Myths and Facts about Automobile Insurance in Canada

Mark Milke For the Insurance Bureau of Canada

December 27, 2006

Without numbers, there are no odds and no probabilities; without odds and probabilities the only way to deal with risk is to appeal to the gods and the fates. Without numbers, risk is wholly a matter of gut.

- Peter Bernstein, Against the Gods: The Remarkable Story of Risk

Why is this independent report needed?

This report - *Myths and Facts about Automobile Insurance in Canada* – was suggested to the Insurance Bureau of Canada (IBC) by this author in early 2006. After several years of error-prone research and inaccurate media claims about automobile insurance prices, consumers had received continual streams of misinformation about the true cost of insurance in their own and other provinces.

This skewed perspective resulted from two main influences:

• <u>Advocacy groups</u>¹ which were error-prone in their interpretation of data, statistics and thus in their conclusions. The mistaken research and ensuing recommendations were *contra* consumers' actual interests.

Such reports recommended the status quo where government insurance existed: i.e., no increase in competition where some yet existed (on optional coverage in B.C., for example). In provinces where the private sector delivers all automobile insurance, such reports repeatedly and explicitly claimed that private insurance was not in the interests of consumers despite evidence to the contrary. The reports contained an implicit call to nationalization of the industry in accordance with what has occurred previously in Saskatchewan, British Columbia and Manitoba (and partly in Quebec). The reports hinted at such an end on the errant claim that a government monopoly in insurance is in the interest of consumers. This report will demonstrate that such an assertion is false.

Incorrect media reports. Many newspapers and other media outlets for reasons of – rushed deadlines, a lack of statistical understanding, personal bias, an agenda to create a headline, perceptions regardless of underlying facts, inexperience, or some combination of the above – reported that automobile insurance rates were on average higher or significantly higher in provinces where private sector firms offered policies compared to provinces where government automobile insurance companies operate as a monopoly or quasi-monopoly. The inaccurate coverage resulted from accepting error-prone research at face value. In addition, there was little understanding of how cost inputs were relevant to insurance policies. The result was apple-to-orange comparisons accepted without critical analysis and reproduced in the media and often on the front page of newspapers.

Despite the reality that competition leads to choice among providers which in turn forces innovation in service delivery, insurance policies, and price, the tone of coverage by some in the media led consumers to believe that the choice and competition which exists among grocery stores cannot be replicated in the insurance market. Thus, comparisons with exaggerated estimates of insurance premiums in private sector provinces were relied upon to reinforce that faulty assumption. Worse, many in the media did not ask two key questions of groups which claimed private sector competition led to inferior coverage and high insurance premiums:

- Who did such groups represent?
- How were they financed? The second question might have helped shed some light on the possibility of bias of the group in question.

My report is meant to help clarify assertions about automobile insurance in five ways:

- First, to explain the historical context of insurance: it's about risk management. This is critical in understanding why political interference in actuarial calculations is profoundly anti-consumer and poor public policy;
- Second, to provide a clear understanding of why *some* statements about median or average insurance rates in Canada are misleading in their conclusions, i.e., why the data does not substantiate the errant conclusions which too often have been drawn;
- Third, to provide facts about the true cost of insurance and context on why a
 premium for the same driver with the same record and the same car would
 properly face a different premium in Estavan, Saskatchewan compared with
 Toronto or Surrey;
- Fourth, provide recommendations to the media and government on how to approach the issue of automobile insurance with clarity;
- Fifth, note where consumers could be better served and recommendations to that end.

My disclosure

Readers of this report should understand the various interests involved. *I* approached the Insurance Bureau of Canada and the IBC has paid me for this report. The Bureau's interest in paying for my time to explain this topic is obvious. My public policy interest is in putting facts in the public domain. Clear and defensible data leads to better choices and the possibility for superior public policy. In past work, I have both complimented and criticized insurance companies, argued against subsidies for corporations or advocacy groups alike, and have stood firmly on the side of taxpayers and consumers. Where no natural monopoly exists, I favour competition over monopolies in the public or private sector.

This report was reviewed by the Insurance Bureau of Canada before publication but my agreement with the IBC allowed me full editorial control. They made suggestions about overlooked areas and corrected any mistakes in data and statistics. However, the final analyses, recommendations, observations and any errors are mine. I have disagreed with

some in the insurance industry in the past² in both the government and private sector and will likely do so again. My interest is in publishing accurate, easy-to-understand data and to explain what such numbers mean (and do not mean) so that policymakers, the media and the public can make informed choices about automobile insurance, both at a policy level and as consumers.

The Insurance Bureau of Canada represents an industry composed of insurance companies who compete with each other for consumer dollars. It ranges in membership from provincial associations such as the B.C. and Alberta Motor associations (BCAA and AMA) to national firms including the RBC General Insurance Company to international reinsurance companies such as the Swiss Reinsurance Company Canada and Lloyd's Underwriters. The IBC members and I are in agreement that competition in the pursuit of business is preferable to government monopolies who deliver a *fait accompli* to captive "customers."

It is one thing to attempt to disagree with that approach; that is wholly within the realm of fair public debate. *But at a minimum, disagreement must begin with actual facts and actual prices paid for automobile insurance, not irrelevant quotes*

When misleading information about automobile insurance prices is published and repeated in the media without critical analysis and without correction, it becomes necessary to publish a clarification of statistical concepts including averages, medians and others and what they mean for automobile insurance premiums. This report is an attempt to clarify misunderstandings, poorly understood concepts and plainly incorrect perceptions now in the public domain.

Data and statistics in this report

In Canada, regulators have the authority under their respective provincial insurance legislation to appoint a statistical agent to collect information from all licensed insurers. That government-appointed responsibility for data and statistics was previously designated to the Insurance Bureau of Canada (IBC).

Since April 1, 2006, the responsibility for data and statistics has been assigned to the General Insurance Statistical Agency (GISA), a federally incorporated not-for-profit agency. GISA has been named the statistical agent by provincial and territorial governments who, through their own respective regulators, choose to participate. To date, Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Ontario, Alberta and the three territories have named GISA as their statistical agency for automobile insurance statistics. Quebec, Saskatchewan, British Columbia, and Manitoba have not appointed GISA as their statistical agency. On April 1, 2006, IBC entered into a contract with GISA to be their service provider for statistical data collection and publication services. Data and statistics in this report were obtained from IBC. IBC continues to collect, compile, and report the industry's data only now on behalf of GISA.

The GISA Board of Directors is a tri-partite board comprised of regulators, insurance industry representatives and public representatives. The majority membership on the Board is comprised of the provincial regulators. In short, GISA is independent and its statistical handling is thus notably superior to that previously released by various interest groups and, regrettably on occasion, assertions which have come from certain government-owned automobile insurance companies.

Comparisons between provinces are fraught with difficulty because of differences in product offerings and legislated limits on injury caps among many other factors. Still, comparisons are inevitably made by consumers, companies and governments. It would be helpful if Quebec (which reserves bodily injury insurance for government), B.C., Saskatchewan and Manitoba provided data on automobile insurance to GISA. Improvements in insurance products can only be helped if consumers and researchers can access data from all jurisdictions.

Mark Milke, Calgary, October 2006

Acknowledgements

The Insurance Bureau of Canada (John Karapita and Elena Issaeva in specific) provided data and statistics as requested for this report, including that obtained from insurance companies. Doug McClelland and Doug Henderson from the Insurance Corporation of British Columbia provided information on B.C.'s premiums for a previous column; I have included their caution on interpreting B.C. average premiums in notes in this report. Ron Morency from Statistics Canada explained the approach of Statistics Canada and how that agency obtains, calculates and determines insurance premium price increases/decreases and the limitations of that data. Such interviews and assistance do not constitute an endorsement of this report or its conclusions.

Errors and corrections

Data and information in this report is current as of October 2006 and every attempt was made to ensure accuracy. Any suggestions or corrections of errors should be sent to the author at <u>mmilke@telus.net</u>.

About the author

Mark Milke

Mark Milke is a former executive director (first in Alberta and then in British Columbia) with the Canadian Taxpayers Federation. He is the author of three books on Canadian politics, including *A Nation of Serfs? How Canada's Political Culture Corrupts Canadian Values* released in 2006 by John Wiley & Sons.

He is the author of multiple public policy studies including: *Saving for the Future Alberta Advantage* (2006), a study on the Alberta Heritage Savings and Trust Fund for the Certified General Accountants Association (Alberta)/ Alberta Chambers of Commerce with a foreword from former Alberta Premier Peter Lougheed; *Fair Pensions for Generation X* (2004), a study on the Canada Pension Plan for the Canadian Taxpayers Federation; co-author with Thomas Flanagan of *Alberta's Real Constitution: The Natural Resources Transfer Agreement* (chapter six in *Forging Alberta's Constitutional Framework* (2006) from the University of Alberta Press. He has also worked with former federal opposition leader Preston Manning and the Manning Centre for Democracy on Alberta policy issues. Milke holds a Masters degree in Political Science from the University of Alberta and is a PhD candidate in Political Science at the University of Calgary.

Milke has been on both sides of the media "microphone" for over 20 years. Whether as a taxpayer and consumer advocate, columnist or public policy consultant, his opinion pieces on taxes, politics, government and insurance have been widely published in newspapers across Canada including the *Globe and Mail*, the *National Post*, *Victoria Times Colonist, Calgary Herald, Edmonton Journal, Winnipeg Free Press*, and the *Vancouver Sun*.

INDEX

PAGE

- 8 EXECUTIVE SUMMARY
- 12 ANALYSIS #1: WHY A PROPER UNDERSTANDING OF INSURANCE MATTERS: IT'S ABOUT CALCULATING – AND MANAGING – RISK
- 15 ANALYSIS #2: THE MYTH OF EXPENSIVE PRIVATE INSURANCE
- 23 ANALYSIS #3: MEDIA REPORTING ON INSURANCE RATES
- 30 ANALYSIS #4: THE *REAL* NUMBERS: WHAT CONSUMERS ACTUALLY PAID FOR INSURANCE 2000-2005
- 35 ANALYSIS #5: WHY INSURANCE RATES DIFFER AMONG PROVINCES
- 41 ANALYSIS #6: QUESTIONS AND ANSWERS ABOUT AUTOMOBILE INSURANCE
- 44 **RECOMMENDATIONS**:
 - 45 FOR THE MEDIA
 45 FOR GOVERNMENTS AND POLICYMAKERS
 46 FOR CONSUMERS
- 48 STUDY REFERENCES

Executive Summary

- Insurance is about proper risk calculation. Proper actuarial calculations allow insurance companies to sell protection to consumers to protect themselves from unforeseen events. When such risk calculations are interfered with for political ends, the effect is to undermine the usefulness of insurance.
- The assertion that competitive private sector automobile insurance is more costly than government-provided insurance is a myth. For example, the British Columbia government requires consumers to buy mandatory automobile coverage from its own insurer. That insurer, the Insurance Corporation of British Columbia (ICBC), also provides most optional coverage. Between 2000 and 2005, the average British Columbia premium ranged from the most expensive among the ten provinces (in 2000, 2001, and 2002) to third-highest (2003) and second-highest (2004 and 2005). Ontario, with private sector competition, did not possess the most expensive average premium until 2003.
- Similarly, over the last six years, government-provided insurance premiums in Manitoba were yet higher on average higher than those offered in private sector provinces such as Nova Scotia and Prince Edward Island; B.C. was also higher than all four Atlantic provinces – Newfoundland, New Brunswick, Nova Scotia and Prince Edward Island – in every year between 2000 and 2005.
- Media reporting on insurance costs have "torqued" inaccurate assertions. Even editorials meant to provide analysis of past news stories have missed the basic errors contained in flawed studies. The public has been left with the mistaken impression that provinces such as Alberta were more expensive on average than British Columbia when in fact B.C.'s average premiums were higher than Alberta in every year between 2000 and 2005 save one (2003, when B.C.'s average premium was \$2 cheaper than Alberta's average premium).

Year	NF	NB	NS	PE	QC	ON	MB	SK	AB	BC
2000	727	761	631	616	643	878	707	651	819	961
2001	788	846	718	676	670	953	764	681	879	981
2002	926	1,038	887	777	692	1,038	808	708	1,018	1,073
2003	1,037	1,121	928	868	710	1,355	837	715	1,141	1,139
2004	971	1,103	897	816	721	1,385	897	756	1,076	1,160
2005	934	999	842	811	716	1,319	920	738	1,022	1,153

Actual average automobile insurance premiums by province 2000-2005

Sources: IBC Automobile Insurance Experience Exhibits and respective provincial government automobile insurance companies based on paid premiums. The above averages result from (where applicable) the combination of government and private premiums.

 Studies and surveys which purport to measure insurance costs by surveying internet quotes of automobile insurance in private sector provinces are not reliable indicators of true costs. Quotes are merely reflections of "bids." One such survey produced by the Consumers' Association of Canada produced estimates of insurance premiums in 2005 which exaggerated Alberta's average premium by 67.7% and Ontario's average premium by 80.7%. Actual prices for 2005 are noted in the chart below.



Average written premium per province 2005 (all coverages)

Sources: IBC Automobile Insurance Experience Exhibits and respective provincial government automobile insurance companies. The above averages result from (where applicable) the combination of government and private premiums.

Even Statistics Canada measurements of insurance policy price increases (used to calculate the inflation rate) should not be used as indicative of actual insurance costs or cost increases. Statistics Canada uses a sampling of rate quotes. The results reflect only *the particular examples chosen*. They do not reflect the overall comprehensive average which results from a division of the total value of actual paid policies by the total number of paid policies.

In addition, the 2001-2005 Statistics Canada data quoted by the Insurance Corporation of British Columbia overestimates the price increase because multiple years of increases were concentrated into one year due to reporting problems. For example, over a 73-month period between March 1996 and March 2002, the New Brunswick auto insurance Consumer Price Index was unchanged, holding at 126.9. Over the next 12 months it jumped 71 percent – but only because of the 73-month problem just noted, not because automobile insurance prices in New Brunswick actually increased by 71 per cent.

- Regardless of whether an insurance system is government-run or private there are multiple factors which create different average premiums across the provinces:
 - O One key factor is the cost of settling claims including legal actions, some of which are restricted depending on the province. For example, insurees cannot sue in Manitoba, can only sue for vehicle damage in Quebec in

select circumstances (but not for bodily injury), and may sue in Ontario and most other provinces. (In Saskatchewan the choice of insurance coverage with the option to sue was introduced in January 2003. However, as of today only 0.3% of drivers have selected this option. The majority have the option.) Such restrictions do affect the cost of providing insurance (one reason why Manitoba's average premium is lower than Ontario's).

- O Other factors include the relative wealth of a population (i.e., the average automobile purchased might be a more expensive model in one province as compared to another), type of insurance coverage purchased beyond just mandatory coverage, accident rates (smaller towns versus large cities) and the proportion of young male drivers or women drivers (the former are more accident-prone than the latter).
- Where an average premium is higher, as in the case of Ontario since 2003 and compared to a rural province such as Saskatchewan, key reasons why Toronto drivers might pay more than a similar consumer in Regina have often been omitted in many analyses.
- However, while provincial average premiums are not straight apple-toapple comparisons, any attempt to assert across-the-board that automobile insurance is on average less costly because it is provided by government is incorrect (as noted by the stark example of British Columbia which has among the highest average premiums in most years).

RECOMMENDATIONS

FOR THE MEDIA:

When analyzing conflicting claims about automobile insurance, reporters, editors and produces should request the following information:

 Where did the funding for the study originate? Private donations, labour (government or private), business or government? Bias does not necessarily equal improper statistical handling or flawed conclusions but if conclusions cannot be supported by the initial data, the source of funding may be one key clue as to why.

FOR GOVERNMENTS AND POLICYMAKERS:

 Taxpayer funding for advocacy groups – whether for business, consumer or other interests – should be discontinued. When governments fund advocacy, they are no longer neutral recipients of lobbying efforts but instead placed in a conflict of interest. Government grants have the effect of involving government and departments in one side of a dispute. Also, such funding allows advocacy groups to claim widespread support which may not be warranted. Withdrawal of funding would force groups to indeed seek their funding from potential supporters and reflect the priorities of the donors. Without that, advocacy groups can lobby on behalf of their own personal priorities but not necessarily the broad public interest.

Greenpeace, the Canadian Taxpayers Federation, the Canadian Federation of Independent Business, the David Suzuki Foundation and many others all refuse to seek or accept government grants. Provincial and federal government should require the same of other lobbyists and think tanks by ending taxpayer funding for advocacy.

Governments should treat the insurance industry similar to others and end the special taxes on insurance which apply only to insurance products. Such taxes are hidden and represent a "top-up" on existing provincial and federal takings from consumers who ultimately pay the extra tax bill. In 2005, insurance-only taxes on automobile insurance (i.e., apart from taxes that apply to all business) amounted to an estimated \$1.124 billion³ across Canada.

FOR CONSUMERS:

Consumers in search of a competitively-priced, comprehensive insurance policy should:

- Demand that policymakers and elected officials enact reforms based on a competition model.
- Demand that reforms to insurance reward good drivers and penalize careless, risky and dangerous ones. This does not always occur. In 2004, Alberta's reforms to insurance delivered large discounts to high-risk drivers while many good drivers realized only minor reductions in their premiums.⁴ Insurance is about risk: insurance policies must reflect risk in order to send signals to drivers about their potentially dangerous behaviour and the relative risk of their age and gender cohort.
- Demand more (in private sector provinces) from insurance agents and ensure agents search for both the type of coverage that is most appropriate for that consumer and that the quote given is the most economical for that coverage.

ANALYSIS #1

WHY A PROPER UNDERSTANDING OF INSURANCE MATTERS:

IT'S ABOUT CALCULATING – AND MANAGING – RISK

The origin of insurance: Predicting the future –with numbers

In his 1996 book *Against the Gods –The Remarkable Story of Risk*, Peter Bernstein noted that one distinguishing feature of modernity goes far beyond the surface progress evident in science, technology, capitalism and democracy. Bernstein writes that, "the revolutionary idea that defines the boundary between modern times and the past is the mastery of risk: the notion that the future is more than a whim of the gods and that men and women are not passive before nature."⁵

He notes that the modern conception of risk is rooted in the Hindu-Arabic numbering system that reached the West roughly eight hundred years ago. (To understand why that development was key, consider the difficulty of performing complicated calculations with Roman numerals.) Bernstein writes that while the easier numbering system theoretically made it possible to begin to calculate theories, probabilities and then risk, Arab mathematicians, as with ancient Greeks before them and early Christians, failed to capitalize on such possibilities.^a That was due to worldviews which prevented the next step:

Why, given their advanced mathematical ideas, did the Arabs not proceed to probability theory and risk management? The answer, I believe, has to do with their view of life. Who determines our future: the fates, the gods or ourselves? The idea of risk management emerges only when people believe they are to some degree free agents. Like the Greeks and the early Christians, the fatalistic Muslims were not yet ready to take the leap.⁶

Bernstein further outlines how it was during the Renaissance that the concept of risk and a better understanding of how to calculate it (and then to adjust behaviour accordingly) gained ground. In 1654, the French nobleman, Chevalier de Mere, who had a passion for both gambling and mathematics, challenged the philosopher and mathematician Blaise Pascal to solve a then two-hundred year-old conundrum: how to divide the stakes of an unfinished game of chance between two players if one of them is ahead. Pascal collaborated with a lawyer/mathematician and, as Bernstein writes, "the outcome of their collaboration was intellectual dynamite."⁷

The intricacy of the answer is unnecessary here but the result of Pascal's solved puzzle was that people could, for the first time, *partly predict the future with the help of numbers*. The accomplishment of Pascal and his lawyer friend, later built on by English merchant John Graunt, provided the basis for making rational predictions, i.e., how to calculate risk.

In 1660, an Englishman named John Graunt published the result of his effort to generalize demographic data from a statistical sample of mortality records kept by local churches. By the late 1660s, Dutch towns that had traditionally financed themselves by selling annuities were able to put these policies on a sound actuarial footing.⁸

^a From Bernstein: "In all likelihood the reason was that the Greeks had little interest in experimentation; theory and proof were all that mattered to them. They appear never to have considered the idea of reproducing a certain phenomenon often enough to prove a hypothesis, presumably because they admitted no possibility of regularity in earthly events. Precision was the monopoly of the gods" (p. 44).

The result, centuries later, is the possibility of risk calculation. Insurance provides consumers a means to deal with uncertainty as it transfers and shares risk among a much larger group of people who face similar risks. In the example of home insurance, such calculations allow insurance to be sold as protection for homeowners against unforeseen disasters that would otherwise permanently devastate a family.

In the event of a tragedy, no party will suffer a catastrophic financial loss because the risk and cost of such an event is spread out over many homeowners, most of whom will never face the disaster which occurs only to a small minority or purchasers. Thus, companies can provide such insurance because the risk that all homeowners will need to collect insurance is, in total value, likely to be less in most years than the total value of premiums of those who pay for risk protection.

An added benefit for society at large is that such a guarantee allows the homeowner with equity to borrow against her home and perhaps use some of that money to start a business or renovate her home. The effect of insurance as security has been profound. As Bernstein points out, the modern economy could not exist without the ability to calculate risk and to leverage one's activities or investments with that safety net. Bernstein's description of how the concept of risk evolved– as "remarkable," and why it matters, is critical for understanding why governments must be careful not to undermine proper, actuarially-based, risk calculations.

ANALYSIS #2

THE MYTH OF EXPENSIVE PRIVATE INSURANCE

The myth

Some consumers believe government automobile insurance is superior to that offered by the competitive private sector. Specifically, the claim is made that B.C., Manitoba, Quebec (on bodily injury) and Saskatchewan, where automobile insurance is either mostly or wholly provided by government is superior on price and quality to that offered in Alberta, Ontario, New Brunswick, Newfoundland, Nova Scotia, and Prince Edward Island.

There are two sources for this misinformed view. One originates with association(s)⁹ partly funded by government (and likely also funded by public sector unions whose members work in the government insurance industry); the second is reporters, columnists and editors who are unsure of how to properly parse through the numbers. The second source of misinformation will be dealt with in Analysis #3.

Error-prone research about automobile insurance

As one example of flawed research later replicated in the media, the Consumers Association of Canada which possesses just 272 individual donors,¹⁰ claimed in 2003 that the average insurance policy in Ontario was \$2,504 and \$1,853 in Alberta. The Insurance Bureau of Canada (IBC) later noted the accurate figure was \$1,355 in Ontario and \$1,141 in Alberta.

Why the difference between the two organizations? The answer can be found in a response from the then CAC's own Ontario director. In an interview with this author in 2003, Theresa Courneyea stated that more accurate research from her provincial wing estimated the average Ontario insurance premium at only 1,310 – not far off the actual industry stated average premium of 1,355.¹¹

So why was the CAC's national study so faulty? Courneyea noted the Ottawa office used internet quotes while her office compiled the total premiums paid in Ontario, divided that by the number of insured automobiles, and which resulted in her \$1,310 average.

Another problem with the CAC's national study in 2003 was that *half* their Ontario premiums assumed a past claim or conviction. In the real-world driving population, only 11 percent had a past claim or conviction.¹² Referring to the Consumer Association's national office and its overestimated averages for Ontario drivers, Courneyea told this author in 2003 that her provincial office "doesn't use anything they've done."¹³

Why the median price is a flawed comparison

The inflated Ontario prices were not the only flawed quotes from the Consumers' Association of Canada in 2003. The CAC also claimed that compared to other Western provinces, rates in Alberta were much higher and that the average Alberta consumer paid twice as much as those who buy from government-run insurance companies in the other three western jurisdictions (B.C., Saskatchewan, and Manitoba).¹⁴

That claim was based on 34 examples of various drivers. But the CAC only provided actual dollar estimates (based on the median price) in two categories. That median price was problematic as it meant that *half the prices in a sample were below the quoted CAC "average price*" and half were above.

For example, as illustrated in charts 1 and 2, out of fives prices (\$600, \$800, \$1,000, \$1,000 and \$1,200) the *median* (the "middle") price is \$1,000. Add together all five prices and divide by five to obtain an average and the *average* price is \$900.

To pick a real-life example from past Consumers Association studies, in 2003, the group obtained 10 different prices for each category. *That meant the CAC found four or five private sector prices for each category that were lower than the median price it publicly published and compared with government insurance*.

Also, because the CAC assertion was based on 34 examples of various drivers but only provided actual dollar estimates (based on the median price) in just *two* categories, a journalist or researcher who desired to grasp the CAC's actual price quotes was forced to look at the group's charts and make an estimate.

When I asked CAC president Bruce Cran for all 34 median prices and also the low to high range of prices used in his study, Cran refused to release such information.

To illustrate the problem of claiming that the median quote was representative of actual insurance costs, consider one example from the CAC's own study. When the organization claimed that a 42-year old female with a 1996 Mazda Miata and one past claim would pay a median insurance price of about \$1,800 in Alberta compared to just over \$1,500 in British Columbia, the CAC implicitly *admitted that it found at least four prices that were below that* \$1,800 Alberta price, and possibly some that fell below the B.C. cost of insurance.

Most consumers do not purchase the middle price out of 10 quotes for automobile insurance; all else being equal, most try to find and pay the *lowest* price. If the CAC revealed its range of prices, it would likely show that at least some insurance companies in private sector Alberta, Ontario, and in Atlantic Canada could provide lower prices than those offered in provinces with government insurance.



Chart 1: How a median price is calculated

Chart illustration by author



Chart 2: How an average price is calculated

Chart illustration by author

Why private provinces often have cheaper insurance: Proof from past CAC studies

When Cran refused to release his 2003 data, I asked Canadian Direct (which offers full insurance in Alberta and optional coverage in B.C.) to provide their quotes for all 34 CAC-created categories for Alberta and to obtain the government rates for B.C.

Here are the results: Price quotes for both provinces reveal that out of five Alberta cities surveyed by the consumer group (and then by Canadian Direct) with 34 examples each (for a total of 170), consumers could buy insurance cheaper in 137 instances in Alberta and only in 33 in Vancouver. In a direct city comparison, consumers could pay less in 25 of the 34 categories if they were insured by Canadian Direct in Calgary as opposed to the

government-run automobile insurer in Vancouver which could only provide the lowest price in only nine categories out of 34.

Recall that these comparisons above were created using the very categories offered by Cran and from which he claimed prices were twice as high "on average" in Alberta as in other provinces. Also, note I only compared BC's rates with *one* private insurance company which operates in Alberta. In 2003, there were about 70 Alberta insurance companies. Thus, there was an excellent chance that Albertans might find a lower price in Alberta than in British Columbia in most categories.

In 2003, the Ontario president of the Consumers' Association of Canada told me that the study produced by Bruce Cran and the national office, "violates arithmetic."¹⁵ A cursory comparison using the CAC's own categories matched against rates from one Alberta insurance company confirms Courneyea's statement.



Chart 3: Private Alberta insurance v. B.C. government insurance

Source: CAC 2003 with comparative quotes provided by Canadian Direct.



Chart 4: Private Calgary insurance v. B.C. government insurance - Vancouver

Source: CAC 2003 with comparative quotes provided by Canadian Direct.

The problem with the 2005 numbers

The CAC's 2005 studies on automobile insurance discarded the median approach in favour of averages. But even here, an incorrect approach was used. The group noted its averages were calculated from 3,776,997 rate quotes provided on the Internet. *But Internet-generated quotes are not the same as widely varying prices actually paid by consumers*.

To understand why even an average of almost 3.8 million quotes is problematic and does not reflect average insurance premium prices, consider this simple example. Suppose three condominium owners paid \$100, \$150 and \$500 respectively for contents insurance. Divide the total (\$750) by the number of insurance policies (three); the average premium is \$250. That's how the industry arrives at their numbers.

Now use the CAC method of calculating averages for said product. Download five quotes from the internet: \$100, \$150, \$300, \$400 and \$500. The average quote is \$290. Even if the lowest and highest prices are removed (as the CAC did in their 2005 comparisons) the average in this example would be \$283, still higher than the real-world average price of \$250. In the case of automobile insurance, this is how the CAC could claim average premiums were so high – much higher than the industry average. But the lower industry averages came from actual paid policies; the higher CAC averages came from internet quotes.^b

^b This author is not the only one who has noticed the CAC's flawed approach to data and statistics. On another matter and in another claimed statistical analysis (the result of a CAC-launched court action launched against the beverage industry in 2006), a B.C. Supreme Court judge noticed Cran's statistics were in error. In June 2006, Justice Loryl D. Russell wrote that "what methodology can be gleaned from the [Consumers' Association] affidavit is demonstrably flawed."



Chart 5: ACTUAL insurance averages (based on paid premiums) compared with averages (obtained from internet quotes)

Sources: IBC Automobile Insurance Experience Exhibits and CAC

The result was that the Consumers' Association of Canada claimed the average Ontario automobile premium in 2005 was \$2,383 while the actual average Ontario price was initially estimated at by the Insurance Bureau of Canada at \$1,279 (based on 2004 estimates and later revised higher to \$1,319 for 2005). Similarly, the CAC claimed the average Alberta price for automobile insurance was \$1,714 but the accurate figure was \$1,127 (later revised downward to \$1,022).

Whether one uses three, five or almost 3.8 million internet quotes, the averages are unreliable "ghost" comparisons because they are not based on what drivers actually pay in the real world. The CAC numbers represented a 67.7% exaggeration of an average Alberta premium and an 80.7% exaggeration in the case of Ontario.

When I requested the raw data - the range of prices for 20 to 29 quotes (which were claimed to have provided the basis for the average premiums), the statistical assumptions, and information on who funds the CAC –the CAC president refused to provide any data or answers.^c

^c One could argue IBC numbers are subject to possible manipulation just as is the CAC's raw data. However, provincial regulators have chosen GISA (and the Insurance Bureau of Canada before April 2006) as their statistical collector of choice so as to conform to provincial regulatory and legal requirements. Also, IBC's raw data and statistical calculations are derived from actual prices paid for insurance and are publicly available for verification. The Consumers' Association of Canada data was Internet-derived and has not been publicly disclosed despite my past requests.

Full disclosure from industry, not from the Consumers Association of Canada

The industry's interests are obvious but they have provided requested information. When the Consumers' Association of Canada once provided comment (but no data) to this writer the results were not flattering for the national CAC office. In 2003, then Ontario director Theresa Courneyea said the national office's insurance comparisons "violated arithmetic" and "slanted the picture." The provincial branch even wrote the *Globe and Mail* to argue that Ontario's average premium in 2003 was \$1,310, not \$2,504 as claimed by Cran, a figure Courneyea labelled "excessive."¹⁶

ANALYSIS #3

MEDIA REPORTING ON INSURANCE RATES

Media hype

In 2003, following the release of error-prone reports from the Consumers' Association of Canada, the following news coverage resulted and in large measure because CAC reports were accepted uncritically by many reporters and editors:

- "Drivers pay far more for private- sector vehicle insurance, consumer study says,"¹⁷ headlined the *Halifax Daily News* in September 2003.
- "Ontario motorists saddled with skyrocketing insurance: Consumer study finds that Toronto drivers can pay 500 per cent more than other regions,"¹⁸ claimed the *Charlottetown Guardian*.
- "Insuring car can cost 6 times as much in TO"¹⁹ repeated the *Montreal Gazette*.
- The *Vancouver Province* blazed "Public auto insurance 'a big saver."²⁰
- The *National Post* financial section, the *Financial Post*, put the CAC study front and centre: "Toronto drivers pay up to 500% more for auto insurance,"²¹ noted the prominent *FP 1* page headline.
- One exception was Terence Corcoran in the *National Post* who argued, tonguein-cheek, about the CAC's numbers, "If it's in a [Canadian Press] news story, it must be true."²²
- A balanced headline came from the *Vancouver Sun*: "Private auto insurers accused of gouging."²³

Vested interests and the status quo

Reporters, editors, producers and others involved in reporting news are understandably reluctant to accept claims about a product from the industry which produces and sells it. There is always the danger that facts will be selectively "cherry-picked." However, the opposite error (as opposed to blithely accepting such data without question) is to assume that because a group has a vested interest their assertions are *prima facie* false or misleading.

A particular assertion might be true or false but the correct investigation of a claim requires an examination of the issue for objective facts where they exist. *It is also necessary to be aware that there are various interests in a dispute*: industry associations are not the only ones with interests including in the selling of insurance. *Government unions whose members work in the government insurance business also have a vested interest*.

As noted earlier, the Consumers' Association of Canada would not release the full range of prices to this author or anyone else in 2003. If the lobby group revealed the range it

would reveal that at least some insurance companies in the private sector undercut rates in government-insured provinces. It would also puncture the errant claim that consumers were being gouged in Ontario, Alberta, and in Atlantic Canada.

Because the CAC refused to make its data available and the media did not query the CAC about its data and methods the public was left to assume private insurance provinces were expensive. Extreme examples served as hyped assumptions about everyone's insurance and averages from quotes were assumed to represent what consumers paid in the real world. Once the headlines appeared, the public was left with the impression advanced that insurance was a great deal in provinces where the government sold all or basic automobile insurance and a lousy deal in private sector provinces.

2005 insurance: more apples, more oranges

In 2005, more CAC automobile insurance studies led to more "torqued" and inaccurate headlines.

- "Ontario drivers pay through roof: Insurance \$1,000 more than in B.C., study says,"²⁴ claimed the *North Bay Nugget* in July 2005.
- "Auto insurance cheaper in B.C. than Alberta,"²⁵ proclaimed *the Globe and Mail*.
- "Outrageous costs hammer Ontario drivers,"²⁶ noted the *National Post*.
- The *Calgary Herald* announced "Albertans pay more, consumer study finds."²⁷
- "B.C. drivers pay less than Albertans for car insurance,"²⁸ headlined the *Victoria Times Colonist*.
- The *Vancouver Province* praised the government auto insurance company: "ICBC fairest in the land,"²⁹ and added a sub-title: "Study gives public auto coverage top grade."³⁰

Newspaper reports again led the public to think consumers in private sector provinces were gouged and that CAC conclusions were credible. The *Edmonton Journal* exclaimed that the CAC's insurance survey "analysed 800,000 automobile insurance quotes for 300 driver profiles in 219 communities in the two provinces."³¹ A *National Post* reporter wrote that the review of rates was "the largest such study done in Canada, [and] is based on nearly four million quotes across 300 different rating groups in Ontario, Alberta and British Columbia."³²

The 2005 Consumers' Association of Canada automobile insurance comparisons only appeared comprehensive until one drilled down into the data. The glaring flaw in the 2005 numbers was the same as in the 2003 comparisons: *the use of quotes to come up with averages instead of actual policy premiums paid by real drivers in the real world.*

But whether one uses medians or averages, or three, five or four million internet quotes, such averages were always unreliable "ghost" comparisons because they were not based on what drivers actually paid for insurance. It was if to find the average price of a "widget" sold on E-bay, one totalled all the bids and calculated an average based on that instead of on what buyers actually paid. The average of ten bids (or ten million bids) is not the actual average price of an item; a proper average results from using only the price of sold items.

Reviewed and actuarially valid?

In response to my criticism, the CAC argued their methodology was "fully reviewed by a professor of actuarial science and confirmed as being valid."³³ All that meant was that millions of internet quotes were added up and divided to arrive at an average. It is impossible to know if even that function was properly performed. Cran would not release his data or calculations—an action that is itself unscientific; scientific claims including statistical results are considered valid when others can access and assess the same data and perform calculations to see if previously calculations were proper.

Cran also claimed that his insurance studies measure what identical drivers would pay in each of the provinces. They did not. To properly measure what identical drivers would pay, the consumer group needed to use actual premium prices paid by real premium holders.

Apples and oranges: The CAC used internet quotes to arrive at averages in private sector provinces but *actual* prices paid in government provinces

Many in the media overlooked the critical distinction and missed another clue as to the unreliability of the comparisons. When government-run automobile insurance companies such as British Columbia's calculate the average paid premium, they perform this calculation: the total value of all premiums paid is added up and divided by the number of premiums to arrive at a real-world average.³⁴ This is also how the private sector arrives at its averages. *The CAC accepted averages based on real paid premiums in public sector provinces*^d but dismissed the same method when performed by the private sector in private sector provinces. Then, private sector calculations were negated as a "10-second calculation."³⁵

The CAC used wildly varying internet quotes to arrive at averages in private sector provinces but used actual prices paid in public sector provinces (as on mandatory insurance no other quotes matter). The Consumers' Association of Canada conclusions would lead one to believe private insurance was a bad deal but that belief resulted from comparing bids ("oranges") with actual prices ("apples"). Many in the media reported the conclusions as if such calculations and comparisons were statistically valid.

^d The CAC obtained quotes from public auto insurers. Of course, in government-run systems, those quotes were exactly identical to what consumers would pay. In government-runs systems where basic insurance can only be bought from government there is no other quote that matters: without choice, the "quote" is identical to the final paid price.

Skin-deep analysis and stereotypes

Some in the media played into stereotypes instead of asking rudimentary questions. In Sault Ste. Marie, the *Sault Star* looked at the CAC study and industry numbers and decided the proper way to parse through the forest of data for accuracy was to rely on the brand name:

What to make of these conflicting numbers? Consider the sources. The Consumers' Association of Canada represents, as the name implies, consumers. It has no stake in massaging or misrepresenting the results of its survey, which examined 2,973,980 auto insurance quotes in 357 Ontario communities and compared them with 803,017 quotes in 219 communities across Alberta and British Columbia. The Insurance Bureau of Canada, meanwhile, represents Canada's largest insurance agencies.³⁶

However, individual companies are required to file their data with an agency responsible for statistical collections as mandated by government legislation (IBC before 2005, GISA after 2005) and data calculations can be checked for accuracy. The companies and statistical collectors are legally accountable to governments and government regulators. The reader can grasp a sense of what insurance companies must file by examining the history of the Automobile Statistical Plan and an example of the legislation which applies to insurance companies in the case of Alberta.

History of the Automobile Statistical Plan (ASP)

Relevant Legislation

The Automobile Statistical Plan applies without exception to all insurers licensed to transact automobile insurance in the Provinces of Alberta, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Yukon, Nunavut and Northwest Territories.

The relevant sections of the various Insurance Acts are: Alberta-47; New Brunswick-75(1); Newfoundland and Labrador-82(1); Nova Scotia-156(1); Ontario-101(1); Prince Edward Island-65(1); Quebec-178; Northwest Territories-21(1); Nunavut-21 and Yukon-35.

The wording most commonly used is similar to Alberta, which reads as follows:

47(1) Every licensed insurer that carries on in Alberta the business of automobile insurance must prepare and file with the Minister, or with a statistical agency that the Minister may designate, a record of its automobile insurance premiums and of its loss and expense costs in Alberta, in a manner and according to a system of classification that the Minister approves.

(2) A statistical agency designated by the Minister must compile the data in the records filed under subsection (1) in a manner approved by the Minister and submit the compiled data to the Minister.

While skepticism of facts, figures and statistics is helpful attribute in reporting, the key question to be asked and analysis to be performed is whether the facts, figures, statistics and conclusions offered are in error. In the case of insurance statistics, too many in the media did not perform due diligence on statements and studies from associations not legally accountable to the public. Many in the media instead skimmed the surface of this issue and accepted the numbers without examining the data or whether such data allowed one to make the claims and conclusions offered.

Funding for the CAC

The Consumers' Association of Canada has been in existence for five decades and mostly avails itself of taxpayer funds though it now receives far less funding than it once did. Between 1989 and 1996, various CAC offices across Canada received over \$5.5 million from Industry Canada.^e Between 2000 and 2003, its Ottawa office – which produced the faulty insurance studies, received almost \$700,000 from taxpayers courtesy of Industry Canada. In 2004, the CAC received at least \$80,000 for its (then upcoming 2005) study on automobile insurance rates.³⁷ In 2005, two CAC offices received another \$63,960 in government funds.³⁸

In a 2005 open letter, where the Consumers' Association of Canada finally acknowledged government funds, the CAC stated: "We do not accept funding from industry."³⁹ Missing from the after-the-fact acknowledgment of government funds and the upfront note about no industry money was any denial of support from public sector labour in British Columbia, Saskatchewan or Manitoba where such unions have members who work for government-run automobile insurance companies.

After this author queried the CAC on its source of its funds, including whether it received donations from government unions involved in the government insurance industry, the CAC refused to answer my questions. When asked about just such funding, the response from CAC president Cran was blunt: "I won't give you anything; you can print that."⁴⁰

Cran claimed his policy was to "not release its funding sources in order to conform to privacy legislation in Canada and to respect the confidentiality of its contributors."⁴¹ This was diversionary smoke. Provincial and federal privacy legislation does not prevent any advocacy group from revealing how much they receive in general, i.e., \$"x" amount from business, government, or unions. They are fully able to do so without naming contributors. Also, any organization can obtain permission from donors as to whether such donors will publicly identify themselves. Government unions which donated to the

^e In an October 31 2005 news release, the CAC criticized the insurance industry for seeking a subsidy from government. This author is opposed to such subsidies but is also opposed to those given to the CAC which, as noted above, have been extensive.

CAC could, if they chose, publicly disclose how much they contributed to the CAC. To date, they have chosen not to do so.

Contrary to the editorial from the *Sault Star*, if the CAC received funds from government unions, that would contradict the *Star*'s assertion that the Consumers' Association of Canada had "no stake in massaging or misrepresenting the results of its survey."

This author's view is that the CAC likely accepted significant funds from public sector unions either nationally, or in the provinces where government automobile insurance exists: British Columbia, Saskatchewan, Manitoba, and Quebec.

However, small membership numbers, government transfers, and union donations from the public sector do not necessarily mean an organization has produced biased or errorprone research. Two plus two still equals four. But the CAC's data assumptions and automobile insurance comparisons and conclusions do not withstand even a cursory examination.

Who does the CAC represent? 272 people

In an Access to Information request made by the Insurance Bureau of Canada for information relating to grants given to the CAC, information subsequently released by Industry Canada on June 22, 2006 included a 2004/05 request from the CAC for government funding. In that request, Cran noted that "CAC has received \$27,762 in funds donated by 272 individual donors."⁴²

Choice and competition

In their studies, the CAC was properly critical of insurance brokers in private sector provinces who sell policies only from one or two insurers. Ironically, the CAC solution was to eliminate competition and have just one insurer: government.

The industry also has its bias. In the past, the Insurance Bureau of Canada has opposed allowing banks to sell insurance in its branches or to allow banks to tie automobile insurance to discounts on other products. I disagreed with that position^f in the same manner I disagreed with the CAC which has advocated an end to choice and competition in automobile insurance.

Too many in media foreswore critical questions about what CAC data represented. Nor were queries asked about the claimed consumer group and who they actually represented and their sources of funding. The unfortunate result was highly misleading headlines for a product purchased by most Canadians.

^f The IBC has since changed its position to neutral on this matter.

ANALYSIS #4

THE REAL NUMBERS: WHAT CONSUMERS ACTUALLY PAID FOR INSURANCE 2000-2005

2005 NUMBERS

In 2005, the average automobile insurance premium – based on total coverage (i.e., mandatory plus optional coverage) ranged from \$716 in Quebec to \$1,319 in Ontario. The following chart is based on the total value of direct written premiums (government premiums plus private where applicable, private only where not) divided by the number of written vehicles. The averages below are thus based on what consumers actually paid for insurance.



Chart 6: Average written premium per province 2005 (all coverages)

Sources: IBC Automobile Insurance Experience Exhibits and respective provincial government automobile insurance companies. The above averages result from (where applicable) the combination of government and private premiums.

2000-2005

For a longer historical view, consider the actual premium averages from 2000 through to 2005. The following table is based on the total value of direct written premiums (government premiums plus private where applicable, private only where not) divided by the number of written vehicles. The averages in Table 1 are thus based on what consumers actually paid for insurance.

Year	NF	NB	NS	PE	QC	ON	MB	SK	AB	BC
2000	727	761	631	616	643	878	707	651	819	961
2001	788	846	718	676	670	953	764	681	879	981
2002	926	1,038	887	777	692	1,038	808	708	1,018	1,073
2003	1,037	1,121	928	868	710	1,355	837	715	1,141	1,139
2004	971	1,103	897	816	721	1,385	897	756	1,076	1,160
2005	934	999	842	811	716	1,319	920	738	1,022	1,153

Table 1: A longer view: Average written premiums for private passenger automobiles – all coverage (all types of risk combined)⁹ 2000- 2005

Sources: IBC Automobile Insurance Experience Exhibits and respective provincial government automobile insurance companies based on paid premiums. The above averages result from (where applicable) the combination of government and private premiums. (Excludes farmers, commercial automobile and all-terrain vehicles).⁴³

Properly understanding Statistics Canada estimates of automobile insurance inflation

According to 2001-2005 Statistics Canada data quoted by the Insurance Corporation of British Columbia, between December 2001 and December 2005, insurance rates rose in ranges from 5.0% (Manitoba) to 65.8% (Newfoundland) and 67.7% (Alberta).⁴⁴ *However, it is critical for readers of such statistics to understand what those numbers mean and how such percentages were arrived at*: First, price increases were overestimated because multiple years of increases were concentrated into one year due to reporting problems. Second, those statistics are based on surveys which act as a "snapshot" of certain predetermined categories. They were not comprehensive or full measurements of the actual average price increase (or decrease) in insurance rates.

Statistics Canada does not release its data which is derived from commercially sensitive insurance company rate books. However, to give an example of how Statistics Canada gathers information, consider that one category might be for a single, 36-year-old male with one speeding ticket, no accidents and a 1997 Ford Taurus with \$1 million in liability coverage. In an attempt to keep their model constant, Statistics Canada will use that category (along with any number of others), and review insurance quotes from a select number of insurance companies to arrive at their estimates of insurance costs from one year to the next.

However, this approach should not be taken as representative of actual insurance rate increases for the following reasons. First, while the attempt to keep the independent statistical variable constant is necessary to ensure the same product is measured year to year (as in the example of the category above) it is critical to note this: a survey by

^g Note that because consumers purchase public and private insurance in selected provinces (B.C., Saskatchewan, Manitoba, and Quebec), average premiums in those provinces reflect that public/private average. Without combining the amount paid to public and private insurers, average premiums in those provinces would be artificially and incorrectly low.

Note that in the case of British Columbia, the government insurance company (the Insurance Corporation of British Columbia) reports an official average premium of \$1,059 for 2005. That figure excludes the optional coverage available and purchased by consumers. That \$1,059 figure also excludes certain ICBC insurance coverage such as Driver Penalty Point Premiums (DPPP) and Specialty Coverage Premiums (SCP) (for high-end car stereos and other forms of coverage). When such premiums are included, the ICBC average is \$1,076 though that still excludes private optional insurance. When private optional insurance is included, the BC figure is \$1,153 as noted above. To exclude ICBC's DPPP and SCP categories then would result in a figure of \$1,136.

definition will miss other quotes, actual prices, and other companies who may sell that product for a lower or higher price.

Second, this approach misses changed consumer preferences. In a simple example, consider if Statistics Canada measured the average price of automobiles and selected vehicles from Ford, General Motors and Honda for its survey. Assume the average value of such vehicles sold was \$20,000. If consumer preferences change and the share of Kias and Hyundais sold (but which are not measured) dramatically rises and the average price of those automobiles is \$18,000, Statistics Canada will overestimate the overall average price of a car in Canada as it is yet measuring past preferences and buying habits – not current ones.

Thus, surveys, even if tweaked for changed consumer preferences, will miss actual paid premiums and may undercount some companies which have lower or higher prices. Such surveys may also miss a larger portion of the market than is reflected in their share of the data compiled by Statistics Canada. Surveys are in most cases the best any statistical agency can do – Statistics Canada cannot measure every piece of fruit sold in Canada in its measurement of consumer prices for fruits. However, the average insurance premium in the country is measurable as the data for such calculations is readily available as noted elsewhere in this report.

Third, to expand upon the most critical reason, the 2001-2005 data overestimates price increases because multiple years of increases were concentrated into one year due to reporting problems.⁴⁵ For example, over the 73-month period from March 1996 to March 2002, the New Brunswick auto insurance CPI was unchanged, holding at 126.9. Over the next 12 months it jumped 71 percent – but only because of the 73-month problem just noted, not because automobile insurance prices in New Brunswick actually increased by 71 per cent.

The real increase/decrease in prices 2001-2005

Recall that Statistics Canada uses quotes based on categories, weights those categories and quotes in some manner in an attempt to estimate inflation, and arrives at averages in order to produce inflation estimates for automobile insurance rates.

Those Statistics Canada categories and the dollar values attached reflect those categories and only those categories; in rare cases, a price quote *may* represent real prices paid–presumably there may be (to continue with the example) a single, 36-year-old male with one speeding ticket, no accidents and a 1997 Ford Taurus with \$1 million liability coverage.

But the critical point is that many categories and actual prices paid by many consumers of automobile insurance will be missed in such surveys. When this author inquired of Statistics Canada about their methods, one agency analyst noted that they "try to track what typical consumers pay for auto insurance,"⁴⁶ that they have specific rate books from

which they "pull out a quote,"⁴⁷ that they hold these things [categories] constant to try and get a true price,"⁴⁸ and that they are "measuring pure price changes."⁴⁹

Statistics Canada data on price inflation in automobile insurance is an accurate measure *of the quotes they have selected and of the categories they try to hold constant*. However, it is not an overall average of real-world prices paid. The result, when combined with the multi-year gap in reporting inflation in come cases, thus appears to have significantly overestimated insurance inflation in some provinces and underestimated it in others. When I noted this problem to Statistics Canada in an interview, the analyst acknowledged that "I'm not saying what you're saying is incorrect."⁵⁰

The Statistics Canada measurement is not a reflection of the actual paid premium average over the years. The agency measures price changes in the quoted categories. The difference is not insignificant and readers should be aware of the distinction especially as some government insurance companies such as the Insurance Corporation of British Columbia have incorrectly claimed that the Statistics Canada measurements reflect actual average increases in private sector provinces. That is not a correct interpretation of the data.

To use the same comprehensive data noted earlier and based on real prices paid in each province here are the comparisons between Statistics Canada data and average premiums increases. This will give the reader an idea of how Statistics Canada data can be misinterpreted *if* equated with real-world inflation in automobile insurance premiums.

Year	NF	NB	NS	PE	QC	ON	MB	SK	AB	BC
2001	788	846	718	676	670	953	764	681	879	981
2002	926	1,038	887	777	692	1,038	808	708	1,018	1,073
2003	1,037	1,121	928	868	710	1,355	837	715	1,141	1,139
2004	971	1,103	897	816	721	1,385	897	756	1,076	1,160
2005	934	999	842	811	716	1,319	920	738	1,022	1,153
Actual average premium increase 2001-2005	18.5%	18.0%	17.3%	20.0%	6.9%	38.4%	20.4%	8.4%	16.3%	17.6%
Stat. Can. est. based on selected category quotes auto CPI increase 2001-2005	65.8%	40.4%	49.8%	53.9%	46.2%	30.4%	5.0%	15.2%	67.7%	11.9%
Overestimate or underestimate*	47.3%	22.4%	32.5%	33.9%	39.3%	-8.0%	-15.4%	6.8%	51.4%	-5.7%

Table 2: Automobile insurance infla	tion estimates 2001-2005
Statistics Canada selected category	/ quote averages versus full data averages

*If used as representative of actual average insurance premium prices increases 2001-2005.

Sources: ICBC Quick Facts July 10, 2006, p. 4, quoting Statistics Canada, Consumer Price Index – Catalogue no. 62-

001-X1B (December 2005) / Actual price increase 2001-2005 from IBC Automobile Insurance Experience Exhibits.

ANALYSIS #5

WHY INSURANCE RATES DIFFER AMONG PROVINCES

What explains the difference between premiums?

As noted in Table 2, some private sector provinces have less expensive average insurance prices than other provinces where government is the main insurer. (Alberta's average premium is less than B.C.'s average premium and Nova Scotia and Prince Edward Island are cheaper than Manitoba). Some government insurance companies do charge less on average than the premium offered in provinces where insurance is provided by private companies (Saskatchewan has a lower average premium than does Ontario).

Comparing apples to lemons

However, that Alberta's average premium is lower than B.C. or that Saskatchewan's average premium is lower than Ontario's, does not in itself inform the consumer whether their policy is a superior buy or a superior product. Average premiums mask a number of reasons why premiums differ.

It is important to avoid the correlation-causation error, i.e., the assumption that because the rooster crows and the sun rose, that the crowing rooster caused the sun to rise. That one province has higher average premiums than another may be the result of many factors.

Reason One: Differences in product offerings including legal bills and benefits paid

Whether in government or private insurance systems one significant factor in insurance premium differences is the "design" of the product offered, especially the degree to which a province allows consumers to litigate after involvement in an automobile accident. As the task force which reported to Atlantic Canada's premiers noted in 2003:

- The Task Force found the evidence overwhelmingly in support of the conclusion that the primary, long term and core solution to the problem of rising automobile insurance rates does not lie in the issue of who supplies the product but rather, in the characteristics of the product and its design features.⁵¹
- The observation of the Task Force is that no matter what type of automobile insurance model is considered the core problem of increases in premiums is and has been consistently identified as the increase in bodily injury loss costs.⁵²

The reference to bodily injury costs can be understood to refer also to the cost of litigation in settling claims. As the Task Force noted, such costs are not insignificant which might be why some provinces moved to no-fault or almost no-fault systems:

¹ Moreover, the Task Force has noted that in the case of three of the four public automobile insurance models in place in Canada, a pure or nearly pure no fault benefit scheme has been implemented, whereas the remaining public insurance model continues to operate under an unrestricted tort compensation plan.⁵³

In addition, more comprehensive coverage (lower deductibles, rental cars in the event of an accident, long-distance towing, and windshield coverage), higher compensation for injuries and more types of injuries covered and other forms of coverage – will increase the cost of insurance.^h

Reason Two: Differences in incomes and wealth per province

The average price of a premium in each province is also linked to the relative wealth in each province. Provinces with wealthier populations might, on average, buy more expensive cars, trucks, and SUVs. If one province has a higher proportion of wealthy families or has a higher proportion of people who earn more every week, those factors will increase the cost of insurance if consumer preferences follow wealth distributions. (The caveat is that it depends on the consumer preference; consumers in Red Deer may spend more on their automobile because their housing costs are significantly less than in Vancouver.)

In this case, whether one uses median or average measurements of a population's wealth, the reality is that less wealthy provinces will generally have less expensive vehicles on average to insure. That disparity will be reflected in lower average claims and lower average insurance premiums. If one province has a proportionately greater number of people who have luxury cars, expensive SUVs, or newer trucks, that reality will skew the average insurance premium upward.



Chart 7: Employment income in Victoria and Edmonton

Source: Income of Individuals, The Daily, Statistics Canada, May 23, 2006.

^h Note that insurees can sue in B.C., Alberta, Ontario, New Brunswick, Nova Scotia, Newfoundland and Labrador, and Prince Edward Island. Insurees have a choice in Saskatchewan^h, may sue over damage to a vehicle in Quebec in certain circumstances but cannot sue over bodily injury, and cannot sue the government insurer at all in Manitoba.



Chart 8: Employment income in Winnipeg, Calgary and Toronto



Reason Three: Accident rates per population

One significant cost factor in insurance premiums is the number of accidents per population, and the cost of the accident – the claim payout. For example, young males are statistically more likely to be involved in accidents than other cohorts.

Communities with greater proportions of young male drivers will have higher average insurance premiums. For example, males aged 19-20 in Alberta are threeplus times as likely to be involved in an accident in comparison to all males of all ages in Alberta. In Ontario and Atlantic Canada, young drivers who are 19 and 20 years of age are roughly two-and-half times and four times (respectively) as likely to be involved in an accident as all males of all ages in their provinces.

Age differences are thus still relevant in insurance rates despite the attempts of governments to disqualify it as a risk category in calculating insurance rates.

Albert	a- Male 2004	Ontar	io Male 2004	Atlantic Male 2004					
Age Range	Claim Frequency	Age Claim Range Frequency		Age Range	Claim Frequency				
19-20	9.8	19-20	7.2	19-20	10.6				
21-22	7.7	21-22	5.9	21-22	5.0				
25-35	5.4	25-35	3.6	25-35	4.0				
36-45	4.0	36-45	2.7	36-45	3.2				
46-55	3.8	46-55	2.6	46-55	2.9				
Total		Total		Total					
Male	3.2	Male	3.1	Male	2.4				

 Table 3: Number of collision claims per 100 vehicles insured

Source: IBC Automobile Insurance Experience Exhibits. Private Passenger Automobiles-Excluding Farmers- Collision.

Reason Four: Differences in claim rates and cost of claim payouts

Claim payouts vary greatly by province as noted in chart 9. However, *note that comparisons should be made with this important caveat*: because Quebec, Manitoba, Saskatchewan and B.C. do not report to GISA as it is not the official statistics collector in those provinces, private sector data information is unavailable on private claims in those provinces. Thus, private sector claims data from those provinces are unavailable for calculation of a *total* public and private average claim and this comparison is thus restricted to *mandatory* coverage only.

This comparison of the average claim for *mandatory* coverage – coverage which exists regardless of whether an insurer is government or private – will give the reader an approximate idea of the differences in claims from one province to the next on mandatory insurance. Mandatory coverage includes third party liability (bodily injury and property damage), accident benefit (medical and disability income), underinsured motorists and uninsured motorists.



Chart 9: Average cost of claim 2005 (mandatory coverage)

Sources: IBC Automobile Insurance Experience Exhibits and respective provincial government automobile insurance company annual reports, 2005. *ICBC does not publish its average mandatory claim amount. The BC Crown did supply a figure of \$2,733 which represents the average of all claims reported for 2005, including those that will never be paid. Thus, this figure is too low. ICBC did not release only those claims paid/expected to be paid which would allow for a proper apple-to-apple comparison. Also, ICBC excludes claims adjustment expenses (page 50 of 2005 ICBC annual report) which the Insurance Bureau of Canada would include as private automobile insurers include claims adjustment expenses to calculate the \$ amount of claims incurred and resulting averages. Including claims adjustment expenses results in a figure of \$2,989 for 2005 for ICBC but that figure still is too low given the reasons noted above on those never to be paid. In Manitoba, the average claim was calculated based on MPI 2005 annual report's data: number of claims filed (p.5) and claims cost and claims expenses (p.41). SGI's average claim is received from SGI and reflects claims incurred during the year.

Reason Five: Government intervention

Governments have intervened to control the price of insurance. In Quebec, insurance rates have increased only 30 per cent over three decades, far below the

rate of inflation. The result is that relative to other provinces, Quebec's insurance rates appear to be a bargain. However, Quebec's taxpayers have subsidized such low rates through the tax system.

One estimate is that in the current year, the *Societe de l'assurance automobile du Quebec* will take in only \$750 million while it will pay out almost \$1.2 billion, a \$450 million deficit.⁵⁴ Taxpayers, instead of consumers who drive and according to their relative risk, end up paying that difference.

ANALYSIS # 6

QUESTIONS AND ANSWERS ABOUT AUTOMOBILE INSURANCE

"Why do insurance companies discriminate against some drivers?"

Risk calculation and its attendant benefits is a critical public good. It is one also often overlooked by governments which attempt to cheat probabilities by legislating insurance neutrality as regards age and gender.

As noted at the beginning of this report, insurance – calculated risk – has a two-fold purpose and a two-fold benefit. First, it allows people, families and others to guard against the possibility of costs that can bankrupt families and business in the event of misfortune. Second, properly calculated actuarially sound insurance rates send signals to people about how costly their behaviour or individual situation might be.

That's why house insurance in a high-crime neighbourhood costs more than in an area less likely to be targeted by thieves. It's why insurance companies offer discounts for devices and behaviour which help lessen the possibility of loss (car or home alarms, safe driving courses, fire extinguishers). In the case of automobile insurance and age and gender, young males are statistically more likely to speed, to be reckless, and to be involved in accidents than any other age group.

People can and do change their behaviour as Bernstein notes in this humorous recounting of risk assessment, risk management, and changed behaviour:

One winter night in Moscow during one of the many German air raids in World War II, a distinguished Soviet professor of statistics showed up to his local air-raid shelter. He had never appeared there before. "There are seven million people in Moscow," he used to say. "Why should I expect them to hit me?" His friends were astonished to see him and asked what had happened to change his mind. "Look," he explained, "there are seven million people in Moscow and one elephant. Last night they got the elephant."⁵⁵

When governments actively cap insurance premiums for young male drivers, the message sent to young male drivers is a regressive one about the potential of their actions to affect their future.

"Isn't one government-run company more efficient?"

The existence of just one company might save money on paperwork and administration. In government-only insurance provinces, multiple call-centres from multiple companies to provide competitive quotes to consumers will not exist. There is no need for extensive staff in such a department (relative to dozens of companies in a competitive jurisdiction) as the only "quote" that matters in such systems is the government-mandated insurance premium. A government monopoly may save some expense in that scenario.

However, while the possibility for an occasional efficiency exists in a monopoly, that rare efficiency is outweighed by a lack of efficiency in other areas – there is no daily competitive force which acts to force government monopolies to reform their business model. It is why monopolies are not accepted by consumers or permitted by governments as it applies to grocery stores, automobiles, or telephone service. In those sectors, it is

understood that competition brings efficiencies which ultimately benefit the consumer, the consumer who is able to choose between multiple providers.

"If a claim is never made, isn't insurance a costly and unnecessary expense?"

Insurance is about guarding against the possibility of costly and possible permanent physical and economic disadvantages. The chances of a claim depend on the nature of the insured event: car accidents are common and thus automobile insurance would be a wise investment in risk management even if it were not also legally required.

The loss of a family's provider is less common which is why some people choose not to carry life insurance though it too is a wise investment in risk management. What might be considered an "unnecessary" expense depends on priorities and tolerance of risk.

"Why does insurance cost substantially more when I've had only a minor 'fenderbender'?"

Insurance premiums are based on calculations of risk – of the potential for a claim. An atfault "fender-bender" or too many speeding tickets can increase insurance premiums because it signals to the insurer the driver may be a potentially higher risk than previously assumed.

"My car is only worth \$2,000 but the insurer wants \$1,500 to cover it. Why?"

Insurance provides protection for more than just theft or loss (in an accident). It covers the driver and owner for a wide variety of possible risks, not merely the "value" of the car. It provides coverage for liability to others, medical coverage, damage to the vehicle, and optional coverage such as vandalism or (depending on location) uninsured motorist coverage.

RECOMMENDATIONS

RECOMMENDATIONS FOR THE MEDIA:

- When analyzing contrasting claims about automobile insurance, reporters, editors and produces should request the following information:
 - Where did the funding for the study originate? Private donations, labour (government or private?) business or government? Bias does not necessarily equal improper statistical handling or flawed conclusions but if conclusions cannot be supported by the initial data, the source of funding may be one key clue as to why.
 - If funding was private, was any money channelled from another source, i.e., did a company, individual, or union funnel money to a foundation which then granted the money to the group which published the study? Some foundations are flow-through entities which allow others to donate money to favoured causes but with the "middle man" of a foundation.
 - How many individual contributing members does the group in question have? This will reveal whether the group in question has a broad membership base or is merely a government-funded or other-funded "shell" with narrow support.
 - The federal government's Charities Directorate lists charitable organizations which have received some form of government funding.ⁱ Information on such organizations can be found here:
 - http://www.cra-arc.gc.ca/tax/charities/menu-e.html

In addition, Industry Canada disburses grants to advocacy groups. Information on such funding is not complete but some information can be found here:

http://strategis.ic.gc.ca/epic/internet/inoca-bc.nsf/en/ca02123e.html

RECOMMENDATIONS FOR GOVERNMENTS AND POLICYMAKERS:

 Taxpayer funding for advocacy groups – whether for business, consumer or other interests – should be discontinued. When governments fund advocacy, they are no longer neutral recipients of lobbying efforts but instead placed in a conflict of interest. Government grants have the effect of involving government and departments in one side of a dispute. Also, such funding allows advocacy groups to claim widespread support which may not be warranted. Withdrawal of funding

ⁱ Note that the Charities Directorate does not necessarily list all non-profit groups. An organization may be a non-profit and have a charitable tax number, or merely be a non-profit. The former can issue tax deductible receipts. The latter cannot.

would force groups to indeed seek their funding from potential supporters and reflect the priorities of the donors. Without that, advocacy groups may merely be lobbyists on behalf of their own personal priorities but not necessarily the broad public interest.

Greenpeace, the Canadian Taxpayers Federation, the Canadian Federation of Independent Business, the David Suzuki Foundation and many others all refuse to seek or accept government grants. Provincial and federal government should require the same of other lobbyists and think tanks by ending taxpayer funding for advocacy.

Governments should treat the insurance industry similar to others and end the special taxes on insurance which apply only to insurance products. Such taxes are hidden and represent a "top-up" on existing provincial and federal takings from consumers who ultimately pay the extra tax bill. In 2005, insurance-only taxes on automobile insurance (i.e., apart from taxes that apply to all business) amounted to an estimated \$1.124 billion⁵⁶ across Canada.

RECOMMENDATIONS FOR CONSUMERS:

- Consumers in search of a competitively-priced, comprehensive insurance policy should:
 - Demand that policymakers and elected officials enact reforms based on a competition model.
 - Demand that reforms to insurance reward good drivers and penalize careless, risky and dangerous ones. This does not always occur. In 2004, Alberta's reforms to insurance delivered large discounts to high-risk drivers while many good drivers realized only minor reductions in their premiums.⁵⁷ Insurance is about risk: insurance policies must reflect risk in order to send signals to drivers about their potentially dangerous behaviour and the relative risk of their age and gender cohort.
 - Demand (in private sector provinces) more from insurance agents and ensure agents search for both the type of coverage that is most appropriate for that consumer and that the quote given is the most economical for that coverage.
- Consumers should also inform themselves about insurance in their province through these government websites:

Newfoundland and Labrador

 Department of Government Services www.gs.gov.nl.ca/cca/ip/ir/ New Brunswick

 New Brunswick Insurance Board www.nbib-canb.org/index-e.asp

Nova Scotia

Environment and Labour
 www.gov.ns.ca/enla/insurance/docs/AutoInsuranceGuideConsumer.pdf

Prince Edward Island

 Consumer, Corporate and Insurance Division www.gov.pe.ca/oag/ccaid-info/index.php3

Quebec

www.lautorite.qc.ca/accueil.fr.html

Ontario

• Financial Services Commission of Ontario www.fsco.gov.on.ca/english/insurance/auto/

Manitoba

 Manitoba Public Utilities Board <u>www.pub.gov.mb.ca</u>

Saskatchewan

 Financial Services Commission <u>www.gov.sk.ca</u>

British Columbia

 BC Utilities Commission <u>www.bcuc.com</u>

Alberta

 Alberta Insurance Council www.autoinsurance.gov.ab.ca/

Study references

¹ In this study, I analyze the reports done by the Consumers' Association of Canada. I did not go into on comments offered by the Public Interest Advocacy Centre which has received significant funds from government and has occasionally commented on insurance matters. See Quail, Jim. "Private insurers' crocodile tears." Vancouver Sun, 10 February 2006, p. A13.

² Milke, Mark. (2005). "Junk auto insurance statistics." National Post, 22 July 2005, p. FP19.

³ Source: Insurance Bureau of Canada, September 28, 2006.

4 McGinnis, Sarah. "Poor driver' rate loophole threatened: Decision on freeze weeks away." Calgary Herald, 21 June 2006, p. b5.

⁵ Bernstein, Peter. (1996, 1998). <u>Against the Gods: The Remarkable Story of Risk</u>. New York: John Wiley & Sons, p.1. ⁶ Ibid., p. XXXV.

⁷ Ibid., p. 3.

⁸ Ibid., p. 57.

⁹ The Public Interest Advocacy Centre – which has received significant funds from government – has occasionally commented on insurance matters. See Quail, Jim. "Private insurers' crocodile tears." Vancouver Sun, 10 February 2006, p. A13. For reasons of space, I have not analyzed PIAC.

¹⁰ The number of donors comes from an Access to Information request made by the Insurance Bureau of Canada for information relating to grants give to the Consumers Association of Canada (CAC). In information released by Industry Canada on 22 June 2006, a 2004-05 proposal from the CAC for government funding noted that "CAC has received \$27,762 in funds donated by 272 individual donors." It also noted that the CAC had 2,135 members though according to its website, to be a member, one had to donate at least \$25. It is unclear what the CAC's actual definition of membership is in it s submission to government, but it is clear that the donor base to the CAC was small; the organization represents very few consumers, at least consumers willing to donate. Access to Information request A-2005-00288, p. 000206.

¹¹ Author interview with Theresa Courneyea, 2 December 2003. Excerpts of interview printed in Milke, Mark.

"Insurance Fraud." National Post, 4 December, 2003, p. FP 13.

¹² Insurance Bureau of Canada. IBC Automobile Insurance Experience Exhibits

¹³ Author interview with Theresa Courneyea, ibid.

¹⁴ Cran, Bruce. Consumers Association of Canada. Auto Insurance Rate Comparison study, released 27 August 2003, p.

¹⁵ Author interview with Theresa Courneyea, ibid.

¹⁶ Courneyea, Theresa. "Re: Auto relief, too little, too late?" *Globe and Mail*, 31 October 2003.

¹⁷ Canadian Press. "Public insurance cheaper - report Drivers pay far more for private- sector vehicle insurance, consumer study says." Halifax Daily News. 11 September 2003, p. 12.

¹⁸ Canadian Press. "Ontario motorists saddled with skyrocketing insurance: Consumer study finds that Toronto drivers can pay 500 per cent more than other regions." *Guardian* (Charlottetown). 11 September 2003, p. A11.

Montreal Gazette. "Insuring car can cost 6 times as much in TO." 11 September 2003, p. A 14.

²⁰ *The Province*. "Public auto insurance 'a big saver." (Vancouver.) 11 September 2003, p. A 33.

²¹ Erwin, Steve. "Toronto drivers pay up to 500% more for auto insurance: Consumer study." *National Post.* 11 September 2003, p. FP 1.

²² Corcoran, Terry. "Auto insurance failure." *National Post*, 11 September 2003, p. FP 13.

²³ Kane, Michael. "Auto insurance '30% more' in Alberta." *Vancouver Sun*, 8 July 2005, p. A11.

²⁴ Bellerose, Dan. "Ontario drivers pay through roof: Insurance \$1,000 more than in B.C., study says." North Bay Nugget. 20 July 2005. p. A1.

²⁵ Kennedy, Peter. "'Auto insurance cheaper in B.C. than Alberta." *Globe and Mail*, 8 July 2005, p. S3.

²⁶ Gulli, Cathy. "Outrageous' costs hammer Ontario drivers." National Post, 20 July 2005, p. A5.

²⁷ Gauntlett, Kate. "Albertans pay more, consumer study finds: Some rates are 50% higher than in Saskatchewan." *Calgary Herald*, 8 July 2005, p. B1. ²⁸ *Victoria Times Colonist.* "B.C. drivers pay less than Albertans for car insurance." 8 July 2005, p. C8.

²⁹ Ford, Ashley. "ICBC fairest in the land: Study gives public auto coverage top grade." Vancouver Province, 8 July 2005, p. A 39.

³⁰ Ibid.

³¹ Kleiss, Karen. "City drivers pay more for auto insurance, consumer survey confirms." *Edmonton Journal*. 8 July 2005. p. B1.

³² Gulli, Cathy. 'Outrageous' costs hammer Ontario drivers." National Post, 20 July 2005, p. A5.

³³ Cran, Bruce. "Junk opinion." Published on the Consumers' Association of Canada website, August 2005, www.consumer.ca/pdfs/junk_opinionaug_05_(2)2.pdf. ³⁴ Author interview with Doug Henderson, Media Relations Division, Insurance Corporation of British Columbia, 24

August 2005. ³⁵ Cran, Bruce. "Junk opinion." Published on the Consumers' Association of Canada website, August 2005, www.consumer.ca/pdfs/junk opinionaug 05 (2)2.pdf.

³⁶ Editorial. "Governments must get involved in insurance." *Sault Star*, 17 July 2005, p. A8.

³⁷ Kane, Michael. "Auto insurance '30% more' in Alberta." *Vancouver Sun*, 8 July 2005, p. A11.

³⁸ 1989-2003 estimates from Canadian Taxpayers Federation, Access to Information results from Industry Canada 2001. Other: Industry Canada 2004-05 project contributions: <u>http://strategis.ic.gc.ca/epic/internet/inoca-bc.nsf/en/ca02068e.html</u>

Industry Canada 2004-05 project contributions: <u>http://strategis.ic.gc.ca/epic/internet/inoca-bc.nsf/en/ca02123e.html</u> ³⁹ Ibid.

⁴⁰ Author interview with Bruce Cran, 8 July 2005. Excerpt printed in Milke, Mark. "Junk auto insurance statistics." *National Post*, 22 July 2005, p. FP 19.

⁴¹ Cran, Bruce. "Junk opinion." Published on the Consumers' Association of Canada website, August 2005, www.consumer.ca/pdfs/junk_opinionaug_05_(2)2.pdf.
 ⁴² The number of donors comes from an Access to Information request made by the Insurance Bureau of Canada for

⁴² The number of donors comes from an Access to Information request made by the Insurance Bureau of Canada for information relating to grants give to the Consumers Association of Canada (CAC). In information released by Industry Canada on June 22, 2006, a 2004-05 proposal from the CAC for government funding noted that "CAC has received \$27,762 in funds donated by 272 individual donors." It also noted that the CAC had 2,135 members though according to its website, to be a member, one had to donate at least \$25. It is unclear what the CAC's actual definition of membership is in it s submission to government, but it is clear that the donor base to the CAC was small; the organization represents very few consumers, at least consumers willing to donate. Access to Information request A-2005-00288, p. 000206.

⁴³ Additional notes to this reference: 1) Average premiums are calculated as the total direct written premium for all coverages divided by total number of policies written for all coverages; 2) Inter-provincial differences in premium levels are affected by different insurance coverage in each province and provincial changes in the automobile insurance product which occurred over the time period shown.

⁴⁴ Insurance Corporation of British Columbia. ICBC Quick Facts July 10, 2006, p. 4, quoting Statistics Canada, Consumer Price Index – Catalogue no. 62-001-X1B (December 2005). Calculations by ICBC.

⁴⁵ Mullins, Mark. (2003.) "Auto Premium Inflation: How StatsCan Rocked the Bank of Canada." The Fraser Institute, *Fraser Alert*, December 2003.

⁴⁶ Author interview with Ron Morency, Statistics Canada, 15 September 2006.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Atlantic Canada Insurance Harmonization Task Force. Report to the Atlantic Premiers, September 30, 2003, p. 5.

⁵² Ibid.

⁵³ Ibid., p.11.

⁵⁴ Watson, William. "Make bikers pay: The carnage wreaked by motorcyclists costs Quebec four times what they pay in insurance premiums. So let's hike their rates." *National Post*, 24 May 2006, p. FP23.

⁵⁵ Bernstein, p.116.

⁵⁶ Source: Insurance Bureau of Canada, September 28, 2006.

⁵⁷ McGinnis, Sarah. "Poor driver' rate loophole threatened: Decision on freeze weeks away." The Calgary Herald, 21 June 2006, p. b5.