

***Back-Up
to the
MB Check-Up 2003***

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1 EXECUTIVE SUMMARY

A Check-Up on the province's health

This is the second annual edition of the *Manitoba Check-Up*, developed by the Institute of Chartered Accountants of Manitoba to evaluate social and economic trends in the province. *Manitoba Check-Up* takes a unique approach to evaluating our province's "health" by focusing on three motifs: Manitoba as a place to *work, live* and *invest*. For each of these themes, we evaluate five key indicators that embody information about the current and past living, working or investing conditions in Manitoba.

Benchmarking

In the *Check-Up* exercise, Manitoba's progress is benchmarked against the three other western provinces, Ontario and the Canadian "average".

Highlighting challenges

This year, in addition to reporting on the state of the province, the *Manitoba Check-Up* highlights some challenges the province is facing in its desire for economic prosperity:

- *Post-Secondary Education* - Manitoba faces a dual challenge in post-secondary education. Not only does it have a low participation rate among its 18 to 24 population but growth of this age group is declining, which will result in a smaller pool of potential students to draw upon.
- *Taxation* - In 2002, Manitoba corporate and personal taxpayers carried the highest tax burden of the studied jurisdictions. New entrepreneurial investments will in large measure depend on improving the competitiveness of the province's corporate and personal taxation schedules.
- *Out-migration* - Between 1996 and 2001, Manitoba saw a net loss of 18,600 residents (1.8% of the population) to other provinces, the third-highest proportional inter-provincial outflow of all the provinces, including a consistent inter-provincial net out-migration in the 18 to 24 year old population.

Manitoba must address these issues as it moves toward prosperity. The province's CAs are confident that we are moving in the right direction to meet these goals. The key is that all Manitoba residents, including government, union leadership, company management and ownership, agricultural producers, community organizations and workers, need to work together to help solve these problems and help the province move forward.

Productivity results

Productivity has a direct link to competitiveness because it translates into impacts on profits, prices and wage rates.

Manitoba's productivity increase for the 1993-2002 decade was reasonable within the Canadian context but poor within an international comparison. The province's average annual increase 1.5 percent in labour productivity per worked hour for the decade was the same as the Canadian average.

The problem for Manitoba is that its overall productivity started at a lower level than the other benchmarked jurisdictions so it needed a stronger annual gain than 1.5 percent in productivity in order to make up ground over the decade. Manitoba's overall productivity on a per hour worked basis is 12 percent behind the Canadian average and 21 percent behind Alberta in 2002.

A recent Statistics Canada research report highlighted the productivity problem amongst Canadian provinces¹. The authors concluded that the lesser productivity performance of Manitoba was not due to the presence of larger natural resource sectors in other provinces. As well, relative to other provinces, Manitoba's core manufacturing industries² performed similarly to the core manufacturing industries of the major provinces. The Statistics Canada researchers attributed Manitoba's productivity shortfall to the relatively weaker productivity performance of its secondary and less intensive manufacturing industries and all types of its service industries.

Benchmarked on the international playing field, Manitoba's productivity performance is weak

In terms of 2002 productivity levels, France and Ireland rank no. 1 and no.2, respectively. The U.S. is in the fifth spot. Manitoba, Saskatchewan and BC are in the bottom tier of the 17 jurisdictions examined in this report. Manitoba is in the 16th spot³ and last spot, 26 percent less productive on a GDP per hour basis than the U.S.

These poor results directly translate into negative impacts on a jurisdiction's standard of living, as measured by GDP per capita. Harvard University economist Michael Porter has written that "The principal economic goal of a nation is to produce a high and rising standard of living for its citizens. The ability to do so depends not on the amorphous notion of 'competitiveness' but on the productivity with which a nation's resources ...are employed...Productivity is the prime determinant in the long run of a nation's standard of living, for it is the root cause of national per capita income."⁴

¹ Baldwin, J.R, J.-P. Maynard, D. Sabourin and D. Zietsma (2001) *Differences in Interprovincial Productivity Levels*. Analytical Studies Branch, Statistics Canada.

² Statistics Canada divided manufacturing industries into three categories (core, secondary and other) according to their degree of innovativeness. Core manufacturing industries consists of electrical and electronic products, machinery, pharmaceuticals, chemical and chemical products and refined petroleum.

³ There was a tie for the 11th spot amongst the 17 jurisdictions, hence the ranking list is shortened to 16.

⁴ Porter, M.E. (1990) *The Competitive Advantage of Nations*. The Free Press. New York, NY.

Winning the productivity game

Drawing from several prominent sources⁵, the following are the five key five factors for playing and winning at the productivity game.

- ★ Innovation
- ★ Investment
- ★ Skills
- ★ Collaboration
- ★ Competition

Manitoba's productivity and therefore its competitiveness is determined by innovation, which in turn needs investments in buildings, equipment and machinery, skills of well educated individuals to research, develop and implement new ideas, collaborative linkages and partnerships to share ideas and resources and intense rivalry to hone competitive instincts and abilities.

Social and economic forces mesh together to create the winning combination of innovation drivers. The *Check-Up* tracks several social and economic factors that have major influence over the province's innovation strength and productivity performance.

Mixed Investment Performance

2002 business investment levels⁶ were marked by declines in all studied jurisdictions, except Manitoba, which had a slight increase after a decline in 2001. Manitoba had the second highest rise in real business investment, 79.0 percent over the 1993-2002 decade, of the benchmarked jurisdictions. Despite these improvements, the province has a low level of business investment, 86 percent of Saskatchewan's level in 2002, despite having a larger economy than its neighbour to the west.

How does investment on the economy's leading edge look? Manitoba's venture capital investment was more than six times larger in 2002 than in 1993, reflective of the maturing of this capital pool over the decade. However its 2002 level (\$21.51) is less than a third of the Canadian average (\$73.02) and is last in the ranking of benchmarked jurisdictions. Manitoba had a 39.9 percent decrease in venture capital investment in 2002 over 2001.

⁵ U.K. Department of Trade and Industry (1998) *Our Competitive Future: Building the Knowledge Driven Economy*; Porter, M.E. (1990) *The Competitive Advantage of Nations*. The Free Press; Institute for Competitiveness and Prosperity (2002) Ontario Task Force on Competitiveness, Productivity and Economic Progress; Sharpe, A. (2003) *Why are Americans more productive than Canadians* in International Productivity Monitor. No.6.

⁶ Measured as investment in non-residential buildings and machinery and equipment

Nurturing high level skills, the challenge

To the good, Manitoba had the highest increase, 16.6 percent, in the post-secondary participation rate of its 18 to 24 population of any jurisdiction in our comparison over the last decade. Nevertheless, Manitoba's post-secondary participation rate of 24.9 percent is tied with British Columbia for last place and remains almost 10 percentage points below the Canadian average postsecondary education participation rate.

As well, post-secondary education attainment in Manitoba among those aged 25 to 54 has consistently ranked in last or second to last place over the last decade. Furthermore, while it has increased since 1993 and now stands at its ten-year high, the post-secondary attainment rate of Manitoba's labour force remains 6.1 percentage points below the Canadian average of 59.7 percent.

Manitoba faces a dual challenge in post-secondary education. Not only does it have a low participation rate among its 18 to 24 population but growth of this age group is declining, which will result in a smaller pool of potential students to draw upon.

The Manitoba provincial government has highlighted the importance of post-secondary education in its agenda. Provincial funding of post-secondary institutions has increased in overall terms and on an FTE student basis. In '99/'00⁷, provincial government funding per FTE student equaled \$12,294 in Manitoba, which was the highest among the western provinces, Ontario and Canada as a whole. However, operating costs have outpaced provincial funding increases. This fact together with Manitoba's chronically low post-secondary participation rate and declining student population pool present challenges to Manitoba's pressing need to increase post-secondary education to meet job market demands and achieve economic growth.

The taxation question

In 2002, Manitoba taxpayers carried the highest corporate tax burden of the studied jurisdictions. It has been above the Canadian average since 1999. The following table shows that the province's effective provincial corporate tax index stood above the Canadian average although declining from its peak in 2000. The Manitoba index had been steadily climbing since 1997 after falling in the 1993-97 period.

Direct Provincial Corporate Income Taxes as percentage of Corporate Profits (%)										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manitoba	15.3	13.0	13.6	11.5	10.9	12.0	13.2	14.5	13.5	12.8
Canada	13.5	10.9	11.5	12.5	13.7	13.2	12.3	11.9	11.9	11.9
BC	19.6	15.3	14.4	14.7	12.8	13.2	14.3	13.9	13.6	11.4
Saskatchewan	9.6	7.8	6.9	6.3	6.7	6.4	6.0	5.1	4.8	4.8
Alberta	11.8	9.8	10.3	11.7	12.6	11.2	9.2	6.9	6.0	5.7
Ontario	12.4	10.7	11.9	13.5	15.6	15.1	14.0	15.0	13.1	11.8

⁷ 99-00 is the most recent year available for an inter-jurisdictional comparison using Statistics Canada data.

A fundamental reason for the higher effective corporate tax burden is that the province has higher corporate tax rates as shown in the following table.

Corporate Tax Rates⁸					
	General Rate	Manufacturing Rate	Small Business Rate	Corporation Capital Tax (Non-Financial)	Corporation Capital Tax (Financial)
Manitoba	16%	16%	5%	0.3% – 0.5%	3.0%
British Columbia	13.5	13.5	4.5	nil	1.0 - 3.0
Saskatchewan	17	10	6	0.6	0.7 – 3.25
Alberta	13.0	13.0	4.5	nil	nil
Ontario	12.5	11	5.5	0.3	0.6 – 0.72 – 0.9
Quebec	9.04 – 16.25	9.04	9.04	0.64	1.28

Source: 2003 BC Budget Papers

Manitoba, along with Ontario, Quebec and Newfoundland also apply a payroll tax; Manitoba has the only in western Canada.

Manitoba also has a relatively high personal tax burden, which can possibly discourage entrepreneurial investments and the attraction of high performers from lower taxation jurisdictions. The following table presents provincial personal income taxes as a percentage of taxable income for several income levels.

Provincial personal income taxes as a percentage of taxable income (%)⁹					
	\$40,000	\$60,000	\$80,000	\$100,000	\$125,000
Manitoba	9.1	11.0	12.4	13.4	14.2
British Columbia	5.0	7.3	9.9	11.0	10.2
Saskatchewan	8.3	9.9	10.7	11.1	11.9
Alberta	6.0	7.3	8.0	8.4	8.7
Ontario	5.1	6.5	8.6	10.4	11.8

Source: 2003 BC Budget Papers

LIVE indicator results

When looking at the overall performance of Manitoba on the quality of life indicators, year on year judgments depend on the selected assessment time period. Manitoba's progress in improving quality of life over the last decade was adequate but unremarkable, ranking fourth among the

⁸ As of February 2003

⁹ The calculations are for rates in effect as of February 2003. The Government of Manitoba reduced its middle bracket rate from 14.9% to 14.0% as of the 2004 taxation year. This rate applies to taxable income between \$30,544 and \$65,000. It was 15.4% in 2002.

jurisdictions studied but for the most part below the national average and well back from the leader in every indicator. In 2002, however, Manitoba posted the best results of the benchmarked jurisdictions for the LIVE indicators, showing improvement in all except doctors per capita, which remained ostensibly unchanged.

This past year, Manitoba led in improvements in both disposable income and the proportion of families living below the low income cut-off. It also had the second highest reduction in crime.

Unfortunately, despite these recent improvements, Manitoba's standing in absolute terms relative to the other jurisdictions remains lack luster, ranking for the most part in fourth place but last in post-secondary attainment and second to last in disposable income. In fact, Manitoba's disposable income was 13.5 percent less than in top-ranked Alberta last year and 5 percent lower than the Canadian average.

Its 2002 rankings are low because the province did not make up much ground on the other benchmarked jurisdictions over the past decade. Manitoba made gains in all five LIVE indicators over the 1993-2002 period but fell short when compared to the other jurisdictions.

Collectively, trends over the last decade and Manitoba's current standing in absolute terms in all five LIVE indicators point to continuing challenges but the progress in the last year is hopeful that it will continue to pick-up progress and narrow its gap with the other jurisdictions.

WORK indicator results

Manitoba put up some reasonable numbers over the last decade in terms of addressing the quality of its work environment. It logged solid improvements in employment growth, narrowing the gender wage gap and keeping people in their jobs longer. In fact, the province out performed the national average on every work indicator but one, real wage growth. However, it should be noted that Manitoba's strong performance in employment growth is the result of the out-flow of workers to other provinces.

Manitoba's low wages have traditionally been counter balanced against the province's low housing costs. However, recent analysis is beginning to question the validity of this trade off. In 2002, Manitoba was able to make some progress on its problem indicator and eked out some real wage growth -- while all other regions saw declines -- and claimed a first place finish. In the process, Manitoba was able to hand the title of lowest real wages to their neighbours in Saskatchewan. However, as indicated above, despite this growth Manitoba's wage rate is still very low when compared to other regions and the national average.

Manitoba also turned in positive numbers for its female/male wage ratio and job tenure indicators. Employment growth saw a modest decline in 2002 but, far less than the national average. So, all in all, things look better for those working in Manitoba in 2002 but, areas such as wage rates and out-flow of workers to other provinces remain areas of concern.

INVEST indicator results

This past year, Manitoba demonstrated improvements in four indicators but none of the improvements moved the province into a demonstrably different position.

Manitoba witnessed an improvement in four of its indicators over the last decade: after-tax profits/GDP (rose 126.9 percent), real export price index (4.6 percent increase), unit labour cost (6.5 percent decrease) and taxpayer-supported debt (33.9 percent decrease). The non-residential construction cost index increased by 4.6 percent, whereas it declined in Alberta and Saskatchewan. These decade long changes put the province in the middle of pack in terms of registering decade long improvement.

Although the province has delivered improvements in most indicators over the past year and decade, it began the decade in a low position so its 2002 levels do not compare well against the other studied jurisdictions. Progress is being made but much more is needed to catch up and possibly surpass other jurisdictions.

It was shown in this report's feature on labour productivity¹⁰ that Manitoba trails the other provinces by a wide margin on this measure and fares poorly in an international productivity comparison. This poor productivity performance strikes right at the ability of Manitobans to improve their standard of living as captured by per capita GDP. The poor productivity performance, one example is that Manitoba manufacturing productivity is 48 percent of U.S. manufacturing productivity, is especially important because manufacturing is Manitoba's most important sector as measured by GDP.

The all important after-corporate income tax profits indicator is where Manitoba gets hit hard. The province does not have a good profit performance. Its level of before- and after-tax profits have remained less than half of Saskatchewan's, despite Manitoba having the larger economy. In recent years, the province showed the highest levels of corporate and personal taxation of the benchmarked jurisdictions.

¹⁰ As measured by GDP per hour worked

2 INTRODUCTION

A Check-Up on the province's health

This is the second annual edition of the *Manitoba Check-Up*, developed by the Institute of Chartered Accountants of Manitoba to evaluate social and economic trends in Manitoba. The *Check-Up* takes a unique approach to evaluating our province's "health" by focusing on three motifs: Manitoba as a place to *work, live* and *invest*. For each of these themes, we evaluate *five key indicators and several other sub-indicators* that embody information about the current and past living, working or investing conditions in the province. By looking at both the social and economic dimensions of life in our province, *Manitoba Check-Up* is intended to take a balanced and non-partisan approach to assessing changes in our province's health.

Benchmarking

In the *Check-Up* exercise, Manitoba's progress is benchmarked against the three other western provinces, Ontario and the Canadian "average".

Emphasis on progress

The *Check-Up's* emphasis on tracking progress (or lack thereof) differentiates it from other economic benchmarking exercises. Provinces or the country as a whole start at different levels, that is a given, but progress should be the goal, keeping in mind the starting point. If a jurisdiction starts behind in one area then more progress should be expected in order to "catch up".

Fluctuations, trends and rankings

Three sets of investment indicator results are presented.

- *Percent change over past year* that shows the "fluctuation" over the past year.
- *Percent change over the past decade* provides the long view perspective on the "trend" in an indicator. Part of an annual increase is a temporary fluctuation and another part will show up as a permanent increase in the long-term trend. It is important to distinguish between the one-year "fluctuation" and the decade long "trend" because different policy descriptions influence them¹¹.
- *2002 Rankings* identifies the "best" benchmarked jurisdiction and by how much the other jurisdictions fall short of the top ranked 2002 result.

¹¹ Solow, R.M. (2003) *Mysteries of Growth* in The New York Review of Books. Vol. 1 no. 11.

Multiple data sources

Data for *Manitoba Check-Up* is drawn from a number of sources: Statistics Canada; provincial government offices and analysts; financial institution reports; interviews with a range of experts throughout Canada – including representatives of provincial health care associations, economic development offices, or analysts at Statistics Canada; and, other published and internet sources.

The spotlight

Added to this year's *Check-Up* are several short pieces, which we have called "Spotlight on...". They delve into a topic in greater depth and include pieces on Manitoba productivity and post-secondary education opportunity.

Acknowledgements

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3 MANITOBA AS A PLACE TO LIVE

3.1 Introduction and Methodology

The LIVE indicators offer a measure of quality of life in Manitoba based on several key economic and social data sets that enable both changes in provincial quality of life to be tracked over time as well as comparisons to other western provinces, Ontario and Canada as a whole.

The LIVE Indicators are an adaptation of the UN Human Development Index (HDI) calculated by the World Health Organization (WHO). The UN developed the HDI to supplement Gross Domestic Product as a measure of quality of life by addressing four key socio-economic indicators – life expectancy, adult literacy, school enrolment and income. The HDI provides a valuable tool to measure and compare quality of life between countries as well as social progress over time.

Within a Canadian context, however, HDI is not very meaningful as little or no variation in the HDI indicators exists between provinces. In addition, Canada rates very high in terms of HDI by world standards. To illustrate differences and compare quality of life between provinces, other indicators more appropriate to a Canadian context have been selected.

In this section, a reading of a province's quality of life is taken by examining results and trends in five areas as follows.

- Income
- Health Care
- Post-Secondary Education
- Income Inequality
- Public Safety

A set of five indicators have been developed to track the five key areas that characterize a province's quality of life.

- *Income*

Real disposable income per capita illustrates differences and changes in purchasing power in real after tax earnings.

- **Health Care**

Number of physicians per 100,000 population measures primary resource availability in health care and was chosen because of its acceptance both in Canada and internationally as a primary measure for quality of health care.

- **Post-Secondary Education**

Attainment, i.e. percent of the labour force with a post-secondary certificate or higher examines the educational attainment of the 25 to 54 age group (i.e. the core working-age population)¹².

- **Income Inequality**

After-tax low income cut-off (LICO) tracks a “poverty line”. There are different definitions for this indicator but we use a Statistics Canada measure, which is the percentage of families that spend 20 percent more household (after-tax) income than the average Canadian family on basic necessities (i.e., food, clothing and shelter). The Low Income Cut-Off is adjusted for both family and community size and updated annually using either new expenditure survey data¹³ or the consumer price index.

- **Public Safety**

Number of property and violent crimes per 10,000 population, more commonly referred to as the crime rate, is used as the measure of public safety.

¹² This indicator replaces “total full-time post-secondary enrolment as a proportion of the 18 to 24 year old age group”, which was used in the *2002 Check-Up*, as a primary indicator. The change was made to capture the concept of educational attainment of the labour force, which speaks directly to its current capabilities. Enrolment as a proportion of the age 18-24 population communicates the concept of participation in post-secondary education.

¹³ Current LICO's are calculated based on 1992 family expenditure survey, adjusted by the consumer price index.

3.2 Key LIVE Results

In this chapter a summary of the following results for each indicator and studied jurisdiction are presented.

- Percent change over past year
- Percent change over past decade
- Ranking in 2002

3.2.1 Percent Change Over Past Year

Table 3-1 presents the percent change for each of the LIVE indicators for the western provinces, Ontario and Canada over the last year and how they rank ¹⁴ against each other on this criteria. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

		Disposable Income		Physicians Per Capita		Post-Secondary Attainment		Low Income Cut-Off		Crime Rate	
		%	rank	%	rank	% ¹⁵	rank	% ¹⁶	rank	%	rank
Manitoba	2001-2002	2.2	1	-0.9	6	0.0	4	-2.3	1	-2.1	2
Saskatchewan	2001-2002	-2.4	6	1.5	2	0.6	1	0.4	5	-2.3	1
British Columbia	2001-2002	-0.3	5	0.7	3	0.4	2	0.3	4	0.4	5
Alberta	2001-2002	0.3	4	7.5	1	0.3	3	-0.5	2	4.2	6
Ontario	2001-2002	1.0	3	-0.3	5	0.3	3	-0.4	3	-1.9	3
Canada	2001-2002	1.1	2	0.5	4	0.4	2	-0.5	2	-0.8	4

¹⁴ Rank #1 means that the jurisdiction has fared the best, and rank #6 means that a jurisdiction has performed the worst. For disposable income, physicians per capita and post-secondary attainment positive change (increase) means an improvement to the provincial quality of life. Conversely a negative change (decline) in the percentage of families in the low income group and the crime rate signifies an improvement in the provincial investment climate.

¹⁵ Change for the post-secondary education indicator (a percentage rate) is calculated as the absolute difference in percentage rates between year 2002 and first year in time series. This approach is adopted to ease reader interpretation of change in percentage rates.

¹⁶ Change for the low income cut-off indicator (a percentage rate) is calculated as the absolute difference in percentage rates between year 2002 and first year in time series. This approach is adopted to ease reader interpretation of change in percentage rates.

General observations about the past year's percentage changes in Manitoba quality of life indicators are as follows.

- Over the past year, Manitoba demonstrated the best overall improvement of the studied jurisdictions for the quality of life indicators. It showed improvements in three of the five LIVE indicators, achieving the largest increase (2.2 percent) in disposable income and largest decrease (-2.3 percentage points) in the portion of families below the low income cut-off line. It fared poorly on one indicator, physicians per capita, a 0.9 percent decrease.

General observations about the past year's percentage changes in the quality of life indicators are as follows.

Income (Disposable Income)

Manitoba was last year's leader in income improvement with an increase of 2.2 percent, which was twice the national average and slightly more than double that of Ontario, the next highest improver. Alberta followed with a slight gain of 0.3 percent. By contrast, Saskatchewan lodged the largest percentage loss in income last year with a 2.4 percent decline. British Columbia, the only other province to register a loss in income, posted a 0.3 percent loss.

Health Care (Physicians Per Capita)

Alberta saw the largest improvement, lodging a 7.5 percent increases in doctors per capita, which stood out significantly from all other jurisdictions. Alberta's increase was five times greater than the next highest gain by Saskatchewan of 1.5 percent. In contrast, all other jurisdictions remained virtually unchanged with increases or decreases of less than one percent, including Manitoba with a 0.9 percent decrease.

Post-Secondary Education (Post-Secondary Education Attainment)

Although the improvement was relatively small (0.6 percentage points), Saskatchewan had the largest gain in labour force educational attainment last year. By comparison, British Columbia and Canada as a whole showed a 0.4 percent improvement, Ontario and Alberta a 0.3 percent and Manitoba remained unchanged.

Income Inequality (Low-Income Cut-Off)

Manitoba had the strongest performance in reducing income inequality last year. Manitoba's decline of 2.3 percentage points was five times better than Alberta and Canada as a whole, and almost six times better than Ontario, all of which posted improvements of 0.5 percentage points or less. Both British Columbia and Saskatchewan, on the other hand, regressed slightly.

Public Safety (Crime Rate)

Progress in public safety last year showed fairly wide disparity amongst the jurisdictions. Saskatchewan had the largest improvement, followed closely by Manitoba and then Ontario. All three experienced decreases in their crime rate in the two percent range, whereas Canada as a whole saw a decrease of less than one percent. In contrast, the crime rate in British Columbia increased by 0.4 percent, whereas Alberta saw significant gain of 4.2 percent.

3.2.2 Percent Change Over Past Decade

Table 3-2 ranks the studied jurisdiction on their percentage change in each indicator for the 1993-2002 decade and how they rank against each other on this criteria. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

		Disposable Income		Physicians Per Capita		Post-Secondary Attainment		Low Income Cut-Off		Crime Rate	
		%	Rank	%	Rank	% ¹⁷	Rank	% ¹⁸	rank	%	rank
Manitoba	<i>1993-2002</i>	8.7	3	0.1	3	9.3	4	-3.7	2	-15.3	5
Saskatchewan	<i>1993-2002</i>	5.3	5	3.3	2	10.0	3	-1.9	5	4.6	6
British Columbia	<i>1993-2002</i>	4.2	6	-1.9	5	9.2	5	-0.2	6	-23.3	3
Alberta	<i>1993-2002</i>	12.8	1	5.5	1	6.5	6	-5.1	1	-22.4	4
Ontario	<i>1993-2002</i>	7.3	4	-7.4	6	11.7	1	-2.9	3	-35.0	1
Canada	<i>1993-2002</i>	9.9	2	-1.6	4	10.6	2	-2.6	4	-25.9	2

General observations about the percentage changes for the 1993-2002 decade in Manitoba quality of life indicators are as follows.

- Manitoba's improvement in quality of life over the decade can only be categorized as "so-so" or "middling". All of its indicators showed improvement but stood in the middle of the pack of benchmarked jurisdictions. Its best performance was a reduction of 3.7 percentage points in the percentage of families below the low income cut-off, which stood the province in second spot behind Alberta's 5.1 percent reduction for the 1993-2002 decade.

¹⁷ Absolute difference

¹⁸ Absolute difference

- Over the past decade, Alberta demonstrated the best overall improvement for the quality of indicators. It showed improvements in all indicators, achieving the highest improvements in disposable income, income inequality and doctors per capita.

Income (Disposable Income)

Saskatchewan's low percentage rise of 5.3 percent assured its unfortunate position in last place on this important indicator. Alberta led the way over the decade with a 12.8 percent increase in disposable income. BC had the lowest increase for the decade at 4.2 percent. It started the decade above the Canadian average and finished below it.

Health Care (Doctors per Capita)

Alberta, and to a lesser extent Saskatchewan, stood out with 5.5 and 3.3 percent increases in doctors per capita over the decade. These increases are in marked contrast to the static situation in Manitoba and declines in BC, Canada as a whole and especially the 7.4 percent drop experienced in Ontario. Alberta's increase is all the more remarkable given that it had a population growth rate of 16.6 percent over this same period, the highest of all the studied jurisdictions.

Post-Secondary Education (Post-Secondary Education Attainment)

All benchmarked jurisdictions but Alberta registered gains of between 9 and 12 percentage points in their post-secondary education attainment levels for the 1993-2002 decade. Relatively slower growth over the last decade resulted in Alberta slipping from first place to third and a slightly widened gap between British Columbia, Saskatchewan and Manitoba to the Canadian average.

Income Inequality (Low-Income Cut-Off)

Alberta and Manitoba came in with the biggest reduction of the portions of their families living below the low income cut-off level. Job creation and economic growth underlie both Alberta's and Manitoba's improved rankings, which saw Alberta jump from fifth place in 1993 to third every year since, and Manitoba shift up from last place to fourth since 1998. Saskatchewan's portion of its households living below the low income cut-off level went down by only 1.9 percentage points over 1993-2001, a much smaller decrease than top ranked Alberta's 5.1 percentage point decrease.

Public Safety (Crime Rate)

All jurisdictions, except Saskatchewan, saw a significant decrease in their crime rates over the decade and now stand at their ten-year lows. The decreases ranged from 35 percent for Ontario to 15.3 percent in Manitoba. Saskatchewan's 4.6 percent increase ran directly counter to the overall trend.

3.2.3 2002 Rankings

Table 3-3 presents the 2002 rankings for the studied jurisdictions on the five LIVE indicators and the percentage difference between the no.1 ranked jurisdiction and the others. The indicator level for the top ranked jurisdiction is given. This ranking shows where each jurisdiction stands in relation to the others. The percentage difference shows the gap between the leading jurisdiction and the others.

	Disposable Income		Physicians Per Capita		Post-Secondary Attainment		Low Income Cut-Off ¹⁹		Crime Rate	
	%	rank	%	rank	%	Rank	%	rank	%	rank
Manitoba	-13.5	5	-9.5	4	-11.3	6	13.7	4	63.0	4
Saskatchewan	-24.7	6	-22.1	5	-10.4	5	8.6	2	84.5	5
British Columbia	-10.3	4	<i>199/0 0,000</i>	1	-4.6	4	43.1	6	89.4	6
Alberta	<i>\$21,893</i>	1	-9.0	3	-1.7	3	18.1	3	41.4	3
Ontario	-2.8	2	-9.5	4	<i>60.4%</i>	1	<i>11.6%</i>	1	<i>406/ 0,000</i>	1
Canada	-8.5	3	-5.0	2	-1.2	2	21.6	5	21.4	2

General observations about 2002 rankings for Manitoba quality of life indicators are as follows.

- On an overall basis, BC, Saskatchewan and Manitoba had similar low rankings for 2002 on the five quality of life indicators. Manitoba's levels were lower than the Canadian average for all quality of life indicators but the low income cut off indicator. Saskatchewan had the lowest disposable income level by a wide margin, 24.7 percent less than top ranked Alberta. Manitoba was in fifth place, 13.5 percent lower disposable income than Alberta. The post-secondary attainment levels of Manitoba were approximately 10 percent lower than top ranked Ontario. Manitoba's doctors per capita level was similar to Alberta and Ontario, about 9 percent lower than top ranked BC.
- Ontario achieved the highest over all ranking for 2002 in the quality of life indicators by a wide margin. It had the highest post-secondary education attainment level, the lowest crime rate, the lowest portion of households reaching low income cut-off line and the second highest disposable income level. Only in the number of doctors per capita did Ontario slip into the bottom half of the group.

General observations about the 2002 rankings in the quality of life indicators are as follows.

¹⁹ The LICO ranking is for 2001, the most recent year that data is available.

Income (Disposable Income)

Alberta continued to have the highest personal income for the second consecutive year narrowly beating out Ontario, which prior to 2001 held first place throughout the rest of the decade. The rankings of the remaining jurisdictions have been the same since 1998.

Saskatchewan had the lowest disposable income level. While the gap between the top five jurisdictions is reasonably tight (within 13.5 percent), the difference between Alberta and last place Saskatchewan is almost twice this gap. As a result, Albertans had approximately one-third more per capita income than their neighbours in Saskatchewan in 2002. Furthermore, the gap between the Canadian average and the bottom three jurisdictions is widening.

Health Care (Physicians Per Capita)

British Columbia had the highest number of doctors per capita for the tenth consecutive year, despite a relatively small increase of 0.7 percent last year. Also noteworthy is Alberta's move up into third place from fifth, a position it had consistently held throughout the rest of the decade. Both standings are all the more remarkable given both province's much higher population growth rates of 16 and 16.6 percent respectively, compared to 0.5 to 12.9 percent in the other jurisdictions.

Saskatchewan stood last in the studied jurisdictions on this measure by a large margin, having more than 20 percent fewer doctors per capita than top ranked BC.

Post-Secondary Education (Post-Secondary Education Attainment)

Post-secondary education attainment of Ontario's labour force stood in first place for the fourth consecutive year and was the only studied province to exceed the national average. In fact, the rankings of all jurisdictions have remained constant since 1998.

Manitoba and Saskatchewan had post-secondary education attainment results in 2002 that were more than 10 percent lower than top ranked Ontario, a distressing outcome for an indicator that changes slowly over time.

Income Inequality (Low-Income Cut-Off)

Ontario ranked number one in reducing income inequality for the second year in a row. Saskatchewan was no.2 in 2001, but held the top ranking in 1999.

BC badly trailed the other studied jurisdictions on this measure in 2001, as it has throughout the 1992-2001 decade.

Public Safety (Crime Rate)

The highest ranking for public safety ranked went to Ontario in 2002 as it has consistently throughout the last decade. In fact, the rankings among the jurisdictions have remained basically the same over the last six years. BC and Saskatchewan have crime rates 89.4 and 84.5 percent, respectively, higher than Ontario's 406 crimes per 10,000 population rate.

3.3 Evaluation of LIVE Indicators

3.3.1 Disposable Income

Disposable Income Indicator

Real personal disposable income²⁰ per capita measures the amount of income earned from various sources per person after the payment of direct taxes and social insurance contributions to government.

This measure is adjusted for inflation, so it captures changes in purchasing power of income over time.

The latest census indicates that employment income, including earnings from both paid employment (wages and salaries) and self-employment, has remained by far the largest component of total family income accounting for 80 cents of every dollar²¹. Government transfer payments, such as old-age pensions, employment insurance benefits, child tax benefits and goods and services tax credits contribute 10 cents of every dollar to family income, while investment and other income make up the remaining 10 cents.

Disposable Income Trends

The main aspect of disposable income trends for the studied jurisdictions is the lackluster performance of Saskatchewan in 2002 and over the 1993-2002 decade. Saskatchewan's average disposable income is almost 25 percent less than top ranked Alberta. The gap has widened over the decade; in 1993 Saskatchewan's disposable income level was approximately 20 percent less than then top ranked Ontario's level.

Throughout the past decade, real personal disposable income per capita for Saskatchewan and Manitoba has consistently been lower than the Canadian average. Since 1997, however, disposable income in both provinces experienced fairly steady growth up to 2001. In 2002, Manitoba continued this positive trend, whereas Saskatchewan realized a slight decline. However, both provinces have lost ground over the past decade, as the gap between Canadian average disposable income and those of the two provinces has widened.

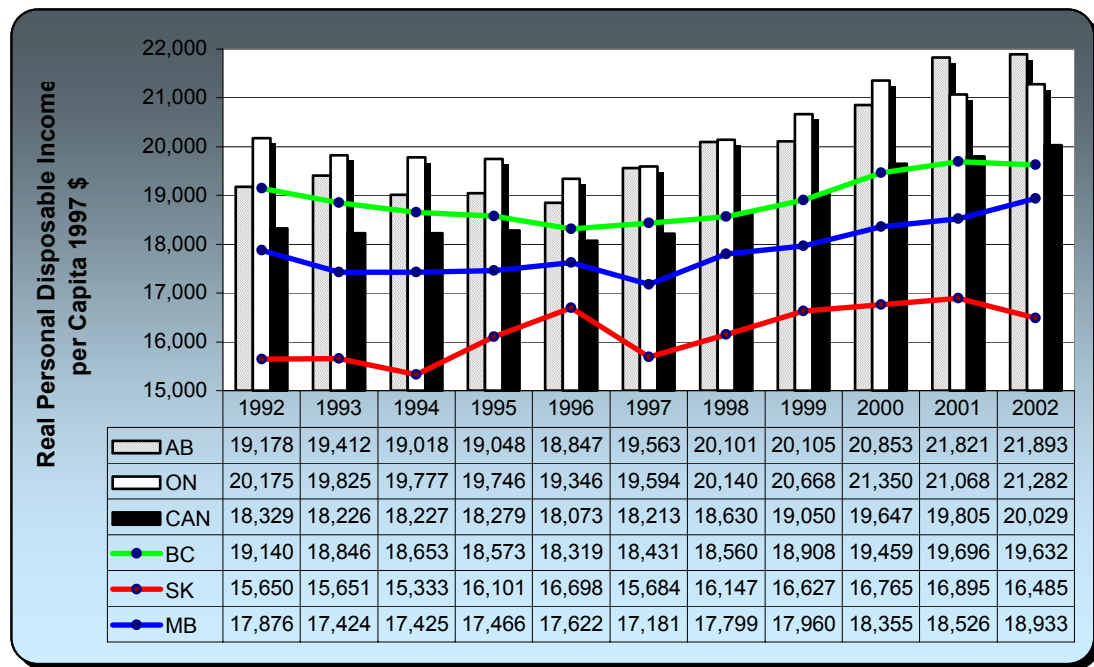
²⁰ Disposable income consists of all wages and salaries, self-employed and other unincorporated business income, interest and dividend income, plus unemployment insurance benefits and other transfers paid from governments received by persons, minus income taxes and social security premiums paid to governments. Statistics Canada calculates this series on an annual basis, working on a 4-year revision cycle. As a result, data continually changes and the quality of estimates improves over time. This year's personal income series have been revised back to 1981 by Statistics Canada, which has resulted in some revision of figures contained in last year's report.

²¹ Statistics Canada, Income of Canadian Families, 2001 Census (Analysis series), Catalogue 96F0030XIE2001014, May 2003.

Between 1993 and 2002, real personal disposable income per capita in Canada overall rose by 9.9 percent. Ontario and all of the western provinces saw gains over this period, but only Alberta surpassed the national average with an increase of 12.8 percent. Of the remaining provinces, Manitoba had the highest percentage growth at 8.7 percent, followed by Ontario with 7.3 percent, Saskatchewan with 5.3 percent and British Columbia with 4.2 percent.

In absolute terms, however, a slightly different picture emerges. Until 2001, Ontario had the highest real personal disposable income of the provinces under comparison, and exceeded the Canadian average. While real personal disposable income in Ontario remains higher than the national average, Alberta has taken over first place in the last two years. Conversely, real personal disposable income in British Columbia dropped from third to fourth place in 1998 behind Ontario, Alberta and the national average. Today, it is still slightly below the Canadian average and the gap appears to be widening. Figure 3-1 presents real personal disposable income trends for the benchmarked jurisdictions.

FIGURE 3-1: REAL PERSONAL DISPOSABLE INCOME PER CAPITA, PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada

Disposable Income Drivers

In Manitoba, although employment growth was lower than the national average, above average growth in personal income, low inflation and a slight decrease in taxes all worked together to produce the largest increase in personal disposable income of all the provinces in this comparison and Canada as a whole between 2001 and 2002.

2002 saw an annual gain in real disposable income in Canada overall, Ontario, Alberta and Manitoba. The average Canadian took home \$20,029 (\$1997) in 2002, up 1.1 percent from the previous year. Albertans took home \$21,893, Ontarians \$21,282 and Manitobans \$18,933, increases of 0.3, 1.0 and 2.2 percent respectively. Gains in Alberta reflect above average growth in employment and personal income, while Ontario's increase can be credited to a combination of moderate inflation and income tax cuts.

In 2002, Saskatchewanians took home \$16,485 and British Columbians \$19,632, down 2.4 and 0.3 percent respectively. These drops were driven by real wage declines in both provinces, due in large part to the Prairies' drought and resulting agricultural crisis in Saskatchewan and on-going economic restructuring in British Columbia. Both provinces also experienced inflation above the national average. In addition, whereas British Columbia benefited from a significant tax reduction, total taxes²² in Saskatchewan increased slightly, despite reductions in personal income taxes over the last three years.

Manitoba Disposable Income

An inflation rate in Manitoba that ran above the Canadian average in the 1990's completely outstripped gains in nominal earnings, resulting in an overall decrease in real wages²³. Several other reasons underlie Manitoba's slow decline and subsequent upturn in real personal disposable income per capita over the past decade. The province has seen shifts in employment away from agriculture towards the manufacturing, health care and social services, and professional, scientific and technical services sectors, as well as from the goods producing sector to the service sector. Changes from part-time to more full-time work have also occurred. Growth in direct taxes per capita significantly exceeded growth in personal income²⁴ until personal income tax reductions were introduced in the late 1990's.

Over the last decade, Manitobans experienced slightly higher (than Canadian average) growth in pre-tax personal income. Although erratic, the rate of increase in farm income per capita has significantly outpaced growth in personal business income, which in turn, has outpaced growth in both wages and salaries per capita and transfers from government. Growth in investment income has been fairly static. Nevertheless, increased per capita income derived from wages and salaries represented almost two-thirds of the \$6,583 pre-tax personal income gain between 1993 and 2002. Personal business and farm income per capita and transfers from government accounted for the remaining third.

The increase in pre-tax income, however, was partly offset by an increase in direct taxes, social insurance plan contributions and transfers to government, totaling \$1,734 per capita over the same period. Although social insurance plan contributions and transfers to government per capita comprise just under one-third of the tax burden, they were responsible for 36 percent of this increase (\$622). Direct tax cuts totaling \$174 per capita between 2001 and

²² Total taxes include both provincial and federal direct taxes, contributions to social insurance plans and other current transfers to government.

²³ See [WORK section](#)

²⁴ A 15.9 percent *increase* in direct taxes per capita between 1996 and 1997 explains the downward spike in real personal disposable income in 1997.

2002 moderated tax growth over the decade, resulting in a net increase of \$1,110 per capita. However, the rate of growth in this figure was much higher than the national average. The end result of growth in total taxes and corresponding slow growth in personal income has been an increase in the tax rate as a percentage of personal income over the decade, from 19.2 percent in 1993 to 21.0 percent today. This ratio peaked at 22.2 percent in 1997 and has declined since.

Inflation of 19.9 percent over the decade, which was slightly above the Canadian average, further eroded gains in personal income. The net result was an increase in real personal disposable income per capita of \$1,509 from 1993 to 2002, or 8.7 percent as cited earlier.

TABLE 3-4: INCOME DATA, MANITOBA, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Personal Income per Capita	19,863	19,840	20,287	20,980	21,590	22,082	23,053	23,609	24,870	25,706	26,423
Direct Taxes per Capita	2,695	2,612	2,778	2,955	3,061	3,548	3,614	3,623	3,884	3,896	3,722
Contributions to SI Plans per Capita	1,065	1,106	1,158	1,196	1,190	1,245	1,294	1,326	1,433	1,556	1,673
Other Current Transfers to Gov't per Capita	85	89	98	98	97	107	122	123	129	135	144
Total Taxes, Contributions & Transfers	3,845	3,806	4,034	4,250	4,347	4,901	5,031	5,071	5,446	5,586	5,540
Disposable Income per Capita	16,018	16,034	16,253	16,730	17,243	17,181	18,022	18,538	19,424	20,120	20,883
Consumer Price Index, All-Items (1997=100)	89.6	92.0	93.3	95.8	97.8	100.0	101.3	103.2	105.8	108.6	110.3
Real Disposable Income per Capita	17,876	17,424	17,425	17,466	17,622	17,181	17,799	17,960	18,355	18,526	18,933

Note: SI Plans refers to Social Insurance Plans

Source: Statistics Canada

In 2002, economic activity picked up in Manitoba, but remained below the national average. A 5.2 percent²⁵ unemployment rate marked the lowest incidence of joblessness amongst the provinces and real average wages increased slightly. Brisk job creation, decent income gains and low interest rates stimulated both residential construction and consumer spending. Farmers were spared the severe weather conditions that crippled agricultural production in other parts of the prairies. However, both manufacturing and exports softened during 2002.

²⁵ Ibid.

3.3.2 Evaluation of Health Care Indicator

Health Care Indicator

The number of doctors per 100,000 population is the selected indicator to reflect health care, largely because of its acceptance both nationally and internationally as a primary measure for this purpose.

While studies show that many factors contribute to population health, in particular socio-economic and lifestyle characteristics, quality of health care is certainly a contributing factor and one that influences people's choice on where to live. Naturally, the quality of the health care system relies on the availability of a broad spectrum of health care providers, including doctors, nurses, technicians, pharmacists and other specialists, their skill and a variety of physical resources. However, the physician-centred private practice continues to be the dominant model of primary health care delivery in Canada today.²⁶ While the correlation between health status and the number of doctors per capita in developed countries is weak and no standard exists as to the optimum ratio, this measure of primary resource availability remains the most accepted indicator for health care quality.

Concerns about the Canadian health care system came to a head in 2002 with the reporting out of two federal commissions on health care (Kirby and Romanow) and three provincial reports (Clair in Quebec, Mazankowski in Alberta and Fyke in Saskatchewan) and led to the signing of the First Ministers' Accord in February 2003 in which the federal government committed \$34.8 billion in new funding over the next 5 years. All the reports cited need for reform in the delivery of primary health care and additional funding by the federal government but also identified issues related to the short-supply, distribution, recruitment and retention of health care providers.

Health Care Trends

Although British Columbia retained the lead in having the highest ratio of doctors to population throughout the decade, Alberta stands out by achieving a 5.5 percent increase at the same time as having the highest population growth rate at 16.6 percent of all the compared jurisdictions. Saskatchewan maintained its last place ranking for physicians per capita throughout the 1993-2002 decade.

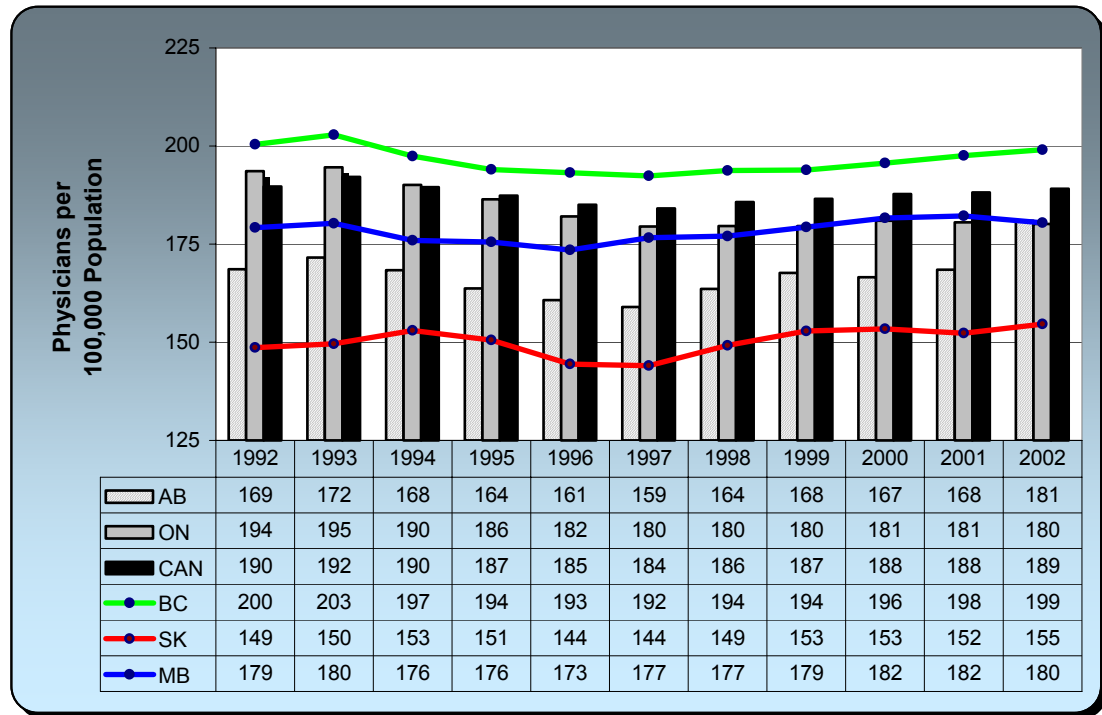
In fact, only Alberta and Saskatchewan posted gains between 1993 and 2002. However, Saskatchewan's 3.3 percent increase was at least partly aided by its essentially stable population base. In contrast, Manitoba, which had a 2.9 percent population increase, remained effectively unchanged, in its ratio of doctors per capita, while all other jurisdictions experienced declines.

Ontario experienced the most significant decrease of 7.4 percent which can only partly be explained by its population growth of 12.9 percent over this period. Dissatisfaction over government cost cutting and both work conditions and compensation disputes are also likely to blame. British Columbia's 1.9 percent decrease in doctors per capita can be partly justified by its

²⁶ Canadian Institute for Health Information, *Health Care in Canada 2003*.

high 16 percent population growth rate but this does not totally account for its substantially poorer performance relative to Alberta. A number of factors may explain this variation including differences in wage and tax rates, cost of living and availability of billing numbers. Canada as a whole as saw a decline of 1.6 percent relative to a 9 percent increase in population.

FIGURE 3-2: PHYSICIANS PER 100,000 POPULATION, PROVINCES AND CANADA, 1992 - 2002



Source: Canadian Institute for Health Information and Statistics Canada.

Health Care Drivers

Canada, like the US, the United Kingdom, Australia and many other countries, is experiencing a shortage of health care providers. In fact, Canada has one of the lowest ratios of practicing physicians per capita of OECD countries, ranking 24 out of 29 in 2000.²⁷ A variety of factors have contributed to this situation, including increased demand resulting from an aging population and more extensive treatments and therapies. However, both an insufficient supply and changing characteristics of physicians have also contributed to this shortfall.

Reacting to lower population growth than that previously projected, cuts in medical school admissions and restrictions on licensing of international medical graduates were instituted in the 1990's.²⁸ As a consequence, the number of admissions to medical school declined from their high of 1,887 in 1983/84 to a low of 1,577 in 1997/98 and only totaled

²⁷ OECD, *Health Data 2003*.

²⁸ Canadian Institute for Health Information, *Health Care in Canada 2003*.

1,763 in 2000/01.²⁹ In addition, a recent study reports that on average both female and older doctors work fewer hours than their younger male counterparts.³⁰ The average age of physicians in Canada has increased 47.1 percent in 1998 to 47.7 percent in 2002 and is even higher for specialists. The percentage of female doctors has also increased from 48.4 percent to 50.2 percent over the same period.³¹ Other factors affecting physician supply are increased physician retirement and increased time required for post-graduate training.³²

Manitoba Health Care

Manitoba's ratio of doctors per capita has remained basically stable over the past decade, aided by its relatively low 2.9 percent population growth. Nevertheless, like other jurisdictions, the impact of reduced work hours by female and older doctors and higher demand for care by the elderly and First Nation populations must also be taken into account. Manitoba has the second youngest physician workforce of the western provinces and Ontario, with an average physician age of 47.6 years.³³ Women comprise 27 percent of Manitoba's practicing physicians, up 1.4 percent from 1998 to 2002³⁴ and account for over 40 percent of medical school students. In addition, both Manitoba's elderly and First Nation populations are increasing. The ratio of doctors per capita age 80 plus has dropped 17 percent since 1993.

Manitoba also relies heavily on in-migration of doctors to meet its needs. Fifteen seats were added to the University of Manitoba's school of medicine in 2001 bringing the total to 85. However, the average attrition rate in the last two years was 190. Manitoba has been a net loser of doctors to inter-provincial migration, losing on average 40 doctors per year over the last five years to other provinces.³⁵ In 2002, 51 percent of Manitoba's practicing physicians were locally-trained³⁶. Another concern is the distribution within the province. Manitoba's rural areas have historically had difficulties in recruiting and retaining doctors and, as a result, have proportionately fewer doctors per capita. In 2002, 24.8 percent of all doctors practiced in outside Winnipeg, an increase of 2 percent over the decade.

Manitoba's Ministry of Health considers physician supply to be problem and have on-going initiatives to address the training, recruitment and retention of physicians, particularly for rural areas. In 2001/02, the province implemented a Medical Licensing Program for International Medical Graduates to facilitate accreditation of foreign-trained physicians and a Rural Physician Action Plan to increase recruitment and training of doctors for rural areas that incorporated a

²⁹ Canadian Medical Education Statistics, 2001; Association of Canadian Medical Colleges.

³⁰ Canadian Institute for Health Information, *From Perceived Surplus to Perceived Shortage: What happened to Canada's Physician Workforce in the 1990's*, June 2002.

³¹ Canadian Institute for Health, *Health Care in Canada 2003*.

³² Canadian Institute for Health Information, *From Perceived Surplus to Perceived Shortage: What happened to Canada's Physician Workforce in the 1990's*, June 2002.

³³ Canadian Institute for Health Information.

³⁴ Canadian Institute for Health Information, *Supply, Distribution and Migration of Canadian Physician, 2002*.

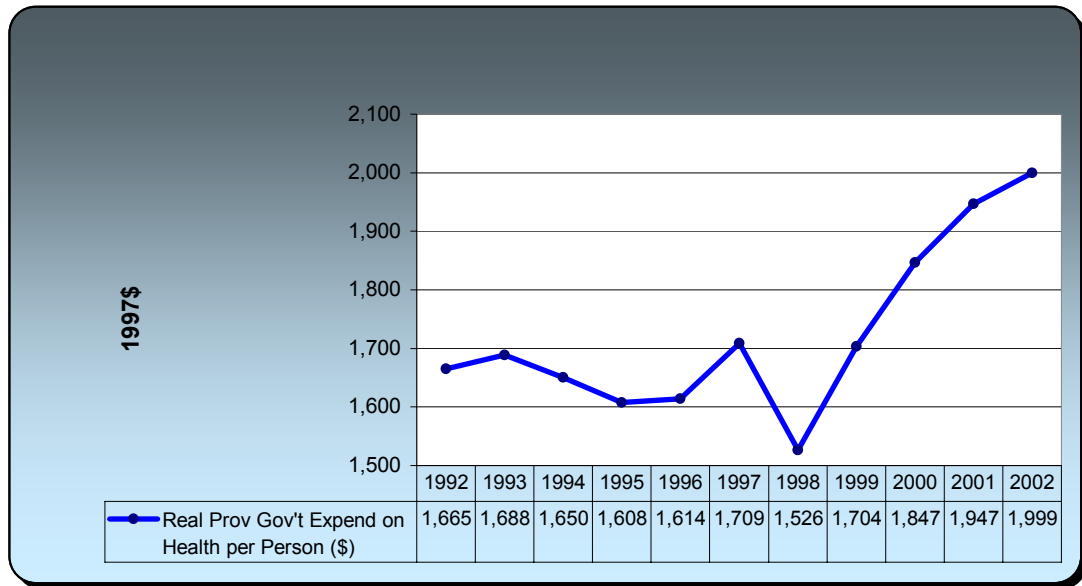
³⁵ Canadian Institute for Health Information, *Canada's Health Care Providers, 2003*.

³⁶ Manitoba College of Physicians and Surgeons, *Physician Resource Statistics*.

series of physician relief, training and support programs already in place.³⁷ In 2002/03, a physician resource plan is being developed with a report expected in December 2003.³⁸

Real provincial expenditures (constant \$1997) per capita on health care went up for the fourth consecutive year in 2002, increasing by 2.7 percent over last year. Manitoba's expenditure per capita last year was the second highest of the studied jurisdictions after British Columbia. The provincial budget for health care in 2003/04 was set at \$3 billion which represents 42 percent of operating expenditures.

FIGURE 3-3: REAL PROVINCIAL HEALTH CARE EXPENDITURE PER CAPITA, MANITOBA, 1992 - 2002



Source: Statistics Canada

³⁷Manitoba Ministry of Health, *Annual Report 2001-02*, November 2002.

³⁸ Manitoba Finance, *Budget 2003*.

3.3.3 Post-Secondary Education

Post-Secondary Education Indicator

Post-secondary education attainment, i.e. the percentage of the age 25 to 54 population with a post-secondary certificate or higher³⁹, is the selected key indicator to provide a perspective on the higher education level of the labour force. This indicator measures the educational attainment of individuals based on where they reside, and not necessarily where they obtained their education⁴⁰. They could have obtained their post-secondary education in Manitoba or outside of the province. *To round out the view on post-secondary education as a force in shaping Manitoba society and economy, we also present and discuss indicators that focus on creating the opportunity for provincial residents to obtain a post-secondary education.* These post-secondary education opportunity indicators are the post-secondary participation rate amongst the provincial age 18-24 population, enrolment trends and funding of post-secondary education per FTE.

High education levels among Canadians are a powerful contributor to the country's standard of living and growth opportunities. Rising labour force participation, declining rates of unemployment and higher salaries for both men and women are all generally associated with higher levels of education. In fact, the latest census shows a direct link between high educational attainment, particularly a university degree, and higher earnings. In 2000, more than 60 percent of top earners (\$100,000 or more) had a university degree⁴¹. By contrast, more than 60 percent of the lowest earners (less than \$20,000) had no more than a high school education.

Post-Secondary Education Attainment Trends

Educational attainment of the labour force has made steady gains over the past decade. Over half of the labour force in all jurisdictions within this comparison now have some form of post-secondary education. As shown in Figure 3-2, through the early part of the 1990s, the four highest levels of educational attainment have jockeyed among Alberta, British Columbia, Ontario and the Canadian average, whereas Manitoba and Saskatchewan have consistently been in either fifth or sixth place. Over the last four years, however, positioning has stabilized with Ontario in first place, followed by the national average, Alberta, British Columbia, and either Saskatchewan or Manitoba.

Since 1993, Canada as a whole, Ontario and all of the western provinces other than Alberta, experienced similar growth rates, ranging between 9.2 to 11.7 percentage points. Alberta's growth was significantly lower at 6.5 percentage points. This lower growth rate is partly

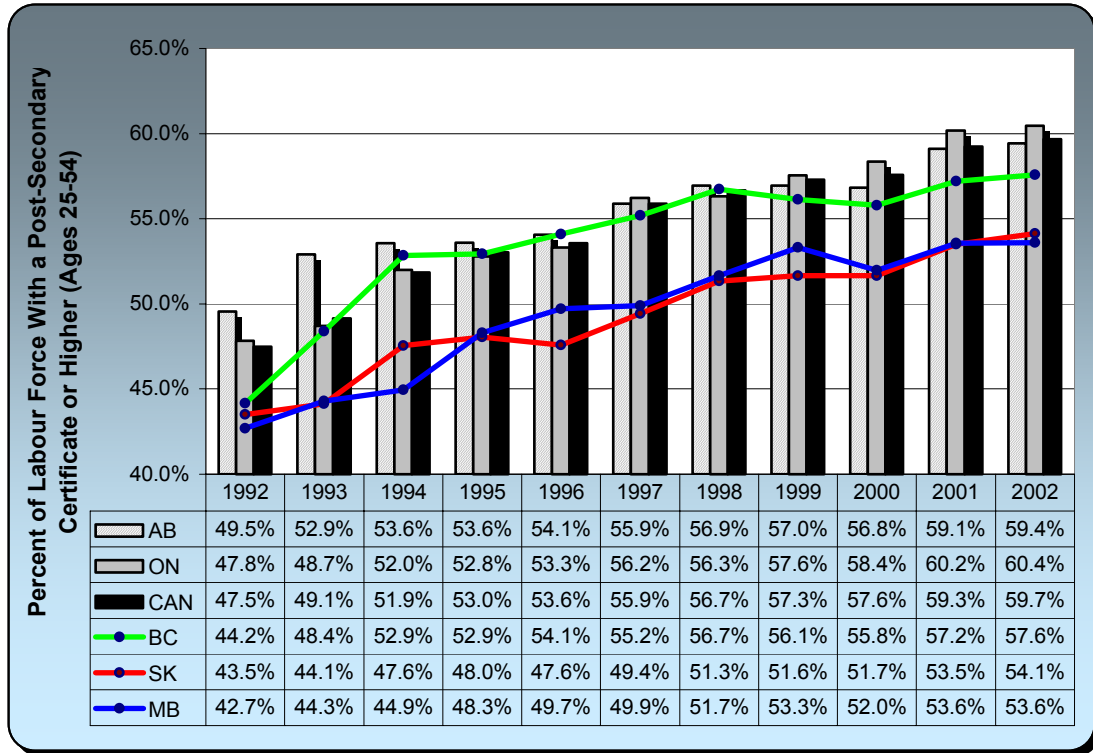
³⁹ Each attainment category is mutually exclusive (no individual is included in more than one category).

⁴⁰ In addition, data on inter-provincial migration by education attainment is not available.

⁴¹ Statistics Canada, *Earnings of Canadians: Making a Living in the New Economy*, Cat. 96F00030XIE2001013, 2003.

explained by the fact that Alberta started from a higher base than the others. Nevertheless, Alberta has dropped from having the highest percentage of post-secondary attainment to third place over this period.

FIGURE 3-4: PERCENT OF LABOUR FORCE WITH A POST-SECONDARY CERTIFICATE OR HIGHER (AGES 25-54), PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada, Labour Force Survey.

Post-Secondary Education Attainment Drivers

The following are the main forces that determine changes in post-secondary attainment.

- Changes in number of post-secondary education spaces
- Changes in the size of the 18-24 age group
- Changes in the size of the 25-54 age work force
- Changes in immigration policy and immigrant quotas
- Vibrancy (or lack thereof) of a provincial economy

Manitoba Post-Secondary Education Attainment

Educational attainment in Manitoba over the last decade was 3.9 to 7.0 percentage points below the Canadian average. Through most of the decade, Manitoba ranked in second to last place, except for 1994 and 2002 when it slipped behind Saskatchewan. Like Saskatchewan, educational attainment in Manitoba now stands at a ten-year provincial high, with about two-thirds of the last decade's growth coming from gains in individuals with a post-secondary certificate or diploma. Again like Saskatchewan, the growth from people with bachelor's degrees in Manitoba also fell short of the Canadian average, whereas the increase in people with degrees higher than a bachelor level exceeded the national average, Ontario and Alberta. Like British Columbia, most of the growth in Manitoba's university attainment occurred in the 25-44 age group.

Between 2001 and 2002, educational attainment of the labour force rose for the third year in a row in Canada as a whole and all the provinces except Manitoba, where it remained unchanged. Saskatchewan's increase of 0.6 percent was the highest, followed by British Columbia and the national average at 0.4 percent, and Alberta and Ontario at 0.3 percent. In British Columbia, the majority of this year's growth was attributed to an increase in the number of individuals holding a degree above the bachelor level, whereas in both Saskatchewan and Manitoba, most of the increase was in those with a bachelor's degree.

3.3.4 Spotlight on Manitoba Post-Secondary Education Opportunity

Post-Secondary Education System

Post-secondary education in Manitoba is delivered through four universities, three English-language community colleges, and a French-language community college. Four privately-funded religious post-secondary institutions grant degrees in theology and/or related fields⁴². Successful program completion generally provides students with a certificate, diploma, undergraduate or graduate degree, or a trade credential. Post-secondary education in Manitoba is the responsibility of the Council on Post-secondary Education. The Council advises the Minister of Advanced Education with respect to universities and community colleges, and is responsible for approving new programs, facilities, and services and allocating funds to the universities and colleges.

Enrolment

Between '92/'93 and '99/'00, university, college and trade enrolment as percentage of the 18-24 population declined by 4 percent in Manitoba. However, as Table 3-5 shows, this number is somewhat misleading due to a reporting error in part-time college enrolment in '92/'93. Assuming enrolment trends were similar to the preceding and following years, the drop in the university, college and trade enrolment per capita age 18 to 24 would have actually been greater.

This enrolment decline resulted from a drop in part-time university enrolment, which plummeted in excess of 42 percent over the period. Program and funding cuts together with tuition increases that occurred between '94/'95 and '97/'98 may partially explain this decline. In contrast, full-time university enrolment increased slightly by 1.4 percent. Moreover, significant growth occurred in both full-time and part-time college enrolment, which rose 29.7 and 39.8⁴³ percent respectively⁴⁴. Technical vocational enrolment also had a respectable gain of 9.7 percent.

The percentage of Manitoba post-secondary students in universities has declined from 84 to 74 percent since '92/'93, but still represents, by far, the predominant choice to obtaining post-secondary education. This decline reflects the significant reduction in part-time attendance noted earlier, as full-time enrolment has remained relatively constant. College, on the other hand, has increased in its share of the post-secondary student population from 9 to 18 percent over the same period⁴⁵. Technical/vocational training enrolments have remained relatively stable at

⁴² Canadian Information Centre for International Credentials.

⁴³ Assuming a '92/'93 enrolment count of 1,665, and average of the previous and following years (as opposed to the incorrectly reported count of 92).

⁴⁴ College data was omitted in '97/'98 and '98/'99 and historical reporting of the missed college enrolment data accounts for a portion of the increase shown in '99/'00. The significant drop in part-time college enrolment in '92/'93 is related to an error in reporting from the Red River Community College.

⁴⁵ It is worthwhile noting that the Manitoba government has made a concerted effort since '99/'00 to increase college enrolment, allocating \$60 million over four years to expand college and technical programs. However, enrolment data is only available up to '99/'00, and thus only the first year of this

around 7 percent. Full-time enrolment accounts for over 70 percent of post-secondary enrolment in Manitoba, with full-time university enrolment representing over two thirds of this figure.

TABLE 3-5: POST-SECONDARY EDUCATION ENROLMENT STATISTICS, MANITOBA, 91/92 – 00/01

University, College and Trade Enrolment ⁴⁶

	92-'93	93-'94	94-'95	95-'96	96-'97	97-'98	98-'99	99-'00	00-'01
University Enrolment Full-Time	20,575	20,296	22,962	21,459	22,024	21,024	20,883	20,866	21,737
University Enrolment Part-Time	17,013	16,758	12,806	11,950	10,031	9,796	9,852	9,831	10,561
College Enrolment Full-Time	4,067	3,990	3,918	3,612	3,598	3,802	4,181	5,276	X
College Enrolment Part-Time	92	1,630	1,372	1,357	2,145	2,446	2,513	2,295	X
Technical/Vocational Enrolment Full-Time	2,901	3,137	3,085	2,502	2,806	2,704	2,780	3,182	X
University, College & Trade Enrolment (per 1,000 18-24 population)	392.3	403.4	390.6	365.9	366.2	361.5	367.5	377.4	X

Source: Statistics Canada

A number of trends over the past decade have contributed to the general decline in the demand for post-secondary education in Manitoba. Consistent inter-provincial net out-migration in the 18 to 24 year old population (a 3 percent decrease as compared to a national increase of just over 3 percent) has resulted in a lower potential student population base to draw upon. Overall population growth has actually outstripped that of the 18 to 24 age group by close to 6 percent between 1993 and 2000.

These trends run contrary to a continued shift towards a knowledge-based economy, as employment in the agriculture sector has declined in favour of gains in the manufacturing, health care and social assistance, and professional, scientific and technical services sectors. This shift has resulted in an increasing requirement for post-secondary education or industry training beyond a high school level as a pre-requisite to employment.

A 43 percent increase in tuition fees between '93/'94 and '01/'02 may be partly to blame for reduced enrolment. However, a tuition freeze was instituted in '00/'01⁴⁷. As well as the freeze in fees, the government provided a “10 % tuition voucher” to every student. Lost revenue to institutions is off-set by a transfer from the provincial government⁴⁸. These recent measures appear to be having success, as full-time equivalent⁴⁹ university enrolment has increased by over 30 percent⁵⁰ between '00/'01 and '02/'03. Full-time equivalent college enrolment also increased by 2 percent between '00/'01 and '01/'02 ('02/'03 data is not yet available but The Manitoba Council on Post-Secondary Education indicate that further increase is expected).

program is reflected in the numbers cited in this discussion and accounted for 2 percent out of the 9 percent increase since '92/'93.

⁴⁶ 2000-2001 data is unavailable for the colleges and trade/vocational.

⁴⁷ Statistics Canada, University Tuition Fees, The Daily, September, 2002.

⁴⁸ Canadian Centre for Policy Alternatives, *Missing Pieces IV: An Alternative Guide to Canadian Post-Secondary Education*, 2003.

⁴⁹ Full Time Equivalent = Full time + (Part time/3.5).

⁵⁰ Council on Post-Secondary Education, Manitoba.

Recently another program, the College Expansion Initiative, was spearheaded by the Manitoba government to increase college enrollment in certificate and diploma programs. To date CEI has funded approximately 50 college programs and invested over 5 million dollars in its first year⁵¹.

Post-Secondary Education Participation

Over the 1993-2002 decade, Manitoba had the highest increase in full-time post-secondary participation of the studied jurisdictions, rising 16.4 percent. Increased college enrollments in combination with a slight decline in the 18 to 24 population contributed to the participation rate increase. In 2000, just over one-quarter of 18 to 24 year old Manitobans were enrolled full-time in post-secondary studies. Nevertheless, Manitoba was only able to slightly narrow its gap with the national average and remains 9.9 percentage points below it. Furthermore, Manitoba is tied with British Columbia for the lowest participation rate of the benchmarked jurisdictions. Manitoba and BC have consistently been 9 to 11 percentage points below the Canadian average participation rate between '92/'93 and '00/'01.

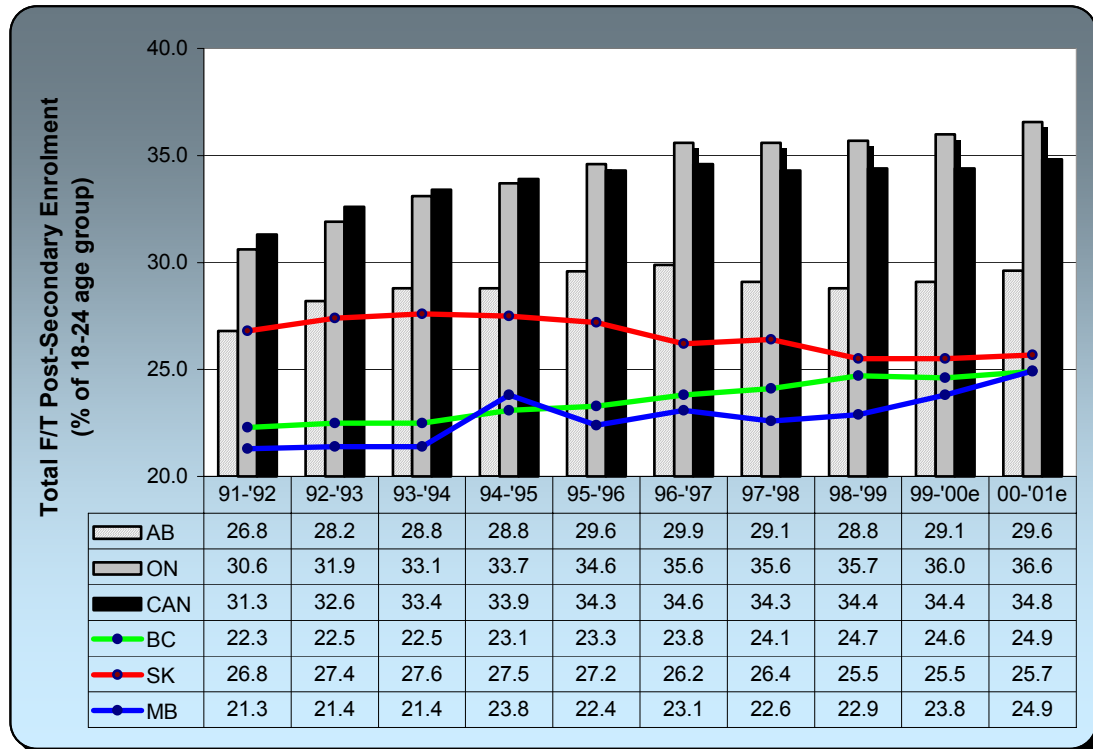
As shown in Figure 3-5, full-time post-secondary enrolment as a proportion of the 18 to 24 year old age group increased in all jurisdictions, except Saskatchewan, from '92/'93 to '00/'01. However, only Manitoba, Ontario and British Columbia's growth rates exceeded the national average of 6.8 percent. What also stands out is that the post-secondary participation rate in all the western provinces consistently fell well below the national average.

Of the remaining jurisdictions in this comparison, Ontario posted the second highest increase, growing by 14.6 percent and also has the highest full-time participation rate, exceeding the Canadian average by almost 2 percent.

Looking only at the last year, Manitoba stood apart with a gain of 4.8 percent. Full-time post-secondary participation increased by 1.2 percent in Canada as a whole.

⁵¹ Ministry of Advanced Education and Training, Manitoba.

FIGURE 3-5: TOTAL FULL-TIME POST-SECONDARY ENROLMENT AS A PROPORTION OF THE 18 TO 24 AGE GROUP⁵², PROVINCES AND CANADA, '91/'92 - '00/'01



Source: Statistics Canada.

Post-Secondary Funding

Between '93/'94 and '99/'00 provincial government funding per full-time equivalent student increased by 9.8 percent⁵³. Between '93/'94 and '01/'02, Manitoba increased its funding of post-secondary institutions by 23.2 percent. When Manitoba's trend towards declining enrolment is taken into account, an equally positive picture emerges. At the same time, revenues from students have also increased. Students contributed an additional 34 cents for every dollar of provincial funding in '01/'02, compared to 25 cents in '93/'94.

⁵² '99/'00 data was estimated by Statistics Canada; '00/'01 data was estimated by: i) stripping the proportion of F/T university enrolment to 18-24 population from series; ii) estimating growth in the '99/'00 to '00/'01 college component by averaging the 5 year % change in growth; and, iii). F/T university enrolment per 18-24 population for '00/'01 was then combined with this estimate.

⁵³ College enrolment data is not available beyond '99/'00.

TABLE 3-6: POST-SECONDARY EDUCATION FINANCES (1997\$), MANITOBA, 1992 – 2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
Post-Secondary Education	Provincial Government Funding (000's)	346,612	330,782	307,502	305,778	310,174	316,976	338,029	363,990	403,564	407,420	X
	Student Fees (000's)	76,920	81,442	83,424	81,066	81,937	87,596	93,849	108,785	109,457	137,102	X
	Total Expenditures (000's)	550,476	538,598	534,276	542,912	534,329	541,251	592,637	638,244	702,879	721,014	X
	Operating Expenditures (000's)	448,660	442,744	432,445	423,566	432,343	439,759	468,406	517,991	551,793	578,332	X
	Capital Expenditures (000's)	12,979	11,830	18,672	28,913	23,152	10,241	33,638	21,902	20,465	24,272	X
	<i>Provincial Government Funding per Student</i>	11,738	11,198	9,942	10,590	10,659	11,191	11,820	12,294	X	X	X
	<i>Student Fees per Student</i>	2,605	2,757	2,697	2,808	2,816	3,093	3,282	3,674	X	X	X
	<i>Total Expenditures per Student</i>	18,642	18,233	17,273	18,803	18,361	19,109	20,724	21,558	X	X	X
	<i>Operating Expenditures per Student</i>	15,194	14,988	13,981	14,670	14,857	15,526	16,380	17,496	X	X	X
	<i>Capital Expenditures per Student</i>	440	400	604	1,001	796	362	1,176	740	X	X	X

Notes: Post-Secondary funding combines universities and colleges.
 Student Fees include both credit and non-credit courses, as well as miscellaneous student fees (such as transcripts and late registrations).
 Per Student is calculated as per FTE Student = full-time + part-time/3.5.

Source: Statistics Canada

Despite the decline in enrolment over the past decade in Manitoba, total post-secondary expenditures grew at a significantly faster rate than provincial government funding. Total expenditures per FTE student increased from \$18,233 in '93/'94 to \$21,558 in '01/'02 due to increases in both operating and capital expenditures. Operating expenditures for Manitoba's post-secondary institutions grew 7 percent faster than provincial government funding. Capital expenditures, or investment in Manitoba's post-secondary infrastructure, also increased fairly steadily over the decade, from just below \$12 million in '93/'94 to just over \$24 million in '01/'02.

In '99/'00, provincial government funding per FTE student equaled \$12,294 in Manitoba, which was the highest among the western provinces, Ontario and Canada as a whole. Manitoba's funding per FTE student ranged between 4.6 and 21.8 higher than the other jurisdictions. Manitoba's higher reliance on student fees is evident from its revenues of \$3,674 per student, which again is 10.5 to 12.6 percent higher than British Columbia, Saskatchewan and the Canadian average but 2.6 and 21.5 percent lower than Alberta and Ontario respectively. Expenditures per FTE student of \$21,558 in Manitoba were fairly comparable to those of the other western provinces, which ranged from 3.8 percent higher in Saskatchewan to 7.0 percent lower in British Columbia, but 16 percent lower than Ontario and the Canadian average.

Manitoba's operating expenditures represented 80.2 percent of total expenditures in '01/'02, as compared to a range of 79 to 83 percent in the other comparable jurisdictions, excluding Ontario. Ontario's operating expenditures were much higher at 89 percent of total expenditures. As capital expenditures tend to be irregular and can be skewed by large capital projects, they are better viewed as a nine year average. Manitoba averaged 3.6 percent in capital expenditures relative to total expenditures over the period from '93/'94 to '01/'02. By comparison, capital

expenditures over the decade ranged from a high of 9.3 percent to a low of 3.6 percent in the other jurisdictions.

Concluding Observations

To the good, Manitoba had the highest increase in the post-secondary participation rate of its 18 to 24 population of any jurisdiction in our comparison over the last decade. Nevertheless, Manitoba's is tied with British Columbia for last place and remains almost 10 percentage points below the Canadian average postsecondary education participation rate.

However, as previously indicated, attainment among those aged 25 to 54 has consistently ranked in last or second to last place over the last decade. Furthermore, while it has increased since 1993 and now stands at its ten-year high, the post-secondary attainment rate of Manitoba's labour force remains 6.1 percentage points below the Canadian average of 59.7 percent.

Manitoba faces a dual challenge in post-secondary education. Not only does it have a low participation rate among its 18 to 24 population but growth of this age group is declining, which will result in a smaller pool of potential students to draw upon.

Provincial funding of post-secondary institutions has increased in overall terms and on an FTE student basis. However, operating costs have outpaced provincial funding increases. In addition, tuition fees have increased quite substantially. This fact together with Manitoba's chronically low post-secondary participation rate and declining student population pool present challenges to Manitoba's pressing need to increase post-secondary education to meet job market demands and achieve economic growth.

3.3.5 Income Inequality

Income Inequality Indicator

The income inequality indicator for this project is Low Income Cut-Off (LICO) - the percentage of families that spend 20 percent or more household income than the average Canadian family on basic necessities (i.e., food, clothing and shelter) adjusted for both family and community size.

Canada is a rich country by world standards. Nevertheless, a portion of our population has income levels significantly below the average and thus are unable to share the standard and quality of life enjoyed by the majority of Canadians. Income inequality to this degree has been linked to lower educational attainment, poorer health and higher health care costs as well as higher incidence of other debilitating behaviors (eg., crime, drug use)⁵⁴. Apart from the personal toll that results, in particular to children who are unable to remedy their situation, society at large also suffers both from lost opportunities and the negative repercussions linked to income inequality

Over many years, Statistics Canada has reported two different low income measures, LICO and Low Income Measure (LIM) - the proportion of households with incomes that are less than half the household median income adjusted for family size. LICO has the advantage of taking cost of living into account. LIM, on the other hand, is used internationally, enabling comparisons with other industrialized countries⁵⁵. Both are relative measures that compare those with significantly lower income to the average⁵⁶.

⁵⁴ Canadian Institute for Health Information, *Report on the Health of Canadians, 1999*; Ross, D. & Paul Roberts, *Income and Child Well-Being: A new Perspective on the Poverty Debate*, Canadian Council on Social Development, 1999.

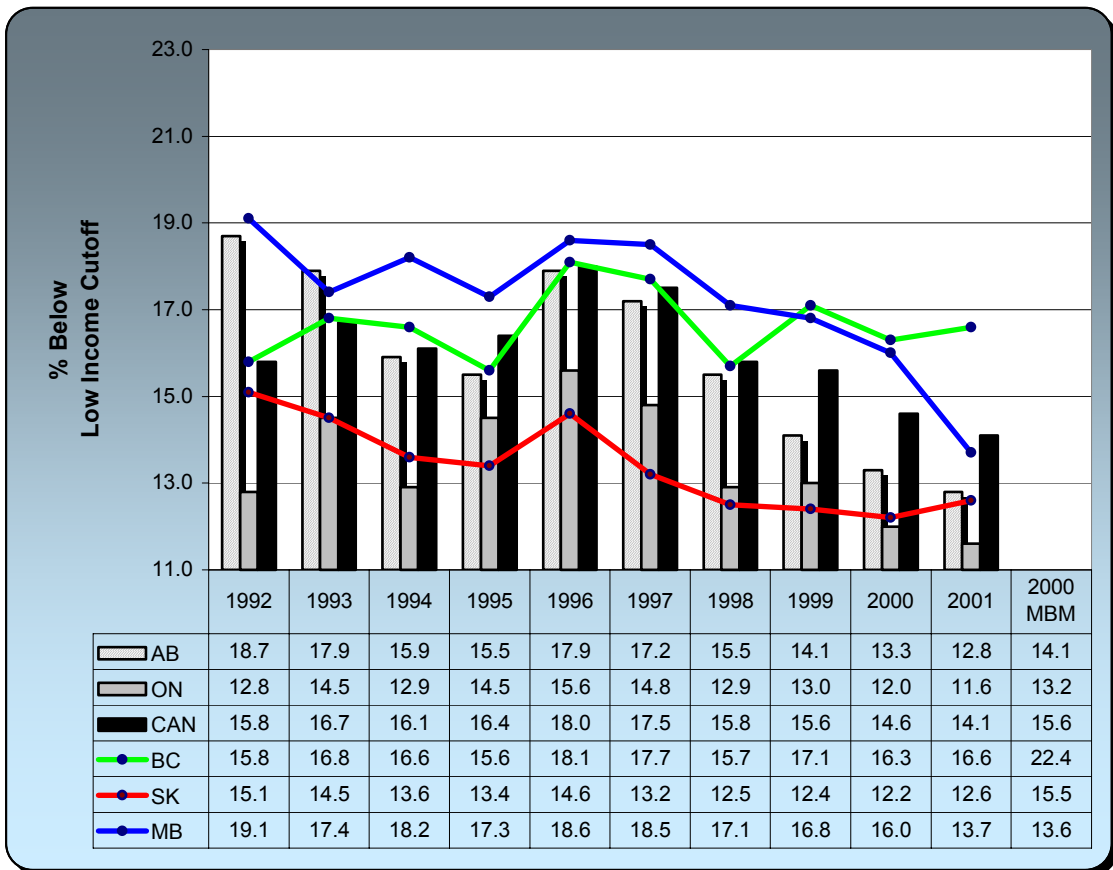
⁵⁵ Canada ranks 12th out of 26 industrialized countries in terms of income equality according to the UN in 2002.

⁵⁶ This year, Statistics Canada introduced a new measure, the Market Basket Measure (MBM), which calculates household income required to meet basic needs, not just for subsistence but to approach 'credible' community norms. The MBM is the first absolute low income measure based on purchasing power and is meant to complement rather than substitute for Statistics Canada's other low income measures. The MBM calculates after-tax income required to support a nutritious diet, basic clothing, reasonable housing, basic transportation and other necessary expenditures based on actual costs by geographic area and adjusted for family size. Its advantages are its greater sensitivity to regional differences in actual living costs, particularly for housing, and to government policy changes, such as to taxation or health care costs, which affect actual purchasing power. Although the MBM is only available for 2000, thus precluding trend analysis, the 2000 MBM results can be compared with those derived from LICO for that year to identify both similarities and differences in their findings.

Income Inequality Trends

Over the 1992-2001 decade, all studied jurisdictions but BC demonstrated substantive reductions in the percentage of their families below the low income cut-off level. Over the five-year 1997-2001 period, Manitoba registered the largest decline, 25.9 percent of the benchmarked jurisdictions, in the percentage of families below the low income cut-off line. As Figure 3-6 illustrates, the percentage of low income families (below LICO) reached a ten-year low last year in Canada as a whole, Ontario, Alberta and Manitoba. In contrast, British Columbia and Saskatchewan both posted increases in 2001. Between 1993 and 1996, the percentage of low income families fluctuated up and down nationally and in all provinces in this comparison, as economic recovery from the early 1990's recession took hold. From 1997 onward, however, the percentage of low income families has steadily declined in all areas except Ontario, British Columbia and Saskatchewan.

FIGURE 3-6: PERCENTAGE OF FAMILIES WITH INCOMES BELOW LICO



Source: Statistics Canada.

Income Inequality Drivers

The generally declining trend in the percentage of low income families over the last five years reflects the combined effect of strong economic growth and job creation as well as recent increases in government transfers (eg., extended Employment Insurance benefits for parents) and cuts in income taxes. However, progress has not been universal. Low income rates among two-parent families with two earners have remained relatively stable and those for two-parent families with one earner and recent immigrant families have increased. Furthermore, the depth of low income, or amount of additional income required, on average to surpass the LICO threshold has increased⁵⁷. In addition, low income rates for visible minorities, recent immigrants and aboriginal Canadians remain significantly higher than average.

Reasons for these exceptions include the stagnant real wage rate and shifts in the job market away from high paying resource and industrial sector jobs and full time employment to lower paying service sector and more part-time employment. Small business, self-employment and non-standardized employment has also increased.

The percentage of families with low income based on MBM⁵⁸ in 2000 is fairly similar albeit somewhat higher than that using LICO for Canada as a whole, Ontario and Alberta. In British Columbia, however, the rate is significantly higher primarily as a result of the province's high housing costs. The low income percentage is also moderately higher for Saskatchewan but lower for Manitoba. These latter differences appear to be more a function of income levels in the two provinces relative to cost of living or MBM, which is quite similar to one another.

The MBM as compared to LICO also indicates a higher percentage of children among the low income population (29.5 versus 26.6 percent) and a higher rate of low income among two parent families with two earners (61.8 versus 56.3 percent) most likely due to higher child care costs with less likelihood of qualifying for subsidies because of higher income. However, the rate of low income among seniors and single adults is lower using MBM.

Manitoba Income Inequality

The percentage of Manitoba low income families based on LICO decreased for the fifth year in a row, dropping by 2.3 percentage points between 2000 and 2001 to reach a ten-year low of 13.7 percent. Over the decade, Manitoba has significantly improved its low income rate, moving up from last place in 1998, a position it had held through most of the 1990's, to third when compared with the national average, Ontario and other western provinces. *The province registered the largest decline, 25.9 percent (18.5 percent to 13.7 percent) of the benchmarked jurisdictions, over the five-year 1997-2001 period.*

⁵⁷ Statistics Canada, *Family Income 2001*, The Daily, June 25, 2003; Picot, G., R. Morissette & J. Myles, *Low-Income Intensity during the 1990's: The Role of Economic Growth, Employment Earnings and Social Transfers*, Statistics Canada, January 2003.

⁵⁸ Statistics Canada, *Understanding the 2000 Low Income Statistics based on market Basket Measure*, May 2003.

When the MBM is used, the percentage of low income families is 2.4 percentage points less than that indicated by LICO in 2000. Living costs do not explain this difference as the MBM are only 0.3 to 1.3 percentage points lower than neighbouring Saskatchewan, whereas Saskatchewan's low income rate based on MBM is significantly higher. Income appears to be the differentiating factor, as real disposable income per capita in Manitoba was about 10 percent higher than Saskatchewan in 2000.

Manitoba's success in reducing the low income rate can be partly attributed to its relatively diversified economy. Manitoba has also had steady growth in job creation and real disposable income since 1997, and enjoyed relatively low and stable housing prices. Looking ahead, further reductions in the percentage of low income families will likely depend on a continued economic growth, including both job creation and real wage increases.

3.3.6 Public Safety

Public Safety Indicator

The number of annually reported violent and property crimes per 10,000 population (the “crime rate”) has been chosen as the LIVE indicator to gauge “safety”.

Although the crime rate has been declining for more than a decade, safety remains a significant public concern in Canada. Public perception regarding safety directly influences people’s attitudes about quality of life and affects their decisions on where they choose to live. As a result, the reputation of a region or locale in terms of safety can contribute or conversely detract from its ability to draw in-migration from other parts of Canada as well as overseas.

We note that some analysts argue that the crime rate underestimates the actual extent of crime because of non-reporting by victims, inaccurate or poor reporting and the lack of full participation by all police agencies. For example, victim surveys compiled every five years show that about 40 percent of crimes go unreported.⁵⁹ Nevertheless, these surveys also corroborate trend results derived from annual crime statistics. Thus, the measure serves our purpose for both trend analysis and comparison between provinces.

Historically, crime rates have been higher in the West than in Central or Eastern Canada. No adequate explanation exists for this fact. However, some reasons put forward include the West’s larger proportion of youths/young adults as well as Aboriginal Canadians, who tend to represent a higher percentage of convicted offenders. Another reason suggested is different police practices.

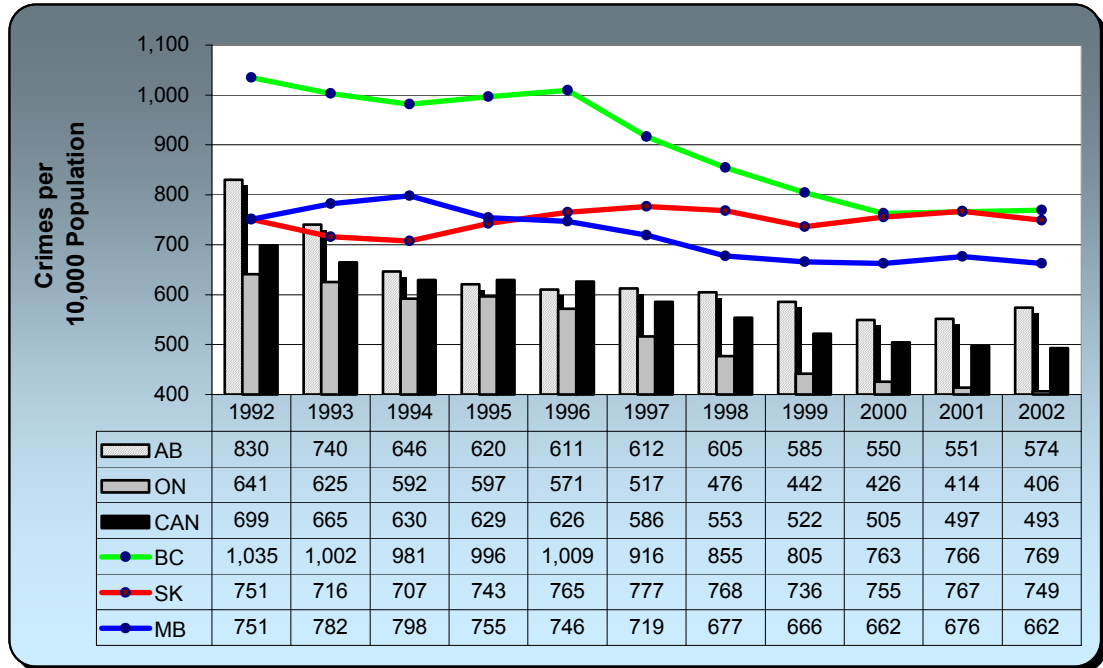
Public Safety Trends

Only Saskatchewan saw a an increase (4.6 percent) over the 1993-2002 decade. In contrast, the crime rate of other provinces dropped by 35 percent (Ontario) to 15.3 (Manitoba).

Figure 3-7 confirms the continuance of historically higher crime rates in the West as well as the overall decline in the crime rate in all jurisdictions over the last decade. Since 1993, the national crime rate has gone down by 26 percent.

⁵⁹ Solicitor General of Canada, *Measuring the Extent of Crime*, January 1999.

FIGURE 3-7 PROPERTY AND VIOLENT CRIMES PER 10,000 POPULATION, PROVINCES AND CANADA, 1992 -2002



Source: Statistics Canada.

Public Safety Drivers

Possible explanations for this downward trend include an aging population, improved crime prevention and police techniques as well as policy and legislative changes that affect enforcement and/or reporting of crimes and possible increases in underreporting of crime.

Over the last year, the overall Canadian crime rate decreased by less than one percent. Violent crime rate went down 2 percent mostly as a result of a major drop in the number of robberies and assaults, whereas the property crime rate basically remained unchanged. The overall reduction in violent crime, however, hid a 4.2 percent increase in homicides, largely as a result of fifteen previously reported missing women being declared murders in the Port Coquitlam pig farm investigation.⁶⁰

Although property crime overall remained unchanged, it remains at a 30 year low. Residential and business break downs continued to decline by 3 and 2 percent respectively, and are now 40 percent lower than in 1992. Vehicle thefts were also down 5 percent, which represented the fifth decline in six years. These improvements, however, were offset by increased fraud, primarily as a result of a 19 percent rise in debit/credit card fraud.

⁶⁰ Statistics Canada, *Crime Statistics 2002*, The Daily, July 2003.

Manitoba Public Safety

With the exception of 1994 and 2001, the crime rate in Manitoba has steadily gone down over the last decade. The overall crime rate has decreased by 15.3 overall and 17 percent from its ten-year high in 1994, and now stands at its ten-year low. In 2002, the crime rate dropped by 2.1 percent, the second largest decrease after Saskatchewan of the jurisdiction in our comparison. Nevertheless, Manitoba has consistently had the third highest crime rate of the jurisdictions in our comparison for the last six years, when it dropped from second highest. Although lower than both British Columbia and Saskatchewan by 13.9 and 11.6 percent respectively, Manitoba's crime in 2002 was 34.3 percent higher than both the national average and the lowest comparable Ontario, and 15.3 percent higher than Alberta.

Manitoba's overall crime rate reduction results from a 3.2 percent decrease in property crime, which was sufficient to overcome a 1.5 increase in violent crimes. The violent crime rate in Manitoba was second only to Saskatchewan in Canada as a whole. At least part of last year's increase is attributable to Manitoba's dubious claim of having the highest homicide rate last year, narrowly beating out British Columbia whose homicide figures were bloated by the conversion of fifteen missing women into murder incidents. The property crime rate benefited from the largest reduction in break-ins in Canada last year (tied with Quebec) and an 8 percent drop in vehicle thefts, although Manitoba continues to have the highest vehicle theft rate in the country.

In Table 3-7, supporting data for Manitoba shows an increase in the number of police officers last year, although the current total is somewhat less than the ten-year high. Nevertheless, the number per capita has remained basically the same over the last decade which suggests that no direct correlation exists between the number of police officers and the crime rate.

TABLE 3-7: SAFETY STATISTICS, MANITOBA, 1992 -2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Number of Police	2,189	2,158	2,130	2,186	2,215	2,230	2,226	2,189	2,142	2,206	2,219
Population per Police Officer	508.5	518.2	527.6	516.8	512.1	509.7	511.2	521.9	535.2	520.9	518.6
Police per 10,000 pop.	19.7	19.3	19.0	19.3	19.5	19.6	19.6	19.2	18.7	19.2	19.3
Violent Crimes	16,384	18,072	18,103	18,221	19,179	19,572	18,295	17,978	18,843	18,611	18,925
Property Crimes	67,184	69,372	71,565	67,033	65,480	62,139	58,788	58,136	57,083	59,102	57,277
Property & Violent crimes per 10,000 Pop.	751	782	798	755	746	719	677	666	662	676	662

Source: Statistics Canada

3.4 Conclusions

When looking at the overall performance of Manitoba on the quality of life indicators, yea or nay judgments depend on the selected assessment time period. Manitoba's progress in improving quality of life over the last decade was adequate but unremarkable, ranking fourth among the jurisdictions studied but for the most part below the national average and well back from the leader in every indicator. In 2002, however, Manitoba posted the best results of the benchmarked jurisdictions for the LIVE indicators, showing improvement in all except doctors per capita, which remained ostensibly unchanged.

This past year, Manitoba led in improvements in both disposable income and the proportion of families living below the low income cut-off. It also had the second highest reduction in crime.

Unfortunately, despite these recent improvements, Manitoba's standing in absolute terms relative to the other jurisdictions remains lack luster, ranking for the most part in fourth place but last in post-secondary attainment and second to last in disposable income. In fact, Manitoba's disposable income was 13.5 percent less than in top-ranked Alberta last year and 5 percent lower than the Canadian average.

Its 2002 rankings are low because the province did not make up much ground on the other benchmarked jurisdictions over the past decade. Manitoba made gains in all five LIVE indicators over the 1993-2002 period but fell short when compared to the other jurisdictions. Its improvement in disposable income of 8.7 percent ranked third after Alberta and the national average, which increased by 12.8 and 9.9 percent respectively. Its best showing was in reducing the proportion of families living below the low income cut-off where Manitoba ranked second after Alberta. Doctors per capita remained basically unchanged which, although worse than Alberta and Saskatchewan which both recorded modest increases, was better than BC, Ontario and the national average which posted declines. Manitoba also had modest improvements in both post-secondary education attainment and crime reduction but again these were below the national average.

Collectively, trends over the last decade and Manitoba's current standing in absolute terms in all five LIVE indicators point to continuing challenges but the progress in the last year is hopeful that it will continue to pick-up progress and narrow its gap with the other jurisdictions.

4 MANITOBA AS A PLACE TO WORK

4.1 Introduction and Methodology

The world of work has been changing in Canada over the last decade. Aging population, growth and downturn in the high tech sector, shifting immigration patterns, greater use of information technology, and many other factors have affected the demand for and supply of different types of labour. This section evaluates the work environment in BC by looking at the following five areas.

- Employment Opportunity
- Labour Compensation
- Labour Utilization
- Pay Equity
- Labour Market Stability

The following indicators have been developed to track the five key work factors that characterize a province's work environment. They are as follows.

- **Employment Opportunity**

Employment Rate is the number of employed persons as a percentage of the labour force.

- **Labour Compensation**

Real Average Hourly Wage captures labour force compensation, net of inflation.

- **Labour Utilization**

Ratio of Actual to Potential Hours Worked per Year reflects the general level of labour force utilization.

- **Pay Equity**

Female/Male Wage Gap is the ratio of female to male hourly wages (full time workers) in the employed labour force and indicates pay equity in the labour market⁶¹.

⁶¹ The female/male wage gap, calculated with Labour Force Survey hourly wage data, is available only for the period 1997 to 2002. All indicators are presented for the 1992-2002 period.

- **Labour Market Stability**

Average Job Tenure shows average duration of jobs, and reflects job stability. It is expressed in months for this project.

4.2 Key WORK Results

In this chapter a summary of the following results are presented for each indicator and studied jurisdiction.

- Percent change over past year
- Percent change over past decade
- Ranking in 2002

4.2.1 Percent Change Over Past Year

Table 4-1 presents the percent change for each of the WORK indicators for the western provinces, Ontario and Canada over the past year and how they rank against each other on this criteria. Progress in the work environment are indicated by an increase in an indicator. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

		Employment Rate		Real Wage		Actual/Potential Hours		Female/ Male Wage Ratio		Average job Tenure	
		% ⁶²	rank	%	rank	%	rank	%	rank	%	rank
Manitoba	2001-2002	-0.2	2	0.2	1	-2.1	4	1.7	3	1.3	4
Saskatchewan	2001-2002	0.1	1	-0.9	3	-1.6	3	3.9	1	-0.5	5
British Columbia	2001-2002	-0.8	5	-1.6	5	-0.5	1	1.7	3	3.3	1
Alberta	2001-2002	-0.7	4	-1.5	4	-2.4	5	-2.2	5	2.3	2
Ontario	2001-2002	-0.8	5	-0.6	2	-0.5	1	2.7	2	1.4	3
Canada	2001-2002	-0.5	2	-0.6	2	-1.1	2	1.6	4	1.3	4

General observations by province about the past year's progress (or deterioration) in Manitoba's work environment are as follows.

- Manitoba was the only studied jurisdiction able to increase its average real wage in 2002, albeit a modest 0.2 percent rise. The province's 2002 real wage level lags the Canadian average by 9 percent nevertheless, so the 2002 increase, although small was important.

⁶² Change for the employment indicator (a percentage rate) is calculated as the absolute difference in percentage rates between year 2002 and first year in time series. This approach is adopted to ease reader interpretation of change in percentage rates.

Labour utilization in Manitoba deteriorated by 2.1 percent in 2002, reflecting a weaker overall economy.

- On an overall basis, only Alberta stood out from the pack in terms of its 2002 performance, and that was because its work environment performance can best be described as lackluster. The province managed declines in four of the five WORK indicators, including the only decrease in the female to male wage ratio.

General observations about the percentage changes for the past year in work environment indicators are as follows.

Employment Opportunity (Employment Rate)

Only Saskatchewan of the six studied jurisdictions was able to produce an employment rate increase in 2002 and it was relatively small, 0.1 of a percentage point. In Alberta, employment declined by 0.7 percent in 2002, while employment declined by 0.8 percent in both British Columbia and Ontario. These continued declines in employment reflect the effects of the persistent slow down in the US economy and international political uncertainty that persisted in 2002.

Labour Compensation (Real Wage)

All of the regions saw real wages⁶³ fall last year except in Manitoba, which witnessed wage growth of 0.2 percent. British Columbia experienced the biggest loss in real wages with a decline of 1.6 percent in 2001-02 followed by Alberta at negative 1.5 percent and a 0.9 percent decrease in Saskatchewan. Ontario matched the national average for the lowest reduction in real wages at negative 0.6 percent.

Labour Utilization (Actual to Potential Hours Worked)

Labour utilization levels dropped in every region last year as organizations increased their use of part-time workers and temporary layoffs to match the slowdown in demand for products and services. Alberta's utilization rate registered the largest decline, decreasing 2.4 percent, but Alberta still leads all regions on the labour utilization rate measure. The other Prairie provinces rounded out the top three utilization decreases with Manitoba dropping 2.1 percent and Saskatchewan 1.6 percent. The reduction in worker hours for British Columbia and Ontario came in at 0.5 percent, which was less than the national decline of 1.1 percent.

Pay Equity (Female to Male Wage Ratio)

Despite the wide-spread declines in wages in 2002, all regions were able to further close the male/female wage gap with the exception of Alberta. Saskatchewan led the group, closing its wage gap by 3.9 percent, followed by Ontario at 2.7 percent, BC and Manitoba at 1.7 percent. All these values were above the Canadian average of 1.6 percent. Alberta, which has the greatest

⁶³ Adjusted for inflation

female/male wage disparity of the regions, saw the wage gap increase last year by a further 2.2 percent.

Labour Market Stability (Job Tenure)

Job tenure began trending back up in 2002 as the fall out from the “tech wreck” and September 11th faded in economic influence. British Columbia’s average job tenure rebounded by 3.3 percent (almost 3 times the national average). Alberta saw the next highest increase at 2.3 percent. However, BC and Alberta also have the lowest tenure values of the group at 92 and 85 months respectively. In contrast, Saskatchewan saw its average job tenure shrink a small 0.5 percent from its leading value of 116 months. Manitoba and Ontario’s tenure growth tracked the national average at 1.3 percent and 1.4 percent, respectively.

4.2.2 Percent Change Over Past Decade

Table 4-2 ranks the studied jurisdiction on their percentage change in each indicator for the 1993-2002 decade and how they rank against each other on this criteria. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

Table 4-2: Summary of Percent Change Over Past Decade in WORK Indicators

		Employment Rate		Real Wage		Actual/Potential Hours		Female/ Male Wage Ratio ⁶⁴		Average job Tenure	
		% ⁶⁵	rank	%	rank	%	rank	%	rank	%	rank
Manitoba	<i>1993-2002</i>	4.1	2	-3.6	5	-2.2	3	3.7	2	5.0	2
Saskatchewan	<i>1993-2002</i>	2.5	5	-6.1	6	-2.2	3	3.7	2	-3.4	6
British Columbia	<i>1993-2002</i>	1.2	6	0.4	1	-3.4	4	4.9	1	15.8	1
Alberta	<i>1993-2002</i>	4.3	1	-3.3	4	-1.1	2	-2.5	4	-2.1	5
Ontario	<i>1993-2002</i>	3.8	3	-2.8	3	0.0	1	0.0	3	-0.8	4
Canada	<i>1993-2002</i>	3.7	4	-2.4	2	-1.1	2	0.0	3	2.5	3

General observations about the percentage changes for the 1993-2002 decade in Manitoba work environment indicators are as follows.

- Trends in Manitoba have similarly showed improvements in employment rate, gender equity and job tenure, a decline in full time work but, also an above average decline in real wages. The real wage decline of 3.6 percent over the decade was especially significant since the province’s average wage at the start of the decade was low relative to all other jurisdictions but Saskatchewan.

⁶⁴ Data is available only for the 1997-2002 period by province, and not for the entire 1993-2002 decade.

⁶⁵ Absolute change

- Interestingly, the power house economy in Alberta logged negative values in all indicators over the decade, except employment growth, where it led the pack with a 4.8 percent rise over the 1993-2002 decade, as the current boom is both waning and less dramatic than the one experienced in the early 90's.

General observations about the percentage changes for the 1993-2002 decade in work environment indicators are as follows.

Employment Opportunity (Employment Rate)

Over the 1993-2002 decade, Alberta, Ontario, Manitoba and Canada registered similar increases of between 4.2 and 4.8 percentage points in their employment rates. BC had the worst performance for the decade, a 1.3 percent rise. The gap between the highest and lowest employment for the studied jurisdictions is relatively narrow, 3.3 percent in 2002, little changed from the 33.2 percent gap at the decade's start, 1993.

Labour Compensation (Real Wage)

All of the regions saw real (adjusted for inflation) wages fall over the decade except BC, which witnessed wage growth of 0.4 percent. Saskatchewan trailed the other studied jurisdictions badly on this indicator for the 1993-2002 decade, with a 6.1 percent decline.

Labour Utilization (Actual to Potential Hours Worked)

Labour utilization levels dropped over the decade in every region but Ontario, where it remained unchanged. This poor result is troubling as it reflects organizations increasing their use of part-time workers and temporary layoffs to match the slowdown in demand for products and services.

Pay Equity (Female to Male Wage Ratio)

Ontario's wage gap went unchanged over the six-year 1997-2002 period. The Canadian wage gap stayed the same over the 1997-2002 period as well, due in part to the large portion of the Canadian labour force in Ontario. BC, Manitoba and Saskatchewan managed to close their gender wage gaps by small amounts, between 3.7 and 4.9 percent increases in the female to male wage ratio, over the 1997-2002 period. Alberta was the only studied jurisdiction to register deterioration in its gender wage gap, with a -2.5 percent in the female to male wage ratio.

Labour Market Stability (Job Tenure)

BC's 15.8 percent increase in job tenure over the decade was a much better performance than those turned in by the other studied jurisdictions. Although Saskatchewan came up with the largest decline of 3.4 percent in job tenure, it still had the longest average of 116 months at the end of the decade. Manitoba was ranked no.2 in 1993 and 2002 but managed to close the gap on front running Saskatchewan by pushing up its average job tenure by 5 percent over the decade.

4.2.3 2002 Rankings

Table 4-3 presents the 2002 rankings for the studied jurisdictions on the five WORK indicators and the percentage difference between the no.1 ranked jurisdiction and the others. This ranking shows where each jurisdiction stands in relation to the others. The percentage difference shows the gap between the leading jurisdiction and the others.

	Employment Rate		Real Wage		Actual/Potential Hours		Female/ Male Wage Ratio		Average job Tenure	
	%	Rank	%	rank	%	rank	%	rank	%	rank
Manitoba	94.8%	1	-12.6	4	-4.3	5	84.8%	1	-9.3	2
Saskatchewan	-0.5	3	-14.0	5	-1.7	2	-1.4	3	116 months	1
British Columbia	-3.5	6	-1.1	2	-7.1	6	-0.2	2	-21.0	5
Alberta	-0.1	2	-4.3	3	92.3%	1	-10.1	6	-27.2	6
Ontario	-2.0	4	\$18.56	1	-2.0	3	-1.2	4	-18.0	4
Canada	-2.6	5	-4.3	3	-3.7	4	-1.8	5	-16.6	3

General observations Manitoba's rankings for the work environment indicators are as follows.

- Manitoba had the no.1 ranking for two indicators, employment rate and female/male wage ratio but in both instances a few other provinces had similar levels. The real wage rates of Saskatchewan and Manitoba were significantly below the levels of the other studied jurisdictions.

General observations about the 2002 rankings for the work environment indicators are as follows.

Employment Opportunity (Employment Rate)

Manitoba, Saskatchewan and Alberta had the highest, and similar, employment rates in 2002. In the case of Saskatchewan and Manitoba, their labour force growth was moderated by the outflow of workers to other provinces. Alberta's rate was amongst the highest because of the continued strength of its oil and gas extraction based economy.

Labour Compensation (Real Wage)

Ontario held the no.1 ranking for the real wage rate indicator in 2002 as it has done throughout the 1993-2002 decade. BC's ranking jumped from 5th to 2nd in 2002. Saskatchewan and Manitoba had 2002 average wage rates well below the other studied jurisdictions, as they have throughout the decade.

Labour Utilization (Actual to Potential Hours Worked)

Although Alberta experienced the biggest decrease in labour utilization in 2002 over 2001, it maintained the no.1 ranking because of the greater strength of its economy in relation to the other studied jurisdictions. BC had the bottom ranking for labour utilization in 2002 as its rate was significantly lower than the Alberta and Canadian average rates.

Pay Equity (Female to Male Wage Ratio)

Although Manitoba was the no.1 ranked jurisdiction on the pay equity indicator, all studied jurisdictions but Alberta had similar female to male wage ratios in 2002. Alberta's male wage rate was well above its female wage rate in comparison to the other jurisdictions. This result is due to particularly high wage growth for males in the province's resource based economy. BC's high ranking is due to slow wage growth for males as this province's resource sector stumbles.

Labour Market Stability (Job Tenure)

Saskatchewan ranked no.1 on the job tenure indicator in 2002 by a significant margin. This province and Manitoba have ranked no.1 and no.2, respectively, throughout the 1993-2002 decade. Alberta's job tenure has been in the no.6 or no.5 spot throughout the decade. These results suggest that there is greater mobility and more short duration jobs in a more vibrant economy.

4.3 Evaluation of WORK Indicators

4.3.1 Employment Opportunity

Employment Opportunity Indicator

The employment rate, defined as the number of persons employed as a percentage of the overall labour force, is widely used as an indicator of the health of a national, regional or local economy. When the economy is strong, demand for workers increases and a higher proportion of people looking for work are able to find jobs. Conversely, when the economy weakens, companies and public organizations have less revenue and either slow their hiring or even begin shedding existing workers.

Employment Opportunity Trends

Unfortunately, the employment rate continued to trend downwards in Canada over 2002 as the increase in job opportunities induced an even greater number of Canadians to enter the labour force.

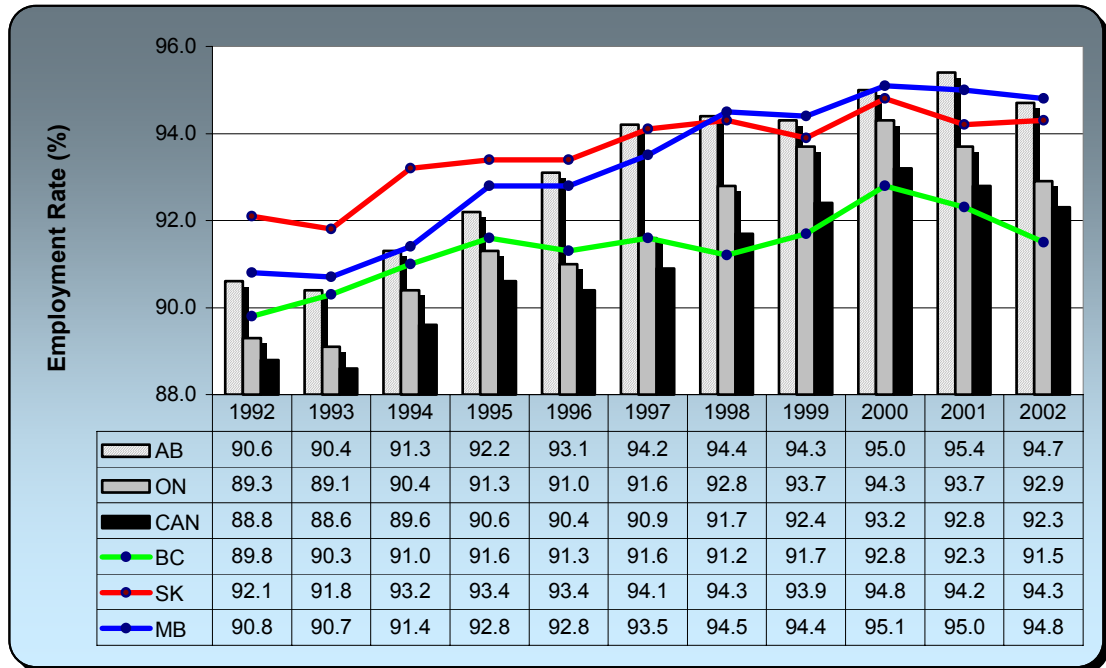
For the past year, only Saskatchewan of the six studied jurisdictions was able to produce an employment rate increase in 2002 and it was relatively small, 0.1 percent. In Alberta, employment declined by 0.7 percent in 2002, while employment declined by 0.8 percent in both British Columbia and Ontario.

Manitoba, Saskatchewan and Alberta had the highest, and similar, employment rates in 2002, between 94.3 and 94.8 percent of their labour forces.

The highest employment rate in 1993, 91.8 percent in Saskatchewan, would rank almost at the bottom a decade later, which indicates overall progress on this important indicator. The lowest employment rate in 2002 was 91.5 percent, delivered by BC.

Over the 1993-2002 decade, Alberta, Ontario, Manitoba and Canada registered similar increases of between 4.2 and 4.8 percentage points in their employment rates. BC had the worst performance for the decade, a 1.3 percent rise. The gap between the highest and lowest employment for the studied jurisdictions is relatively narrow, 3.3 percentage points in 2002, little changed from the 3.2 percentage point gap at the decade's start, 1993. Employment rates for the benchmarked jurisdictions are presented in Figure 4-1.

FIGURE 4-1: EMPLOYMENT RATE, PROVINCES AND CANADA, 1992-2002



Source: Statistics Canada.

Employment Opportunity Drivers

The lowest interest rates in decades created strong domestic demand in 2002 that drove above average economic growth in Canada. As a result, the Canadian economy generated over 600,000 new jobs between January 2002 and February 2003 – the largest 14 month gain since 1976⁶⁶.

Over the last decade employment rates in Canada rose from the recession of the early 1990’s until 2000 when the growth bubble in the technology sector burst and economies around the world saw growth slow. Compounding this slowdown were revelations of corporate accounting scandals, the events of September 11th and subsequent security concerns and political instability. The recovery from all these negative influences has taken longer than originally anticipated, particularly in the economies of the United States, Europe and Japan, thereby negatively impacting Canada’s exports of goods and services.

Despite each region experiencing the same phenomenon of having a net increase in the number of jobs created, there was a concurrent entry of an even greater number of people into the labour force, thereby boosting 2002 unemployment rates in Canada. Saskatchewan was the exception and did not register concurrent labour force growth in 2002. This contrasts with 2001 when British Columbia and Saskatchewan actually saw their total employment numbers fall for the first time in over a decade.

⁶⁶ Finance Canada – *Economy in Brief*, March 2003

In the case of Saskatchewan and Manitoba, their labour force growth was moderated by the outflow of workers to other provinces. Alberta's rate was amongst the highest because of the continued strength of its oil and gas extraction based economy. Table 4-4 displays unemployment rates for the 1992-2002 period.

TABLE 4-4: Unemployment Rates (% of labour force), 1992-2002

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
BC	10.2	9.7	9.0	8.4	8.7	8.4	8.8	8.3	7.2	7.7	8.5
SK	7.9	8.2	6.8	6.6	6.6	5.9	5.7	6.1	5.2	5.8	5.7
MB	9.2	9.3	8.6	7.2	7.2	6.5	5.5	5.6	4.9	5.0	5.2
AB	9.4	9.6	8.7	7.8	6.9	5.8	5.6	5.7	5.0	4.6	5.3
ONT	10.7	10.9	9.6	8.7	9.0	8.4	7.2	6.3	5.7	6.3	7.1
CAN	11.2	11.4	10.4	9.4	9.6	9.1	8.3	7.6	6.8	7.2	7.7

Source: Statistics Canada

Manitoba Employment Opportunity

Manitoba's economy grew by 3.1 percent in 2002, added 9,100 new jobs and boasted the lowest unemployment rate in Canada at 5.2 percent⁶⁷. However, part-time positions accounted for 5,600, or 62 percent, of the job growth and full-time jobs the remaining 3,500 positions.

As shown in Table 4-5, service industries were responsible for Manitoba's job growth in 2002 adding 11,100 jobs while the goods producing industries tallied an overall loss of 1,500 positions. *Over the decade, the employment growth picture is more balanced between goods and service sectors, a good showing.* Good producing businesses increased employment by almost 9 percent over the decade and service industries boosted their employment in Manitoba by 13 percent.

TABLE 4-5: MANITOBA LABOUR FORCE STATISTICS, 1993-2002

	1993	1996	2002	% change 1993-2002
Labour Force (000s)	558.6	558.9	598.0	7.05%
Employment in Goods Producing Sector (000s)	127.6	136.9	138.6	8.62%
Employment in Service Sector (000s)	378.9	381.7	428.4	13.06%
Total Employment (000s)	506.5	518.6	567.0	11.94%

Source: Statistics Canada

⁶⁷ Manitoba Finance – *Manitoba's Recent Economic Performance*, June 16, 2003

The effects of an aging population and the lowest interest rates in recent memory were reflected in the areas of employment growth in Manitoba during 2002. Table 4-6 presents the top five job growth sectors for the province in 2002.

TABLE 4-6: TOP FIVE MANITOBA SECTORS FOR JOB GROWTH 2001-02

Sector	Growth in Jobs
1. Health care & social assistance	4,900
2. Retail trade	3,700
3. Other services	3,400
4. Agriculture	2,000
5. Information, culture & recreation	1,600

Source: Statistics Canada

The results by sector are as follows.

- As in other regions, the aging population and its demand for healthcare services fueled high levels of employment growth in healthcare occupations.
- Low interest rates stimulated strong growth in Manitoba's retail sales, and related jobs, particularly for motor vehicles, appliances and furniture.
- "Other services" also saw strong employment growth particularly in the automotive repair sub-sector.
- The lone goods producing industry in the top five growth sectors was agriculture that added 2,000 positions in 2002. However, the growth in agricultural jobs only represents a partial recovery of the 7,300 agriculture jobs lost during 2000 and 2001.
- Growth in the "information, culture & recreation" sector rounded out the top five growth areas was based on the continued growth of the province's movie, gaming and publishing industries.

Table 4-7 shows the five sectors with the largest employment declines over the past year.

TABLE 4-7: TOP FIVE MANITOBA SECTORS FOR JOB DECLINES 2001-02

Sector	Decrease in Jobs
1. Wholesale trade	- 2,400
2. Construction	- 2,300
3. Manufacturing, durables	- 2,300
4. Transportation & warehousing	- 1,500
5. Finance and Insurance	- 600

Source: Statistics Canada

The results by sector are as follows.

- The growth of big box retailers has cut into some of the traditional wholesale trade market and created some job losses, as have reduced US exports from the almost \$8 billion peak in 2000.
- The decrease in construction jobs ran counter to the province's increase in 2002 housing starts. However, Manitoba's decrease in construction jobs is likely to be temporary as a number of large scale projects are coming on-stream including: hydro dam, Holocaust museum, arena, floodway expansion, hotel and office towers. The one complicating factor for Manitoba in realizing the full employment potential of these construction projects may be the low wage rates in the province and competition for already scarce trades workers from high wage regions like BC, as they gear up a number of large scale construction projects in the lead-up to the 2010 Olympics.
- The loss of jobs in the durable manufacturing reflected layoffs in the aerospace and bus manufacturing industries due to the slow down in the US economy and rationalization in the commercial airline industry.
- The job losses in transportation and warehousing are similarly related to reduced demand and shipments of goods to the US.

The following table presents the top five Manitoba job growth sectors for the 1993-2002 decade. Health care and social assistance and information, culture and recreation sectors appear on both the past year and decade lists as top job growth sectors. It is interesting that retail trade does not appear on Manitoba's list of top job growth sectors for the decade. It appeared on the top of the Saskatchewan and in the BC list. It is heartening to see manufacturing assume a prominent role on Manitoba's 1993-2002 job growth list but of concern that durables manufacturing appeared on the past year's top five job decliners list. Health care and social assistance also appeared on the top job growth lists of BC and Saskatchewan.

TABLE 4-8: TOP FIVE MANITOBA SECTORS FOR JOB GROWTH 1993-2002

Sector	Growth in Jobs
1. Health care and social assistance	13,000
2. Manufacturing of durables	11,500
3. Manufacturing of non-durables	8,100
4. Professional, scientific & technical services	7,700
5. Information, culture and recreation	6,800

Source: Labour Force Historical Review, CD1, Table 5, Statistics Canada

Table 4-9 presents the top five Manitoba job decline sectors for the 1993-2002 decade. Only agriculture appears on both the past year and decade lists as top job decline sectors. Agriculture lost the most jobs by far over the decade, 10,300, five times more than the runner-up, real estate and leasing. The percentage loss in agriculture jobs was especially significant 24.3 percent, moving from 42,300 jobs in 1993 to 32,000 jobs in 2002. The greater diversity of the Manitoba agriculture sector lessened the employment bleeding, which was not severe as Saskatchewan's agriculture sector job loss, more than 60 percent.

TABLE 4-9: TOP FIVE MANITOBA SECTORS FOR JOB DECLINES 1993-2002⁶⁸

Sector	Decrease in Jobs
1. Agriculture	-10,300
2. Real Estate and Leasing	-2,100
3. Public Administration	-1,600
4. Mining and Oil and Gas Extraction	-1,200
5. Fishing, Hunting and Trapping	-500

Source: Labour Force Historical Review, CD1, Table 5, Statistics Canada

Public administration and real estate and leasing appeared on the 1993-2002 top five job decliners lists of BC and Saskatchewan as well. The latter saw employment losses because of increasing automation and the former because of overall restraint in government spending at all levels.

⁶⁸ Only 4 sectors showed declines in jobs from 1993 to 2002.

4.3.3 Spotlight on Manitoba Out-Migration

Like Saskatchewan, Manitoba's low unemployment rate is partly due to the steady loss of its labour force to other provinces. Between 1996 and 2001, Manitoba saw a net loss of 18,600 residents to other provinces. These disappearing Manitobans represented 1.8 percent of the population, the third highest proportional inter-provincial outflow of all the provinces. The net out-migration of Manitoba residents to other provinces totaled 5,300 in 2002, which represented an increase of 23 percent from 2001. On a net basis, 57 percent of these residents went to Alberta, 20 percent to Ontario and 19 percent to British Columbia ⁶⁹.

Despite this flow of people to other provinces, Manitoba's population increased by 5,685 between 1996 and 2001, due to the contributions of natural population growth (births minus deaths) and international immigration. Looking at the details of Manitoba's increase in population reveals an interesting demographic trend. *All of the province's population growth, and more, was based on growth in the province's Aboriginal population that increased by 21,360 while, the non-Aboriginal population decreased by 15,675 between 1996 and 2001⁷⁰.*

Manitoba is pursuing a three pronged strategy to increase the number of workers with skills matched to labour market needs, such as skilled trades and healthcare professions. Education and skills development programs targeted to the province's young and growing Aboriginal population is the first prong, along with initiatives to encourage older workers, particularly women, to remain or enter the work force. The third element of Manitoba's strategy are activities to attract skilled international immigrants through initiatives such as the provincial nominee program.

⁶⁹ 2001 Census, Stats Canada

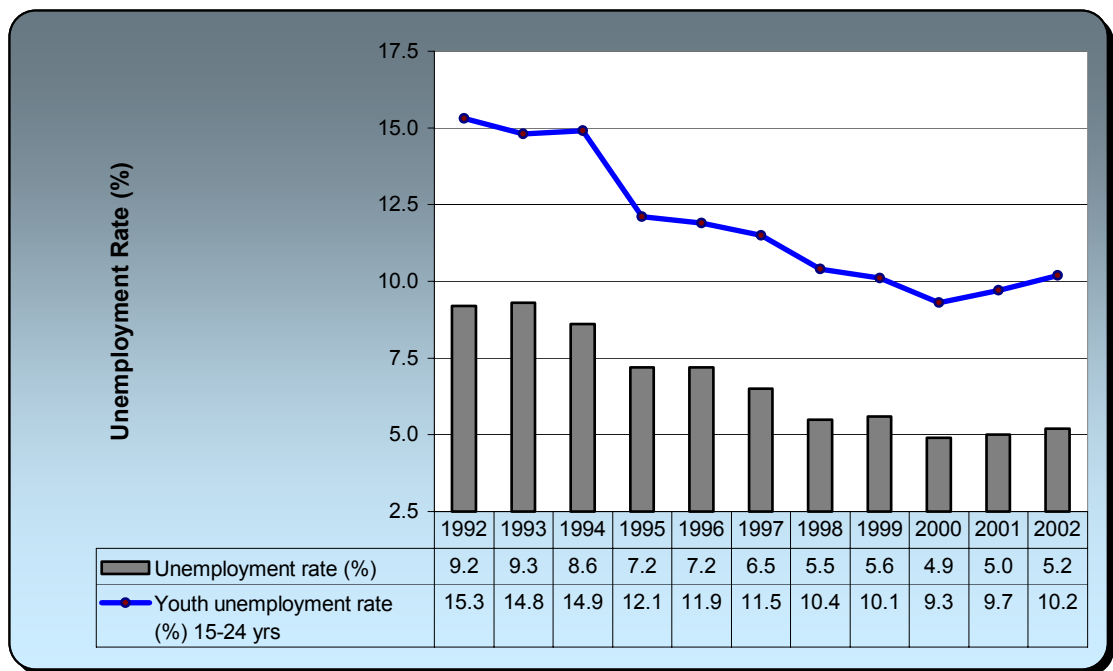
⁷⁰ Ibid

4.3.4. Spotlight on Youth Employment

The up-side to Manitoba's loss of workers to other provinces is that it has created more employment opportunities for youth workers. The youth unemployment rate has seen a steady decline over the last decade, although this decline has stalled over the past two years in step with the province's overall employment situation.

Making sure that youth have a good match of education and skills to the needs of the province's labour market is an on-going priority in Manitoba, particularly for its Aboriginal youth who traditionally have low education attainment rates and are the fastest growing portion of the province's population. Figure 4-2 presents a comparison of the province's overall unemployment and youth unemployment rates. It shows a decline from 15.3 percent in 1992 to 2002's 10.2 percent, a one-third reduction.

FIGURE 4-2: COMPARISON OF UNEMPLOYMENT IN MANITOBA: YOUTH AND TOTAL LABOUR FORCE, 1992 -2002



Source: Statistics Canada

4.3.5 Labour Compensation

Labour Compensation Indicator

A real wage indicator has been constructed for the various provinces using Survey of Employment, Payroll and Hours (SEPH)⁷¹ pre-tax earnings data from Statistics Canada. It is defined as a weighted average of hourly earnings to both hourly and salaried workers, including overtime, deflated by the Consumer Price Index⁷².

Where nominal (or current dollar) wages rise faster than the inflation rate, workers enjoy a real increase in earnings, an important indicator of the quality of the work environment.

Real wages can be regarded from two perspectives:

- From an *employer's* point of view, an increase in real wages without a corresponding increase in labour productivity represents an increase in the cost of inputs, and makes it unappealing to hire more workers.
- Higher real wages enhance the standard of living for *workers*, and attracts more employees into the labour market.

Because this analysis is carried out from the perspective of the worker, the Consumer Price Index is used to deflate nominal wages, thus capturing the effect of real wage change on consumer purchasing power.

Labour Compensation Trends

The national average real wage has been relatively constant during the past decade, while a wide spread has persisted between average provincial real wages, with either Ontario or BC at the top and Saskatchewan at the bottom, with the lowest average wage.

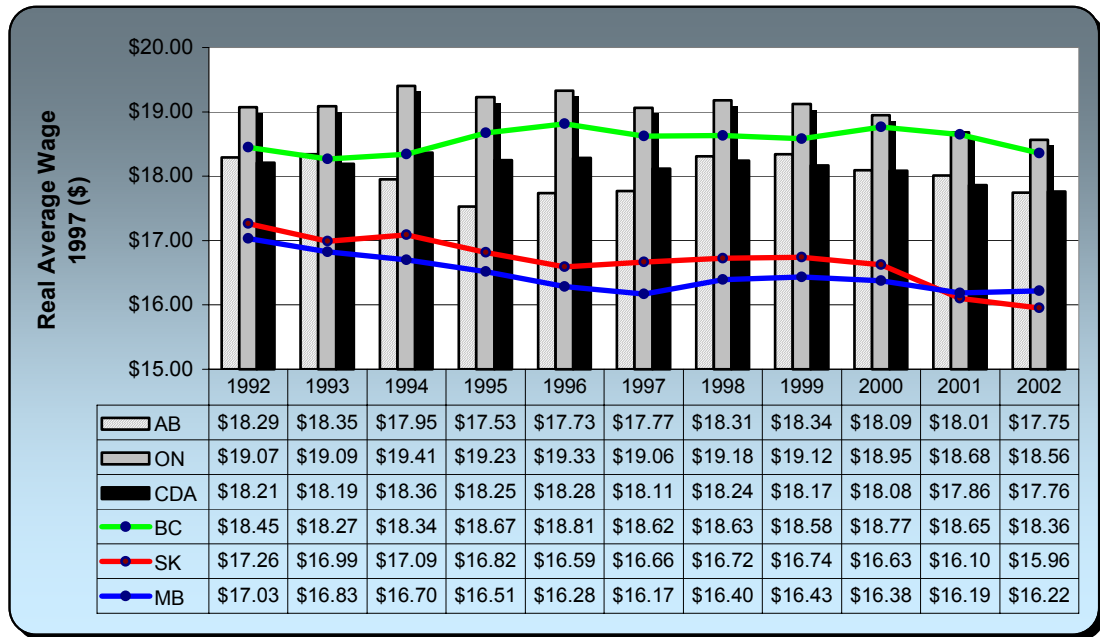
In the past decade, 1993 to 2002, Ontario and BC have enjoyed the highest real wages, however there has been a gradual decline in Ontario wages since 1995, while BC's rate has remained fairly stable. Saskatchewan's and Manitoba's real wages are significantly lower than those of the other provinces, and have declined since 1993. Alberta saw significant improvements between 1995 and 1999 (when it outstripped the increase in the national average), but the trend has reversed since that time.

⁷¹ SEPH survey data focuses on larger establishments and omits self-employed workers including farmers, and owners or partners of unincorporated businesses. The survey therefore omits many new, small businesses in the fast-growing high technology sector, which are characterized by high earnings, and which now account for a small but growing share of the economy.

⁷² Weights are determined by relative share of the total labour market. Source: *Survey of Employment, Payroll and Hours*, Statistics Canada. The *Check Up 2002* reports provides details on methodology and data used in this analysis.

In the past two years, real wages have declined slightly in all jurisdictions but Manitoba. In 2002, Ontario ranked highest, with a real wage of \$18.56, while BC came in second at \$18.36. Alberta and Canada were tied for third place at \$17.75, although in the previous four years Alberta's rate was higher than the national average. Finally, Manitoba and Saskatchewan ranked fourth and fifth respectively. This is the first time in the past decade that Manitoba's real wage outstripped that of Saskatchewan. Real average hourly wages for the benchmarked jurisdictions are graphed in Figure 4-3.

FIGURE 4-3: REAL AVERAGE HOURLY WAGES (PRE-TAX)⁷³, PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada

Labour Compensation Drivers

What has influenced real wages in Canada during the past decade?

- Productivity stagnation has likely suppressed real wage growth.** Firms are only willing to pay more for labour if it is more productive (i.e., in terms of output per hour work). Human and capital investment are both required to enhance productivity, hence a poor investment climate over a long period of time dampens productivity growth and, subsequently, real wage. (This is discussed in more detail in the INVEST section.)

⁷³ includes overtime

- ***A gap between the structural and actual unemployment has contributed to overall slow real wage growth in Canada.*** A gap between the structural (natural) rate of unemployment and the actual unemployment rate reflects the degree of tightness in the labour market and, subsequently, the pressure on real wage. Where there is an excess supply of workers, the market is more competitive and the bargaining position of labour unions eroded. Alberta was a significant exception in late 1990s, when capital investment was strong, as well as the demand for skilled workers.
- ***Since the late 1980s, when unemployment in Canada was at its highest, the wage premium to union workers has been declining.*** Statistics Canada data shows that unionized workers earned 20 percent more than non-unionized workers in 1986; this declined to 8 percent by 1999⁷⁴. However, the gap in the Canadian labour market has shrunk, and the prospect of wage inflation is now becoming more likely in the years to come. Data from HRDC shows that the average annual wage increases in major union agreements in 2002 were relatively low in BC (1.9 percent), while they were considerably higher in Manitoba and Saskatchewan (4 percent and 3.9 percent respectively)⁷⁵. This likely contributed to the decline in 2002 real wage in BC, while it has helped to buoy real wage trends in Manitoba and Saskatchewan.
- ***Inflation rates have been higher than nominal wage increases in Canada, resulting in low real wage change.***
- ***All the provinces have seen a shift in composition of the labour force towards lower-paying jobs, particularly for young or immigrant workers.*** In most or all OECD countries, the service sector has grown at the expense of the goods-producing sector. Many jobs in the service industry are lower-paying, and larger numbers of workers receiving lower income will contribute to a lower average real wage. Another example is the decline of income to immigrants in Canada.

⁷⁴ Statistics Canada, *The Daily*, Thursday September 26, 2002.

⁷⁵ HRDC, *Wage Increases in Major Agreements – WID*. Special report done in June 2003.

- ***Lower incomes for recent immigrants is another factor.*** The newly released Census data shows that “the low-income rate among the most recent immigrants to Canada almost doubled from 1980 to 1995, before easing back during the last half of the 1990s As a result, the gap in the low-income rate between recent immigrants and Canadian-born individuals widened significantly during the past two decades.”⁷⁶ To illustrate this, Census data shows that in 1980, male immigrants who had only been in Canada for one year made, on average, 72 cents for every dollar earned by a Canadian-born citizen. This ratio declined to 63 cents in 1990 and 2000. Further dampening immigrants’ real wages is the fact that earnings gains arising from skills, such as university education or knowledge of either official language, are in decline.

Manitoba Labour Compensation

Manitoba has one of the lowest real wage rates in the country, closely tracking that of Saskatchewan. In 1993, Manitoba’s average real wage was \$16.83 (in 1997\$). It declined between 1993 and 1997, rose slightly in 1999, and then stabilized. By 2002, the average real wage in Manitoba was \$16.22, approximately 9 percent below the national average.

Inflation has been a significant factor in the erosion of Manitoba’s real wage. Between 1993 and 2002, nominal wages to hourly and salaried workers rose by 15.5 percent, compared to a 19.9 percent increase in consumer inflation. The net result was a decline in real wage. It is interesting to note that cumulative inflation has been higher on the prairies since 1992, with prices rising approximately 24 percent over 1992 to 2002, compared with 20 percent for Ontario, 18 percent for BC and 19 percent for Canada as a whole.

While Manitoba’s annual productivity growth was the same as the Canadian average during the past decade, this province’s productivity level in 2002 was still 13 percent less than the national average because it started the decade well below the Canadian average. This has no doubt contributed to low real wage gains. Manitoba’s low rate of capital investment has also contributed to relatively slow productivity gains, compared to some provinces and international competitors, translating to sluggish real wage growth. It should be noted, however, that some sectors have realized significant productivity gains in the recent past, including utilities, mining, oil and gas extraction, and finance, insurance & real estate.

Manitoba has the strongest union presence in western Canada (36.7 percent of the labour force is unionized). Collective wage agreements in the public and private sectors may have been instrumental in stabilizing the real wage since 1997. Overall wage adjustments from major settlements boosted nominal union wages by 2.5 percent in 2001 and 4.0 percent in 2002. Manitoba’s strong union presence, and recent favourable outcomes at the bargaining table has contributed to average real wage improvements in 2002.

While absolute real wages are low in Manitoba, so are the prices of housing and other consumer goods. For much of the last decade, Manitoba has enjoyed the lowest average housing prices among the western provinces, and considerably lower than both the national average and

⁷⁶ Statistics Canada’s *The Daily* website: <http://www.statcan.ca/Daily/English/030619/d030619a.htm>

Ontario. ***However, recent analysis conducted by the Royal Bank of Canada⁷⁷ that factored in all basic housing costs, i.e. mortgage payments, utilities and property taxes, across the country found Manitoba rated second worst in housing affordability, behind only BC.*** This analysis has touched off a debate about whether the province needs to increase wages to attract in-migrants from provinces with higher incomes.

⁷⁷ Royal Bank of Canada – *Household Affordability Index*

4.3.7 Labour Utilization

Labour Utilization Indicator

Labour utilization is quantified by estimating the ratio of actual hours worked relative to the potential working hours available per week. This utilization rate reflects trends in both traditional and non-traditional (self-employed, contract, part time) employment.

- "Actual hours worked" is the average number of hours actually worked by the respondent during the reference week, including paid and unpaid hours.
- "Potential hours" is calculated as a maximum of 1,954 hours a year before overtime (40 hours per week x 52 weeks minus 2 weeks vacation, weekends and legal holidays). Actual/potential hours reflects the general degree of labour force utilization ⁷⁸.

Labour utilization describes the type of employment in a labour market. Working conditions are influenced by the amount of economic growth and structural changes within industries and economies. For example, companies in a strong economy usually want their existing employees to work full-time to maximize output. While, structural changes like the shift to a more services based economy includes the growth of industries that typically use more part-time and non-traditional employment. The age profile of the labour force is also a factor, e.g. young workers often work part-time will attending school. While older workers may just want part-time work to top-up retirement incomes. Within countries these conditions are generally determined by: demographic trends, the standard of living, global economic circumstances and more local factors such as the state of affairs in dominant industries and conditions from collective bargaining decisions.

Labour Utilization Trends

Since the 1980s, there has been a shift towards non-standard employment in Canada -- self-employment, contract, and part time -- as the proportion of traditional, full-time jobs has declined. Generally speaking, Canada's utilization rate is high, but lower than that in the US. Figure 4-4 shows the comparative ratios for British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Canada as a whole.

For 2002, Alberta's utilization rate registered the largest decline, decreasing 2.4 percent, but Alberta still leads all regions with a labour utilization rate of 92 percent.

The other Prairie provinces rounded out the top three utilization decreases with Manitoba dropping 2.1 percent and Saskatchewan 1.6 percent. The reduction in worker hours for British

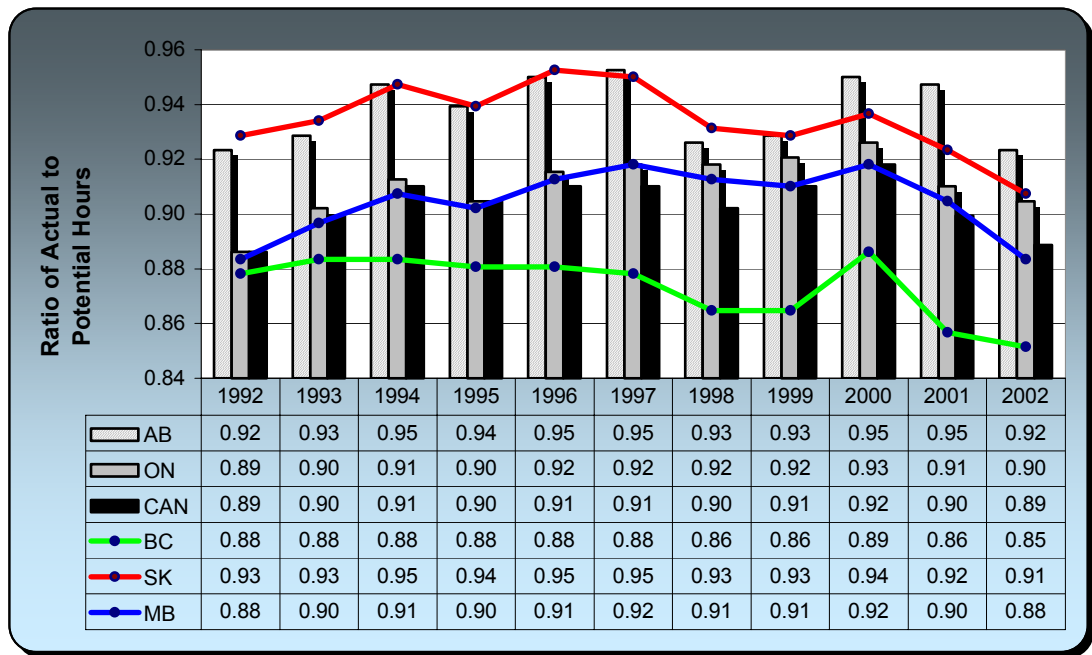
⁷⁸ Labour Force Survey. This series is representative of the civilian, non-institutionalized population 15 years of age and older in Canada's ten provinces.

Columbia and Ontario came in at 0.5 percent, which was less than the national decline of 1.1 percent.

BC had the bottom ranking for labour utilization in 2002 as its rate (85 percent) was significantly lower than the Alberta (92 percent) and Canadian average (89 percent) rates. BC also had the lowest labour utilization rate at the start of the decade, 88 percent, 3 percentage points more than its 2002 rate.

Labour utilization levels dropped over the decade in every region but Ontario, where it remained unchanged.

FIGURE 4-4: ACTUAL TO POTENTIAL HOURS PER WEEK, PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada

Labour Utilization Drivers

Labour utilization levels dropped in every region last year as organizations increased their use of part-time workers and temporary layoffs to match the slowdown in demand for products and services.

All regions have seen utilization rates fall over the past two years as business and government try and manage costs through the global economic slow down.

Persistent differences in utilization rates exist across the provinces. Alberta and Saskatchewan have consistently had the highest ratio of actual to potential hours. In Alberta’s case this is a function of its economic growth while Saskatchewan’s high rate is linked to its continued

outflow of people and tight labour market. British Columbia has had the lowest rate of utilization and has been trending down over the last decade as the province wrestles through its current economic transition. Manitoba and Ontario with more diversified economies have had more stable utilization rates that are in line with the national average.

Labour utilization directly affects the economic standard of living, i.e. GDP per capita, which is a function of labour productivity (GDP/hours worked) x labour utilization (hours worked/jobs) x employment opportunity (jobs/potential labour force) x population profile (potential labour force/population)⁷⁹. Increasing (or decreasing) any one element (labour productivity, labour utilization, employment opportunity or population profile) impacts GDP per capita.

Structural changes are also taking place in Canada that are affecting utilization rates. Employment trends are being affected by the growth of the country's service industries that feature sectors with high levels of part-time employment, such as retail trade and tourism related services. Other service industries such as those in the information technology sectors have had to scale back operations to survive the recent market correction and many information technology workers are on contract or work part-time.

Manitoba Labour Utilization

Manitoba's diversified economy and relatively tight labour market have resulted in a fairly stable worker utilization rate that largely tracked the national average at about 34 hours per week.

This stability is reflected in Manitoba's gross domestic product that avoided the recession experienced in many other regions in 2001 and in the province's worker utilization trend over the last decade that declined a modest 1.3 percent, as compared to declines of 2.7 and 3.2 percent in Saskatchewan and British Columbia. However, Manitoba's utilization rate, as in other regions, declined over both 2001 and 2002 as the effects of the North American economic slow down rippled through the country. Until this recent slow down, Manitoba's already low rates of involuntary part-time had been dropping from 8.9 percent in 1997 to 5.6 percent in 2000. With the onset of the economic slow down in 2001 involuntary part-time began trending up and reached 6.7 percent in 2002.

As in many other regions, Manitoba's service sector generated all of the job growth in 2002 and with this came an increase in part-time employment of 5,600 positions or 62 percent of total job growth for the year. The amount of workers logging 41 or more hours per week has also been trending down from the peak of 25 percent seen in 1997 to 23 percent in 2002⁸⁰.

Table 4-10 presents recent trends in for self-employed and part-time workers and the involuntary share of part-time employment.

⁷⁹ Institute for Competitiveness and Prosperity () *Measuring Ontario's Prosperity: Developing an Economic Indicator System.*

⁸⁰ Statistics Canada, Labour Force Survey

TABLE 4-10: RECENT TRENDS IN MANITOBA FOR SELF-EMPLOYED AND PART-TIME WORKERS

	1997	1998	1999	2000	2001	2002
Self-employed share of total employment	18%	17%	18%	17%	15%	15%
Part time as % of total employment	20%	20%	20%	19%	19%	20%
Involuntary share of part time employment	9%	8%	7%	6%	7%	7%

Source: Statistics Canada, Labour Force Survey

The number of self employed workers also increased in 2002 by 37,000 workers following a drop of 112,200 in 2001. This decline and partial recovery parallels the employment patterns in Manitoba's agriculture, information technology and auto repair sectors.

4.3.8 Pay Equity

Pay Equity Indicator

The female-male wage gap – the gap in wages that cannot be explained by experience, education, or ability – is used in this project as the benchmark measure of pay equity.

The participation of women in the Canadian labour force has risen steadily over the past forty years and women continue to occupy a greater range of occupations in a wider array of industries. Over this same time period, the gap that traditionally existed between female and male earnings has been closing. The Canadian female/male earnings ratio rose from 58 percent in 1967 to 83 percent in 2002⁸¹. Nonetheless, a significant differential between the two persists.

Pay Equity Trends

The national female/male earnings ratio has remained level over the six-year 1997-2002 period, at either 82 or 83 percent⁸². Some trend results by province are as follows.

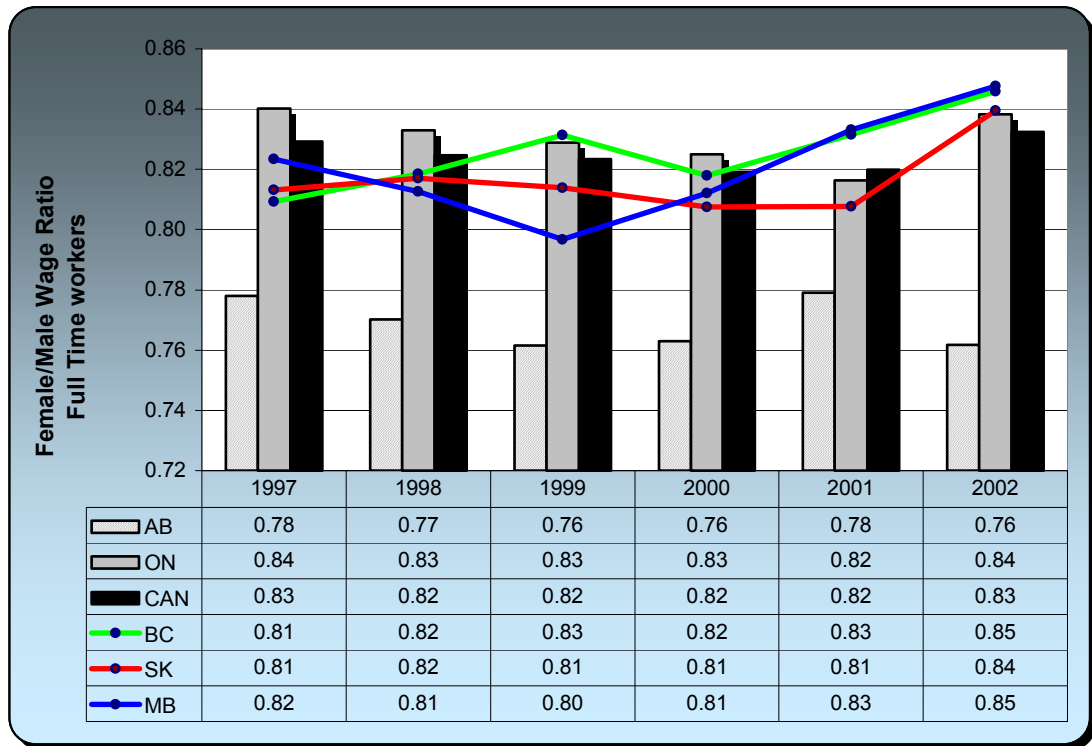
- Ontario has largely followed the national trend with slightly better numbers.
- BC and Manitoba have lead all the regions closing the wage gap by 3 percent over the last two years, reaching an historic high female/male ratio of 85 percent.
- Alberta has lagged all the reference areas and saw its wage gap widen in 2002 dropping from 78 percent to 76 percent. However, this is not so much a bad news story for women workers in Alberta as it is an extremely good news story for the men workers. As the drop in the female/male wage ratio was largely due to the strong wage growth in the male dominated oil & gas and construction industries which resulted in Alberta's male workers seeing large pay increases totaling 22.8 percent from 1997. The increase in the pay for women workers in Alberta increased 20.2 percent over the same time period, second only to Saskatchewan in the regions examined.
- Saskatchewan saw a jump in female wages in 2002, due largely to the union contract completed for nurses, that closed the female/male wage gap by 3 percent. Saskatchewan's female /male wage growth was the reverse of Alberta's situation as Saskatchewan's female workers wage growth lead all reviewed regions while the province's males saw the second highest rate of growth.

The female-to-male earnings ratio for the benchmarked jurisdictions is depicted in Figure 4-5.

⁸¹ Data from Survey of Consumer Finances, *The Earnings of Men and Women*, Statistics Canada, 1997 Catalogue no. 13-217-X1B. Full year, full time workers.; Labour Force Survey

⁸² In the US, female workers made 77.5 percent of what males earned in 2002, about 7 percent less than in Canada. Australia, Denmark and Spain have the highest female-to-male earnings ratios, about 90 percent, amongst OECD countries [The New York Times February 17, 2003].

FIGURE 4-5: FEMALE/MALE WAGE GAP, PROVINCES AND CANADA, 1997 - 2002



Source: Labour Force Survey, Statistics Canada.

Pay Equity Drivers

Explanations for why women earn less than men are related to the fact that women still tend to carry more of the family/childcare responsibilities and the industries in which women tend to work. The age of women workers and whether they delay starting their families have also been found to influence career patterns and wage rates for women in Canada.

Significant growth in real life-time earnings occurs in the first years after graduation, which is also the time when decisions about marriage and raising a family are typically made. Research has found that:

- Women who delay the decision to have children for longer than the average for their peers earn more and participate for more full-time, full-year periods of work over their lifetime than the average for their peers.
- Effects from the timing of motherhood vary with the age of mothers.
 - mothers born prior to 1960 experienced little impact from the decision to delay childbirth.

- mother's born after 1960 who delayed childbirth earned 10 percent more than those women who had children early.⁸³

Consistent with these research findings is that women are still a minority in the higher wage, senior management occupations. Nationally women represent 46 percent of the employed work force but, occupy only 25 percent of senior management positions in Canada⁸⁴. Attaining senior management positions generally requires a high degree of sustained career self management for promotion to senior levels and comes with an expectation that managers will commit to full-time work. This means those who are able to focus exclusively on their careers during the critical early phases of promotion and income growth enjoy an advantage in securing senior management positions and higher wages.⁸⁵

Another related explanation for the persistence in the female-male wage gap is the much higher levels of part-time employment among females. Nationally, women are more than twice as likely to work part-time than men⁸⁶. Part-time work pays less than full-time work when compared on an equivalent hourly wage basis. Structural adjustments in the economy away from primary processing and traditional models of industrial operation partly account for the increased presence of part-time work. However, it is also interesting to note that women are still carrying much of the load for family related responsibilities as 21 percent of Canadian women voluntarily work part-time in order to balance family responsibilities versus 2 percent of men⁸⁷.

Women also tend to earn less than men because they are over-represented in public sector occupations such as healthcare, education and social services that don't enjoy the same wage growth potential as the male dominated jobs in the private sector based manufacturing, resource extraction, construction and high tech industries. Women are also over-represented in low wage jobs such as retail sales and clerks.

- In 2002, 70 percent of employed Canadian women were working in one of teaching, nursing and related health occupations, clerical or other sales and service positions.
- This compares with 30 percent of employed men in these occupational areas.
- However, the percentage of women working in these areas is slowly declining. The 2002 rate of 70 percent of women working in these areas has dropped 4 percent from 74 percent in 1987⁸⁸.

However, the strength of the female dominated BC service industries versus its male dominated resource and manufacturing industries during the last two years of economic downturn in BC has helped to push up the province's female-to-male earnings ratio.

⁸³ Drolet, Marie. *Motherhood and paycheques*. Canadian Social Trends Spring 2003. Statistics Canada Catalogue

⁸⁴ Labour Force Survey, Statistics Canada

⁸⁵ Drolet, Marie. *Motherhood and paycheques*. Canadian Social Trends Spring 2003. Statistics Canada

⁸⁶ Labour Force Survey, Statistics Canada

⁸⁷ Ibid

⁸⁸ Ibid

Manitoba Pay Equity

Like British Columbia, Manitoba saw its female/male wage gap close in 2002 by 2 percentage points to a region leading rate of 85 percent. Increases in demand for healthcare services have created job openings for women in higher wage positions. Conversely, the male dominated goods producing industries have seen a loss of jobs that has reduced the job growth opportunities for men. The employment growth in the female dominated service industries has also helped to increase the percentage of women employed in senior management positions in Manitoba during 2002 and this has also helped to close the wage gap. A factor in closing the wage gap is found by looking at the relative wage growth rates for men and women in Manitoba as shown in Table 4-11.

TABLE 4-11: Growth in Nominal Average Hourly Wage Rates, Full Time, Men and Women (1997 to 2002)

	Women	Men
Saskatchewan	20.9%	17.2%
Alberta	20.2%	22.8%
Manitoba	16.3%	13.0%
British Columbia	14.9%	9.9%
Canada	14.5%	14.0%
Ontario	14.0%	14.3%

Source: Statistics Canada

Manitoba's achievements in closing the female/male wage gap have come not from the strong wage growth for women (16.3 percent wage growth 1997-2002) but, from the slow growth in male worker pay rates (13.0 percent growth 1997-2002). The slow growth in wage rates for men are linked to challenges in Manitoba's male dominated resource industries.

While the increase in female wages and senior management positions are definitely positive trends, it is important to place these improvements into context. Wage rates in Manitoba are relatively low for both men and women and the percentage of women who are senior managers in Manitoba is below the Canadian average.

This said, the Manitoba government is counting on increasing the use of women workers, particularly those over 45, as a part of its strategy to increase its labour force over the coming years. It can be assumed that increasing the employment rates for women with greater levels of work experience will further close the female/male wage gap in Manitoba.

4.3.9 Labour Market Stability

Labour Market Stability Indicator

Labour market stability is measured here by the average annual length of job tenure, or duration⁸⁹.

Job stability reflects either the environment of a specific employment setting, or, at the aggregate level, important underlying trends in the labour market. Short average job tenure at the provincial or national level means that, on average, the movement of workers among firms is high. High average job tenure corresponds with low labour force turnover, either because jobs are more secure or because workers are less inclined to move around.

From both workers' and employers' perspectives, longer average job tenure is desirable:

- Workers employed for longer periods have better opportunities to increase their wages, build skills and obtain promotions. Those with short tenure jobs face periodic unemployment and the need for retraining, and are less likely to build up pensions.
- To the employer, high turnover may allow more flexibility in staffing, but it also means greater costs incurred in locating and training new workers, and productivity problems associated with poor worker morale. Workplaces characterized by low turnover are more likely to be those that invest in worker skills training⁹⁰.

Recent studies have shown that between 1987 and 1995, job stability rose in Canada, but declined in the US. The US experienced “more significant declines in job stability for medium and long-tenured workers” during this time⁹¹. This difference may be due to slower economic recovery in Canada during the 1990s, which suppressed job mobility for medium tenure workers compared to the previous decade. This supports the view that job stability is more elastic during times of buoyant labour markets.

Labour Market Stability Trends

Over the past decade, Saskatchewan and Manitoba have consistently had the highest average job tenures of all jurisdictions, while BC has seen a pronounced move from lowest average job tenure to near the national average.

Figure 4-6 shows that Saskatchewan's average tenure declined slightly from 120.1 months in 1993 to 116.0 months in 2002, while Manitoba showed a slight increase from 100.2 months to

⁸⁹ Job tenure is defined as the number of consecutive months a person has worked for his/her current, or most recent employer. It refers to the most recent period of uninterrupted work.

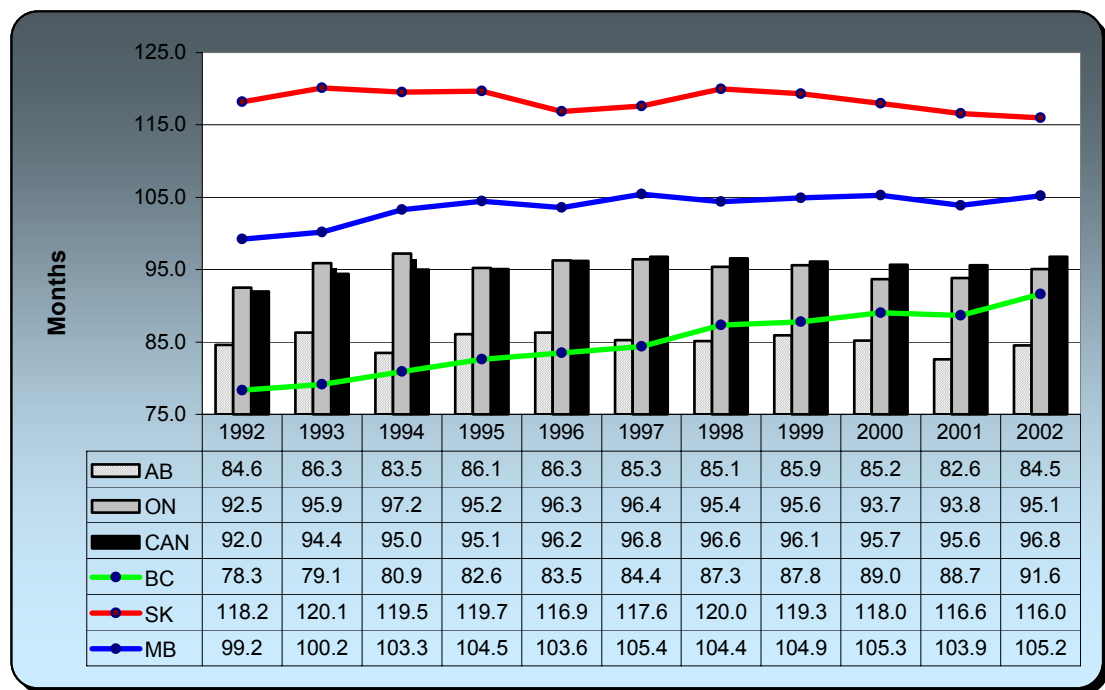
⁹⁰ Bowers, N. Ibid.

⁹¹ Heisz, Andrew (October 16, 2002). *The Evolution of Job Stability in Canada: Trends and Comparisons to US Results*. No. 162. Business and Labour Market Analysis, Statistics Canada.

105.2 months during the same period.⁹² Ontario has consistently had higher job tenure than Alberta or British Columbia since 1993, reaching 95.1 months in 2002. Average tenure has been stable in Alberta, generally moving around the 85 month level, although it declined to 82.6 months in 2001 – not surprising in light of the tight labour market there, and the strong labour demand in the oil and gas sector. In 1993, British Columbia had the lowest average tenure, well below the other provinces and Canada. Over the past decade, tenure in British Columbia has increased on a year-to-year basis, reaching approximately 91.6 months in 2002, however it still sits below the national average.

The following figure shows that, in 2002, Saskatchewan ranked highest in terms of job stability, followed by Manitoba in second place. Third was the national average, which clearly embodies higher tenure in the eastern provinces. Ontario ranked fourth, while BC ranked fifth (an improvement over the early 90s, when it was in last place). Alberta ranks sixth, due to its young labour force and relatively high rate of job turnover.

FIGURE 4-6: AVERAGE JOB TENURE, PROVINCES AND CANADA, 1992 - 2002



Source: Labour Force Survey, Statistics Canada.

⁹² For the purposes of this analysis, average tenure includes both full and part time workers is used.

Labour Market Stability Drivers

The aging of Canada's labour force is either stabilizing or pushing the average up, as the workforce becomes less mobile and more inclined to stay in one job. Higher levels of education are also a factor, with more labour market entrants making better job matches early in their career, thereby reducing turnover and increasing average tenures. Nonetheless, some industries are characterized by job “churn” and shorter tenure, such as those in “high turnover, low-paid and non-unionized sectors such as retail trade and consumer services industries”⁹³. These continue to account for a large proportion of job vacancies at any given time.

The results seem to contradict the hypothesis that the connection between workers and employers is disintegrating in the new global, competitive world. While the employment connection may be more fleeting in the industries of the new economy, which are known for greater labour mobility and a higher rate of turnover due to its young workforce and (until recently) the abundant employment opportunities, but this sector still accounts for a small share of the Canadian economy. High technology and other new economy industries have had an impact on the Canadian economy, but their effect on the nature of the labour market in terms of stability is still small.

Manitoba Labour Market Stability

Manitoba's population is aging like elsewhere in Canada, and with the baby boom cohort accounting for a bigger share of the labour force than 10 years ago, average job tenure has risen slightly since 1993. Older workers exhibit less job turnover and mobility, and account for a growing share of the long-term, stable jobs.

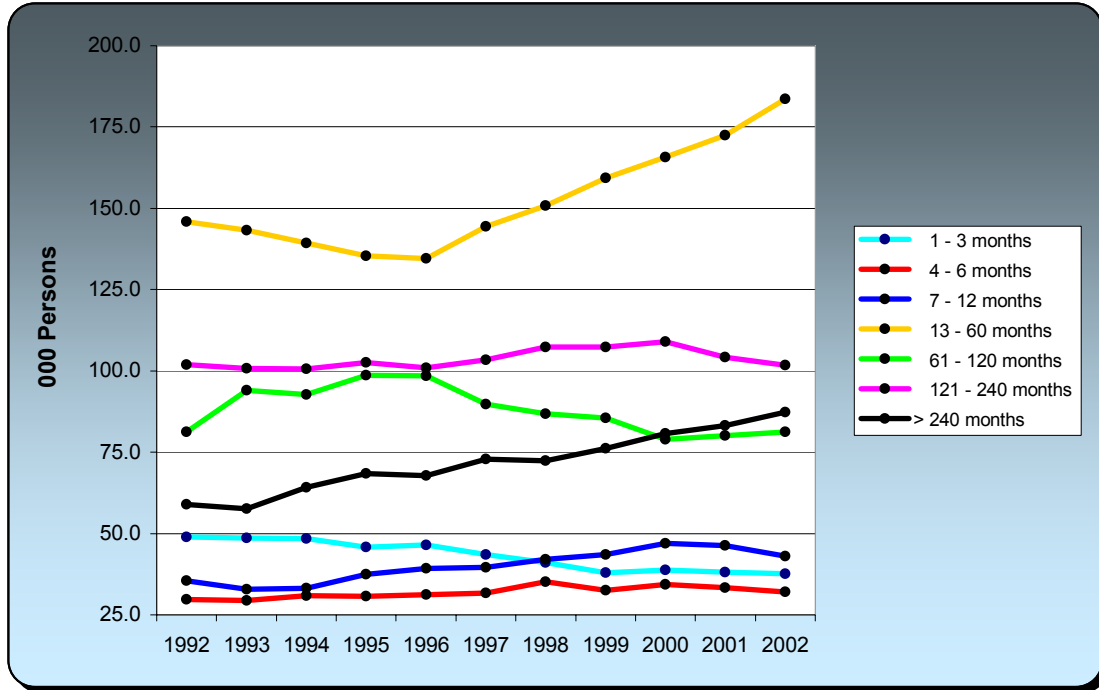
Seasonal jobs in the resource and agricultural sectors have been declining, while longer-term jobs in non-seasonal sectors (specifically services and product manufacturing) have been created. This has served to stabilize Manitoba's average job tenure over the past decade.

The distribution of Manitoba's average job tenures is illustrated in Figure 4-7, which depicts the number of persons employed by duration of tenure. The notable findings are:

- short term tenure jobs (of less than six months' duration) have declined as a share of total jobs held since 1993;
- since 1996, there has been a steady increase in the number of workers with tenure of 13 to 60 months, while the share of workers with average tenure of over 240 months has increased steadily since 1993; and,
- during the period 2000 to 2002, the share of workers employed between 7 to 12 months, or 121 to 240 months, has declined.

⁹³ Galarnau, D., Krebs, H., Morissette, R. and Zhang, X. (October 2001). Statistics Canada. *The Quest for Workers: A New Portrait of Job Vacancies in Canada*.

FIGURE 4-7: TENURE BY DURATION IN MANITOBA, 1992 – 2002



Source: Statistics Canada

The decline in the number of workers with jobs of short term duration suggests less job turnover and better job matching up front, possibly as a result of better education. However, this category of tenure captures young workers, those seeking re-entry, or seeking to change jobs. When these labour market participants are seeking job matching information, some degree of turnover is generally expected.

A review of job tenure in some sectors of Manitoba economy produces some interesting results:

- While the total number of jobs in the service sector increased between 1987 and 2002 (from 363,100 to 428,400 persons employed) the share of short tenure jobs declined. In 1987, jobs of less than six months’ tenure accounted for 18 percent of all jobs, but by 2002 this share had declined to 13 percent. There is now less job churning in Manitoba’s service sector.
- In Manitoba’s manufacturing sector, the share of jobs with less than 6 months’ tenure declined from 18 percent in 1987 to 13 percent in 2002, while the proportion of longer tenures increase. This means greater stability in the manufacturing industry

Average job tenure is holding steady or rising in many sectors of Manitoba’s economy, and this points to a continuing stable labour climate.

4.4 Conclusions

Manitoba put up some reasonable numbers over the last decade in terms of addressing the quality of its work environment. It logged solid improvements in employment growth, narrowing the gender wage gap and keeping people in their jobs longer. In fact, the province out performed the national average on every work indicator but one, real wage growth. However, it should be noted that Manitoba's strong performance in employment growth is the result of the out-flow of workers to other provinces.

Manitoba's low wages have traditionally been counter balanced against the province's low housing costs. However, recent analysis is beginning to question the validity of this trade off. In 2002, Manitoba was able to make some progress on its problem indicator and eked out some real wage growth -- while all other regions saw declines -- and claimed a first place finish. In the process, Manitoba was able to hand the title of lowest real wages to their neighbours in Saskatchewan. However, as indicated above, despite this growth Manitoba's wage rate is still very low when compared to other regions and the national average.

Manitoba also turned in positive numbers for its female/male wage ratio and job tenure indicators. Employment growth saw a modest decline in 2002 but, far less than the national average. So, all in all, things look better for those working in Manitoba in 2002 but, areas such as wage rates and out-flow of workers to other provinces remain areas of concern.

5 MANITOBA AS A PLACE TO INVEST

5.1 Introduction and Methodology

The evidence is very strong that the “investment climate” of a province is a critical factor for business leaders in deciding whether or not to invest in a particular locale. Resource characteristics (natural and human), proximity to major markets, and personal preferences of business decision-makers are given strong weighting in any investment decision, but observations about the “investment climate” show up in thinking about various aspects of the investment decision. The many factors that contribute to creating an “investment climate” is a source of some mystery and considerable discussion within government circles.

Not all investment decisions are determined by developments in the business investment climate of a province. It is also true that macro factors such as interest rates, federal fiscal policies, adoption of NAFTA, all have influenced the pattern of investment over the last decade. However, these factors are more-or-less constant across provinces: they do not in themselves give us an indication as to why firms choose to invest in one jurisdiction and not in another. As a case in point, the Alberta forestry industry experienced a very large increase in capital in the 1990s whereas the British Columbia industry did not. Yet both industries benefited equally from falling interest rates, a lower federal government deficit and new access to US markets through NAFTA.

In this section, a reading of provincial investment climates is taken by examining results and trends in five areas that are key to investment decisions, especially for decisions to start new enterprises⁹⁴. The five factors selected to characterize a province’s investment climate across economic sectors are as follows.

- Cost to build a business structure
- Labour cost
- Export Prices
- Financial rate of return
- Government fiscal policy

The focus of this *Check-Up* exercise is the whole provincial economy rather than an in-depth analysis of one or two sectors⁹⁵. Investment climates vary by sector but the goal herein is to examine the forces that are economy-wide.

⁹⁴ Rather than replace equipment, machinery and buildings

⁹⁵ If the focus of this report was a specific provincial industry, such as the Saskatchewan grain industry, the investment climate indicators list would be tailored to its business drivers.

A set of five indicators have been developed to track the five key economic factors that characterize a province's investment climate. They are as follows.

- ***Cost to build a business structure***

Real Non-Residential Construction Cost Index: If the cost of non-residential construction inputs (materials and labour) increases faster than the underlying increase in prices in the economy (i.e., faster than the price increases that businesses can expect to receive for their goods and services), then there is a disincentive for businesses to expand or refurbish their plant capacity.

- ***Labour cost***

Real Unit Labour Cost Index: This indicator is composed of two elements, labour income and labour productivity. If real labour incomes increase faster than the productivity of workers, then businesses will experience rising operating costs and eventually a loss in competitiveness. Whereas, if labour productivity is rising faster than labour incomes, then unit labour costs will decrease. Where there is a sustained underlying trend toward increasing unit labour costs, businesses are more likely to forego investing or to look elsewhere where their investment will provide adequate long-term returns.

- ***Export prices***

Real Export Price Index: Provincial exports represent large portions of their overall economic activity. For example, the percentage rate of Manitoba's combined international and inter-provincial exports to its GDP was 62.2 percent over the 2000-02 period⁹⁶. The real export price indicator highlights export prices relative to other prices in the economy. If export prices are rising faster than other prices, then investment conditions in export industries are becoming more attractive.

- ***Financial rate of return***

After-Corporate Income Tax Profits to Private Sector GDP rate: This broad measure of profitability indicates the current (and expected) earnings environment of each province. It takes into account the ability of firms to earn an adequate rate of return on their investment as well as the tax environment. Higher after-corporate income tax profits, whether due to a better price/cost environment or lower taxes, will tend to encourage greater investment.

- ***Government fiscal policy***

Taxpayer-Supported Debt to GDP ratio: This indicator captures business' concerns regarding the fiscal position of a provincial government. It is recognized that if a deficit, and therefore increased taxpayer-supported debt, is incurred because of lowered taxes or higher spending, then the benefits of the spending or lower taxation might override concerns regarding an increased deficit/debt. Nevertheless, if deficits and debt are increasing, then businesses will

⁹⁶ Finlayson, J. (ed.) (June 2003) *Exports and the British Columbia Economy in Policy Perspectives*. Business Council of British Columbia.

likely expect the government eventually to increase taxes and/or reduce services in order to bring fiscal balances into line. A reduced taxpayer-supported debt load, on the other hand, will leave greater room for future tax reductions. As a result, deteriorating fiscal balances will tend to deter investment, while improving balances will encourage investment.

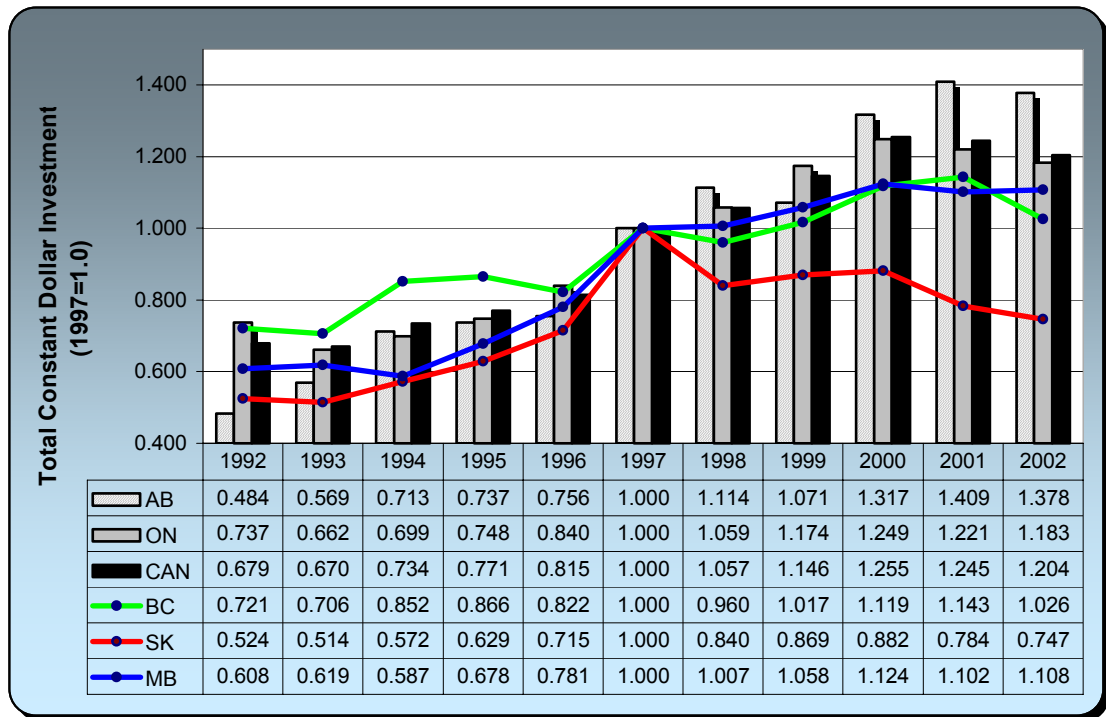
5.1.1 Business Investment Trends

2002 business investment levels⁹⁷ were marked by declines in all studied jurisdictions, except Manitoba, which had a slight increase after a decline in 2001. Manitoba had the second highest rise in real business investment, 79.0 percent over the 1993-2002 decade. Despite these improvements, the province has a low level of business investment, 86 percent of Saskatchewan's level in 2002, despite having a larger economy than its neighbour to the west.

Alberta was far ahead of the other benchmarked jurisdictions with a 142.2 percent leap in business investment for the decade. Ontario's rise was similar to Manitoba's, both well above the Canadian average of 52.8 percent.

Figure 5-1 displays the total constant dollar investment trend for each studied jurisdiction since 1992⁹⁸.

FIGURE 5-1: REAL BUSINESS INVESTMENT INDEX (1997=1.000), PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada

⁹⁷ Measured as investment in non-residential buildings and machinery and equipment

⁹⁸ A simple index is created by dividing real (1997\$) business investment for any one year by 1997 real business investment.

Not surprisingly, Alberta, led by its surging oil and gas sector, demonstrated the highest trend growth in investment levels since 1997, except in 1999, when Ontario ranked no.1. In 2002, Alberta had 70 percent as much business investment as much larger Ontario, a phenomenal result because the Ontario economy is 2 ½ times as large.

Saskatchewan's real business investment has declined by 25 percent since 1997, the only studied jurisdiction to register a decrease over the 1997-2002 period.

The following table shows real business investment (in 1997\$) as a percentage of real GDP for 1993 and 2002. ***Manitoba ranks no.4 in 2002 for business investment as percentage of GDP, 12.2 percent, half of top ranked Alberta's 25.3 percent.***

Alberta ranked no.1 in 1993 (15.0 percent of GDP) and in 2002 (25.3 percent of GDP) on this measure.

	1993				2002			
	Non-Res. ⁹⁹	Mach. & Equip. ¹⁰⁰	Tot.	Rank	Non-Res.	Mach. & Equip.	Tot.	Rank
British Columbia	3.8%	4.9%	8.7%	4	3.4%	6.7%	10.0%	6
Saskatchewan	7.1	5.7	12.8	2	8.0	7.5	15.5	2
Manitoba	3.3	5.4	8.6	5	3.6	8.6	12.2	4
Alberta	9.4	5.6	15.0	1	12.9	12.4	25.3	1
Ontario	2.9	5.5	8.4	6	2.4	8.0	10.4	5
Canada	4.3	5.3	9.6	3	4.2	8.2	12.4	3

Source: Statistics Canada and author's calculations

It is worthwhile noting that machinery and equipment investment rose as a percentage of GDP in each benchmarked jurisdiction over the 1993-2002 decade. This result is encouraging because it is mainly through machinery and equipment investment that new technologies are introduced to the economy and boost its productivity.

The continuing difficulties in the agriculture sector have led to dampened growth in Manitoba but its crop conditions were better than in Saskatchewan or Alberta. This province's real business investment trend has exhibited a volatile pattern, with very large increases in 1995 (chiefly manufacturing), 1996 (manufacturing and transportation) and 1997 (broad-based). In the five years of data since 1997, however, the growth in real investment has been much lower; 2002 showed a very small improvement over 2001, 0.5 percent.

⁹⁹ "Non-Res." is an abbreviation for "non-residential construction" investment.

¹⁰⁰ "Mach. & Equip." is an abbreviation for "machinery and equipment" investment.

5.1.2 Spotlight on Venture Capital Investment

Real venture capital investment per capita is an indicator of the willingness of regionally based investors to back higher risk enterprises in their region, depth of the high risk capital pool in a region and perceived quality of investment opportunities in higher risk ventures, such as information, communication and technology (ICT) and science-based businesses¹⁰¹. Relatively higher levels of venture capital per capita indicate a more attractive financing environment for higher risk enterprises in that region.

The ICT industries present growth opportunities that leverage a region's extensive investment in post-secondary education and research facilities. A recent Statistics Canada sponsored study concluded that on average, Canadian ICT and science-based industries have more dynamic long-run input and performance profiles than industries located outside of technology and science-based environments. GDP growth, employment growth, productivity growth, investments in technology, and R&D expenditures are all areas in which the ICT sector excels¹⁰².

Ontario held the no.1 spot for the real venture capital investment per capita indicator in 2002, led by their twin poles of high technology activity in Ottawa and Toronto. *The results demonstrate that there are considerable differences in venture capital deal attractiveness across the studied jurisdictions and these disparities have widened over the 1993-2002 decade.* The investment levels reflect on the ability of a province to grow its higher risk enterprises, especially in the ICT and science-based industries. The falling levels reflect revised thinking about prospects for these industries but the disparity in investment levels between provinces will push future regional growth patterns. A desirable pattern would be for similar venture capital dollars per capita levels between provinces. This would help ensure a more balanced distribution across the studied jurisdictions of knowledge worker intensive economic activities.

The venture capital problem in Canada is exacerbated because there remains in 2002 a large gap between per capita U.S. (CAN\$106) and Canadian venture capital investment (CAN\$73). Ontario, the province with the highest per capita venture capital level (\$102), was below the American average.

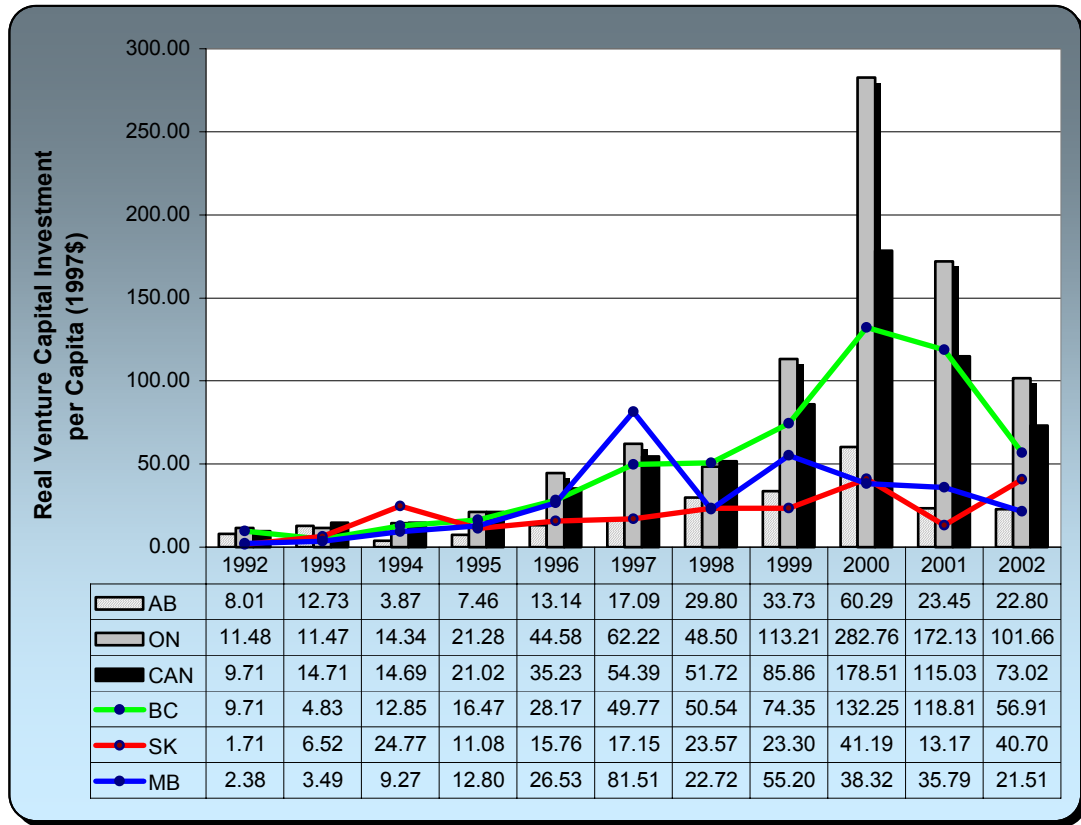
Figure 5-2 demonstrates that Quebec and Ontario had the best Canadian venture capital per capita investment results by a wide margin over the past decade. *Manitoba's per capita venture capital investment result has been well below the Canadian average, except in 1997.* Surprisingly, Alberta's venture capital performance ranked no.5 and has often occupied the no.5

¹⁰¹ Statistics Canada has categorized these industries along the following lines ICT-based science (e.g., computer services, telecommunications, electronic products), non-ICT science-based goods (e.g., aircraft industries, industrial chemicals and pharmaceuticals), and non-ICT science-based services (e.g., architecture, engineering and technical services).

¹⁰² Beckstead, D. and G. Gellatly (2003) *The Growth and Development of New Economy Industries*. Analytical Studies Branch, Statistics Canada.

or no.6 position. There is a big gap in 2002 between highest, Ontario (\$101.66), and lowest, no.6 Manitoba (\$21.51). The gap between highest and lowest has grown wider since 1993.

FIGURE 5-2: REAL VENTURE CAPITAL INVESTMENT PER CAPITA, PROVINCES AND CANADA, 1992 - 2002



Source: Canadian Venture Capital Association, Statistics Canada and author’s calculations

As to be expected, for the 1993-2002 decade, venture capital per capita is a good news indicator for all regions. In 1993, the Canadian average was \$14.71, pulled along by higher investment levels in Quebec, and the low was in Manitoba, at \$3.49. The 2002 Canadian average was \$73.02, an almost 400 percent rise. BC had the largest increase over the decade, almost 1,100 percent, reaching \$56.91 in 2002. The peaks for venture capital investment were not in 2002, but in 2000 at the peak of the “high tech” stock market boom. The Canadian average was \$178.51 in 2000 so there has been a 144 percent slide over the 2000-2002 period.

The nineties witnessed increases in venture capital pools in every province, attracted by much discussed potential for a variety of “new economy” technologies, tax breaks for investments in labour sponsored venture capital funds and attractive stock market returns. In Spring 2000, North American stock market investors turned their backs on technology stocks, their stock prices plummeted and high risk investors scaled back their venture capital adventures.

Manitoba’s venture capital investment was more than six times larger in 2002 than in 1993, reflective of the maturing of this capital pool over the decade. However its 2002

level (\$21.51) is less than a third of the Canadian average (\$73.02) and is last in the ranking of benchmarked jurisdictions. Manitoba had a 39.9 percent decrease in venture capital investment in 2002 over 2001.

Saskatchewan was the only province to demonstrate a per capita venture capital investment increase in 2002, 209 percent. As well, Saskatchewan was the only province to have a similar venture capital investment level in 2002 as in 2000.

The Manitoba government has had a hand in almost all of its venture capital funds, mainly through its Third Party Funds Program. The four limited partnership funds that it invested in, along with institutional and private investors, are near to closing and there are no replacements on the immediate horizon. In 2002, through the Manitoba Development Corporation, the Province of Manitoba invested \$5 million into the Western Life Sciences Venture Fund, which is a \$45 million venture capital fund, managed by Winnipeg based Lombard Life Sciences Inc., and includes an investment from the Saskatchewan Government.

5.2 Key INVEST Results

In this section, three sets of investment indicator results are presented.

- **Percent change over past year** – This shows the swing, i.e. the fluctuation over the past year, which can make corporate and government decisionmakers take notice of a shift in the investment climate. In this case, it is not the indicator level that is important but the percentage change over the past year. The following question is of significant interest when examining the one-year fluctuation. Is the change positive and large enough to grab attention of corporate and government investment decisionmakers?
- **Percent change over decade** – The decade long view provides a perspective on the “trend” in an indicator. The aforementioned percent change over the past year isolates a “fluctuation”, which is mainly driven by the business cycle. Part of an annual increase is a temporary fluctuation and another part will show up as a permanent increase in the long-term trend. It is important to distinguish between the one-year “fluctuation” and the decade long “trend” because different policy descriptions influence them¹⁰³. The one-year fluctuations mainly are driven by demand side factors (i.e. consumer and business buying) whereas the long-term trend is driven by supply side factors such as human capital investments, R&D investments, replacement of old equipment, and new management systems. A common factor on both demand and supply sides is the buying of machinery, software and equipment, i.e. investment in these items.
- **2002 Rankings** – Which jurisdiction is the “best” and by how much is of great interest to private and public sector decision makers. We rank the studied jurisdictions on each of the five INVEST key indicators.

5.2.1 Percent Change Over Past Year

Table 5-2 presents the percent change for each of the key INVEST indicators for the western provinces, Ontario and Canada over the last year and how they rank ¹⁰⁴ against each other on this criteria. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

¹⁰³ Solow, R.M. (2003) *Mysteries of Growth* in The New York Review of Books. Vol. 1 no. 11.

¹⁰⁴ Rank #1 means that the jurisdiction has fared the best, and rank #6 means that a jurisdiction has performed the worst. For real export price and the after-tax profits-to-GDP ratio, positive change (increase) means an improvement to the provincial investment climate. Conversely a negative change (decline) in the value of real non-residential construction costs, real private sector unit labour costs, or taxpayer-supported debt, signifies an improvement in the provincial investment climate.

		Non-Res. Construction Cost Index		Unit Labour Cost		Export Price Index		After-Tax Profits		Taxpayer Supported Debt	
		%	rank	%	rank	%	rank	%	rank	%	rank
Manitoba	2001-2002	-0.6	2	-0.6	3	-1.7	3	8.3	2	-4.5	4
Saskatchewan	2001-2002	-3.1	1	-0.5	4	1.6	1	6.9	3	1.1	5
British Columbia	2001-2002	0.9	4	-0.8	2	-7.9	6	-4.6	5	5.0	6
Alberta	2001-2002	4.3	6	7.9	6	-4.6	5	-21.2	6	-8.0	3
Ontario	2001-2002	0.8	3	-1.4	1	-1.2	2	14.6	1	-23.9	1
Canada	2001-2002	1.1	5	0.3	5	-2.9	4	1.7	4	-19.2	2

General observations about the past year's progress (or deterioration) in Manitoba's investment environment are as follows.

- This past year Manitoba demonstrated improvements in four indicators and a decline in its real export price. The above results indicate that Saskatchewan had the best overall improvement in 2002 over 2001. Ontario ranked second, followed closely by Manitoba. Alberta demonstrated the worst performance, ranking last in percentage change over the past year in four out of five indicators.

General observations about the past year's progress (or deterioration) for each of the investment environment indicators are as follows.

Cost to Build a Business Structure (Real Non-Residential Construction Cost Index)

Over the past year, Saskatchewan led the way with a 3.1 percent decrease for the non-residential construction cost indicator. Alberta was at the other end of the scale with a 4.3 percent increase. The other studied jurisdictions registered almost no change in their non-residential construction cost index.

Labour Cost (Unit Labour Cost)

Alberta was the only jurisdiction that experienced much of a change in its unit labour cost in 2002, unfortunately for the worst, an almost 8 percent rise. This result arose because the province's labour income increased (6.9 percent) and at the same time its labour productivity decreased (-0.2 percent). Alberta would have needed an improvement in the efficiency of how it applied its labour in the 7 percent range to off-set a big labour income increase in one year of 6.9 percent.

Export Prices (Real Export Price Index)

Led by a rebound in wheat prices, Saskatchewan had the only export price index increase of the studied jurisdictions, 1.6 percent. BC's export price index experienced the biggest nosedive, a 7.9 percent decrease.

Financial Rate of Return (After-Corporate Income Tax Profits to Private Sector GDP Ratio)

2002 was a good profits year for all the studied jurisdictions but Alberta, where there was a 21.2 percent slide in its after-tax profits to GDP ratio. Ontario showed the biggest increase, 14.6 percent, in after-tax profits. Manitoba also had a sizeable hike of 8.3 percent.

Government Fiscal Policy (Taxpayer Supported Debt to GDP Ratio)

Ontario and the Canadian average (of provinces) exhibited a significant decrease in its taxpayer supported debt to GDP ratio for 2002. BC racked up the biggest increase in 2002, 5.0 percent.

5.2.2 Percent Change Over Past Decade

Table 5-3 ranks the studied jurisdiction on their percentage change in each indicator for the 1993-2002 decade and how they rank against each other on this criteria. As well, where a benchmarked jurisdiction registers an increase or decrease that is significantly different from the others, we highlight it in the table.

		Non-Res. Construction Cost Index		Unit Labour Cost		Export Price Index		After-Tax Profits		Taxpayer Supported Debt	
		%	rank	%	rank	%	rank	%	rank	%	rank
Manitoba	<i>1993-2002</i>	4.6	4	-6.5	3	4.6	5	126.9	3	-33.9	3
Saskatchewan	<i>1993-2002</i>	-5.3	2	-9.2	1	11.5	2	154.1	2	-48.0	2
British Columbia	<i>1993-2002</i>	2.9	3	-5.9	4	6.7	3	81.8	5	14.1	6
Alberta	<i>1993-2002</i>	-8.8	1	-6.7	2	13.6	1	155.8	1	-88.6	1
Ontario	<i>1993-2002</i>	13.8	6	-2.3	6	2.1	6	47.0	6	-23.9	4
Canada	<i>1993-2002</i>	7.2	5	-2.8	5	6.2	4	101.5	4	-19.2	5

General observations about the percentage changes for the 1993-2002 decade in Manitoba's investment environment indicators are as follows.

- On an overall basis, Manitoba was in the middle of the pack in terms of improving its performance on the five INVEST indicators over the 1993-2002 decade. The province witnessed an improvement in four of its indicators over the last decade: after-tax profits/GDP (rose 126.9 percent), real export price (4.6 percent), unit labour cost (6.5 percent decrease) and taxpayer-supported debt (33.3 percent decrease). Non-residential construction cost index increased by 4.6 percent, whereas they declined in Alberta and Saskatchewan.
- Alberta's 1993-2002 decade performance for the investment environment indicators was the best of the benchmarked jurisdictions, the exact opposite result of its 2002 over 2001 performance. Having all indicators show sizeable improvements enhanced Alberta's investment climate, which is reflected in its investment performance over the decade.

General observations about the percentage changes for the 1993-2002 decade for the investment environment indicators are as follows.

Cost to Build a Business Structure (Real Non-Residential Construction Cost Index)

Alberta, despite having the largest increase in 2002 for the non-residential construction cost index, had the biggest decrease over the 1993-2002 decade, -8.8 percent. Saskatchewan was the only other province to show a decrease, -5.3 percent.

Labour Cost (Unit Labour Cost)

All studied jurisdictions achieved decreases in their unit labour cost index for the 1993-2002, led by Saskatchewan with a 9.2 percent decline. BC, Manitoba and Alberta had reductions of approximately 6 percent in their unit labour cost index.

Export Prices (Real Export Price Index)

Alberta and Saskatchewan stood apart from the other studied jurisdictions with their decade long increases of 13.6 and 11.5 percent, respectively. BC's export price index of 6.7 percent for the decade was similar to the Canadian average of 6.2 percent.

Financial Rate of Return (After-Corporate Income Tax Profits to Private Sector GDP Ratio)

All jurisdictions racked up big increases in their after-tax profits to GDP ratios, with Alberta and Saskatchewan again leading the way. Alberta's after-tax profits went up by 155.8 percent, followed closely by Saskatchewan with a 154.1 percent rise. Manitoba ranked third for the decade with a 126.9 percent increase in its after-tax profits.

Government Fiscal Policy (Taxpayer Supported Debt to GDP Ratio)

BC was the only studied jurisdiction that posted an increase in its taxpayer supported debt to GDP ratio for the 1993-2002 decade. Once again, Alberta and Saskatchewan ranked no.1 and no.2. The latter had a 48.0 percent decrease and the former a 88.6 percent decrease in the

taxpayer supported debt to GDP ratio. Manitoba is in third place with a 33.9 percent decrease for this indicator.

5.2.3 2002 Rankings

Table 5-4 presents the 2002 rankings for the studies jurisdictions on the five INVEST key indicators and the percentage difference between the no.1 ranked jurisdiction and the others. This ranking shows where each jurisdiction stands in relation to the others. The percentage difference shows the gap between the leading jurisdiction and the others.

	Non-Res. Construction Cost Index		Real Unit Labour Cost		Export Price		After-Tax Profits to GDP Percentage		Taxpayer-Supported Debt to GDP ratio	
	rank	%	rank	%	rank	%	rank	%	rank	%
Manitoba	4	12.6	5	30.0	3	-5.1	5	-63.0	2	525.0
Saskatchewan	2	5.8	1	0.50	2	-2.8	1	17.10%	6	659.4
British Columbia	3	11.6	2	18.0	6	-7.2	6	-67.0	4	581.2
Alberta	1	0.910	2	18.0	1	1.060	2	-5.2	1	3.2
Ontario	6	19.5	4	28.0	5	-6.6	4	-54.3	3	553.1
Canada	5	13.5	3	24.0	4	-6.4	3	-45.9	5	500.0

General observations about Manitoba's 2002 rankings on the investment environment indicators are as follows.

- Manitoba did not rank no.1 for the 2002 level of any investment environment indicator. It ranked a distant no.2 to Alberta on the debt to GDP ratio indicator. On an overall basis, Alberta was clearly in the no.1 spot for the investment environment indicators and Saskatchewan was clearly in the runner-up position.

General observations about 2002 rankings for the investment environment indicators are as follows.

Cost to Build a Business Structure (Real Non-Residential Construction Cost Index)

Alberta retained the no.1 ranking in 2002 for the non-residential construction cost index indicator, a position it has held since 2000. However the gap between Alberta and Saskatchewan narrowed because the latter experienced a 3.1 percent cost index decline in 2002 over 2001 and the former had a 4.3 percent increase. There is an almost 20 percent gap between lowest cost Alberta and the province with the highest cost index, Ontario.

Labour Cost (Unit Labour Cost)

In terms of real unit labour cost, British Columbia (0.65) had the last position in 2002, 30 percent higher than top ranked Saskatchewan (0.50).

Export Prices (Real Export Price Index)

Alberta retained the no.1 ranking in 2002 for the real export price indicator, a position it has held since 2000. There is a relatively narrow gap, 7.2 percent, for the real export price indicator between highest Alberta and lowest BC

Financial Rate of Return (After-Tax Profits to Private Sector GDP Ratio)

Saskatchewan had the no.1 ranking for the important after-corporate income tax profits to GDP indicator. Alberta was a close no.2.

Government Fiscal Policy (Taxpayer Supported Debt to GDP Ratio)

Alberta had the lowest taxpayer supported debt to GDP ratio in 2002. It was well ahead of the other jurisdictions in this regard, five to six times better. Alberta's 2002 ratio was 3.2 percent and Manitoba was a distance second at 20.0 percent. Saskatchewan trails the benchmarked jurisdictions on this indicator (24.3 percent), although the gap between no.2 Manitoba and no.6 Saskatchewan is relatively small.

5.3 Evaluation of INVEST Indicators

5.3.1 Real Non-Residential Construction Cost

Real Non-Residential Construction Cost Indicator

This indicator is an index created by dividing a province's business non-residential construction price deflator (the implicit deflator for business non-residential construction capital formation, which covers labour and materials) by a province's GDP deflator¹⁰⁵. An increase in this indicator means that prices for building a business structure (such as a manufacturing plant, factory, warehouse, shopping center, etc.) increased, from one year to the next, by more than the increase in general prices in the provincial economy. Year over year increases (or decreases) vary based on year over year changes in the index's numerator (non-residential construction price deflator) and denominator (GDP price deflator).

Year over year comparisons suggest improvements or regression in these relative price changes. Year by year comparisons (i.e. 2002 Alberta vs. 2002 BC) between provinces quantify differences in these relative price changes.

Real Non-Residential Construction Cost Trends

Alberta retained the no.1 ranking in 2002 for the non-residential construction cost indicator, i.e it has the lowest construction cost index, a position it has held since 2000. The main takeaway from this indicator is that Alberta has managed to hold back its construction cost growth despite having much stronger growth in non-residential output than the other jurisdictions since 2000 and strong growth in its residential construction sector, as well.

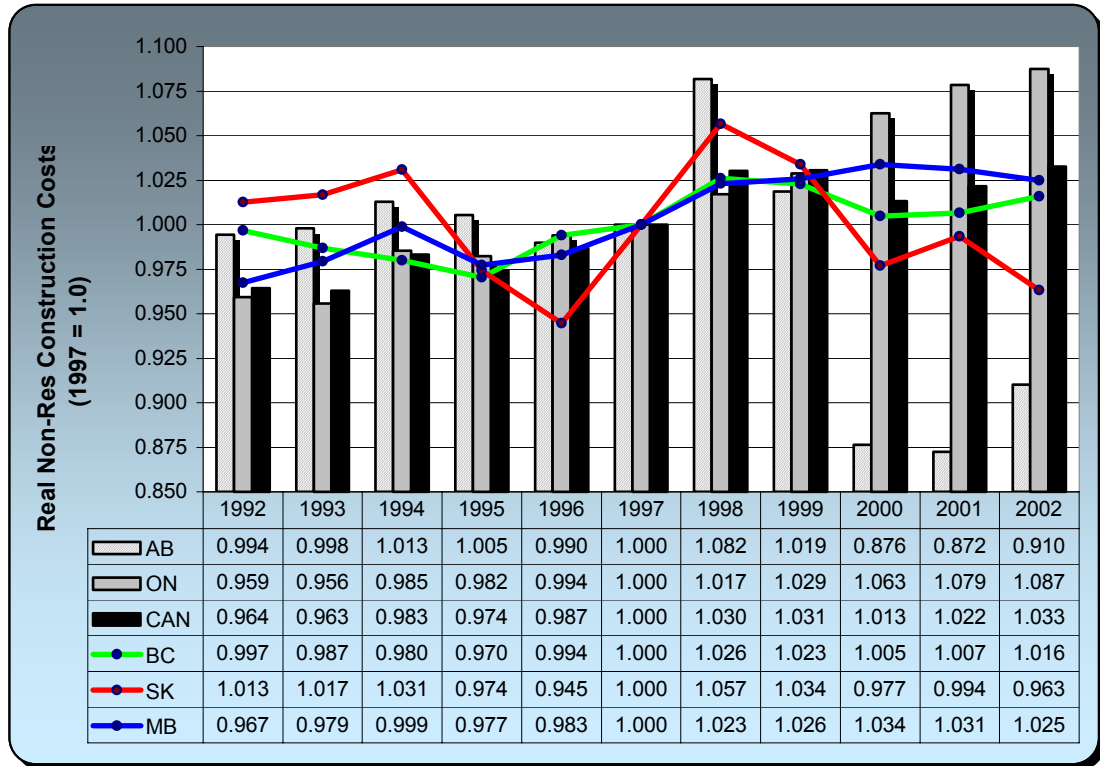
Figure 5-3 highlights real non-residential construction cost change performance in each tracked Canadian jurisdiction.

The gap between Alberta and Saskatchewan narrowed in 2002 because the latter experienced a 3.1 percent cost index decline in 2002 over 2001 (due to slower growth in its non-residential cost index vs. growth in its GDP price index) and the former had a 4.3 percent increase. The tables have turned upside down on this indicator since 1993. In 2002, there was an almost 20 percent gap between lowest cost Alberta and the province with the highest cost index, Ontario (non-residential construction cost index well ahead of its GDP price index). A decade ago, Ontario enjoyed the lowest construction cost index and there was a much narrower gap (6 percent) between the highest and lowest cost jurisdiction.

¹⁰⁵ For example, the business non-residential implicit deflator for Alberta in 2002 was 109.5 (1997 non-residential building prices are set at 100 so the 2002 prices are 9.5 percent above 1997 prices). Alberta's GDP implicit price deflator in 2002 was 120.3 (1997 prices are 100). The real non-residential construction cost index is $109.5 / 120.3 = .910$, which means that construction costs in 2002 in Alberta increased less than general prices in the province's economy.

Alberta is the only jurisdiction that showed a significant decreasing trend, about 16 percent between the province’s peak in 1998 and 2002. Ontario experienced the biggest increasing trend over the 1993-2002 decade, averaging a nominal 1.4 percent per year.

FIGURE 5-3: REAL NON-RESIDENTIAL CONSTRUCTION COST INDEX¹⁰⁶ (1997=1.000), PROVINCES AND CANADA, 1992 – 2002



Source: Statistics Canada

Real Non-Residential Construction Cost Drivers

Alberta was the only province that registered a significant increase in 2002, but only 4 percent, despite having 6 of the 10 largest construction projects in the country¹⁰⁷. A largely non-unionized construction force is one explanation of the Alberta performance but so too is the highly mobile nature of the construction work force across Canada. Alberta’s province’s construction labour work force shot up to approximately 145,000 in 2002 from 80,000 in 1998. Construction labour force mobility in western Canada helps keep a tight lid on construction costs in Alberta’s strongly non-union construction industry, which has relatively easy entry for experienced construction workers.

¹⁰⁶ An index is created by dividing the province’s real non-residential construction cost index for any one year by the province’s GDP price index for the same year.

¹⁰⁷ Infrometrica Ltd. (November 2002) *Five-Year Construction Forecast*. Prepared for Canadian Construction Association.

Excepting Alberta, all studied jurisdictions demonstrated steady, slightly increasing trends in this indicator, reflective of the following two main forces:

- weakening of construction union strength in some provinces, such as BC and Alberta;
- lower real dollar spending on non-residential construction in BC, Saskatchewan and Manitoba since 1997;
- a steady consumer inflation rate in the 1-3 percent range, which lowers wage demands.

In 2000, Alberta, despite a burgeoning economy, managed to register a 14 percent decline in its construction cost index¹⁰⁸, to open the type of gap that influences investment decisions, in this instance construction for business purposes. It went from being the highest to lowest cost jurisdiction.

This cost decrease came in the face of a very large increase (26 percent) in Alberta non-residential construction expenditures in 2000. The logical expectation is that Alberta should experience construction cost pressures because of strong demand for construction inputs, including labour, but it has maintained the lowest non-residential construction costs of the studied jurisdictions.

In 1994, Alberta started to have the largest share of non-residential construction amongst the studied jurisdictions, overtaking Ontario, the expected leader. Alberta has held that position ever since and accounted for more than one-third of Canadian non-residential construction value in 2002.

Alberta's increase in non-residential construction output over the decade is far ahead of the other jurisdictions. Over the 1993-2002 period, the studied jurisdictions registered the following percentage increases in the value of their non-residential construction output.

- Alberta – 98 percent
- Manitoba – 38 percent
- Saskatchewan – 35 percent
- Canada – 35 percent
- Ontario – 17 percent
- BC – 11 percent

¹⁰⁸ In 1999, the province's non-residential construction cost index exceeded its GDP price index whereas in 2000, the GDP price index exceeded the province's non-residential construction cost index by a large margin.

Manitoba Real Non-Residential Construction Cost

Manitoba's construction cost index trend has showed a trend towards higher non-residential construction price levels than general price levels since 1998. An explanation may be the province's relatively higher rate of unionization, 36 percent of the province's work force.

Over the 1993-2002 decade, Manitoba limited its non-residential construction price deflator to an annual average increase of 2.3 percent. However, Manitoba has consistently had the smallest amount of non-residential construction over the decade. This province had the smallest dollar amount of non-residential construction in 2002, less than half of the non-residential construction value of Saskatchewan, which has a smaller overall economy than Manitoba.

Manitoba's construction sector GDP peaked in 1998 but has slid by 11.2 percent over the ensuing five-year period. Its non-residential construction investment also peaked in 1998 and has since slid by 21.0 percent. Some decrease in the province's non-residential construction real cost index is expected under these circumstances but there was essentially no change in this indicator¹⁰⁹ over the five-year 1998-2002 period.

The difference in cost index numbers between jurisdictions is relatively narrow, a 19 percent gap between lower cost Alberta and highest cost Ontario. Alberta's experience suggests that it is not axiomatic that a province with a high investment rate and strong economy will see increases in construction building prices outstrip the rate of increase of general prices in the economy.

¹⁰⁹ Manitoba's GDP implicit price deflator in 2002 was 108.6 (1997 prices are 100). The real non-residential construction cost index is $111.3 / 108.6 = 1.025$, which means that real construction costs in 2002 in Manitoba increased more than general prices in the province's economy. The 1998 real non-residential construction cost index is 1.023, so the decline over the 1998-2002 period is 0.0027 ($1.025 - 1.023$).

5.3.2 Unit Labour Cost

Unit Labour Cost Indicator

Unit labour cost is the labour compensation that an organization incurs per unit of its production (not per time unit, such as per hour or per day). Unit labour costs signify the productiveness of a labour force.

Two main forces drive unit labour costs, labour income (or compensation per employee) and labour productivity¹¹⁰ (or GDP per employee or hour). This indicator is calculated as real labour compensation per employee divided by real labour productivity. Together they govern trends in real unit labour costs. Unit labour cost is a ratio so its value changes with changes in its numerator (labour income) and denominator (labour productivity). These elements can be interpreted as follows.

- ♦ An increase in real labour income, i.e. wage inflation, with no corresponding increases in productivity, will have a negative effect on an investment climate.
- ♦ Increasing real wage rates per se are not necessarily bad for business, as long as there is a corresponding increase in productivity.
- ♦ If both forces are moving positively, i.e. labour income is falling and productivity is rising, then unit labour cost will move positively by falling.

Subtracting annual percentage change in labour productivity from annual percentage change in labour income gives an approximate estimate of annual percentage change in unit labour cost¹¹¹.

Unit Labour Cost Trends

Possibly the most distinctive aspect of this indicator is the relatively narrow gap between jurisdictions and the steadiness of this gap. In 2002, the gap between the highest and lowest ranked cost jurisdictions was 4.3 percent and in 1993 it was 4.4 percent. The translation is that there is not much to choose from between the studied jurisdictions on this measure.

Figure 5-4 compares indices of real unit labour costs. All studied jurisdictions showed declines in their unit labour costs over the 1992-1996 period. In British Columbia and Manitoba, the trend in unit labour costs flattened over the 1997-2002 period. The unit labour cost indices of Alberta and Saskatchewan, and to a lesser degree Ontario, have exhibited considerable volatility over the

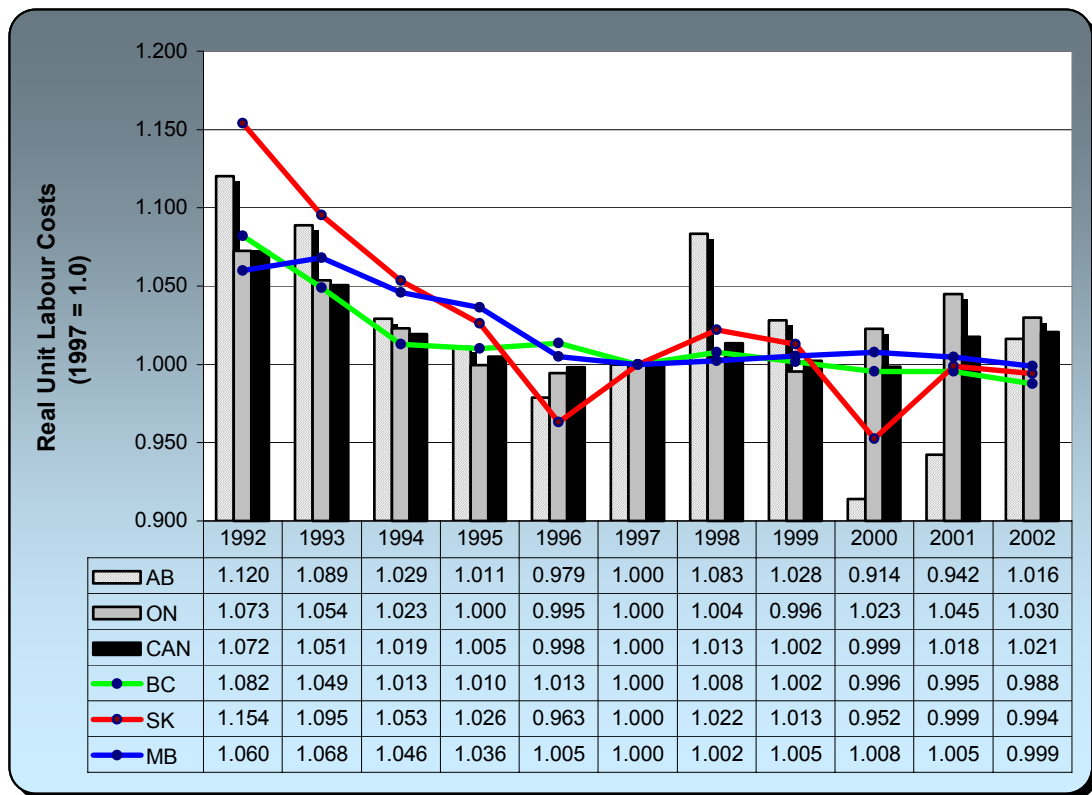
¹¹⁰ Trends in labour productivity measures change in overall efficiency of an economy's or industry's production process.

¹¹¹ Arithmetic growth rates are not precisely additive. An exact calculation requires calculation of logarithmic changes.

1996-2002 period. Alberta's unit labour cost index peaked in 1992, bottomed in 2000 and stood near the Canadian average in 2002.

Saskatchewan's index has fallen by the largest amount, almost 10 percent, over the past decade but it started at the highest level. The other jurisdictions have declined within a narrow band of 2.3 and 6.7 percent over the 1993-2002 decade. Alberta was the only jurisdiction to have a marked move in 2002 over 2001, a sizeable 7.9 percent increase.

FIGURE 5-4: REAL UNIT LABOUR COSTS INDEX¹¹² (1997=1.000), PROVINCES AND CANADA,



1992 - 2002

Source: Statistics Canada and author's calculations

In terms of 2002 real unit labour costs, Saskatchewan has the lowest unit labour cost at 0.50 and therefore the no.1 position in the country. It holds this position by a wide margin. Manitoba and Alberta have a unit labour cost of 0.59, 18 percent above Saskatchewan's level. The Canadian average is 0.62. The unit labour costs of BC and Ontario sit above the Canadian average at 0.65 and 0.64, respectively.

¹¹² A simple index is created by dividing unit labour cost for any one year by 1997 unit labour cost.

Unit Labour Cost Drivers

Real unit labour change cost shows little difference between provinces but its components (labour income change and productivity change) show distinct differences between provinces. Following are graphs that illustrate trends in labour income and labour productivity change, which provide the basis for analysis of the broad forces that drive unit labour cost change.

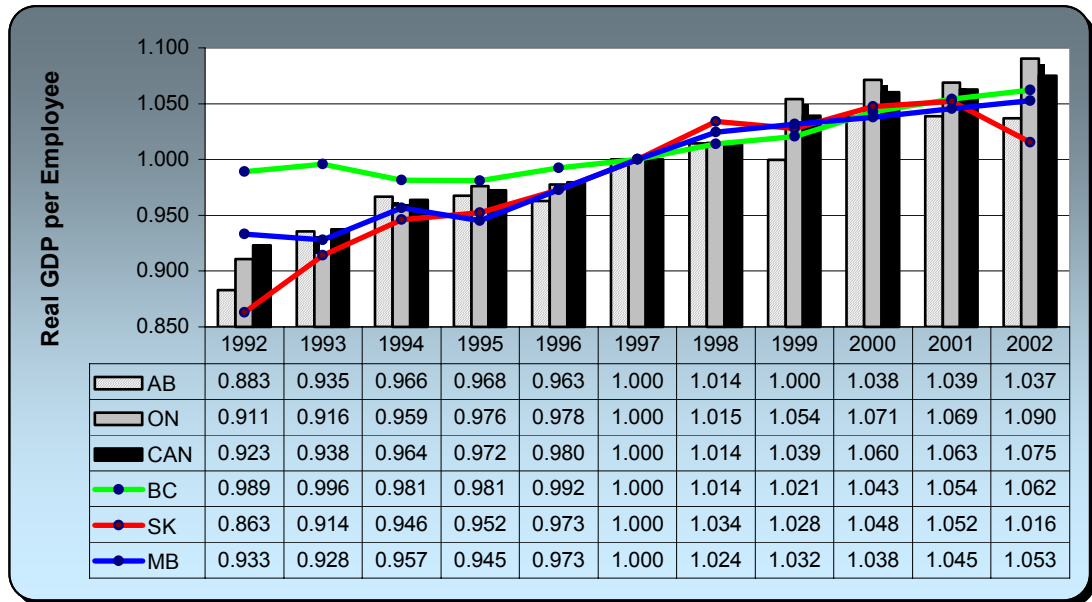
Figure 5-5 displays the decade long change in real labour productivity¹¹³, which is a fundamental driver of economic growth.

All jurisdictions, except British Columbia and Saskatchewan, created a steady, decade long upward trend in labour productivity. Five- or ten-year trends are more relevant for analyzing labour productivity than year-over-year trends so judgement should be held on Saskatchewan's productivity decline in 2002 over 2001. *BC's productivity growth stagnated in the first half of the 90s, a stark contrast to the growth experienced elsewhere, and especially unfortunate because the province started the 90s with the highest productivity levels.*

The graph in Figure 5-5 illustrates that productivity in Canada is characterized by small, annual percentage increases.

¹¹³ As measured by real GDP divided by total employment

FIGURE 5-5: REAL GDP PER EMPLOYEE INDEX¹¹⁴ (1997=1.000), PROVINCES AND CANADA, 1992 - 2001



Source: Statistics Canada

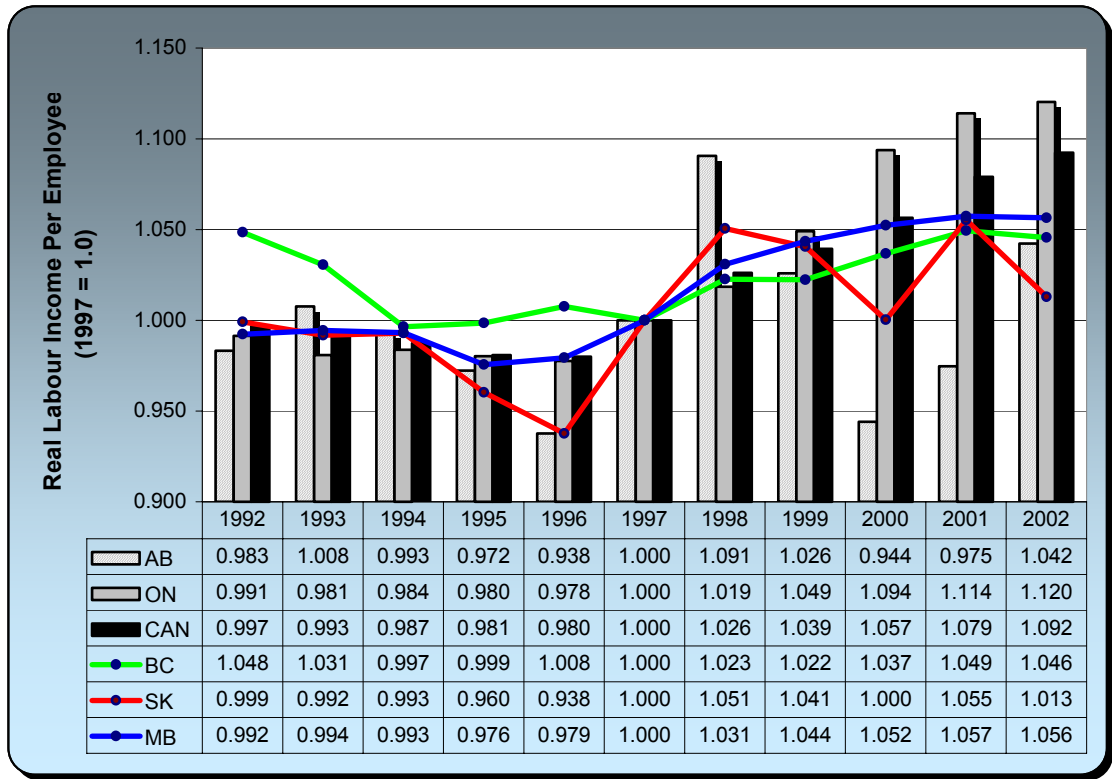
A comparison of graphs in Figures 5-5 and 5-6 shows that labour income exhibits more year-over-year volatility than labour productivity. Changes in labour income, which is termed either wage inflation or deflation, are driven by short-term forces. Productivity is driven by longer term forces, such as investments in equipment and machinery, adoption of new software, introduction of new management systems, etc., all of which require longer time frames to implement and see results.

Labour income exhibited greater annual volatility within the 1993-2002 decade than labour productivity, but its range at the beginning and end of the 1993-2002 decade was more narrow, approximately 10 percent.

The Canadian trend in labour income change was a steady, slow decline in the 1992-96 period, the vestiges of the country emerging from the recession of the early 90s. From 1996 through 2002 there has been a steady climb in labour income, an 11.4 percent increase for the period. The Ontario index closely followed the Canadian average index.

¹¹⁴ A simple index is created by dividing real (1997\$) GDP per employee for any one year by 1997 GDP per employee.

FIGURE 5-6: REAL LABOUR INCOME PER EMPLOYEE INDEX¹¹⁵ (1997=1.000), PROVINCES AND CANADA, 1992-2002



Source: Statistics Canada

The following table shows the percentage change in each of labour productivity and labour income for 2002-2001 and 1993-2002. The size and direction of these two factors determine the size and direction of unit labour cost.

	Labour Income		Labour Productivity		Unit Labour Cost	
	93-02	01-02	93-02	01-02	93-02	01-02
British Columbia	1.4	-0.3	6.6	0.7	-5.9	-0.8
Saskatchewan	2.1	-4.0	11.2	-3.4	-9.2	-0.5
Manitoba	6.2	-0.1	13.5	0.8	-6.5	-0.6
Alberta	3.4	6.9	10.9	-0.2	-6.7	7.9
Ontario	14.2	0.5	19.0	2.0	-2.3	-1.4
Canada	10.0	1.2	14.6	1.1	-2.8	0.3

¹¹⁵ A simple index is created by dividing real (1997\$) labour income per employee for any one year by 1997 real labour income per employee.

The preceding table clearly shows the relative importance of productivity over the long term in determining unit labour costs. Each jurisdiction's labour productivity change (an increase in every case) outweighed its change in labour income over the 1993-2002 decade.

Manitoba Unit Labour Cost

Manitoba's short-term changes in both labour income and productivity were very small, -0.1 and 0.8 percent respectively. The slightly higher change in labour productivity resulted in a very small decrease, -0.6 percent, in this province's unit labour cost for the past year. The long term trend is more positive; the province's productivity increase more than doubled its rise in labour income so unit labour cost fell by 6.5 percent over the decade.

The roots of the decade long changes in Manitoba's productivity can be found in the reduced importance of the low productivity agriculture sector, the increased importance of the high productivity oil and gas sector and good productivity gains in large sectors like manufacturing, FIRE and accommodation and food services. Pre-tax labour income in Saskatchewan went up by only a small amount over the decade because of drought, price declines and structural shifts in its large agriculture industry and employment growth in some lower paying service sectors. Labour income is profiled in Section 3.3.1

5.3.3 Spotlight on Manitoba Productivity

Productivity has a direct link to competitiveness and labour income because it translates into impacts on profits, prices and wage rates. Because productivity highlights producing more or better output with less, it is seen as heavily influencing economic well-being. Productivity growth spotlights an economy's or industry's progress in either reducing input costs in the face of stagnant or declining production or increasing output while reducing or maintaining input cost. The impact of labour productivity on unit labour costs, an important competitiveness factor, was demonstrated in the previous section. In each studied jurisdiction, an increase in labour productivity outweighed the change in labour income to determine unit labour costs.

It is often presented as a trend to show changes over time or a level of output per unit of input (such as per worker or per hour worked) to compare performance at a point in time.

Harvard University economist Michael Porter has written that “The principal economic goal of a nation is to produce a high and rising standard of living for its citizens. The ability to do so depends not on the amorphous notion of ‘competitiveness’ but on the productivity with which a nation’s resources ...are employed...Productivity is the prime determinant in the long run of a nation’s standard of living, for it is the root cause of national per capita income.”¹¹⁶

Over the last decade, Manitoba’s GDP per capita increased by 22.3 percent, reflective of its reasonably strong productivity increase. However, the province’s per capita ranked last amongst the benchmarked jurisdictions in 2002, reflective of its relatively lower productivity level compared to the other provinces and the Canadian average. Manitoba’s 2002 productivity level sits 12 percent below the Canadian average.

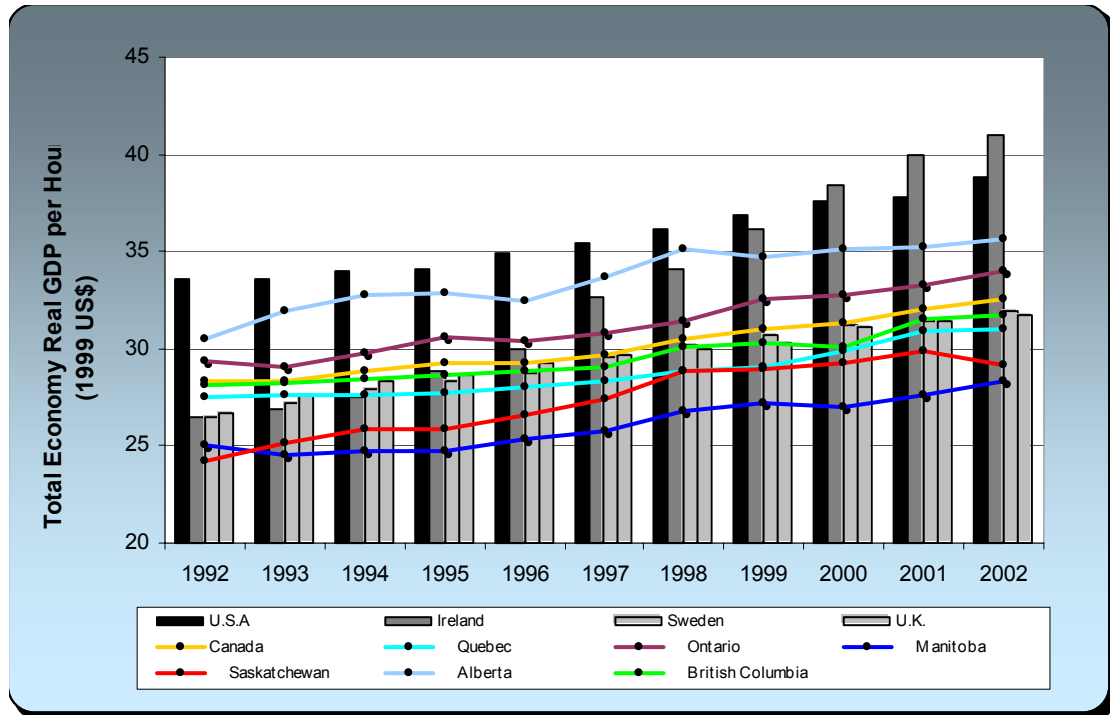
	1993-2002		2001-2002		2002	
	% change	rank	% change	rank	\$	rank
BC	5.9	6	0.7	3	30,461	4
Canada	25.5	2	2.3	1	33,811	3
Manitoba	22.3	3	-2.3	6	29,228	6
Saskatchewan	16.9	5	-1.0	5	30,013	5
Alberta	19.6	4	0.1	4	40,151	1
Ontario	27.7	1	2.2	2	37,050	2

Source: Statistics Canada

¹¹⁶ Porter, M.E. (1990) *The Competitive Advantage of Nations*. The Free Press. New York, NY.

In Figure 5-7 the labour productivity¹¹⁷ of several Canadian provinces over the past decade is compared against the Canadian average and several countries that are major competitors and trading partners, including the U.S.

FIGURE 5-7: TOTAL ECONOMY REAL GDP PER HOUR WORKED, IN 1999 US\$ (CONVERTED AT EKS PURCHASING POWER PARITIES¹¹⁸), 1992 to 2002



Source: Centre for the Study of Living Standards

¹¹⁷ The productivity results in Figure 5-7 are slightly different from those of Figure 5-5 because the latter is based on GDP per worker and is a normalized index and the former is based on GDP per hour worked and is not normalized. When measured on the basis of GDP per hour worked, part-time employment's impact on productivity is better taken into account. In Canada, productivity rates as measured by GDP per hour worked are slightly higher than when measured as GDP per employee.

¹¹⁸ It is now widely recognized that international comparisons of productivity levels and living standard levels must be based on purchasing power parities (PPPs), not the market exchange rate. The PPP exchange rate equalizes in a common currency (generally US dollars) the price of a basket of goods (or a specific good) between two countries. The current bilateral Canada-US PPP for GDP, produced by Statistics Canada, is estimated at \$0.84 US for one Canadian dollar. Labour productivity level comparisons should in theory reflect differences in real or physical output per unit labour input across space. If the prices of a good in two countries are converted to a common currency for comparison purposes by the market exchange rate, distortions arise. The market exchange rate can be affected by capital flows and other factors and have no close relationship with the PPP exchange rate that equalizes the common currency price of the good. For example, a market exchange of \$0.63 US for the Canadian dollar would imply that Canadians are around 40 per cent less productive than Americans, whereas the PPP of \$0.84 indicates that output per worker is only around 20 per cent less, a much more plausible figure.

In terms of 2002 level of labour productivity, Ireland leads the pack at US\$41.85 per hour worked, above the U.S. level of US\$38.83 per hour. Of the graphed jurisdictions, Manitoba (US\$28.29 per hour) is at the bottom followed by Saskatchewan (US\$29.14 per hour); 33 percent lower productivity levels than Ireland and 25 percent lower than the U.S. Saskatchewan and Manitoba have similar productivity levels as Japan, which is mired in an extended economic slump. BC has a similar 2002 productivity level as Sweden and the U.K., almost 20 percent below the U.S. level.

Table A-1 of Appendix I shows the productivity performances¹¹⁹ for more nations and provinces than were graphed in Figure 5-7.

As mentioned in the previous section, change in productivity is a very important factor in driving GDP change. Ireland demonstrated a phenomenal 5.2 percent average annual productivity gain over the past decade. Finland and Germany also showed exemplary gains, 2.5 and 2.0 percent, respectively. Ontario had the highest rate of annual increase in Canada, 1.7 percent. BC, Quebec and Alberta lumped together at the 1.2 percent level¹²⁰. Changes of a few tenths of a percent are important in annual changes because they translate into GDP increase and economic growth. Although The Netherlands trailed with a 0.7 percent annual increase, the country started the decade at a high level and finished high, at \$40.31, 3.8 percent above the American level.

In terms of 2002 productivity levels, France and Ireland rank no. 1 and no.2, respectively. The U.S. is in the fifth spot. Manitoba, Saskatchewan and BC are in the bottom tier of the 17 jurisdictions shown in Table 1 of Appendix II. Manitoba is at the bottom, almost one-third less productive than top ranked France and 27 percent less productive than the U.S. These poor results directly translate into negative impacts on a jurisdiction's standard of living, as measured by GDP per capita.

Table 5-7 gives an international comparison of labour productivity in manufacturing, a sector where the Canadian performance badly trails, especially in Manitoba and BC, many major competitors:

	2000 % of U.S. level	1990 % of U.S. level	% change 90-00
Australia	39.03	48.97	-20.2
Canada	65.68	79.88	-17.8
Quebec	62.48	74.80	-16.5
Ontario	70.97	84.12	-17.6
Manitoba	47.85	69.15	-30.8
Saskatchewan	61.63	72.96	-15.5
Alberta	69.66	89.74	-22.4

¹¹⁹ The table includes the following information: 2002 labour productivity levels (in 1999 US\$); rank vis-à-vis each other; percentage difference in their 2002 level from the 2002 U.S. level; percentage change over the 1993-2002 decade; and average annual percentage over the decade.

¹²⁰ The productivity results in this section are based on GDP per hour whereas the previous section productivity calculations were based on GDP per employee. Slight differences exist between the two sets of productivity figures because there is a shift to more part-time work. The trends over time between the two series are almost identical.

British Columbia	56.65	83.30	-32.0
Finland	106.62	84.18	26.7
France	92.62	92.18	0.5
Germany	87.61	88.67	-1.2
Japan	70.43	76.26	-7.6
Nether-	95.29	108.76	-12.4
Sweden	95.11	89.15	6.7
United Kingdom	55.20	63.71	-13.4
USA	100	100	0

Source: Centre for the Study of Living Standards

Manitoba's 2000¹²¹ labour productivity level in its very important manufacturing sector is less than half of the American productivity level and it declined by 30.8 percent over the decade compared to the U.S. performance. ***Finland has a 2000 manufacturing productivity level that exceeds the U.S. level by 7 percent and it improved by 27 percent over the decade compared to the U.S. performance.*** These decade long declines constitute serious harm to the international competitiveness and labour incomes of manufacturing in Manitoba.

A recent report¹²² by a Canadian productivity researcher summarized his research findings on the reasons behind the Canada – U.S. productivity gap. He listed five factors as follows.

- “Lower capital intensity of economic activity in Canada, estimated to account for around one fifth of the gap.
- Canada’s innovation gap as manifested by lower R&D expenditures and patenting as well as lags in the diffusion of best-practice techniques into Canada from other countries, particularly the U.S.
- Canada’s relatively underdeveloped high-tech sector, which has had much lower productivity growth than its U.S. counterpart.
- Canada’s less developed human capital at the top end of the labour market, as manifested by proportionately fewer university graduates and scientists and engineers in R&D.
- More limited economies of scale and scope in Canada reflecting smaller plant size due to the continuation of border effects.”

Table 2 in Appendix I provides 2002 labour productivity results by selected industries for Canada and several of its provinces, as well as the percent change over the 1993-2002 decade and the 2002 provincial results as a percentage of Canadian 2002 productivity levels. Following are some observations about Manitoba’s labour productivity based on this data.

Manitoba’s overall productivity performance was reasonable within the Canadian context but as mentioned in the previous section, poor within an international comparison. Manitoba’s average

¹²¹ International comparison data in manufacturing for 2001 and 2002 is not currently available.

¹²² Sharpe, A. (2003) *Why are Americans more productive than Canadians* in International Productivity Monitor. No.6.

annual increase of 1.5 percent in labour productivity per hour worked for the 1993-2002 decade was the same as the Canadian average.

The problem for Manitoba is that its overall productivity started at a lower level than the other benchmarked jurisdictions so it needed a stronger annual gain than 1.5 percent in productivity in order to make up ground over the decade. Manitoba's overall productivity on a per hour worked basis is 12 percent behind the Canadian average and 21 percent behind Alberta in 2002.

The productivity of the province's agriculture sector helped to bolster its overall productivity performance. Agriculture is an important export sector in the Manitoba economy and its crop and animal production sub-sector, which includes wheat farming, cattle ranching and intensive hog production, registered an average annual productivity decrease of more than 7 percent for the decade. Manitoba's agricultural GDP has grown from 38.7 percent of Saskatchewan's agricultural GDP in 1993 to 92.8 percent in 2002.

Manitoba's largest sector by GDP is manufacturing but it turned in a relatively poor productivity performance, annual gains of only 0.6 percent. Unfortunately the annual average productivity increase for Canada's manufacturing sector was not much larger, 0.8 percent. A bright spot for productivity in Manitoba's manufacturing sector was its wood products industry as it achieved annual increases of 4.3 percent for the decade. In contrast BC's much larger wood products industry came in with much smaller annual productivity gains, 0.7 percent

The services industries are often cited as being a drag on overall productivity but Manitoba's FIRE sector had good annual gains of 2.9 percent, due to greater use of information technology to further automate the sector. A weak services sector performer was the province's accommodation and food services sector, which came in with annual average gains in productivity of 0.6 percent. However, these gains in Manitoba were typical of the small productivity increases seen in this labour intensive sector in other provinces.

A recent Statistics Canada research report highlighted the productivity problem amongst Canadian provinces¹²³. It found that Alberta had the highest levels of output per worker, some 18 percent higher than Ontario. Saskatchewan, Quebec and British Columbia trailed Ontario by amounts ranging from 4 percent to 8 percent (for the studied 1996-97 period). Well behind were Manitoba and Atlantic Canada at 22 percent and 26 percent, respectively.

The authors concluded that the lesser productivity performance of Manitoba was not due to the presence of larger natural resource sectors in other provinces. As well, relative to other provinces, Manitoba's core manufacturing industries¹²⁴ performed similarly to the core manufacturing industries of the major provinces. The Statistics Canada researchers attributed

¹²³ Baldwin, J.R, J.-P. Maynard, D. Sabourin and D. Zietsma (2001) *Differences in Interprovincial Productivity Levels*. Analytical Studies Branch, Statistics Canada.

¹²⁴ Statistics Canada divided manufacturing industries into three categories (core, secondary and other) according to their degree of innovativeness. Core manufacturing industries consists of electrical and electronic products, machinery, pharmaceuticals, chemical and chemical products and refined petroleum.

Manitoba's productivity shortfall to the relatively weaker productivity performance of its secondary and less intensive manufacturing industries¹²⁵ and all types of its service industries.

Conclusions

Changes in productivity are the result of many initiatives that sometimes require a year or two to implement. *A Statistics Canada report on productivity comments that "It [productivity] is affected by small, incremental changes in a host of factors that occur on the plant floor. These include new production techniques, changes in plant size, changes in organization as well as other factors that are associated with new knowledge."*¹²⁶

One specific recommendation cannot be made to accelerate productivity growth. It is achieved through an array of measures that are aimed at producing more or better outputs using fewer inputs. The underlying theme is to influence management and labour work cultures to place more emphasis on efficiency to realize the competitiveness rewards that improved productivity brings.

A productivity researcher suggested the following as general needs to improve Canadian productivity¹²⁷.

- reduce the country's innovation gap
- increase investment to raise the level of industry capital intensity
- develop the high-tech sector
- improve the quality of workers at the high end of the labour market through investment in human capital
- increase plant size to improve economies of scale.

An unimplemented government policy recommendation made in 1999 by the House of Commons Finance Committee was for the establishment of a "covenant" by the federal government that every new budgetary initiative should be judged according to a productivity benchmark. This "covenant" was seen as operating similar to the federal government's Program Review, which is an ongoing examination of federal spending. A Productivity Covenant would subject all existing government initiatives (spending, taxation and regulation) to an assessment which evaluates their expected effects on productivity¹²⁸.

¹²⁵ Such as transportation, fabricated metal products, beverages, wood, textiles and furniture industries.

¹²⁶ Baldwin, J.R., Harchaqui, T.M. and Maynard, J.P. (2001) *Productivity Growth in Canada and the United States* in Productivity Growth in Canada (Baldwin, J. ed.). Statistics Canada. Cat no. 15-204.

¹²⁷ Sharpe, op cit

¹²⁸ Standing Committee on Finance. Maurizio Bevilacqua, M.P. Chairman (June 1999) *Productivity with a Purpose: Improving the Standard of Living of Canadians*. Twentieth Report.

5.3.4 Real Export Price

Real Export Price Indicator

This indicator highlights the change in export prices relative to other prices in the economy. If export prices are rising faster than other prices, then investment conditions in export industries are becoming more attractive. As a consequence, this analysis of investment climate uses a real dollar export price index (export price deflator divided by the GDP price deflator).

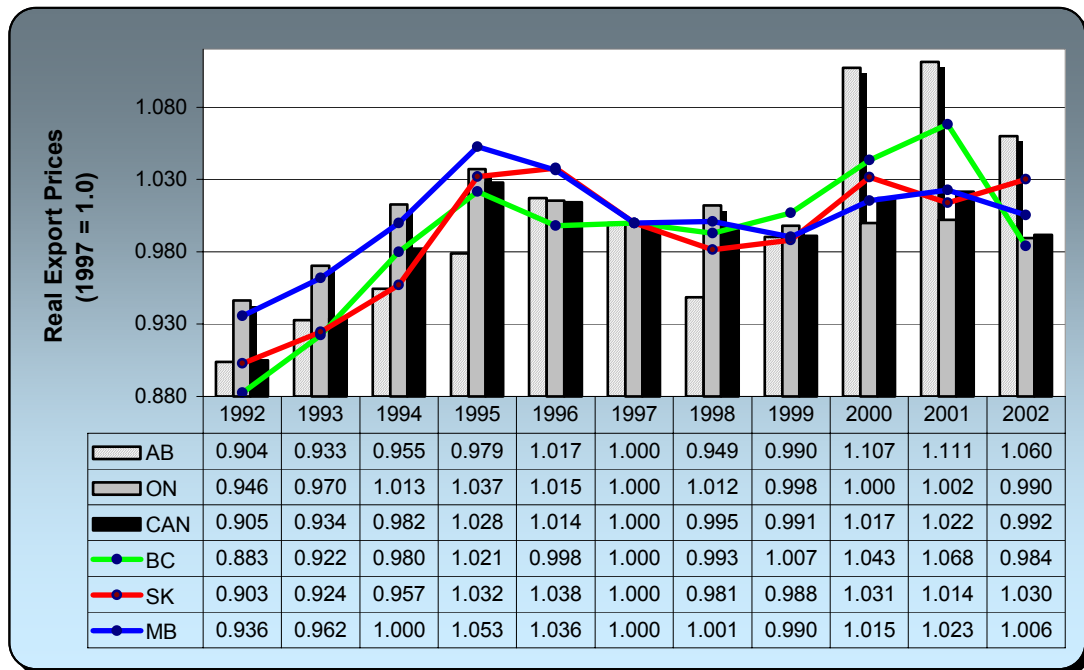
Canada is a small open economy composed of even smaller open provincial economies, which trade with each other and internationally. The export base theory of growth has long been a staple explanation of changes in the Canadian economy. It emphasizes the fundamental importance of exporting to Canada's economic development and success. Economies can be split into export and local industries. Local industries are found in most developed economies and produce goods and services that are needed by local residents to conduct business and lead their lives. Examples include construction and retail sectors. Export industries in Manitoba compete with traded industries in other regions and nations. Local industries will often account for about two-thirds of regional employment but export industries drive regional economic growth and prosperity. They do so because of higher incomes, their growth is unconstrained by the size of local markets, and their success creates demand within local industries.

From an investment perspective, the expected demand for a sector's products plays an important role in decisions to expand or build new operations. For those companies whose main customers are foreign, changes in export prices are indicative of market conditions. At the same time, many non-exporting companies are suppliers to export dependent firms and therefore are indirectly concerned with the behaviour of foreign markets. Greater activity in the export sector will translate into greater demand for inputs and thus higher activity in the non-exporting sector.

Real Export Price Trends

As displayed in Figure 5-8, Saskatchewan was the only province in 2002 that enjoyed an increase in real export prices, led by a more than 60 percent increase in the price of wheat in 2002. BC especially experienced a sharp decline in 2002 because of a lumber price decline, static pulp and paper prices, and weaker natural gas prices early in the year. A fifth of Alberta's economic activity is tied to its petroleum resource sector so it registered the highest export price index number in 2002 despite softness for most of the year in natural gas and crude oil prices, a position it has held since 2000.

FIGURE 5-8 REAL DOLLAR EXPORT PRICE INDEX¹²⁹ (1997=1.000), PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada

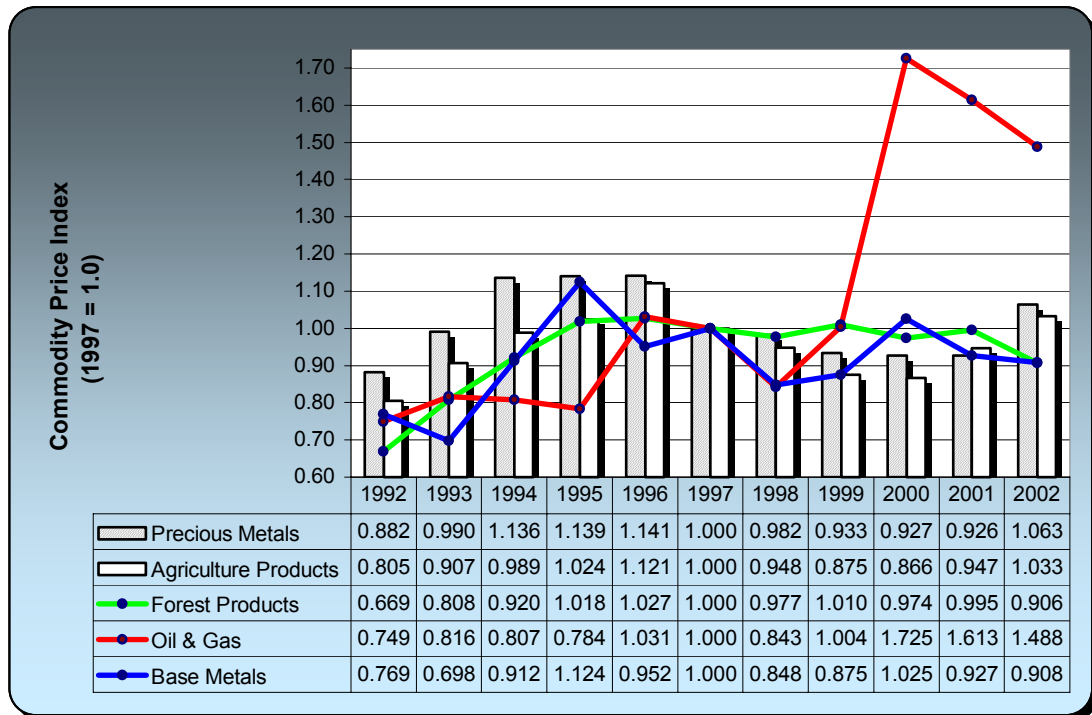
Real Export Price Drivers

Although Canada is increasingly becoming an exporter of finished goods, traded commodities still remain the backbone of many provincial economies. As such, the performances of commodity prices plays an important role in the health of many economies.

There is a relatively narrow gap (7.2 percent) between highest Alberta and lowest BC for the real export price indicator, which suggests that there is not much difference between the provinces. However, dissecting the composition of this broad indicator does suggest differences between the provinces. Figure 5-9 displays the profile of several commodity price indexes since 1992.

¹²⁹ An index is created by dividing the province’s GDP price index for any one year by the province’s real export price index for the same year.

FIGURE 5-9: COMMODITY PRICES (1997=1.000), PROVINCES AND CANADA, 1992 - 2002



Source: TD Bank

The oil and gas price index demonstrated much more volatility than the other indices over the past decade. The natural gas price spike of 2000 has somewhat abated but the prevailing price at the end of 2002, approximately US\$4 per million BTU is twice the US\$2 per million BTU average seen through much of the 1990s. The current price is about one-third higher than the average level of the past three years¹³⁰.

Led by improving gold prices throughout 2002, the precious metal index showed an almost 15 percent rise but still ended the year below mid 90s levels, when gold peaked in the vicinity of \$US400 per oz.

The base metal price index bottomed in late 2001, reflecting the American recession and continuing economic stagnation in Japan. Fortunately 2003 has shaped up as a better year for the overall base metals group. This index closely correlates with U.S. economic fortunes.

Forest product prices increased substantially in the early 1990s, pulled upwards by improving U.S. housing demand after the 1989-1992 weak economy years. They showed considerable stability between 1995 and 2001, but this index declined in 2002 and into 2003, as lumber supply exceeded strong U.S. demand, which reached an all-time high in 2002, spurred by low interest rates. The supply increase was spurred by Canadian mills running third shifts to help lower

¹³⁰ Ibid

overhead costs in the face of punitive U.S. duties on commodity lumber and European suppliers shipping high quality lumber to eastern U.S. seaboard markets.

Wheat dictates movements in the agricultural products index because of its weighting in the agricultural products index. After peaking in early 1996, the wheat price fell swiftly throughout the year, stabilized for a brief period in late 1996 and early 1997, before starting another decline that bottomed out in mid 2000. Fortunately, 2002 saw a sharp increase in wheat prices that is reflected in the agricultural products index's 9 percent rise during that year. The agricultural products index exhibited the same fast rise as the other commodity indexes between 1992 and 1996, 39 percent in this case.

Manitoba Real Export Price

Manitoba's real export price trend over the 1993-2002 decade is similar to Ontario's trend because their manufacturing sectors have significant tertiary manufacturing and rely less on further processing of natural resource commodities. After a slight run-up in the 1999-2001 period, there was a downturn in the province's real export price index in 2002 over 2001. This weakening reflects a fall off in hydro electricity export prices and dampened demand in the all important U.S. economy. Along with the other provinces, Manitoba had a great run-up in export prices in the early 1990s due in large part to rising world agricultural prices.

5.3.5 Financial Rate of Return

Financial Rate of Return Indicator

Two factors are important when examining after-corporate income tax profits: the level of before-tax profits that businesses are achieving in the particular province and the level of corporate income taxation in the province. The decision to invest in a project is highly dependent on its expected rate of return to shareholders. If the rate of return is sufficiently high and other critical factors are judged as favourable, then the investment will likely proceed. If either the expected profit level is too low or the level of taxation on those profits is perceived as being too high, there will be a disincentive to invest¹³¹.

Financial Rate of Return Trends

The main impression from reviewing this indicator is that both Alberta and Saskatchewan are far ahead of the other studied jurisdictions in terms of exhibiting the biggest share of after-corporate income tax profits¹³² as a percentage of GDP. In 2002, Saskatchewan had the highest proportion of GDP in after-corporate tax profits (17.10 percent). Alberta, the 2001 leader, fell back to the 2nd ranking (16.21 percent) but remained well above the Canadian average (9.25 percent).

BC and Manitoba have taken turns registering the lowest percentage shares of after-tax profits over the 1993-2002 decade. The after-tax profit percentage shares of BC, Manitoba, and Ontario have been stagnant since 1997.

The shares for Alberta and Saskatchewan leapt forward in 2000, however Alberta's 2002 share slid to 16.21 from 20.56 percent in 2001, a more than 20 percent decline. The Canadian average rose a very modest 1.7 percent in 2002 over 2001.

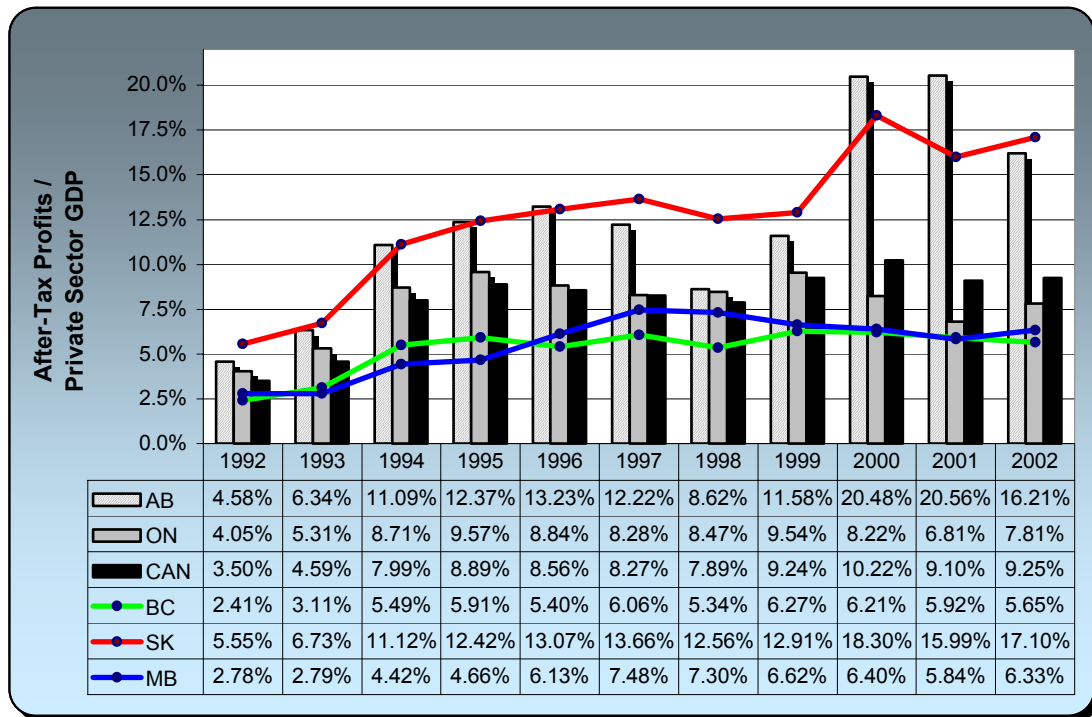
Over the decade, the country achieved a doubling of the percentage share of after-tax profits in GDP. Alberta and Saskatchewan made the biggest moves over the 1993-2002 decade, in the 150 percent range. Ontario had the smallest increase, almost 50 percent.

Figure 5-10 presents after-tax profits as a percentage of GDP by province and Canada. It is possibly the most important investment climate indicator, certainly in the near term.

¹³¹ Several studies have shown that capital investment is spurred by reductions in taxes that influence investment. A survey of these studies is presented in Mintz, J. (1995) *The Corporation Tax: A Survey* in *Fiscal Studies* 16(4): pg 23-68.

¹³² After-tax corporate profits are calculated by subtracting corporate income taxes from gross profits. The calculation does not include taxes on production, such as corporate capital taxes and natural resource royalties.

FIGURE 5-10: AFTER-CORPORATE INCOME TAX PROFITS TO GDP RATIO, PROVINCES AND CANADA, 1992-2002



Source: Statistics Canada

Financial Rate of Return Drivers

The trend movements and rankings in after-tax profits are mainly tied to increased production of and (at times) higher prices for natural gas and crude oil.

There was an increase in the ratio of after-tax profits to GDP in the 1993-94 period as the country as a whole emerged from recession and was drawn into the American led economic expansion. In the 2000-2002 period, the rising fortunes of the country’s petroleum resources sector became reflected in the sparkling after-tax profit results for Alberta and Saskatchewan. Economic difficulties in British Columbia’s large forest industry have offset the positive contribution of its natural gas sector over the past few years.

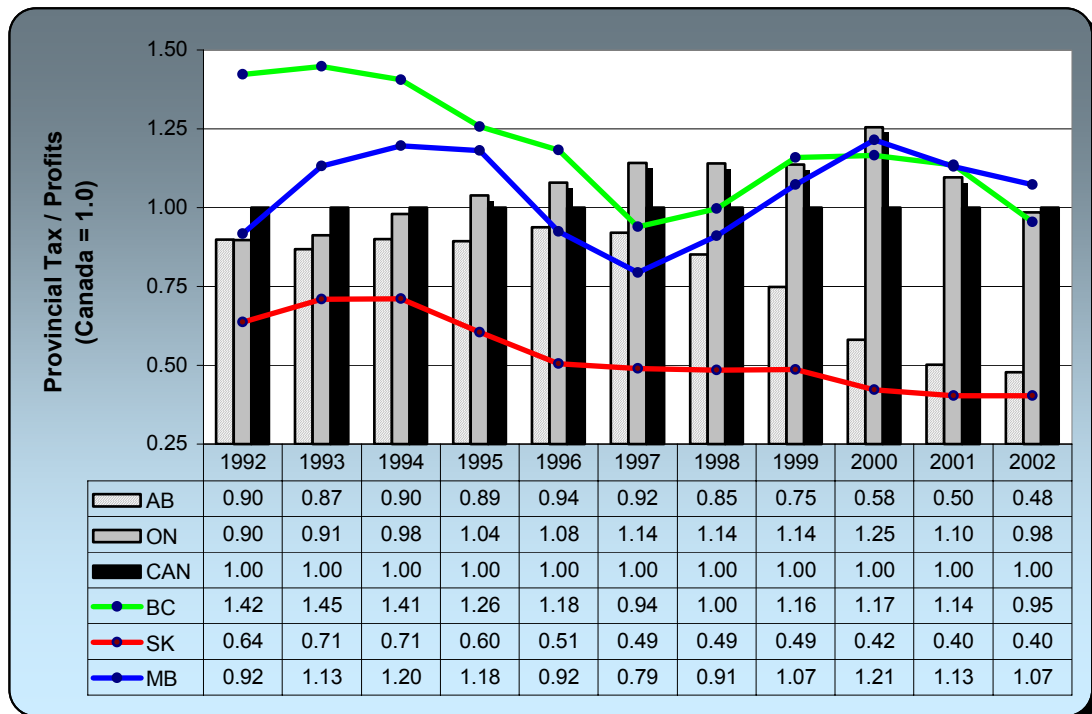
Saskatchewan’s ratio of after-tax profits to GDP was extremely good throughout the decade; a performance exceeded only by Alberta.

Given the relatively low level of profits in the Manitoba economy, it is not surprising that this province’s after-tax profits to GDP ratio is well below that of the other benchmarked jurisdictions, excepting BC. Since 1997, there has been a slow but steady decline in Manitoba’s after income tax profits to GDP ratio, broken by a small upsurge in 2002.

The level of corporate taxation is an important factor in assessing a company's expected rate of return on an investment. *Saskatchewan took the smallest amount of income taxes from corporate profits in 2002, as it consistently has done for the past decade. Manitoba secured the largest share of corporate income taxes in relation to corporate taxes in 2002.*

Figure 5-11 presents the effective provincial corporate tax rate (provincial corporate taxes paid divided by corporate profits) compared to the all-Canada norm for the various regions. Provinces with ratios above 1.00 are collecting a larger percentage share of corporate profits in taxes than the Canadian average.

FIGURE 5-11: EFFECTIVE PROVINCIAL CORPORATE INCOME TAX RATE, (CANADA = 1.0), PROVINCES AND CANADA, 1992 - 2002



Source: Statistics Canada and author's calculations.

BC showed the biggest change in 2002 over 2001, a 17 percent decline. It took the largest share or almost the largest share throughout the shown period, until this past year. In the first half of the 90s, BC was well above the Canadian average, almost 50 percent above in the early 90s.

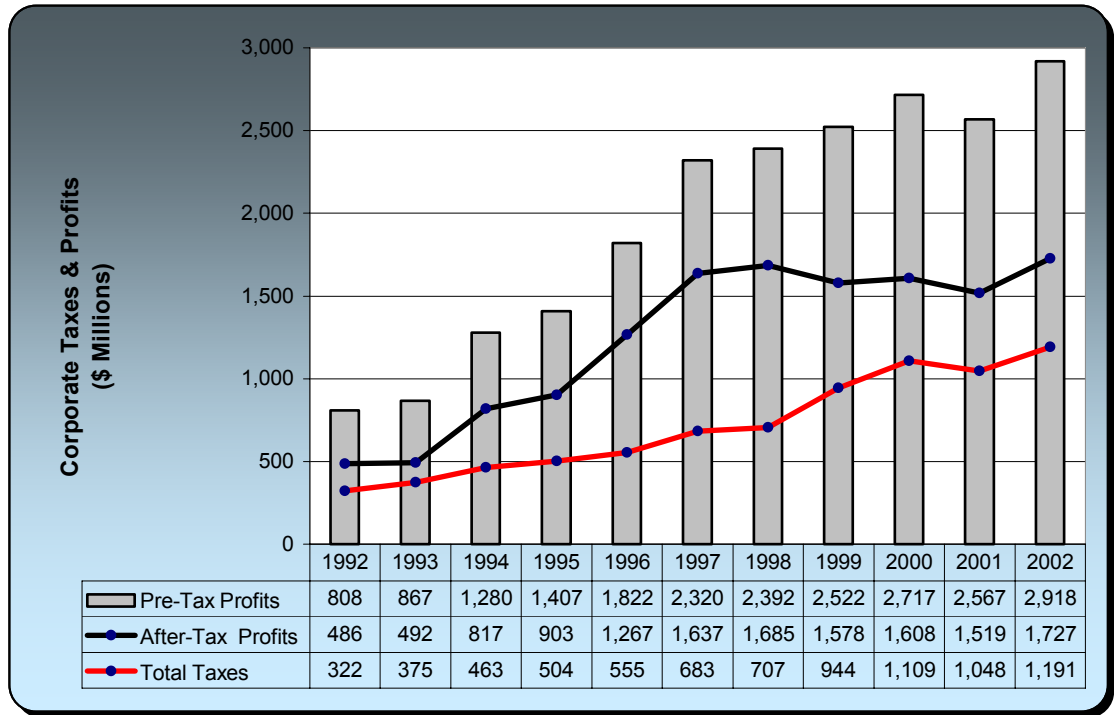
Ontario, while at roughly the same level as Alberta in the early 1990s, now has a corporate tax take that is double Alberta's.

Differences between jurisdictions in general corporate and small business tax rate levels do not coincide with effective corporate tax rates. For example, Saskatchewan has enjoyed the lowest effective tax rates in the country despite having the highest basic tax rates. The mix of industry sectors (with agriculture being relatively more important) and presence of resource, capital and payroll taxes affects its total provincial corporate tax takes.

Manitoba Financial Rate of Return

Figure 5-12 displays the trend in before- and after-tax profits in Manitoba. The province does not have a good profit performance. Its level of before- and after-tax profits have remained less than half of Saskatchewan’s, despite Manitoba having the larger economy.

FIGURE 5-12: BEFORE- AND AFTER-TAX PROFITS, MANITOBA, 1992 - 2002



Source: Statistics Canada. Note: Total Taxes includes provincial and federal taxes.

The difference in percentage increases between pre-tax profits and total taxes helped to push up after-tax profits for corporate Manitoba by 251 percent over the 1993-2002 decade. The increase in total taxes over the decade was 218 percent but pre-tax profits were up by 237 percent.

The decade long trends in pre-tax profits versus total taxes in Saskatchewan were larger, however. The increase in total taxes over the decade was 113 percent but pre-tax profits were up by 255 percent. The difference in percentage increases helped to push up after-tax profits for corporate Saskatchewan by 302 percent versus the 251 percent increase in Manitoba.

5.3.6 Spotlight on Taxation

Corporate Taxation

Manitoba had the highest corporate income tax burden in 2002, 12.8 percent versus neighbouring Saskatchewan's 4.8 percent.

In 2002 and throughout the 1993-2002 decade, Saskatchewan taxpayers carried the lowest corporate income tax burden of the benchmarked jurisdictions.

BC had the highest corporate tax burden in 1993 by a large margin, 19.6 percent, compared to next highest Manitoba at 15.3 percent. The following table shows that Saskatchewan's effective provincial corporate income tax rate stood at less than half the Canadian average in 2002.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Saskatchewan	9.6	7.8	6.9	6.3	6.7	6.4	6.0	5.1	4.8	4.8
Manitoba	15.3	13.0	13.6	11.5	10.9	12.0	13.2	14.5	13.5	12.8
Canada	13.5	10.9	11.5	12.5	13.7	13.2	12.3	11.9	11.9	11.9
BC	19.6	15.3	14.4	14.7	12.8	13.2	14.3	13.9	13.6	11.4
Alberta	11.8	9.8	10.3	11.7	12.6	11.2	9.2	6.9	6.0	5.7
Ontario	12.4	10.7	11.9	13.5	15.6	15.1	14.0	15.0	13.1	11.8

A fundamental reason for the higher effective corporate tax burden is that the province has higher corporate tax rates. Table 5-9 presents corporate tax rates for the studied jurisdictions plus Quebec.

	General Rate	Manufacturing Rate	Small Business Rate	Corporation Capital Tax (Non-Financial)	Corporation Capital Tax (Financial)
Saskatchewan	17	10	6 ¹³³	0.6	0.7 – 3.25
Manitoba	16	16	5	0.3 – 0.5	3.0
British Columbia	13.5	13.5	4.5	nil	1.0 - 3.0
Alberta	13.0	13.0	4.5	nil	nil
Ontario	12.5	11	5.5	0.3	0.6 – 0.72 – 0.9
Quebec	9.04 – 16.25	9.04	9.04	0.64	1.28

Source: 2003 BC Budget Papers

Manitoba, along with Ontario, Quebec and Newfoundland also apply a payroll tax; Manitoba has the only one in western Canada. The province, along with Saskatchewan, Ontario and Quebec, also has a corporation capital tax on non-financial companies, which is the most disliked form of

¹³³ Saskatchewan's small business rate is scheduled to decrease to 5.5 percent in 2004 and 5 percent in 2005.

corporate taxation. It is levied against the debt and shareholders equity of medium and large corporations. The more a firm invests, the more it pays. Unlike income tax, capital taxes are payable whether the business is profitable or not. A company which has suffered losses in an economic downturn may have to borrow money to pay its capital tax. They discourage investment in technology, in the new methods and equipment which stimulate job creation and productivity growth.

In its 2003 budget the Government of Manitoba changed its \$5 million corporate capital tax exemption to a \$5 million deduction. In its 2003 budget, Saskatchewan raised its capital tax exemption from \$5 to \$7.5 million, and scheduled a further increase to \$10 million in 2004. British Columbia halved its capital tax rate on non-financial institutions in its September 2001 budget, and eliminated it this year. Alberta eliminated its capital tax entirely in 2001. In its 2002 budget, Ontario promised to do the same, the first step being an increase in the threshold at which the tax applies to \$5 million. In November 2001, Quebec announced that it will reduce its capital tax rate by half by 2007.

Statutory tax rates tell only part of the story. The average Canadian federal-provincial corporate tax rate is lower (35 percent) than the average American federal-state rate (38 percent). The effective tax rate is higher in Canada (27.7 percent) than the U.S. (22.3 percent) for several reasons¹³⁴.

- Canadian and several provincial governments levy capital taxes that are rarely seen in the U.S.
- Canadian depreciation deductions are less generous than those offered in the U.S.
- Inventory cost deductions are less favourable in Canada than in the U.S.

As seen can be seen in the following table, Canada fares poorly in an international comparison of effective tax rates for large firms but fares much better when comparing effective taxation of small firms.

	Large firm – manufacturing	Large firm – Services	Small firm - Manufacturing	Small firm - services
Canada	27.7	28.1	12.0	9.5
U.S.	22.3	21.0	9.2	5.5
Ireland	4.2	7.5	4.2	4.3
Sweden	16.0	12.2	16.0	12.2
U.K	19.4	13.8	11.1	8.2
France	13.6	15.2	13.7	19.5

¹³⁴ Chen, D. and Mintz, J. (January 2003) *How Canada's Tax System Discourages Investment*. C.D. Howe Institute.

¹³⁵ Effective taxation is calculated by estimating taxes paid as a percentage of income, and includes all income, capital and sales taxes.

Germany	28.4	19.5	28.4	19.5
Italy	22.0	29.0	19.4	26.4

Source: Chen, Lee and Mintz 2002¹³⁶

Personal Taxation

Manitoba has a relatively high tax burden because of its personal tax burden as well as the aforementioned corporate tax burden. Relatively high personal income taxes discourage entrepreneurial investments and the attraction of high performers from lower taxation jurisdictions.

The following charts show trends in and levels of effective provincial tax levels for four different income and family structures¹³⁷. Manitoba demonstrated the highest levels of effective tax rates in each of these examples. In three of the four situations, Manitoba had the highest effective tax rates in each year of the shown 1995-2002 period.

Saskatchewan's effective provincial tax rate has been trending downwards since 1998.

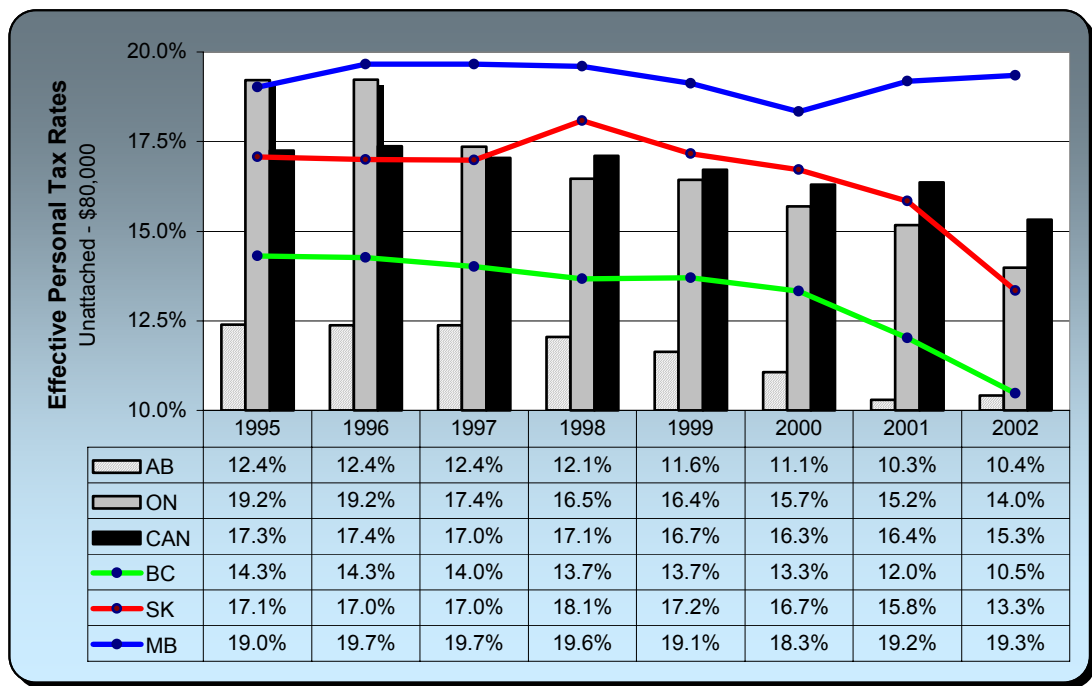
BC governments have lowered effective personal tax rates, especially in 2002, and the province now ranks a close second behind Alberta for the lowest personal tax burden.

¹³⁶ Chen, D., Lee, F.C. and Mintz, J. (2002) *Taxation, SMEs and Entrepreneurship*. Organization for Economic Co-Operation and Development.

¹³⁷ The calculations are for rates in effect as of February 2003. The Government of Manitoba will reduce its middle bracket rate from 14.9 percent to 14.0 percent as of the 2004 taxation year. This rate applies to taxable income between \$30,544 and \$65,000. It was 15.4 percent in 2002. The taxation examples in this section are for brackets other than this one.

In the high income example (Figure 5-13), an unattached \$80,000 income earner in 2002, Manitoba's effective personal tax rate (19.3 percent) was well above (26 percent) the Canadian average (15.3 percent). In the other studied jurisdictions, effective rates for high income earners have been trending down. Manitoba's effective rate remained in the 19 percent range through the 90s and into the new century. Alberta had the lowest rate for this high earner situation, 10.4 percent, followed by B.C. at 10.5 percent.

FIGURE 5-13: EFFECTIVE PERSONAL TAX RATES – UNATTACHED \$80,000,

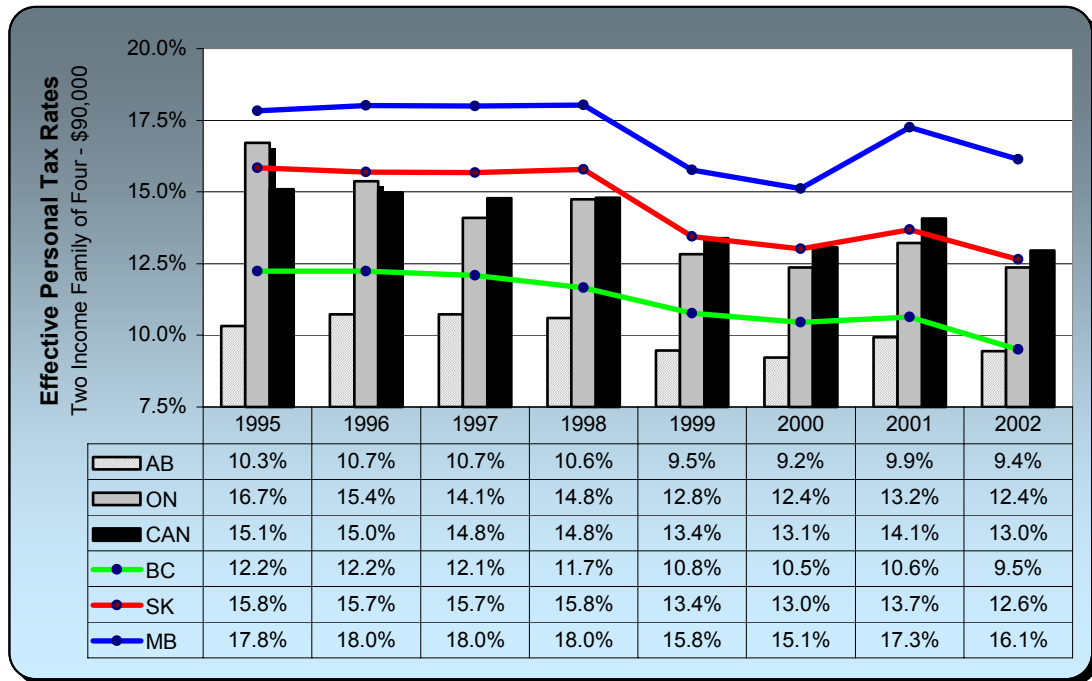


PROVINCES AND CANADA, 1995 - 2002

Source: BC Budget Papers

In the case of a family of four (Figure 5-14), having a total income of \$90,000, Manitoba (16.1 percent) was again well above the effective rates for Alberta (9.4 percent) and B.C. (9.5 percent). The province was almost 25 percent above the Canadian average.

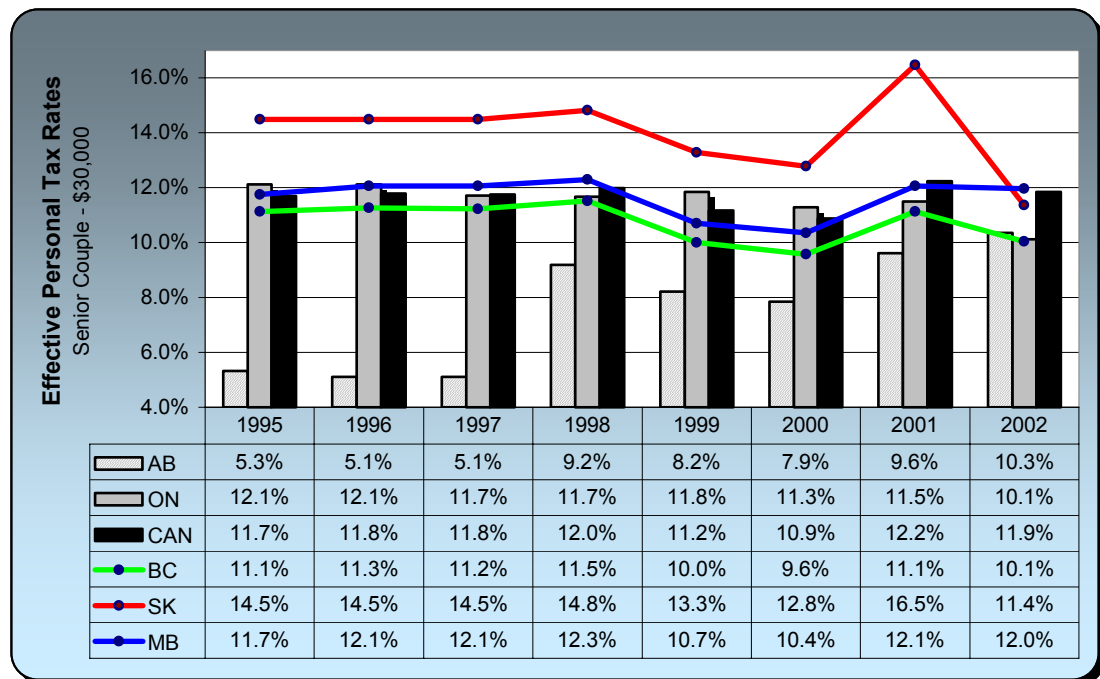
FIGURE 5-14: EFFECTIVE PERSONAL TAX RATES – FAMILY OF FOUR \$90,000, PROVINCES AND CANADA, 1995 - 2002



Source: BC Budget Papers

As shown in Figure 5-15 effective rates for a senior couple sharing an income of \$30,000 have narrowed over the 1995-2002 period. The studied jurisdictions are within a band of 10.1 to 12.0 percent, Manitoba's level.

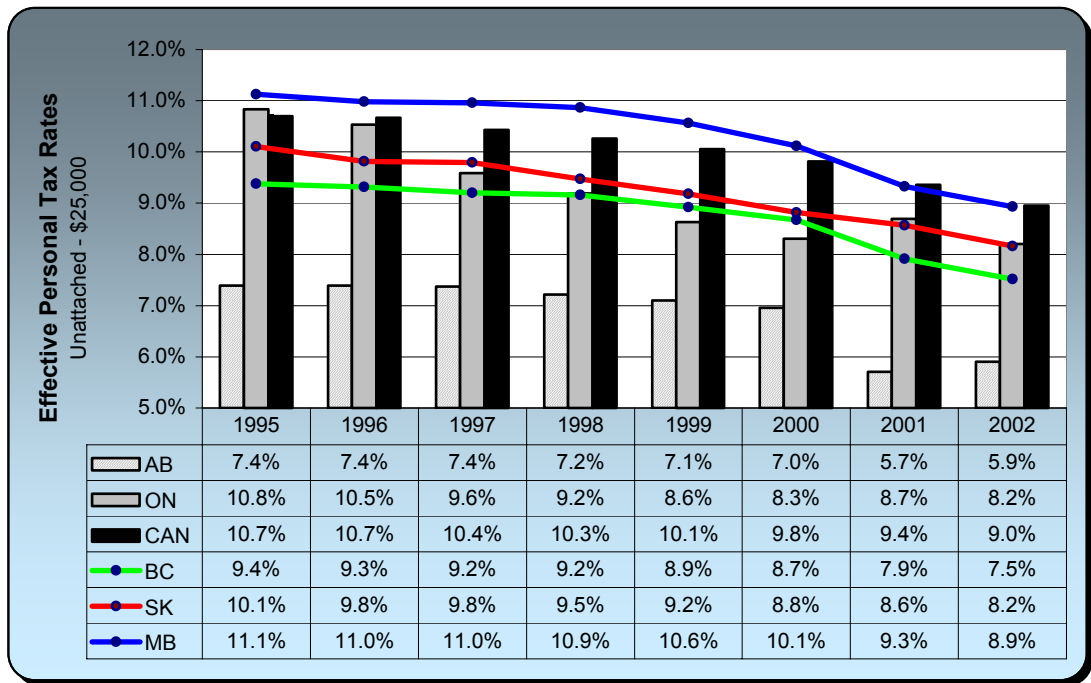
FIGURE 5-15: EFFECTIVE PERSONAL TAX RATES – SENIOR COUPLE \$30,000, PROVINCES AND CANADA, 1995 - 2002



Source: BC Budget Papers

In the last example (presented in Figure 5-16), an unattached Manitoba \$25,000 income earner, experiences an 8.9 percent rate, which is above the other shown provinces but slightly below the Canadian average of 9.0 percent.

FIGURE 5-16: EFFECTIVE PERSONAL TAX RATES – UNATTACHED \$25,000, PROVINCES AND CANADA, 1995 - 2002



Source: BC Budget Papers

5.3.7 Government Fiscal Policy

Government Fiscal Policy Indicator

The level of taxpayer-supported debt as a proportion of total GDP is an important variable in assessing the investment climate of a province. If this debt ratio is increasing, investors may become concerned that the provincial government will be forced to increase future taxes and/or reduce public services, including reducing spending on necessary public infrastructure which may have a direct impact on their operations.

When this debt ratio declines, there is the possibility of future tax reductions for businesses and similarly for consumers who, in turn, will have greater disposable income for purchasing goods and services. Assessing this debt level as a proportion of total GDP focuses on the ability of the economy to service this debt. Thus, even if debt is increasing, when the economy itself is expanding at a faster pace, the debt will gradually become a smaller burden on government finances.

Government Fiscal Policy Trends

Alberta had the lowest taxpayer supported debt to GDP ratio in 2002-03, 3.2 percent. Its low 2002-03 debt-to-GDP rate was well ahead of the other jurisdictions, almost 17 percentage points better than no.2 ranked Manitoba. Figure 5-17 highlights the provincial government debt-to-GDP ratios for the studied jurisdictions¹³⁸.

The top ranking goes to the lowest rate of taxpayer debt for this indicator. Until this past fiscal year, Alberta and BC ranked either no.1 or no.2, respectively, on this indicator since 1994/95.

Saskatchewan ranked no.6 of the benchmarked jurisdictions on the debt-to-GDP ratio indicator in 2002, a position it has held in four years of the 1993-2002 decade. However, the province's 48.0 percent reduction in its debt-to-GDP ratio over the decade was the second largest to Alberta's 88.6 percent decline. Saskatchewan's provincial debt started at a whopping 46.7 percent of its GDP in 1993/94, over 50 percent more than the province with the next highest debt share,

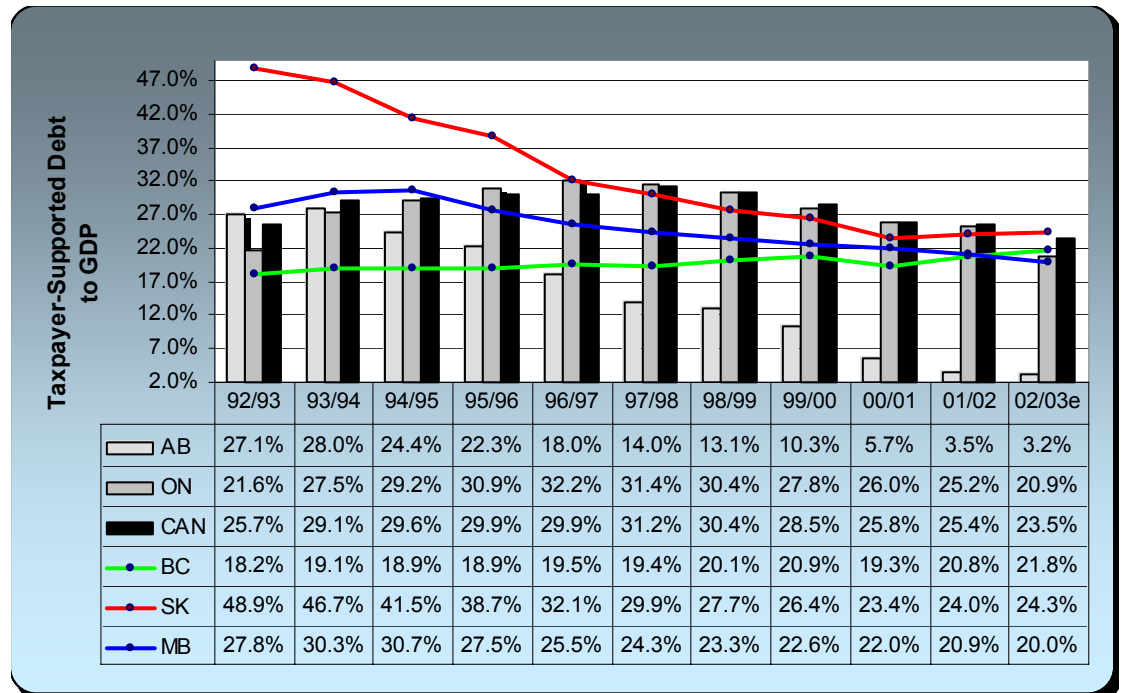
¹³⁸ Taxpayer-supported debt is government purpose debt net of the debt of self-financing crown corporations. The debt is approximately the sum of all past years' deficits and surpluses. Reporting differs by province. Manitoba's debt does not deduct the value of the Fiscal Stabilization Fund but does include hospital debt. Saskatchewan's debt is general government gross debt plus the gross debt of tax-supported crown corporations less sinking funds. BC's debt is general government gross debt plus the gross debt of tax-supported crown corporations. Alberta's debt includes government debt less debt held internally by Heritage Fund and other consolidated entities, and cash set aside for future debt payments. Currently, the summary accounts (i.e. consolidated revenue fund statements plus Crown corporation and agency financial statements) of most provinces do not include the financial results of the SUCH (schools, universities, colleges and hospitals) sector. The BC Government has legislation requiring that its financial statements fully conform to generally accepted accounting principles (GAAP) beginning with fiscal year 2004-05. Therefore, SUCH sector financial results will be combined with consolidated revenue and Crown agency financial results for fiscal 2004-05.

Manitoba. The debt levels of Saskatchewan and Manitoba are now similar, 24.3 and 20.0 percent, respectively.

The most notable feature of this indicator is the gap between Alberta at 3.2 percent and everybody else. The gap between the others is relatively narrow, 20.0 percent (Manitoba) to 24.3 percent (Saskatchewan).

British Columbia has shown the smallest change, a 14.1 percent increase over the 1993-2002 decade; its debt-to-GDP ratio has fluctuated around the 20 percent level during this period.

FIGURE 5-17: TAXPAYER-SUPPORTED DEBT TO GDP RATIO, PROVINCES AND CANADA, 93/94 - 02/03



Source: TD Bank

Government Fiscal Policy Drivers

Factors that drive debt-to-GDP ratios are many and include the following.

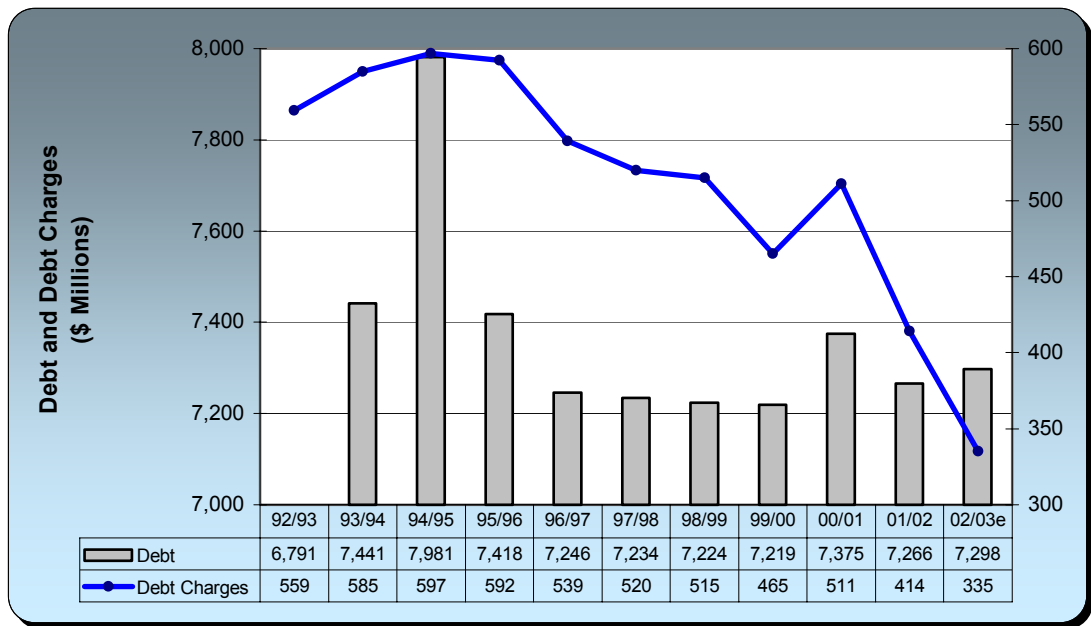
- Provincial government spending
- Provincial economic conditions, overall and within sectors
- sinking funds
- interest rates on government debt
- provincial government accounting policies

- Federal government equalization payments

Manitoba Government Fiscal Policy

Manitoba has generated a credible fiscal performance, registering surpluses prior to debt/pension repayment in five of the past seven fiscal years. It has had to draw from its Fiscal Stabilization Fund in five of the past seven years to cover its debt/pension repayments. As a consequence, while the provincial debt-to-GDP rate shrunk over the 1994-95 to 2000-01 period, the level of debt since 1996-97 has remained more-or-less stable. On the other hand, debt-servicing charges have declined quite remarkably, by 37%, over the same period, as shown in Figure 5-18.

FIGURE 5-18: DEBT AND DEBT CHARGES, MANITOBA, 93/94 - 02/03



Source: TD Bank

Manitoba’s debt-to-GDP rate declined by 4.5% in 2002-03 due to a better than projected fiscal performance. Its provincial government realized an approximate \$13 million operating surplus for 2002-03.

A small surplus is projected in 2003-04 and larger ones in subsequent years, leading TD Bank to estimate a decline in the province’s debt-to-GDP ratio to 15.5% in 2005-06. As such, both the debt burden and debt servicing costs are projected to remain stable for the next three to four years.

5.4 Conclusions

The basis of the *Check-Up* exercise is a set of comparisons between Canadian jurisdictions that often compete for the same investment dollar. On this basis, Manitoba does not fare well. In terms of arriving at conclusions for the *Check-Up* exercise, the main question is the positioning of the jurisdiction vis-à-vis each other and the follow-up question is the gap between jurisdictions on each indicator.

This past year, Manitoba demonstrated improvements in four indicators but none of the improvements moved the province into a demonstrably different position.

Manitoba witnessed an improvement in four of its indicators over the last decade: after-tax profits/GDP (rose 126.9 percent), real export price index (4.6 percent increase), unit labour cost (6.5 percent decrease) and taxpayer-supported debt (33.9 percent decrease). The non-residential construction cost index increased by 4.6 percent, whereas it declined in Alberta and Saskatchewan. These decade long changes put the province in the middle of pack in terms of registering decade long improvement.

Although the province has delivered improvements in most indicators over the past year and decade, it began the decade in a low position so its 2002 levels do not compare well against the other studied jurisdictions. Progress is being made but much more is needed to catch up and possibly surpass other jurisdictions.

It was shown in the feature on labour productivity that Manitoba trails the other provinces by a wide margin on this measure and fares poorly in an international productivity comparison. This poor productivity performance strikes right at the ability of Manitobans to improve their standard of living as captured by per capita GDP. The poor productivity performance, one example is that Manitoba manufacturing productivity is 48 percent of U.S. manufacturing productivity, is especially important because manufacturing is Manitoba's most important sector as measured by GDP.

The province has a low level of business investment, 86 percent of Saskatchewan's level in 2002, despite having a larger economy than its neighbour to the west.

The important after-corporate income tax profits indicator is where Manitoba gets hit hard. The province does not have a good profit performance. Its level of before- and after-tax profits have remained less than half of Saskatchewan's, despite Manitoba having the larger economy. In recent years, the province showed the highest levels of corporate and personal taxation of the benchmarked jurisdictions.

APPENDICES

Appendix I: Productivity Data

TABLE I - 1: TOTAL ECONOMY REAL GDP PER HOUR WORKED, IN 1999 US\$ (CONVERTED AT EKS PURCHASING POWER PARITIES), 1992 to 2002					
Jurisdiction	2002 Lab. Productivity	2002 Lab. Prod. Rank	% difference from US	% change for decade	Avg. annual % change
U.S.A	US\$38.83	5	0	15.5	1.6
Canada	32.52	9	-16.2	14.7	1.5
Quebec	31.02	13	-20.1	12.3	1.2
Ontario	33.95	8	-12.6	16.9	1.7
Manitoba	28.29	16	-27.1	15.4	1.5
Saskatchewan	29.14	14	-24.9	16.0	1.6
Alberta	35.65	6	-8.2	11.7	1.2
British Columbia	31.72	11	-18.3	12.3	1.2
Finland	34.38	7	-11.5	24.8	2.5
France	41.85	1	7.8	14.4	1.4
Germany	39.39	4	1.4	20.5	2.0
Ireland	40.96	2	5.5	52.1	5.2
Italy	37.76	4	-2.8	12.3	1.2
Japan	28.37	15	-26.9	15.7	1.6
Australia	31.69	12	-18.4	17.5	1.8
Netherlands	40.31	3	3.8	7.3	0.7
Sweden	31.96	10	-17.7	17.5	1.8
U.K.	31.72	11	-18.3	15.0	1.5

Source: Centre for the Study of Living Standards and author's calculations

Table I - 2: Labour Productivity (GDP per hour worked) by Industry for 2002, percentage change for 1993-2002 and provincial productivity as percent of Canadian productivity																	
	Canada 2002 Prod.	% change 93-02	BC 2002 Prod.	% of Canada ¹³⁹	% change 93-02	Alberta 2002 Prod.	% of Canada	% change 93-02	Sask. 2002 Prod.	% of Canada	% change 93-02	Man. 2002 Prod.	% of Canada	Ont. 2002 Prod.	% change 93-02	% change 93-02	
All industries	\$36.52	14.7%	\$35.64	97.6%	10.8%	\$39.72	108.8%	11.4%	\$32.91	90.1%	15.8%	\$32.01	87.7%	\$38.40	15.2%	105.1%	16.8%
Crop and Animal Production	11.48	-22.1	18.88	164.4	32.9	15.82	137.8	-9.8	15.19	132.3	-38.0	23.14	201.6	22.58	72.3	196.7	85.0
Oil and Gas Extraction	197.64	-0.9	411.18	208.0	62.9	173.98	112.0	-18.6	506.88	256.5	79.5	-	-	-	-	-	-
Mining	85.20	36.2	160.60	188.5	N/A	50.33	59.1	N/A	116.70	137.0	N/A	64.82	76.1	70.56	N/A	82.8	
Utilities	113.56	16.2	115.20	101.4	11.5	84.32	65.7	3.0	111.83	98.5	28.1	98.06	86.4	107.01	-3.3	94.2	16.1
Construction	30.93	1.5	26.47	85.6	5.0	32.81	106.1	9.8	24.60	79.5	-27.0	26.05	84.2	30.03	1.6	97.1	1.8
Manufacturing (all)	36.70	8.7	33.25	90.6	5.5	38.79	105.7	3.5	36.11	98.4	31.0	30.42	82.9	37.76	5.8	102.9	4.9
Food	34.30	1.6	29.79	86.9	N/A	33.58	97.9	N/A	39.08	113.9	N/A	39.35	114.7	43.11	N/A	125.7	N/A
Wood product	32.31	-3.0	46.57	144.1	7.1	37.87	82.8	8.1	33.92	105.0	-4.6	34.66	107.3	25.15	43.3	22.2	N/A
Chemical	60.46	4.9	33.25	55.0	N/A	135.43	223.9	N/A	128.58	212.7	N/A	46.70	77.2	59.49	N/A	98.4	N/A
Machinery	37.81	-22.4	33.24	112.1	N/A	44.38	117.4	38.5	30.92	81.8	-4.2	39.87	105.4	35.53	4.2	94.0	-37.2
Electrical equip.	30.88	-11.4	16.37	53.0	-47.0	14.38	46.6	N/A	79.58	257.7	N/A	18.70	61.5	31.25	N/A	101.2	N/A
Transpor. equip	42.30	12.1	16.80	39.7	N/A	32.05	75.8	N/A	26.78	62.3	N/A	35.66	84.3	40.42	N/A	104.4	N/A
FIRE ¹⁴⁰	125.05	33.6	131.95	105.5	30.2	138.09	110.4	37.5	105.10	84.0	14.6	131.22	104.9	124.78	29.3	99.8	37.7
Accommodation & food serv.	15.36	6.6	15.33	99.98	6.8	17.46	113.7	6.9	13.49	87.8	6.0	13.19	86.1	15.90	6.5	103.5	7.5

Source: Centre for the Study of Living Standards and author's calculations

Note: The labour productivity percent change over the decade for the provinces and Canada differs slightly between the above table and the preceding one because different databases had to be used in the calculations.

¹³⁹ "60% of Canada" refers to a province's productivity performance by sector relative to the Canadian average. For example, BC's 2002 labour productivity result for "All Industries" is \$35.64, 97.6% of the Canadian average for "All Industries" of \$36.52.

¹⁴⁰ FIRE is an acronym for the finance, insurance and real estate sector.

Appendix II: GDP by Sector

Manufacturing is the no.1 Manitoba sector but retail/wholesale trade and FIRE have both grown more rapidly over the past decade. Trade will soon become the province's leading industry by the GDP per capita measure. Ontario's no.1 industry is also manufacturing but it is double the size of Manitoba's manufacturing industry on a per capita basis.

The leading sectors BC sectors as measured by GDP contribution are retail/wholesale trade and FIRE (finance, insurance and real estate), which is the province's no.1 industry. Both are growing but are largely local industries, catering to the needs of BC residents. Manufacturing is the no.3 sector in the province and is export oriented led by the province's forest industry.

The following table lists the leading economic sectors as measured by GDP in the four western provinces, Ontario and Canada. It well illustrates the different sectoral structures in the "West", a region that is often viewed as economically homogenous.

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
BC	FIRE	Trade	Manufac.	Transport.	Construct.	Info. & Culture	Prof., Sc. & Admin.
	3,497	3,238	2,956	1,633	1,402	1,315	1,210
Alberta	Mineral	Trade	FIRE	Manufac.	Construc.	Transport.	Prof., Sc. & Admin.
	6,592	4,068	3,648	3,598	3,038	2,120	2,050
Saskatchewan	Mineral	Trade	FIRE	Manufac.	Transport.	Agriculture	Construct.
	3,958	3,207	2,482	2,029	1,607	1,543	1,224
Manitoba	Manufac.	Trade	FIRE	Transport.	Agriculture	Construct.	Info. & Culture
	3,426	3,333	2,974	1,764	1,259	1,083	1,050
Ontario	Manufac.	FIRE	Trade	Construc.	Info. & Culture	Transport.	Utilities
	6,948	4,669	4,200	1,722	1,630	1,306	867
Canada	Manufac.	FIRE	Trade	Construc.	Prof., Sc. & Admin.	Info. & Culture	Transport
	5,643	3,741	3,621	1,629	1,452	1,443	1,422

Source: Statistics Canada and author's calculations

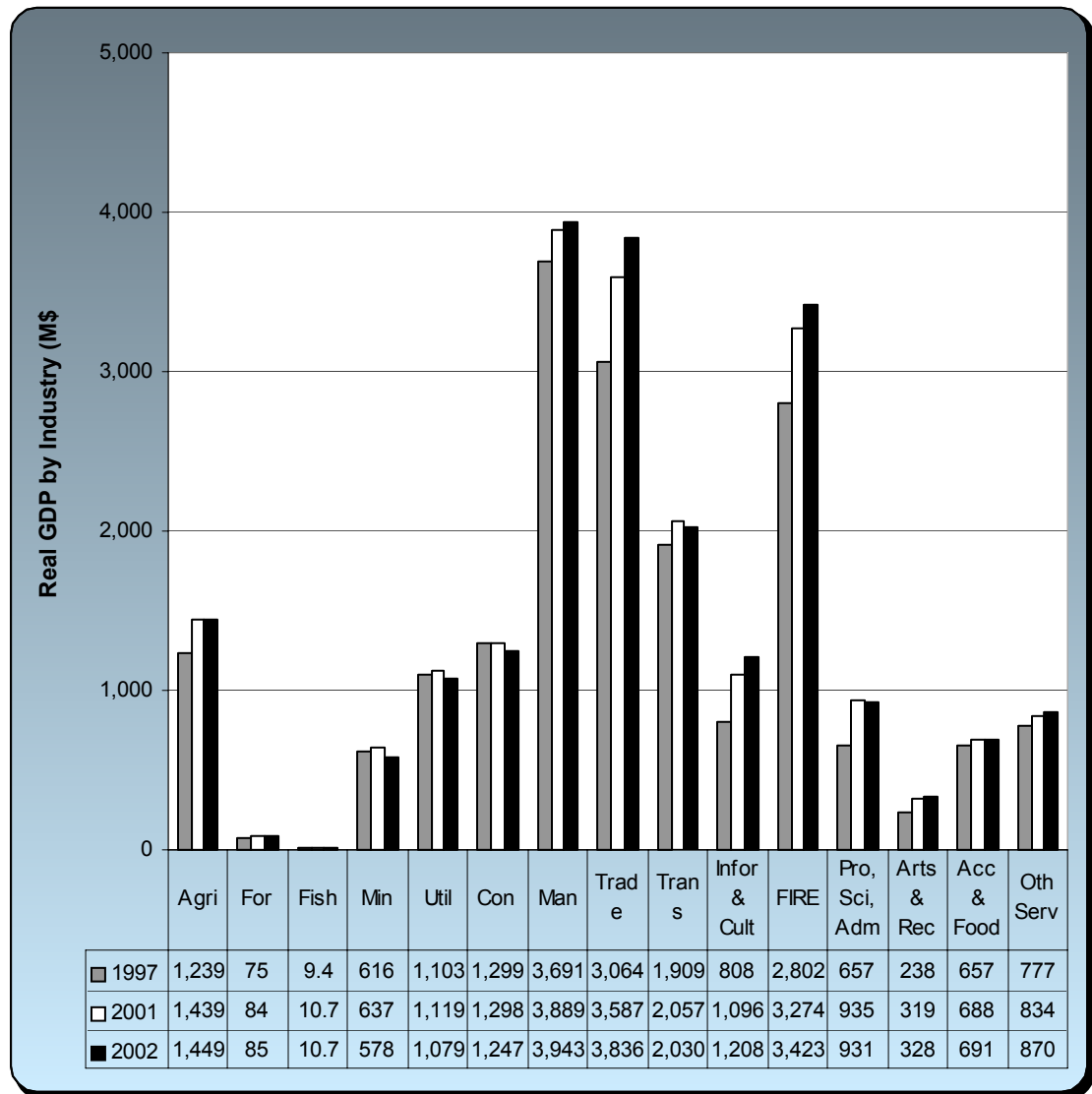
The minerals sector, led by crude oil extraction, is Saskatchewan's no.1 industry, as it is in Alberta. This province's agricultural production has fallen to the no.6 position, from the no.3 spot in 1997. Manitoba's agricultural GDP was 93 percent of Saskatchewan's in 2002, after being only 53 percent in 1997.

It is interesting to note the importance of the information and culture sector in BC and Manitoba, where it ranks no.6 and no.7, respectively.

In each province three sectors stand out from the rest and retail/wholesale trade is in the no.2 position in each province.

Following is a bar chart that depicts real GDP by sector for Saskatchewan.

Figure II – 1: Manitoba Real GDP by Sector



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