: 119,420 or 4.7% of Alberta's population. Alberta was well ahead of the second-ranked province, Ontario, which recorded a net inflow of 51,905 individuals, or 0.5% of its population. Quebec recorded the largest negative net migration, with 57,315 people leaving the province between 1996 and 2001. Newfoundland recorded the largest negative net migration in percentage terms, with 6.1% of its population leaving the province over the five-year period.

Interestingly, Alberta ranked the highest amongst the Canadian provinces in the Index of Labour Market Performance, with a score of 7.8 (out of a possible 10). Ontario ranked second amongst the Canadian provinces, although with a somewhat weak score of 5.9. Newfoundland, which recorded the largest negative net migration percentage (-6.1%) also recorded the lowest score (3.5) and rank amongst the Canadian provinces on the Index of Labour Market Performance. In the Canadian context, the net movement of people between provinces, at least for the last five years covered by the Canadian census, correlates with the findings from the Index of Labour Market Performance.

One of the interesting insights from combining the information in table 1 above and the results contained in the Labour Market Performance section is that a high rate of net out-migration can actually improve a jurisdiction's score

and ranking in the Index of Labour Market Performance. For example, Saskatchewan recorded the second worst net migration rate for the period from 1996 to 2001, with 2.7% of its population (24,940) leaving the province. The outflow of its population, and in particular the fact that most of those leaving were working age,¹³ results in an unemployment rate that is lower than it would otherwise have been, which improves the province's overall score in the Index of Labour Market Performance.

The data for the United States (table 2) buttresses the findings discussed above wherein those jurisdictions maintaining strong labour markets, and indeed strong economies in general, tend to attract migrants while the opposite also holds. For example, Nevada and Arizona rank first and second in terms of positive net migration. Nevada attracted 233,934 net migrants over the period from 1995 to 2000, 15.2% of its popula-



Labour Market Performance

tion, while Arizona welcomed 316,148 net migrants over the same period, 7.4% of its population. Nevada and Arizona also perform well in the Index of Labour Market Performance, ranking first and third, respectively. On the other hand, Hawaii recorded the worst net negative migration of any US state, with 6.5% of its residents, or 76,133 residents, leaving the state between 1995 and 2000. Hawaii also performed poorly in the Index of Labour Market Performance, receiving a failing score (4.7) and ranking 44th.

Although the relationship of migration to labour market performance and, in particular, to the Index of Labour Market Performance requires more detailed research, the preliminary results outlined above indicate some positive relationship between the two measures. Additional information about the demographics of citizens emigrating and immigrating as well as more detailed economic data are required in order to make a more definitive statement about the relationship between the movement of citizens and labour market performance. However, the preliminary data confirm the economic intuition that citizens appear to pursue labour opportunities by leaving jurisdictions with poorly performing labour markets for areas with labour markets that are performing better.

Notes to Part I

¹Duration of unemployment data for 1999 and 2002 was reported for only a few states because the US Department of Labor deemed the sample for most of the US states too small. Also note that the US Census Bureau is currently moving from the US Standard Industrial Classification (SIC) system to North American Industrial Classification System (NAICS) and thus the Gross State Product data for 2002 at the subnational level (state) was not available for

Table 2: US Domestic Migration by State: 1995 to 2000

Area	Immigrants	Emigrants	Net Migration (Number)	Net Migration (Rate as a %) ^a
Alabama	326,212	300,389	25,823	0.6
Alaska	95,562	126,060	-30,498	-5.1
Arizona	796,420	480,272	316,148	7.4
Arkansas	252,100	209,984	42,116	1.7
California	1,448,964	2,204,500	-755,536	-2.5
Colorado	643,820	481,187	162,633	4.4
Connecticut	260,823	325,433	-64,610	-2.1
Delaware	101,461	84,078	17,383	2.5
Florida	1,860,772	1,253,749	607,023	4.4
Georgia	965,558	624,853	340,705	4.9
Hawaii	125,160	201,293	-76,133	-6.5
Idaho	182,929	149,082	33,847	3.0
Illinois	665,122	1,007,738	-342,616	-3.0
Indiana	451,397	429,772	21,625	0.4
Iowa	214,841	247,853	-33,012	-1.2
Kansas	276,786	284,578	-7,792	-0.3
Kentucky	318,579	284,452	34,127	0.9
Louisiana	253,520	329,279	-75,759	-1.8
Maine	107,999	104,359	3,640	0.3
Maryland	495,152	514,875	-19,723	-0.4
Massachusetts	446,849	501,557	-54,708	-0.9
Michigan	467,638	559,568	-91,930	-1.0
Minnesota	355,250	326,081	29,169	0.7
Mississippi	226,788	199,858	26,930	1.0
Missouri	473,369	427,316	46,053	0.9
Montana	111,530	116,696	-5,166	-0.6
Nebraska	154,025	169,378	-15,353	-1.0
Nevada	466,123	232,189	233,934	15.2
New Hampshire	162,250	134,347	27,903	2.5
New Jersey	534,578	717,407	-182,829	-2.4
New Mexico	205,267	235,212	-29,945	-1.8
New York	726,477	1,600,725	-874,248	-4.9
North Carolina	919,336	581,453	337,883	4.8
North Dakota	60,252	85,459	-25,207	-4.1

Table 2: US Domestic Migration by State: 1995 to 2000

Area	Immigrants	Emigrants	Net Migration (Number)	Net Migration (Rate as a %) ^a
Ohio	588,650	705,590	-116,940	-1.1
Oklahoma	322,500	305,613	16,887	0.5
Oregon	399,328	324,663	74,665	2.5
Pennsylvania	668,753	800,049	-131,296	-1.1
Rhode Island	96,980	93,744	3,236	0.3
South Carolina	442,449	310,244	132,205	3.7
South Dakota	72,548	85,016	-12,468	-1.8
Tennessee	567,966	421,652	146,314	2.9
Texas	1,362,849	1,214,609	148,240	0.8
Utah	242,189	216,893	25,296	1.3
Vermont	69,748	67,494	2,254	0.4
Virginia	821,738	746,008	75,730	1.2
Washington	618,395	543,065	75,330	1.4
West Virginia	138,487	149,241	-10,754	-0.6
Wisconsin	338,108	330,826	7,282	0.2
Wyoming	72,834	85,361	-12,527	-2.7

^aThe net migration rate was originally presented as a rate per 1,000 population based on an approximated 1995 population, which is the sum of people who reported living in the area in both 1995 and 2000, and those who reported living in that area in 1995, but lived elsewhere in 2000. It was re-calculated by the authors to show a percentage change in order to be consistent with the previous Canadian table.

Note: A negative value for net migration or the net migration rate is indicative of net out-migration, meaning that more migrants left an area than entered it, between 1995 and 2000. Positive values reflect net in-migration to an area.

Source: Franklin (2003a).

the United States at the time this study was written.

²Right-to-Work (RTW) refers to labour legislation that essentially precludes mandatory union membership and mandatory payment of union dues. There are 22 RTW states: 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. RTW states are generally located in the South, the Midwest, and the Southwest excluding California. There are

no RTW states in the Northeast or in the industrial belt surrounding Michigan.

³There are currently 22 US states with Right-to-Work (RTW) laws, representing 36.7% of the jurisdictions—10 Canadian provinces and 50 US states—that were studied. The number of RTW states for analytical purposes would actually be less than the current number of 22 since Oklahoma only recently enacted RTW laws (2001) and this would obviously have little affect on their performance over the last five years.

⁴A small difference exists between Canada's definition of "employable" and that of the

United States: Canada tabulates employment data for those over the age of 15 while the United States uses a threshold of 16 years of age.

⁵For further discussion of the economic effects of growth in public employment versus growth in private employment, see Clemens et al., 2003.

⁶In this instance as well, Canada tabulates employment data for those over the age of 15 while the United States uses a threshold of 16 years of age.

⁷For more information on the two countries' Unemployment Insurance systems, see, for Canada, <http://www.hrsdc.gc.ca/en/gateways/nav/top_nav/program/ei.shtml> and, for the United States, <<http://workforsecurity.doleta.gov/unemploy/uifactsheet.asp>>.

⁸As already mentioned, duration of unemployment data for 1999 and 2002 was reported for only a few states because the US Department of Labor deemed the sample for most of the US states too small.

⁹For a discussion of the economic effects of Unemployment Insurance programs, see Grubel and Walker, 1978.

¹⁰Figures are presented in 2001 Canadian dollars.

¹¹Note the deleterious effects associated with circumstances wherein wage growth consistently exceeds productivity growth.

¹²Please note that the interval years for Canada and the United States are different. Census data for Canada cover 1996 and 2001 while the data for the United States covers 1995 and 2000.

¹³According to the Statistics Canada 2002 report, Saskatchewan recorded one of the worst net emigration records for both the age group from 30 to 44 years as well as for those from 45 to 64 years. Specifically, Saskatchewan experienced a net outflow of 2.6% of those from 30 to 44 years old (ranking it second last) and a net outflow of 1.4% of those from 45 to 64 years old (ranking it third last) (Statistics Canada 2002b). In addition, a recent study by the Royal Bank concluded that Saskatchewan experienced the second worst emigration of skilled and knowledge workers in the country (Bastarache, 1999).

II. Labour Market Characteristics & Regulation

The second section of this study identifies and measures key characteristics and regulations that affect labour market performance in each of the 60 jurisdictions: (1) average public-sector employment as a percent of total employment; (2) average minimum wage as a percent of per-capita GDP; (3) average unionized employment as a percent of total employment; and (4) Index of Flexibility in Labour Relations Law. There is empirical evidence—as we show in this section—that each of these characteristics affect the performance of labour markets and it is not surprising to find that jurisdictions with unfavourable labour-market characteristics and regulations also experience poor labour-market performance.

Characteristic 1: Average Public-Sector Employment as a Percent of Total Employment (1998–2002)¹

The split between private- and public-sector employment is an important aspect of labour-market performance as the incentives, productivity, and performance of labour activity in the private sector is different from that in the public sector.² The following brief discussion outlines some of the important

differences between the private and public sectors.

First are budget constraints, which Kornai (1992) identified as one of the major and unchangeable differences between private-sector business enterprises and government. Government budget constraints are “soft” since it is impossible for government to be decapitalized whereas budget constraints in the private sector are “hard” since losses lead to a decrease in capital and ultimately to bankruptcy. The real risk of bankruptcy and failure forces the private sector to react to consumers’ demands and preferences and to allocate capital efficiently to maximize returns. The public sector, with its softer budget and no risk of bankruptcy, faces no such competitive pressure.

Another key difference is that governments are preoccupied with fulfilling social goals and objectives rather than pursuing economic or business objectives (Megginson and Netter 2001). This often leads to the inefficient allocation of resources. Megginson and Netter (2001) found that government businesses tend to develop with less capital and thus are more labour intensive than their private-sector counterparts. Gylfason et al. (2001) found that across countries investment and economic growth during the period from 1972 to 1992 were inversely related to the size of the state enterprise sector (measured by

government employment as a share of total employment). Ehrlich *et al.* (1994) found that the under-capitalization of government entities leads to lower total factor productivity and labour productivity.³ Lower labour productivity is of particular concern, given that research shows that public-sector employees tend to be paid a wage premium compared with their private-sector counterparts.⁴

Another important difference—one that particularly affects employee incentives and consumer prices—is that government entities tend to operate in a monopoly environment that precludes competition whereas private-sector businesses normally operate in highly competitive markets. The monopoly environment within which the public sector generally operates results in significantly diminished pressures to serve consumers, react to market demands, and offer competitive prices. In fact, the general characteristics of a monopoly are poor customer service, lower quality products, and higher prices.

Characteristic (1) is a measure of the ratio between total employment in each province or state and public-sector employment, both directly in government as well as in government business enterprises. Note that two separate measures have been used: the first excludes federal employees (including government business enterprises at a federal level) while the second includes them.

The reason for the two measures is quite simple: provincial and state governments have little, if any, control over the location of federal employees but the presence of such employees and, thus, of the larger public-sector in the jurisdiction will influence the performance of the labour market.

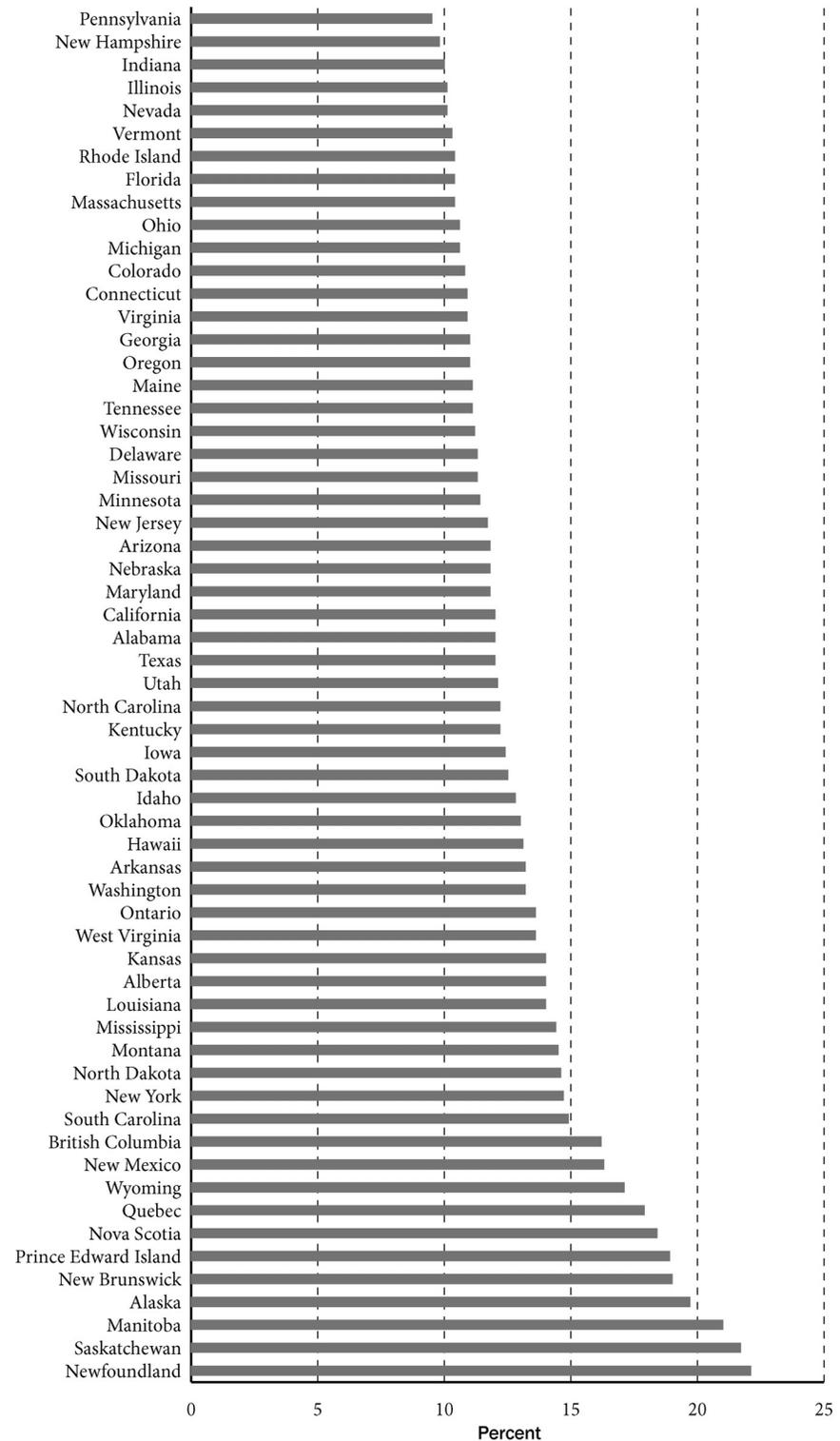
Observations

In terms of the first measure, which excludes federal employees and thus only counts public-sector employment at the sub-national level, Pennsylvania tops the list of Canadian provinces and US states with the lowest percentage of its employment in the public sector, 9.5%. The Northeastern US states generally dominated the top of the rankings, occupying five of the top 10 rankings.

Ontario was the highest ranked Canadian province. Unfortunately, it ranked 40th with 13.6% of its total employment represented by the public-sector. Alberta followed Ontario closely at 43rd position with 14.0% of employment in the public sector. Newfoundland occupied the last position, with public-sector employment representing 22.1% of total employment, more than double the rate of the top-ranked jurisdiction, Pennsylvania. The results for Canada worsen when the bottom 10 jurisdictions are examined. Seven of the bottom 10 jurisdictions are Canadian provinces: Quebec, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, and Newfoundland. British Columbia ranked 50th, only one spot out of the bottom 10 jurisdictions.

Including federal employees does not, generally, influence the rankings to any great extent, although there are some interesting changes. Pennsylvania retains the top position with the lowest level of employment represented by the

Characteristic 1a: Average Provincial/State and Local Government Employment as a Percentage of Total Employment, 1998–2002



Sources: Statistics Canada, Public Institutions Division, Financial Management System, 2004; US Department of Labor, Bureau of Labor Statistics, 2004b; calculations by the authors.



Characteristic 1b: Average Federal, Provincial/State and Local Government Employment as a Percentage of Total Employment, 1998–2002



Sources: Statistics Canada, *Labour Force Historical Review 2003* (CD-ROM); US Department of Labor, Bureau of Labor Statistics, 2004b; calculations by the authors.

public-sector, 11.5%. Eight of the top 10 jurisdictions remain in the top 10 after the inclusion of federal employees, although several experience changes in their ranking.

Alberta moves up to 33rd position overall and becomes the highest-ranked Canadian province with 15.5% of its employment in the public-sector. Ontario actually improves its ranking to 37th position with 16.1% of its employment in the public-sector but drops to second position in the Canada-only ranking. Six of the bottom 10 positions are occupied by Canadian provinces; Quebec ranks 50th, missing the bottom 10 by one position. Newfoundland moves to 59th position with Alaska receiving the dubious distinction of ranking last, with over one quarter (25.5%) of its employment constituted by the public sector.

Characteristic 2: Average Minimum Wage as a Percent of Per-Capita GDP (1997–2001)

High minimum wages reduce employment opportunities for young and unskilled workers⁵ and do not necessarily raise the incomes of the poor.⁶ In addition, high minimum wages restrict the ability of employers and employees to negotiate mutually beneficial contracts. In particular, minimum-wage legislation restricts the ability of low-skilled workers and new entrants to negotiate for employment they might otherwise accept.⁷

There are a number of empirical studies that have documented the negative effects of high and increasing minimum wages, such as the reduction in youth employment. For instance, Baker,

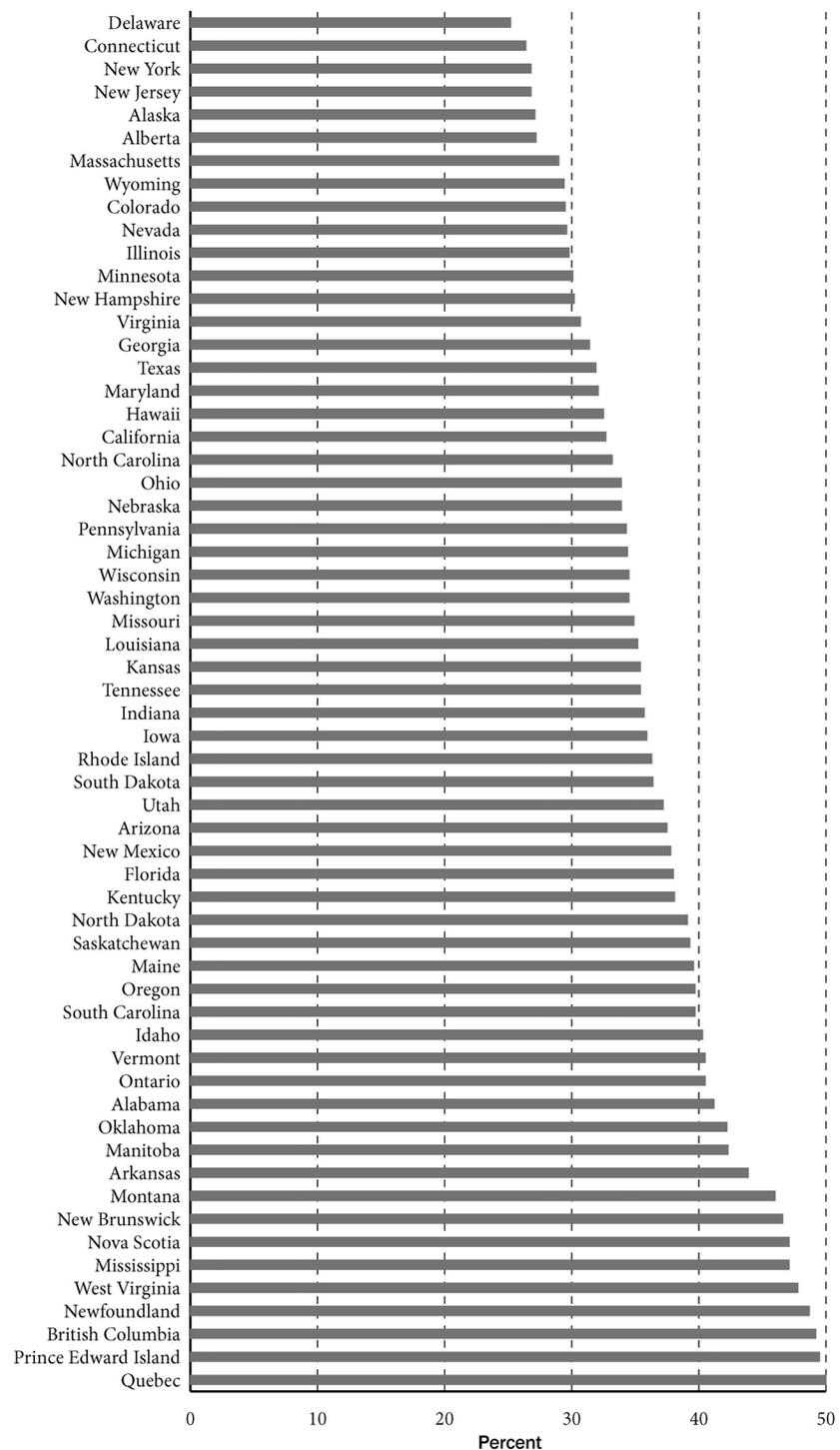
Benjamin, and Stanger (1999) found that a 10% increase in the minimum wage resulted in a 2.5% decline in employment.⁸ In addition, Williams and Mills (2001) found that changes in minimum wages account for 7% to 10% of the variation in teenage employment rates. More recently, Neumark and Wascher (2004) analyzed the effects of minimum wage in 17 OECD countries from 1975 to 2000 and found that rigid labour standards and higher union coverage strengthens the negative effects of minimum wage on employment.

Increases in the minimum wage have other adverse economic impacts. Empirical studies show that when minimum wages rise, employers offer fewer fringe benefits and reduce on-the-job training.⁹ Furthermore, high minimum-wage rates are associated with higher school dropout rates, as the increase in the minimum wage induces teenage workers to leave school in search of employment.¹⁰ For example, Chaplin, Turner, and Pape (2003) recently concluded that higher minimum wages were related to reduced school enrolment among teenagers, particularly among students making the transition from grade 9 to grade 10.

Another factor concerning minimum wages that is often overlooked is the age of those who generally receive such wages. Most minimum-wage workers are young: over 60% of men and women working at minimum wage are between 16 and 24 years old; over 60% of these young minimum-wage workers live at home with their parents. The “typical” minimum-wage worker is, therefore, a young person living at home with his or her parents (Sussman and Tabi, 2004).

In addition, and perhaps most surprising, international evidence shows that most of those earning minimum wage

Characteristic 2: Average Minimum Wage as a Percent of GDP per Capita, 1997–2001



Sources: Human Resources Development Canada, 2004; Statistics Canada, Provincial Economic Accounts, 2003; Council of State Governments, *The Book of the States* (various issues); US Department of Labor, Employment Standards Administration Wage and Hour Division, 2003; US Department of Commerce, Bureau of Economic Analysis, 2003; calculations by the authors.



are not in low-income families. Rather, they tend to be young people working part-time while living in high-income homes. Increases in the minimum wage are, therefore, unlikely to “trickle down” to low-income households. The benefits of higher minimum wages accrue largely to teenagers and young workers living in relatively affluent households.

Furthermore, minimum wage workers tend to work for minimum wage for only a short period of time. Even and Macpherson (2004), for example, found that in the United States between 1998 and 2002, wage growth was 10.4% for employees earning minimum wage and only 1.7% for those earning above minimum wage. They also found that from 1979 to 2003, two thirds of minimum wage workers received a wage increase above the minimum wage within one year.

Average Minimum Wage as a Percentage of GDP is obtained by calculating the annual income earned by someone working at the minimum wage as a ratio of per-capita GDP, the average value of all goods and services produced per person in a jurisdiction over a specific time period. Since per-capita GDP is a proxy for the average productivity in a jurisdiction, this ratio takes into account differences in the ability to pay wages across jurisdictions based on productivity. As the minimum wage grows relative to productivity, the range of employment contracts that can be negotiated is reduced and economic performance is eroded.

Observations

Delaware again ranks first, its minimum wage constituting 25.2% of average per-capita GDP in the state. In other words, a citizen of Delaware earning the minimum wage could earn a little over 25% of the average per-capita GDP

(income) of the state. Alberta was again the top-ranked Canadian province, occupying sixth position with a minimum wage of 27.2% of the province’s average per-capita GDP. Saskatchewan ranked next highest among Canadian provinces; unfortunately it was only able to achieve a ranking of 41st with its minimum wage representing 39.3% of the province’s average per-capita GDP. The Northeastern US states generally dominated the top of the rankings, holding five of the top 10 jurisdictions.

Quebec held the last position, ranking 60th out of 60 Canadian provinces and US states. Quebec’s minimum wage represented 50.0% of the province’s average per-capita GDP. Worse still for Canada, six of the bottom 10 jurisdictions were Canadian: New Brunswick, Nova Scotia, Newfoundland, British Columbia, Prince Edward Island, and Quebec. Manitoba narrowly escaped the bottom 10 by placing 50th.

Characteristic 3: Average Unionized Employment as a Percent of Total Employment¹¹ (1999–2003)

Another important structural attribute of labour markets is unionization. Unionization has been demonstrated to affect a number of economic variables, including productivity. A large body of empirical research has concluded that unionized firms perform worse on productivity growth, investment growth, employment creation, and profitability than non-unionized firms (Becker and Olsen, 1989; Maki and Meredith, 1986; Long, 1993; Addison and Wagner, 1993; Laporta and Jenkins, 1996; Hirsch, 1997; Maki, 1983; Freeman and Kellner, 1999; Vedder and Gallaway, 2002b;

Menezes-Filho, 1997). For example, Hirsch (1997), in a major review of research on unionization, noted that the evidence indicates that unions tend to increase wages, reduce profitability, and reduce investment in physical capital and research and development; they also lower employment growth.¹² Hirsch described the wage premium as a tax on capital, which effectively lowered the net rate of return on investment. Furthermore, Betts et al. (2001) using data from 1968 to 1986 for 13 Canadian industries found that unionization rates had a negative impact on research and development spending. Specifically, he found that an industry with an average unionization rate maintained R&D spending of 28% to 50% lower than otherwise would be expected. Connolly et al. (1986) similarly found that unionization reduces returns and thus spending on R&D. Similarly, Metcalf (2003) compared the productivity of unionized labour in the United States, Canada, United Kingdom, Japan, Germany, and Australia. He found that unionization reduced investment by one fifth compared with the investment rate in a non-union workplace for North America and parts of Europe.

A more recent study published by the World Bank corroborates the findings of earlier studies. Aidt et al. (2002), in a literature review on unions and their effects on economic performance, concluded that union members and other workers covered by collective agreements receive, on average, wage premiums over their non-unionized counterparts in developed and developing countries. Furthermore, Aidt et al. noted that net profits, investment rate (physical capital), and spending on research and development tend to be lower in unionized than in non-unionized firms even though unionized firms tend to adopt new technology as fast as non-unionized firms.

Empirical research also indicates that high rates of unionization are associated with poorer labour market performance (Rama 2003). Similarly, Vedder and Gallaway (2002b) found that the ratio of employment to population and unemployment have been adversely affected by unions. They also noted that while it is true that some individual workers have benefited from unions, the aggregate impact of unions is strongly negative. It is clear that unions in general reduce labour-market flexibility and productivity, and adversely affect the overall efficiency of labour markets. It is, therefore, critical to measure the extent of unionization, in both the public and private sectors.

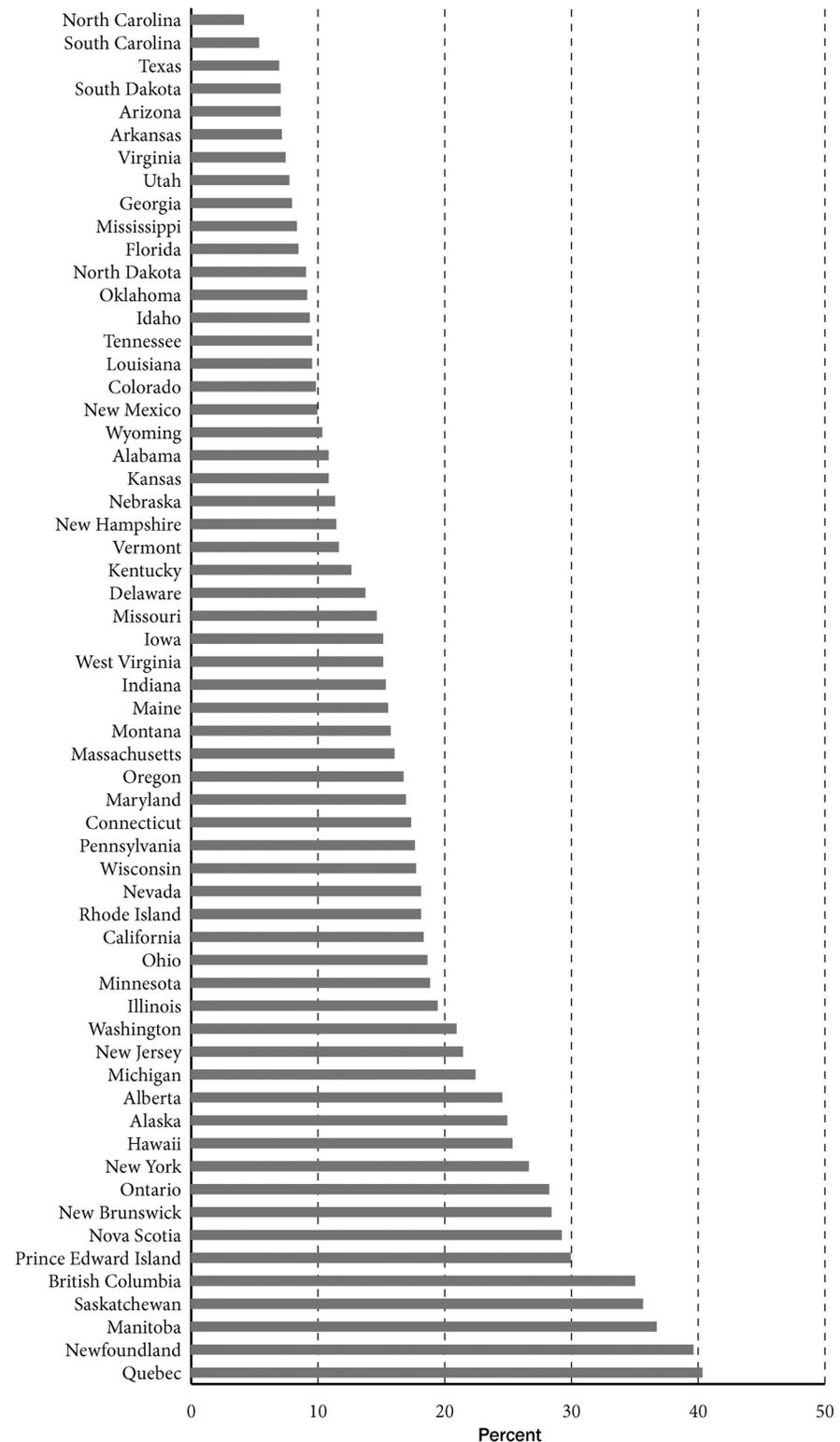
This labour market characteristic measures the percentage of total employment represented by unionized employment, on average, over the last five years (1999–2003).

Observations

North Carolina maintains the lowest ratio of unionized workers to total employment, with 4.1% of its employment unionized. South Carolina ranks a close 2nd, with 5.3% of its employment unionized. The top-ranked Canadian province was Alberta. Unfortunately, it ranked 48th with 24.5% of its employment unionized. Worse still, Alberta performed better than only three US states: Alaska, Hawaii and New York State. Canadian provinces occupied ranks 52 to 60—the bottom nine positions. Quebec attains the dubious distinction of occupying last place with 40.3% of its employment unionized.

The top 10 jurisdictions are dominated by Southern US states (7) and to a lesser extent Southwestern US states (2). The Right-to-Work states, not surprisingly, are at the top of the rankings. RTW

Characteristic 3: Average Unionized Employment as a Percentage of Total Employment, 1999–2003



Sources: Statistics Canada, *Labour Force Historical Review 2003* (CD-ROM); Hirsch and Macpherson, 2003. Available at <<http://www.unionstats.com/>>.



states occupied 10 of the top 10 rankings and 18 of the top 20 rankings.

Part of the explanation for the Canadian provinces' poor showing is contained in the first labour-market characteristic, the percent of workers employed by the public sector. There is a much higher propensity for the public sector to be unionized than for the private sector.¹³ For example, in 2003, 19.9% of the private sector was unionized in Canada while 75.6% of the public sector was unionized.¹⁴ The fact that Canada generally maintains a larger public sector than the United States is, therefore, an important explanation for the higher rates of unionization observed in Canada.¹⁵

Another potent explanation for the difference between Canadian and US unionization rates is the presence of closed-shop unions in Canada, which are outlawed in all US states. Closed-shop unionism basically requires workers to join a union or bargaining agent as a condition of their employment and pay full union dues (see Characteristic 4: Index of Flexibility in Labour Relations Law for further information). In other words, individuals wishing to work at a unionized company must join the union and pay full union dues. A number of studies have suggested that such differences in the choice afforded workers in the two countries accounts for some of the observed differences in unionization.¹⁶

Characteristic 4: Index of Flexibility in Labour Relations Law

The final characteristic of labour markets is the flexibility of labour relations laws in Canadian provinces and US states. This indicator is based on the Fraser Institute's larger study, *Mea-*

suring the Flexibility of Labour Relations Laws in Canada and the United States (Karabegović, et al., 2004). This measure is intricately related to the previous measure, unionization, since to a great extent, the flexibility and choice included in labour relations laws is highly correlated with unionization levels.

The flexibility of labour laws is crucial in providing an environment that encourages productive economic activity. Labour relations laws biasing one group at the expense of another, or which are overly prescriptive, inhibit the proper functioning of a labour market and thus reduce its performance. 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 faster rates of economic growth (OECD, 1994b). For example, a recent study by Besley and Burgess (2004), studying labour market regulation in India from 1958 to 1992, found that jurisdictions that legislated labour relations in a direction favouring one group over another experienced lower output, employment, investment, productivity, and increased urban poverty. Furthermore, empirical research indicates that rigid labour relations laws increase unemployment and reduce participation rates of young and elderly (see Bierhanzl and Gwartney, 1998; Bertola et al., 2002; Salvanes, 1997).

This indicator evaluates labour relations laws in the private sector for the 10 Canadian provinces and 50 US states based on whether or not they facilitate flexibility and choice by balancing the needs of both employers and employees. There are 10 components grouped into four areas: (1) Certification and Decertification, (2) Union Security, (3) Mandatory Clauses, and (4) Labour Disputes. A composite measure of

labour relations flexibility is also calculated so as to present an overall assessment of a jurisdiction's approach to worker-employer relations.

An overall Index of Flexibility in Labour Relations Law is presented for each Canadian province and US state. The overall index is based on the scores obtained for each of the four areas of labour relations laws. It represents a measure of each jurisdiction's overall labour relations policy. Jurisdictions with more flexible labour relations laws receive higher scores while jurisdictions with less flexible labour relations laws receive lower scores.

Note that a score of 10 is not indicative of ideal labour relations legislation but rather is a relative measure of flexibility in labour relation laws across 10 Canadian provinces and 50 US states.

There are stark differences between jurisdictional authority over the regulation of relations among employers, unions, and employees in Canada and similar authority in the United States. In Canada, regulation and enforcement of labour relations is largely decentralized, and each province maintains its own set of labour relations laws. In the United States, on the other hand, private-sector labour relations laws are almost entirely centralized, regulated through federal law, and enforced under federal authority by the National Labor Relations Board (NLRB).

Since US labour relations laws are largely federal, the only difference among US states with respect to labour relations laws is whether or not a state maintains worker-choice, or Right-to-Work, laws. The 22 Right-to-Work states have the most flexible labour relations policy amongst the 10 Canadian provinces and 50 US states, each receiving a score of 9.2 out of 10. The remain-

ing 28 US states were tied for the 23rd position with an overall score of 7.9.

The Canadian provinces occupied the last ten positions (51st to 60th). The only province with a passing score (higher than 5) was Alberta, which had an overall score of 6.7. Quebec (score of 1.6) has the dubious distinction of maintaining the most rigid set of labour relations laws of any jurisdiction in Canada and the United States, followed closely by Saskatchewan (2.5) and New Brunswick (2.5).

A brief description and overview of the results for each of the areas covered by the Index of Flexibility in Labour Relations Law are presented below.

1. Certification and Decertification

Certification and decertification are the processes through which a union acquires and loses its power to be the exclusive bargaining agent for a group of employees. A number of aspects of certification and decertification were examined in order to ascertain how well a jurisdiction balanced the needs of workers, employers, and unions, including the use of mandatory secret ballot elections, balanced voting thresholds, and remedial certification.

Alberta and Ontario topped the rankings on this indicator, both with scores of 10. Most jurisdictions performed reasonably well on this measure of labour relations flexibility: only Manitoba did not receive a passing score (3.7), indicating relatively inflexible and biased rules for certification and decertification.

There were some interesting findings within the various aspects of the Certification and Decertification indicator. For example, five of the 60 jurisdictions

(Saskatchewan, Manitoba, Quebec, New Brunswick, and Prince Edward Island) do not require a vote by secret ballot in order for a workforce to become unionized. Four jurisdictions (Saskatchewan, Manitoba, Quebec, and Nova Scotia) maintain certification thresholds lower than the decertification thresholds, making it easier for a union to gain bargaining power than to lose such power through decertification.

2. Union Security

Provisions for union security determine whether or not an employer and a union may include clauses in their collective agreement that require membership in a union and mandatory payment of dues as a condition of employment. Provisions for union security vary from restrictive, where every worker must be a union member and pay full dues as a condition of employment, to flexible, where employees can choose whether to become a union member or to pay union dues.

The results for this measure of flexibility in labour relations laws indicate that there are three distinct groups of jurisdictions. The first group—and the one with the highest scores (10 out of 10)—are American Right-to-Work states, in which workers are permitted to choose whether or not to join a union and pay union dues. The second group, which scored 5 out of 10 and tied for 23rd position, are the American states without Right-to-Work legislation. Workers in these states are permitted to choose whether or not to join a union but must remit at least a portion of union dues to cover costs associated with negotiating and maintaining the collective agreement. The final group, the one that scores poorly on this measure are the Canadian provinces. All 10 Canadian provinces, in one way or another, per-

mit clauses in collective agreements that make union membership mandatory and require payment of dues in full.

3. Mandatory Clauses

Successor Rights

Successor employer provisions determine whether, and how, collective bargaining agreements survive the sale, transfer, consolidation, or any other disposal of a business. 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 impede the reorganization of the business and the efficient reallocation of its capital.

Characteristic 4: Index of Flexibility in Labour Relations Laws

	Overall Index (out of 10)	Rank (out of 60)
Right-to-Work States	9.2	tied for 1 st place
Non Right-to-Work States	7.9	tied for 23 rd place
Alberta	6.7	51
Ontario	4.6	52
Prince Edward Island	3.8	53
Newfoundland	3.3	54
Manitoba	3.0	55
Nova Scotia	3.0	55
British Columbia	2.9	57
Saskatchewan	2.5	58
New Brunswick	2.5	58
Quebec	1.6	60



The legislation in each Canadian province makes an existing collective agreement binding upon the new employer, when a business, in whole or in part, is sold, transferred, leased, merged, or otherwise disposed of. Conversely, it is rare in the United States for a purchaser to be responsible for the collective bargaining agreement made with the previous owner.

Treatment of Technological Change

Technological-change provisions in labour relations laws require a notice of technological investment and change by the employer to the union. These provisions are a barrier to technological change and could have serious and adverse effects on productivity. Only five jurisdictions, again all Canadian (British Columbia, Saskatchewan, Manitoba, Quebec, and New Brunswick) require that a notice be sent in advance when technological change is to be introduced that may affect either the collective bargaining agreement or employment. The remaining Canadian provinces and all US states have no such requirement.

Arbitration of Disputes

An important component of labour market flexibility is how disputes regarding a collective agreement, its meaning, application, and alleged violations are resolved when both parties cannot or no longer wish to negotiate a solution. Laws that force parties into immediate binding arbitration, without allowing voluntary efforts such as mediation, not only may impose a cost on both parties (for the arbitrator's fee) but may also create hostility between management and the union.

Only six jurisdictions, all Canadian (British Columbia, Saskatchewan,

Ontario, Quebec, New Brunswick, and Prince Edward Island), force immediate and binding arbitration. The remaining four Canadian provinces and all US states permit other voluntary mechanisms such as mediation prior to the use of binding arbitration.

4. Labour Disputes

Replacement Workers

In the event of a legal strike or lockout, an employer may wish to hire replacement workers. Employers can then continue partial business operations, maintaining market share, and securing investor confidence while addressing reasons for the strike. Only four jurisdictions, all Canadian (British Columbia, Quebec, Nova Scotia, and Newfoundland) preclude the use of temporary workers. The remaining six Canadian provinces and all US states either have specific legislation allowing replacement workers or maintain legal precedents that indicates their use is permitted. Employers in US states can, in some circumstances, hire permanent replacement workers.

Third-Party Picketing

Third-party (or second-site) picketing refers to the ability of striking workers and their union to picket and, therefore, disrupt the operations of enterprises not covered by the collective agreement. Two Canadian provinces, British Columbia and Alberta, specifically prohibit third-party picketing while the overall direction of the National Labor Relations Board in the US is to prohibit third-party involvement as much as possible. The remaining 8 Canadian provinces all permit third-party pickets through legal precedent.

Conclusion

Canadian provinces generally lag their US counterparts in the level of flexibility accorded workers with respect to their labour relations laws. Such flexibility has proven to provide great benefits to citizens in both the United States and around the world. Canadian provinces would be well advised to pursue greater flexibility in their labour laws in order to promote a higher performing labour market.

Other Areas of Concern

Labour Standards Acts

Another important component of labour law is contained in the various provincial governments' Labour Standard Acts. These laws cover such aspects of the labour market as mandatory overtime pay and exemptions from minimum wages. The following summarizes two of the main similarities and differences across provinces with respect to their Labour Standard laws and codes.

I. Overtime Requirements

All 10 provinces have some type of measure included in their Labour Standards Acts that requires overtime pay. Four provinces, British Columbia, Alberta, Saskatchewan, and Manitoba, have overtime requirements based on both the number of hours worked within a day as well as within a week. The remaining six provinces, those east of Manitoba, prescribe mandatory overtime payments based on a certain number of hours worked in a week. Table 3 presents the hour thresholds and exemptions for overtime pay for each province.

British Columbia, Saskatchewan, Manitoba, and Newfoundland maintain the

lowest weekly threshold for the number of hours required to receive overtime pay at 40 hours. In addition, British Columbia is the only province to impose a tiered system of overtime pay wherein hours worked in excess of 40 require 1.5 times normal pay and hours in excess of 48 require 2.0 times regular pay. Nova Scotia and Prince Edward Island maintain the highest number of hours required in a week to trigger overtime pay, 48.

Interestingly, several provinces (New Brunswick, Nova Scotia, and Newfoundland) restrict the application of overtime pay mainly to minimum-wage workers. This seems rather odd as it discourages employers from increasing the number of hours for low-skilled workers (minimum-wage workers) and encourages them to increase the number of workers.

2. Minimum Wage Exemptions

Another important aspect of the Labour Standards Codes is the minimum wage exemptions provided for in the various acts. Only three provinces, Saskatchewan, New Brunswick, and Newfoundland, do not provide exemptions from the minimum wage for certain types of employment. Alberta, for example, provides for not less than seven job classification exemptions, including farm and ranch employees, students, and instructors and counsellors at non-profit educational or recreational camps. Quebec and Nova Scotia include a number of broad job category exemptions. Interestingly, British Columbia's Labour Standards Act includes one of the broadest exemptions: non-experienced employees.

Table 3: Overtime Pay Requirements

	Numbers of Hours Required for Overtime Pay	Restrictions
British Columbia	40*	
Alberta	44	
Saskatchewan	40	
Manitoba	40	
Ontario	44	
Quebec	44	
New Brunswick	44	An employee cannot be paid less than 1.5 times the minimum wage for hours worked in excess of 44.
Nova Scotia	48	An employee cannot be paid less than 1.5 times the minimum wage for hours worked in excess of 48.
Prince Edward Island	48	
Newfoundland	40	An employee cannot be paid less than 1.5 times the minimum wage for hours worked in excess of 40.

Sources: See Employment Standard Acts References in the Reference Section.

Notes: *All provinces require overtime pay at the rate of 1.5 times the normal rate of pay, but British Columbia increases the rate of overtime pay to 2.0 times the regular rate of pay for hours in excess of 48.

Notes to Part II

¹Public-sector employment is specifically measured as the total number of government employees plus employees of government business enterprises (GBEs). Note that data for US states excluding GBE employment is not available.

²For a discussion of these differences, see Clemens and Esmail, 2002a, 2002b; Clemens et al., 2003.

³Ehrlich et al. (1994) found that a shift from state to full private ownership can increase the long-run annual rate of total factor productivity (TFP) by 1.6% to 2.0% and reduce the rate of unit cost by 1.7% to 1.9%. In addition, Johnes and Mygind (2002) found that, in Estonia, private ownership is 13% to 22% more efficient than state ownership and Hernandez de Cos et al. (2004) found, using data for Spanish manufacturing firms from 1983 to 1996, that public ownership has a negative impact on efficiency and that com-

petition has a positive impact on firm's performance. Similarly, Boubakri et al. (2004) found that privatization increases productivity, efficiency, and output in former state-owned firms in Asia.

⁴For further discussion, see Bender, 1998; Gunderson et al., 2000; and Mueller, 2000.

⁵It is important to note that many jurisdictions differentiate between minimum wages for younger, unskilled workers and minimum wages for older, more skilled workers.

⁶Vedder and Gallaway (2002a) found that from 1966 to 1998 minimum wages had little or not effect on poverty in the United States. They also found that an increase of \$1 in the federal minimum wage could cost American workers \$12 billion to \$15 billion per year.

⁷For a more thorough discussion of the economic effects of minimum wages, see Law, 1998 and Palda, 2000.

⁸Similarly, Burkhauser et al. (2000) found negative elasticity of teenage employment



with respect to minimum wage. Specifically, he found that the elasticity lies between -0.2 and -0.6 .

⁹Neumark and Wascher (2001) specifically found that “for young workers in their early 20s, the estimated effects indicate elasticity of the incidence of formal training with respect to the minimum wage ranging from about -1 to -2 , implying sizable deleterious effects of minimum wages. Moreover, there is little or no evidence that minimum wages raise the amount of training obtained by workers” (p. 591).

¹⁰Most minimum-wage workers are low-skilled workers. In 2003, over 40% of all minimum-wage workers were high-school dropouts. Less than 7% of minimum-wage

workers had a university degree (Sussman and Tabi, 2004). The nominal values of minimum wages in Canada in 2003 ranged from a low of \$5.90 in Alberta to a high of \$8.00 in British Columbia. The nominal values of minimum wages in the United States ranged from a low of US\$0.00 in several states, which essentially means the federal rate of US\$5.15 was applied, to a high of US\$7.15 in Alaska.

¹¹Note that self-employment is excluded.

¹²In fact, some studies have concluded that unionization negatively affects productivity (Clark, 1984; Hirsch, 1991a).

¹³It is important to recognize that public-sector unions tend to face different rules and thus behave differently from their pri-

vate-sector counterparts. For further information, see Christensen, 1980.

¹⁴Private-sector unionization ranged from a low of 8.3% in Prince Edward Island to a high of 28.4% in Quebec. Public-sector unionization rates ranged from a low of 70.4% in Nova Scotia to 81.4% in Quebec.

¹⁵Canada’s overall unionization rate in 2003 was 32.4% compared with 14.3% in the United States.

¹⁶For more information on how such legislation has affected unionization rates in Canada and the United States, see Taras and Ponak, 2001.

Appendix: Methodology

This report is written for the interested but non-technical reader. For those who require more detail, a technical discussion of the methodology is included here. The goal of this report was to develop an objective measure of labour-market performance. While it is impossible to eliminate all subjectivity, our goal is to minimize the degree of subjectivity.

Methodology for computing the Index of Labour Market Performance

The Index of Labour Market Performance assesses the performance of the 10 provincial and 50 state labour markets across five indicators:

1. Average total employment growth (1999–2003)

2. Average private-sector employment growth (1998–2002)
3. Average unemployment rates (1999–2003)
4. Average duration of unemployment (1996–1998/2000–2001)
5. Average productivity (1997–2001)

Each indicator is standardized such that the lowest score is zero and the highest score is 10. The scores of the five indicators are then averaged, with all five indicators given equal weighting, to obtain an overall score from 0 to 10 on the Index of Labour Market Performance. The jurisdictions are then ranked according to their final score.

Depending on whether higher values are indicative of better or worse labour-market performance, alternative formulas are used to transform the five

indicators to a 0-to-10 scale. When higher values are indicative of better labour market performance, the formula used to derive the 0-to-10 ratings is: $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the jurisdiction’s actual value for the indicator, V_{\max} is the maximum value among all of the jurisdictions and V_{\min} is the minimum value among all of the jurisdictions. A jurisdiction’s rating will be 10 when its value of the indicator is the highest among all jurisdictions and 0 when it is the lowest among all the jurisdictions. When higher values are indicative of worse labour-market performance, the formula used to derive the 0-to-10 ratings is $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10.

For details on how the Index of Flexibility in Labour Relations Law is computed, see Karabegović *et al.*, 2004.

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