



# The False Promise of Government Auto Insurance: Estimating Average Auto Insurance Premiums in Ten Provinces, 2004-05

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## Executive Summary

This study estimates and compares the average cost of personal passenger automobile insurance premiums in each of the 10 Canadian provinces for the years 2004 and 2005. Other studies have examined the price of auto insurance by selectively comparing individual cases across provinces. (CAC, 2003) It is often mistakenly believed that such comparisons reflect actual average premiums in each province. This error can lead to false conclusions regarding the relative cost of auto insurance. The purpose of this analysis is to clear up such misconceptions.

Fair comparisons of averages are difficult to produce because of differences in the way that government and private sector auto insurers report data in each of the provinces. Four provinces in Canada have government-owned monopolies that sell insurance coverage to drivers. All six of the other provinces rely on a regulated competitive private sector to provide auto insurance. Government auto insurers in British Columbia, Saskatchewan, Manitoba and Quebec do not publish data that makes it possible to calculate an average that can be fairly compared to other provinces. By contrast, in all six of the provinces that have regulated competitive markets for auto insurance, private sector insurers are required by law to report data that is more appropriate for such comparisons.

Using publicly available 2004 and 2005 data, this study asks what we would observe if average auto insurance premiums were calculated in the same way in each province. The analysis suggests that, when calculated assuming comparable definitions for the data, the average cost of auto insurance tended to be high in the provinces with government auto insurance monopolies relative to the provinces with regulated competitive private sector auto insurance markets.

In straight dollar comparisons, across all ten provinces in 2005, the average price for auto insurance premiums was highest in British Columbia. The next most expensive provinces for auto insurance were Ontario, Saskatchewan, and Manitoba. This means that three of the four highest average premiums in 2005 were observed in provinces with government-run auto insurance monopolies. The least expensive average premium in 2005 was in Prince Edward Island where auto insurance is delivered in a regulated, competitive, private-sector insurance market.

Also, between 2004 and 2005, the only provinces where average auto insurance premiums increased were British Columbia, Saskatchewan, and Quebec. In all other provinces, average auto insurance premiums decreased between 2004 and 2005. The largest decreases in the average cost of auto insurance premiums between 2004 and 2005

occurred in Alberta (-7.9%), New Brunswick (-6.9%) and Newfoundland and Labrador (-6.7%), all of which have private sector auto insurance markets.

The findings of this study are generally consistent with previous Fraser Institute research (using data from 2002 and a different methodology) comparing auto insurance in 61 international jurisdictions including all 10 Canadian provinces (Skinner, 2006). Both studies show that auto insurance does not tend to be less costly in jurisdictions that have government auto insurance monopolies, despite claims to the contrary.

## Introduction

This study estimates and compares the average cost of personal passenger automobile insurance premiums in each of the 10 Canadian provinces for the years 2004 and 2005. Some provinces in Canada have government-owned monopolies that sell insurance coverage to drivers, while others rely on a competitive private sector to provide auto insurance. It is important to compare the cost of auto insurance in each of these provinces to verify the validity of published claims that provinces with government auto insurers produce lower premiums for drivers than provinces that rely on private sector competition for the delivery of auto insurance (CAC, 2003).

Varying definitions for reported data, and inter-provincial differences in risk pricing policy make calculating comparable average premiums difficult. Government auto insurers do not publish audited data in the necessary format to allow for a completely accurate calculation of average premiums in their provinces that can be fairly compared to other provinces. In order to estimate and fairly compare the average cost of auto insurance in every province, this study applies (by estimation) the same data definitions that government regulators require from private sector insurers in six provinces, to the published data of the government auto insurance monopolies in four provinces.

The main research question of this study is: Assuming that the actual number of annualized risk exposures per population in the provinces with government auto insurance monopolies is roughly proportional to the average of the provinces for which appropriate data is provided, what is the estimated average cost of auto insurance premiums in each province?

## Private sector versus government auto insurance monopolies

Six provinces (Alberta, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) have private competitive insurance industries that provide auto insurance for their populations in a regulated market environment. Three provinces (British Columbia, Saskatchewan, and Manitoba) each have a government-owned automobile insurer that has a monopoly over the provision of basic auto insurance and also competes for the sale of optional insurance coverage with private companies. Government insurers in these three provinces occupy between 95 and 98 percent of market share (Skinner, 2006). One province (Quebec) has a government insurer with a monopoly over basic auto insurance, but which does not compete with the private sector for the sale of optional insurance coverage and therefore occupies a much smaller market share than government insurers in BC, Saskatchewan or Manitoba.

## Findings

Following the methodology described in the sections that follow, table 1 displays the estimated average auto insurance premium in each province for 2005 and 2004. These data are displayed beside calculations of the cost of auto insurance as a percentage of provincial gross domestic product (GDP) per person in each province. The table also presents a calculation showing the cost of auto insurance as a percentage of personal disposable income (PDI) per person.

### *Straight dollar comparisons*

Table 1 shows that in straight dollar comparisons, three of the four most expensive average auto insurance premiums in Canada in 2005 were in British Columbia, Saskatchewan, and Manitoba, with British Columbia being the most expensive overall. In a straight dollar comparison, the least expensive average auto insurance premium in 2005 was in PEI.

Between 2004 and 2005, the only provinces where average auto insurance premiums increased were BC, Saskatchewan and Quebec. In all other provinces average auto insurance premiums decreased between 2004 and 2005. The largest decreases in the average cost of auto insurance premiums between 2004 and 2005 occurred in Alberta (-7.9%), New Brunswick (-6.9%) and Newfoundland and Labrador (-6.7%).

**Table 1: Estimated Average Automobile Insurance Premiums, 2004-05, by Province, Straight Dollars. (Affordability, and Local Gross Income-Adjusted Cost Comparisons shown.)**

Province	2005			2004			% Change 2004 to 2005
	Avg Earned Premium (EP) (\$)	Avg EP as a % of PDI	Avg EP as a % of per Capita GDP	Avg Earned Premium (EP) (\$)	Avg EP as a % of PDI	Avg EP as a % of per Capita GDP	
PEI	825	4.1%	2.8%	847	4.3%	2.9%	-2.5%
NS	871	4.0%	2.6%	883	4.2%	2.8%	-1.3%
QC	930	4.2%	2.6%	925	4.3%	2.6%	0.5%
NL	947	4.7%	2.3%	1,014	5.2%	2.7%	-6.7%
AB	1,036	3.6%	1.6%	1,126	4.2%	1.9%	-7.9%
NB	1,044	5.0%	3.3%	1,121	5.5%	3.7%	-6.9%
MB	1,150	5.3%	3.2%	1,155	5.4%	3.4%	-0.4%
SK	1,177	5.4%	2.8%	1,154	5.4%	2.9%	1.9%
ON	1,347	5.3%	3.1%	1,396	5.7%	3.3%	-3.5%
BC	1,397	6.0%	3.5%	1,368	6.1%	3.7%	2.1%

Changes were made to the digital version of this report as of February 28, 2007, to reflect revisions to data supplied by MSA Research Inc. Changes do not substantively affect the findings published in the original version. The author thanks Joel Baker at MSA Research Inc. for clarifying the scope of MSA data and correcting the source name cited for MSA Research Inc.

### ***Locally adjusted cost and affordability***

As mentioned above, the data in table 1 are displayed beside calculations of the cost of auto insurance as a percentage of provincial GDP (or income) per person in each province. Looking at cost as a ratio of local income controls for differences in general price levels between jurisdictions that could skew fair comparisons of auto insurance costs. The table also calculates the cost of auto insurance as a percentage of personal disposable income per person. Generally speaking, PDI is a measure of the income a person has after taxes. This analysis permits us to consider the relative affordability of the cost of auto insurance across jurisdictions.

The table 1 data show that in 2005, BC had the most expensive average auto insurance premium in Canada as a percentage (3.5 percent) of per capita income (or GDP). This means that on average, auto insurance premiums in BC were 119 percent more costly relative to income than in the least costly province, Alberta, where the average premium cost only 1.6 percent of per capita GDP (i.e., BC premiums were 2.19 times the cost of AB premiums relative to per capita income).

British Columbia also had the least affordable auto insurance premiums measured as a percentage (6.0 percent) of personal income after taxes (or PDI). BC's average premium-to-PDI ratio was 67 percent higher than Alberta's average premium, which was only 3.6 percent of PDI. This means that while the 2005 average auto insurance premium was 35 percent higher in BC than in Alberta in straight dollar terms, the effective average price of auto insurance felt much higher (1.67 times the cost of Alberta premiums relative to personal disposable income) in BC. That was due to the fact that a lower average income, coupled with a higher relative tax burden left BC residents with less disposable income with which to pay for auto insurance than their neighbours in Alberta.

## Conclusions

When average auto insurance premiums are calculated assuming that the actual number of annualized risk exposures per population in the provinces with government auto insurance monopolies is roughly proportional to the average of the provinces for which appropriate data is provided, the results suggest that in 2004 and 2005, premium costs under government auto insurance monopolies tended to be higher than observed in private sector competitive markets.

This study's findings are generally consistent with previous Fraser Institute research (using data from 2002 and a different methodology) comparing auto insurance in 61 international jurisdictions including all 10 Canadian provinces (Skinner, 2006). Mullins (2003, 2004) and Milke (2006) have also examined average auto insurance premiums using different methods and have reached similar conclusions. All of these studies show that auto insurance does not tend to be less costly in jurisdictions that have government auto insurance monopolies, despite claims to the contrary. This is because the ownership structure of the insurer is not the primary determinant of the overall cost of auto insurance. Other factors determine most of the cost of providing auto insurance. Key among those factors is the way that the auto insurance product is defined by government regulation. Premiums simply cover the cost of providing auto insurance. If government regulations require generous but expensive auto insurance benefits, then this will be reflected in higher auto insurance premium prices, whether the provider is government or the private sector. Provinces with government auto insurance monopolies tend to require the most expensive benefit coverages and therefore tend to require expensive premiums. Whether consumers find such coverages necessary, or even valuable, is another question. Previous research comparing international auto insurance systems suggests that where consumers are given a choice, they will often prefer a lower level of benefit coverage in exchange for lower premiums (Skinner, 2006).

Furthermore, as long as the private sector insurance industry is open to competition, the portion of auto insurance premiums that are earned as profits will not be the result of excessive prices, but come from cost efficiencies achieved by successful claims management, pricing strategies, customer service, and good business management. Such efficiencies are lost in government auto insurance monopolies where there tends to be a higher frequency of claims and the suppression of rates for high-risk drivers below the actuarial cost of insuring them (Mullins, 2004). The suppression of rates for small numbers of high-risk drivers requires all other premiums to be higher than actuarially necessary to cover the difference.

Finally, it is important that consumers be made aware that government auto insurers do not publish audited data in the necessary format to allow for a completely accurate calculation of average premiums in their provinces that can be compared to other provinces.

### ***Policy recommendations***

The evidence presented in this study, and the findings of previous research reinforce the conclusion that private competitive auto insurance markets are better able to deliver lower premium costs than government auto insurance monopolies. Private competitive markets tend to be less heavily regulated than markets that are dominated by government auto insurance monopolies. As long as private markets are open to competition, appropriately regulated, and consumers have freedom of choice, we should expect to observe the lowest possible premiums.

Drivers in British Columbia, Saskatchewan, and Manitoba should be asking why their provinces have eliminated their choices as consumers, and forced them to buy auto insurance from a costly and unnecessary government-run monopoly. Drivers in these provinces would benefit from moving to an appropriately regulated market where auto insurance is obtained from private sector insurers operating in competition with each other. Quebec drivers and taxpayers should be seeking accountability for the finances of that province's government-run auto insurer which this study has shown are in serious long-term deficit. And drivers in other provinces should beware of misleading promises regarding the value of public auto insurance because the evidence shows that competitive private sector markets are producing better results for consumers.

## **Purpose of this study**

The Fraser Institute has previously compared the cost of auto insurance in 61 international jurisdictions including all 10 Canadian provinces (Skinner, 2006). In that study,

the cost of personal passenger auto insurance in 2002 (the most recent year for which complete data were available for all jurisdictions) was measured as an aggregate total of premiums paid for the whole market in each jurisdiction, stated as a percentage of the total local gross domestic product (GDP) in each jurisdiction. This method captured all risk categories and controlled for differences in local prices that could skew inter-jurisdictional comparisons. The study also examined the cost of auto insurance as a percentage of personal disposable income (PDI), or income after taxes. This method measured the relative affordability of auto insurance premiums in each province. The findings showed that when compared internationally, auto insurance tended to be expensive in all Canadian provinces, but the provinces with government auto insurance monopolies tended to be among the most costly.

This study attempts to estimate the average cost of auto insurance premiums as accurately as possible (the limitations of this analysis are described below) because published reports by other researchers have used methodologies for comparing auto insurance premiums that could produce misleading conclusions about actual averages. In particular, case-by-case comparisons such as those published by groups like the Consumer's Association of Canada (CAC) (2003) and the government auto insurers themselves are not valid reflections of actual averages, though they are often perceived as such by the public. For instance, the CAC selects non-random quotes from the Internet for its comparisons that are not reflective of actual averages across the whole market in each jurisdiction—a method that has been heavily criticized by researchers (Milke, 2006; Mullins, 2003, 2004). A calculation of actual average premiums is preferable to case-by-case comparisons because it accounts for all the various risk profiles and differences between policies that make it impossible to use a case-by-case analysis as a reflection of the average across the entire market.

## Data sources and methods

For the private sector insurance industries in Alberta, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador, all data used for this analysis are sourced from the Insurance Bureau of Canada (IBC). Formerly, IBC was the official statistical agency that governments used to collect, store, and report data on the property and casualty insurance industry. IBC is now under contract to provide statistical services to the General Insurance Statistical Agency (GISA), a federal government agency that is the new official source for general insurance data in Canada (GISA, 2006).

All data on government insurers are taken directly from the annual reports of the government auto insurers themselves and supplemented by direct personal inquiries. In British Columbia this body is the Insurance Corporation of British Columbia (ICBC); in Saskatchewan it is the Saskatchewan Government Insurance (SGI) Auto Fund; in Manitoba

it is the Manitoba Public Insurance (MPI); and in Quebec it is the Société de l'assurance automobile du Québec (SAAQ).

For all private insurers operating in the optional markets in BC, Saskatchewan, Manitoba and Quebec, data are sourced from MSA Research Inc. MSA Research data also include the operations of government insurers competing in the optional market, except for BC, which publishes this data through ICBC's annual report.

The source for general economic data is Statistics Canada.

### ***Method for counting personal passenger automobiles only***

All data on private sector insurers in Alberta, Ontario, New Brunswick, Nova Scotia, PEI and Newfoundland and Labrador used in this study account only for personal passenger automobiles. Regulators in BC, Saskatchewan, Manitoba, and Quebec do not require auto insurers (government or private) to publish data on personal passenger automobiles separately from commercial or recreational vehicles. In order to estimate the percentage of the total premium figures published in BC, Saskatchewan, Manitoba, and Quebec that includes only personal passenger automobiles, it was necessary to apply the average of the provinces for which actual data exists.

IBC (2005) has published data indicating that personal passenger automobiles account for 92 percent of both the number of insured vehicles and the total dollar value of claims incurred across the six provinces with private sector auto insurance, and are calculated from comprehensive audited data. These proportions can be reasonably assumed to reflect the personal passenger auto portion of the total dollar value of earned premiums<sup>1</sup> in those provinces as well. There is no reason to believe that BC, Saskatchewan, Manitoba, or Quebec would have different proportions in significant variation from this average. This study adjusts the total premium figures in BC, Saskatchewan, Manitoba, and Quebec according to this percentage.

### ***Method for calculating averages***

An auto insurance policy premium is calculated based on a mix of factors. These include the number of drivers insured under the policy, the risk profile of drivers insured under

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<sup>1</sup> “Earned premiums” means premiums accrued (or actually received) during the calendar year. Accrual accounting is part of generally accepted accounting principles. Earned premiums are conceptually different from “written” premiums, which include premium amounts receivable, but not collected in the calendar year.

the policy, the number of vehicles insured under the policy, the type and quality of vehicles insured under the policy, the scope of the insurance benefits payable, the frequency of claims and collision rates, prices for auto repair or insured medical care, rates of auto theft and vandalism, legal costs, etc.

In order to accurately calculate the average cost of premiums in a market and make it reasonably comparable across jurisdictions, the total amount of all premiums must be divided by a denominator that is defined uniformly across all jurisdictions. The ideal divisor is the number of risk exposures. However, the number of risk exposures is a difficult concept to define statistically. Risk exposures could be defined as the number of insurance policies, the number of insured vehicles, or the number of insured drivers.

The problem with using the number of policies to represent risk exposures is that jurisdictions with risk pricing policies that encourage higher rates of per capita vehicle ownership will produce more insurance policies than jurisdictions with policies that encourage lower rates of vehicle ownership (see Mullins, 2003, 2004). This could create a misleadingly low average premium when either the number of policies or the number of insured vehicles is used as a divisor to calculate an average across jurisdictions with dissimilar pricing policies.

For instance, a jurisdiction characterized by a lower rate of per capita vehicle ownership will have fewer vehicles under fewer policies relative to the number of insured drivers. Mathematically, the reduced number of policies or vehicles (if either were used as a divisor) would unfairly inflate the average premium in comparison with jurisdictions that have a higher rate of per capita vehicle ownership and therefore a larger number of policies and insured vehicles.

As an example, jurisdictions that suppress prices for high-risk drivers (by raising the premiums for all other drivers in order to subsidize the actuarial cost of insuring high-risk drivers) create artificial incentives for such drivers to enter the market as principal insureds, thereby increasing the number of insured vehicles and insurance policies issued.

By contrast, jurisdictions that price premiums to match the individual risk of drivers will not have as many high-risk drivers as principal policy holders. Therefore, the number of policies and insured vehicles will be lower. However, this does not mean the number of actual risks insured is different, because high-risk drivers (e.g. young drivers) will simply obtain more affordable premiums by becoming secondary or occasional drivers on a vehicle or policy owned by another driver (e.g. parents).

In fact, provinces with government auto insurance monopolies tend to suppress prices for high-risk drivers. Therefore, relative to the other provinces that operate private com-

petitive markets for auto insurance, the number of insurance policies and insured vehicles in BC, Saskatchewan and Manitoba will be inflated as a result.

This study conducted a brief analysis of the ratio of earned vehicles (i.e. “policies” in BC and Manitoba and “insured vehicles” in Saskatchewan) to total population in each jurisdiction to see if the number of published risk exposures (as defined in each jurisdiction) could be used as a comparable divisor for the purposes of calculating an average. As the 2005 data in table 2 indicates, even after adjusting the reported figures of the government auto insurers downward to account only for personal passenger automobiles, the number of policies or insured vehicles published by government insurers in those provinces represented a dramatically higher percentage of the total population in BC (63%), Manitoba (67%) and Saskatchewan (81%) than either the individual ratios, or the average ratio (51%) across the other seven provinces for which audited data is available to confirm the number of risk exposures.

The large discrepancies are likely a result of definitional differences between the published figures in the jurisdictions with government auto insurance monopolies. All 6 private sector provinces (AB, ON, NB, NS, PEI, NL) use the same definition for calculating earned exposures. The relatively small degree of variation between the observed ratio of earned exposures to population in these six provinces and that of Quebec suggests that

**Table 2: Earned Exposures (Personal Passenger Automobile only) as a Percentage of Population, by Province 2005**

Province	2005 Population	2005 No. of Earned Risk Exposures (or other published figure)*	Earned Risk Exposures as a Percentage of Population	Adjusted Earned Risk Exposures as a Percentage of Population
NL	516,000	230,188	45%	45%
ON	12,541,000	6,058,060	48%	48%
QC	7,598,000	3,780,360	50%	50%
NS	938,000	475,678	51%	51%
NB	752,000	393,968	52%	52%
PEI	138,000	74,201	54%	54%
AB	3,257,000	1,823,810	56%	56%
BC	4,255,000	2,896,000	68%	63%
MB	1,178,000	857,018	73%	67%
SK	994,000	879,000	88%	81%

\* QC (Source: SAAQ) = “licensed personal passenger vehicles”; BC and MB (Sources: ICBC, MPI) = “policies”; SK (Source: SGI) = “insured vehicles”; AB, ON, NB, NS, PEI, NL (Source: IBC) = “private passenger earned vehicles”

the Quebec definition for licensed vehicles produces a roughly comparable result in that jurisdiction.

By contrast, the large ratios shown for BC, Saskatchewan and Manitoba suggest that the figures which government insurers in those provinces publish on the number of policies or insured vehicles are not comparably defined to the figures shown for the other seven provinces, or in fact even to their fellow government insurers. To the author's knowledge, there are no published definitions available from ICBC, SGI, or MPI for these figures.

Another explanation is that the ICBC, SGI, or MPI method of annualizing figures is not comparable to the methods used by IBC for reporting private sector data. Finally, as explained earlier, the suppression of rates for drivers in these jurisdictions probably inflates the number of reported policies and insured vehicles.

Ideally, calculating an actual average premium that is comparable across jurisdictions requires that total premiums be divided by some combination of the number of insured drivers and vehicles as a reflection of the actual number of risk exposures. Unfortunately, data on the number of insured drivers by province are not available, and even if they were available, the author is unaware of any acceptable methodology for blending the number of insured drivers and vehicles into a common divisor representing a single risk exposure.

In the author's opinion, the best (though not perfect) available data to use as a uniform divisor for calculating average premiums that would be comparable across provinces are the annualized number of insured vehicles. This makes it necessary for each province to publish an audited<sup>2</sup> figure for total earned premiums<sup>3</sup> collected by the entire auto industry in each jurisdiction, as well as an audited figure of the total number of earned vehicles<sup>4</sup> on an annualized<sup>5</sup> basis. By dividing total earned premiums by the annualized number of earned vehicles, a more accurate average premium can be calculated.

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2 "Audited" means verified by an independent agency (typically an accounting firm) that can be held legally liable for serious errors or misleading reporting.

3 "Earned premiums" means premiums accrued (or actually received) during the calendar year. Accrual accounting is part of generally accepted accounting principles. Earned premiums are conceptually different from "written" premiums, which include premium amounts receivable, but not collected in the calendar year.

4 "Earned vehicles" generally means insured vehicles for which the risk exposure occurs in the calendar year.

5 "Annualized" means adjusted to account for vehicles that were insured for only part of the calendar year. E.g., if a vehicle was insured for 6 months it would count as 0.5 insured vehicles.

**Table 3: Analysis of Unpublished Data Supplied by SGI**

Year	Unpublished data for “personal passenger vehicles in insured years” supplied by SGI	SK population
2002	556,339	996,000
2003	566,766	995,000
2004	578,420	994,000
2005	591,965	994,000
2002 to 2005 change	6.4%	-0.2%

Source: Data courtesy of Deanne Cairns, Manager Communications, SGI (January 29, 2007).

All private sector insurers in Canada are required by law to provide such data to regulators, and IBC reporting is consistent with this. The government auto insurers, on the other hand, only publish an audited figure for total earned premiums, not for the annualized number of earned vehicles. Government insurers in BC and Manitoba publish figures for the number of “policies” without indicating whether they are audited. ICBC states in its annual report that the number of policies published is an annualized figure. However, direct inquiries with ICBC have indicated that it does not issue multi-vehicle insurance policies (ICBC, 2007). Disallowing multi-vehicle insurance policies has the effect of inflating the total number of policies, so this figure cannot be used as a comparable estimation of the number of actual risk exposures for the purposes of calculating average premiums.

MPI does not define at all whether the published figures in its annual report are annualized or not. Direct inquiries with MPI did not provide any further clarification.

In some years, SGI has published non-audited counts of “insured vehicles” in its annual report. This is not consistently reported every year and SGI does not define whether the figures are annualized in its publications. In response to direct inquiries, SGI staff has unofficially stated that the published figures for insured vehicles are annualized but no official reference was provided to confirm this and it seems very unlikely because it would mean that there was nearly one insured vehicle for every person living in the province (SGI, 2007a). SGI staff later supplied un-audited figures for annualized personal passenger automobiles that were different than the figures published in their annual report, but did not provide a reference to a published source so that the numbers could be verified (SGI, 2007b). Therefore, this study attempted to verify the numbers with reference to changes in provincial population in Saskatchewan over the same period (see table 3). The analysis of the unpublished data supplied by SGI staff indicated that the number of “personal passenger vehicles in insured years” increased by 6.4% from 2002 to 2005. By contrast the population of the province declined by 0.2% over the same

period. This is a highly unlikely result and reinforces the assumption that neither the published nor the unpublished data supplied by SGI can be confidently relied upon as an accurate reflection of the actual number of risk exposures in the province.

SAAQ does not publish data on the number of insured vehicles in the province. In Quebec, the number of licensed vehicles published by SAAQ is used as an estimate of the number of insured vehicles. The proportion of insured-vehicles-to-population in Quebec appears to be an annualized figure but SAAQ does not publish definitions stating this.

However, even correcting for these differences in data definitions will not provide a fully comparable estimation of actual insured risk exposures due to inter-jurisdictional differences regarding risk pricing policies. As mentioned earlier, ICBC, SGI, and MPI suppress prices for high-risk drivers, which inflates the number of policies and insured vehicles. Therefore, using their published figures to represent risk exposures will also inflate the divisor in the calculation of average premiums, producing an average that is artificially low when compared to other jurisdictions. This means that figures published by ICBC, SGI, and MPI cannot be used to calculate averages that would be comparable to the other seven provinces.

In order to make comparable calculations of average premiums in each province, this study applies the average of the ratios (earned exposures to population) in the seven provinces for which audited data is available. Therefore the analysis assumes that BC, Saskatchewan, and Manitoba have roughly similar numbers of actual risk exposures as a percentage of their populations as the seven other provinces.

Specifically, if “earned vehicles” are assumed to approximate the number of actual risk exposures in the six provinces where auto insurance is provided by the private sector (Alberta, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador), then the analysis presented in this study provides an accurate calculation of the average premium in those provinces. This is because private sector auto insurers in these provinces are required by law to report audited data on their operations that are consistently defined according to generally accepted accounting and actuarial principles recognized by government regulators. Pricing policies in these provinces are also roughly similar, making “earned vehicles” a comparable estimate of the actual number of insured risk exposures.<sup>6</sup>

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6 Alberta has implemented a risk pricing grid that has the effect of suppressing prices for high risk drivers, but probably not to the same extent as the policies of government auto insurers in BC, Saskatchewan and Manitoba.

The average calculated for Quebec is also based on audited data that is defined in such a way as to produce a roughly equivalent result to the data reported in the six provinces that have private-sector auto insurance. However, SAAQ does not report all of its data in the same format or according to the same accounting and actuarial standards that regulators require of private sector insurers in the six provinces listed above. Nevertheless, the number of licensed vehicles ends up proportionally (to population) similar to the number of earned vehicles that are reported in the six private sector provinces.

The average premiums shown here for BC, Saskatchewan, and Manitoba are adjusted for the reasons stated above. These are the most accurate estimates that can be produced because the government insurers in these provinces do not report audited data that is appropriate for comparison to other provinces. Because of differences in risk pricing policies, there is also no way to know the actual number of earned risk exposures that

**Table 4: 2005 Average Earned Premium (EP) in Ten Provinces, Personal Passenger Automobiles—Three Estimates for BC, Saskatchewan and Manitoba**

	2005 Population	2005 Total Earned Premiums (EP)*	2005 Estimated Average Premium Applying the Seven-Province Average Ratio of Earned Risk Exposures to Population (0.51:1) to BC, SK, and MB	2005 Estimated Average Premium Applying the Low End of the Range of Ratios (0.45:1) to BC, SK, and MB	2005 Estimated Average Premium Applying the High End of the Range of Ratios (0.56:1) to BC, SK, and MB
PE	138,000	\$61,250,085	\$825	\$825	\$825
NS	938,000	\$414,433,045	\$871	\$871	\$871
NL	516,000	\$217,917,451	\$947	\$947	\$947
QC	7,598,000	\$3,735,855,200	\$988	\$988	\$988
AB	3,257,000	\$1,890,125,421	\$1,036	\$1,036	\$1,036
NB	752,000	\$411,227,910	\$1,044	\$1,044	\$1,044
MB	1,178,000	\$691,106,760	\$1,150	\$1,304	\$1,048
SK	994,000	\$596,479,240	\$1,177	\$1,334	\$1,072
ON	12,541,000	\$8,160,437,211	\$1,347	\$1,347	\$1,347
BC	4,255,000	\$3,032,283,200	\$1,397	\$1,584	\$1,273

\*Earned Premiums in BC, Saskatchewan, Manitoba and Quebec include both public and private sector auto insurers. Estimates are applied to account for personal passenger automobiles only as explained in the text. Data sources: ICBC, SGI, MPI, and SAAQ (2005 Annual Reports); IBC, 2007; MSA Research, 2007.

would be comparable to the six provinces that have private-sector auto insurance, or Quebec. Instead, the number of actual earned risk exposures has been estimated for the purposes of calculating a comparable average auto insurance premium in these provinces.

In order to validate this analytical approach further, this study examined how the calculated average premiums in BC, Saskatchewan, and Manitoba would change if the low end and high end of the ratios in the other seven provinces was used instead of an average of the ratios. Table 4 shows the 2005 average premiums for all provinces. Under each estimate, the figures for all provinces except BC, Saskatchewan, and Manitoba are constant because the data is reliable and no estimates need to be applied in the calculation of average premium results. By contrast, three separate estimates of the average cost of auto insurance premiums for BC, Saskatchewan, and Manitoba are shown in table 4. The three estimates separately use the average ratio, low end of the ratios and the high end of the ratios of earned risk exposures to population in the other seven provinces to calculate average premiums in BC, Saskatchewan, and Manitoba. The results indicate that even using the more generous high end ratio does not substantively change the rank position of the three provinces relative to most of the other provinces. Under any estimate, auto insurance premiums in BC, Saskatchewan, and Manitoba tended to be among the highest in Canada for 2005.

### ***Adjustments for SAAQ's earned premium deficit***

Quebec's earned premium data is also adjusted to account for SAAQ's deficit. SAAQ has been running a financial deficit for many years in which claims incurred by this government insurer have exceeded premiums collected by a significant margin (SAAQ, 2006b). Therefore, the figures for earned premiums published by SAAQ in its annual report are understated in the sense that they do not accurately reflect the actual cost of providing auto insurance through SAAQ. This study therefore adds the difference between reported earned premiums collected and the amounts for incurred claims and adjustment expenses reported as an estimate of the actual cost of auto insurance provided by SAAQ.

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