Auto Insurance Changes in Alberta

Studies by Oliver Wyman and Nous Group

Alberta

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Contents

Executive Summary

Oliver Wyman and Nous Group reports

Introduction

Treasury Board and Finance (TBF) commissioned Oliver, Wyman Limited (Oliver Wyman) and Nous Group (Nous) to conduct separate, but complementary, reports to guide long-term automobile insurance reforms. While Oliver Wyman's report provides insights into the potential impact on insurance premiums of reform options, the analysis by Nous examines the broader effects on the economy, employers, and government finances. By considering both aspects, the Government of Alberta can gain a comprehensive understanding of the potential trade-offs between short-term financial costs and long-term economic sustainability. Consideration of the economic impacts and actuarial costs of reforms is crucial for informed decision making.

The two reports provide valuable insights into the complexities of automobile insurance reform in Alberta. Moving forward, it is essential for government to engage in consultation with industry stakeholders, experts and the public to ensure any proposed automobile insurance reforms align with the needs of Albertans. By leveraging the insights provided by these reports, the government can chart a path towards a more affordable, stable, simple, care-focused, and accountable automobile insurance system that serves the best interests of Albertans.

Oliver Wyman Report – Feasibility Study of Long-Term Auto Insurance Reform

The scope of the Oliver Wyman report is limited to an analysis of the impact on the cost of average insurance premiums of various automobile insurance models. That analysis compares the current Alberta court (or "tort") model, where the at-fault party or their insurer may be held responsible for damages, with seven alternative systems: (1) Manitoba (publicly delivered care model), (2) British Columbia (publicly delivered care model), (3) Saskatchewan (publicly delivered care model that maintains a court option), (4) Quebec (hybrid public / private delivery of a care model), (5) New South Wales, Australia (private delivery with hybrid care / court model), (6) Australian Capital Territory (private delivery with hybrid care / court model), and (7) the Insurance Bureau of Canada (IBC) proposal (maintaining the current system while further limiting court claims).

The potential changes from the current Alberta model include a shift to a care model where treatment and support benefits are provided to all injured parties, either through public or private delivery of insurance or a combination of both. Additionally, adjustments may be made to the care and support benefits accessible to injured claimants through the insurance system.

Results of Actuarial Costing

The estimated average premiums were calculated as of July 1, 2024, but it is acknowledged that sufficient lead time would be needed to implement systemic automobile insurance reform. The estimated premium impacts are not guarantees, but do demonstrate the expected average price differential across different systems.

Oliver Wyman's calculations predict the lowest required premium occurs in a change from the current court model to a care model where the government created a public insurer that offered both bodily injury and vehicle damage coverage. The required average premium would be around $1,250, rather than an anticipated average premium of $2,015 if no changes are implemented and the current system is maintained. This reduction in average premium is driven by lower anticipated claim costs and lower operational expenses.

The next largest anticipated savings are found in a system that is similar to the insurance system in Quebec (required average premium of $1,505), where bodily injury coverage under a care model is provided by a public insurer, but vehicle damage coverage is provided by private insurance companies.

Oliver Wyman also calculated that Albertans could achieve premium savings if the automobile insurance system changed to a privately delivered care model (required average premium of $1,634). This system does not currently exist in Canada. Oliver Wyman assumed this system would combine the automobile insurance product offered in Manitoba with the private delivery model that already operates in Alberta today. No other changes to factors such as the insurance premiums tax, health-care levy, or other policy considerations which could impact delivery are included in the costing.

Finally, Oliver Wyman examined a reform proposal submitted by IBC. The analysis concludes that some savings could be achieved (required average premium of $1,872), but not in the magnitude of a full care model. Oliver Wyman also reviewed two hybrid models adopted in New South Wales and the Australian Capital Territory and found that implementing either of these models in Alberta would lead to higher average premiums – between $2,085 and $2,240.

Nous Report – Economic Impact Assessment of Alternative Automobile Insurance Models in Alberta

Nous assessed the same models analyzed in the Oliver Wyman report, but from the perspective of the potential economic impact of each of the models. In this analysis, public delivery is a system where government, often through a provincial corporation, provides and underwrites the insurance product (usually on a cost-recovery or notional-profit basis). This contrasts with a private delivery system, in which insurance companies operating in the private market provide and underwrite the insurance (usually on a for-profit basis). The Nous report provides an impartial and aggregate assessment of the economic implications of adopting each of the seven models.

Private Delivery of a Care Model of Insurance
Nous estimates that a care model of insurance administered by private insurers would have less of an economic impact compared to an alternative scenario where a public insurer was responsible for providing insurance. By maintaining a private delivery model, government would not incur any start-up or capitalization costs, although some impact on jobs among insurers and brokers are anticipated. As part of a transition to a care model of insurance, Nous anticipates there would be job losses in the legal services industry (as would occur in all other care model options). Nous further estimates an overall decline in tax revenue of $87 million to $91 million (mostly associated with a reduction in the amount of insurance premiums tax collected).

This model can strike a balance between premium savings and economic impact on the private sector. By leveraging the strengths of the private sector, such as efficiency and innovation, this approach could offer a pathway towards maintaining employment stability, maximising consumer choice, and protecting government revenues.

Public Delivery of a Care Model of Insurance
If Alberta established a public insurer that provided a care system for bodily injury and vehicle damage coverage (as exists in Saskatchewan, Manitoba, and British Columbia), Nous estimates that government would incur start-up and operationalization costs between $100 million and $500 million. The report further estimates that government would need to provide an initial capital injection of around $2.3 billion to pay for claims. Nous estimates it may take 18 to 24 months to operationalize a new public insurer. There would be significant job losses in the private insurer, insurance broker and legal sectors, although public sector jobs would increase. Finally, Nous estimates a $163 million to $171 million overall tax revenue decline for government.

In all cases of a public insurer, the government would remain responsible for future capital shortfalls and operational costs not fully covered by premiums collected by the insurer. Additionally, a public insurer may risk being subject to political decision making that could undermine their ability to operate sustainably. In instances where a public insurer incurs losses or otherwise require further financial support, the financial burden may become the responsibility of all taxpayers, including those who do not drive a vehicle. Some of these risks can be mitigated through prudent management and achieving efficient, cost-effective operations, as well as independence from the government.

Combined Private and Public Delivery
If Alberta adopted a Quebec-style model, in which a public insurer provided care system for bodily injury insurance, but private insurers continued to provide vehicle damage coverage, there would again be significant start-up costs between $100 million and $500 million, and it may take 18 to 24 months to operationalize. There would also be a capitalization requirement of about $700 million. Nous estimates a $105 million to $110 million overall tax revenue decline for government.

IBC Model
The IBC proposes reform to Alberta's existing court insurance model. Key elements of the proposal include limits to court claims, changes in coverage for mandatory accident benefits, changes to the insurance regulatory environment, and regulatory changes to prevent fraud. This model would not incur any start-up or capitalization costs for the government. However, there would be some job impacts among insurers, brokers, and the legal sector. Nous estimates a $280 million to $290 million overall tax revenue decline for government, primarily due to IBC's recommendation to eliminate the four per cent insurance premiums tax.

No decisions have been made on the changes that will be made to Alberta's auto insurance system. The Oliver Wyman and Nous reports will be used to inform future engagements and policies.

OliverWyman

FEASIBILITY STUDY OF LONG-TERM AUTO INSURANCE REFORMS

Alberta Treasury Board and Finance

April 2024

CONTENTS

EXECUTIVE SUMMARY

The Alberta Treasury Board and Finance (Ministry) asked Oliver, Wyman Limited (Oliver Wyman) to conduct a feasibility study on long-term automobile insurance reform options.

We understand that the Ministry is interested in alternative automobile insurance systems to address increasing premiums in Alberta. Albertans pay among the highest premiums for automobile insurance in Canada, and despite this, the premiums currently being collected are considered inadequate for the industry in Alberta as a whole, with continued higher premium increases anticipated.

The Ministry requested Oliver Wyman to evaluate the premium reduction that may be realized by implementing an alternative insurance model. Specifically, the Ministry asked that we evaluate premiums for drivers in Alberta under the existing models in the following jurisdictions:

Canadian insurance models

- British Columbia
- Manitoba
- Saskatchewan
- Québec

Australian insurance models

- New South Wales
- Australian Capital Territory

In addition, the Ministry asked us to review the alternative presented by the Insurance Bureau of Canada (IBC). The IBC is a national association representing Canadian insurers of homes, cars, and businesses.

This report scope is limited to the calculation of required average premiums under the models specified by the Ministry. Potential changes from the current Alberta model include:

- A change from the current automobile insurance system delivered through private insurers to a system offered on a public basis,[1] or as a combination of public and private insurance delivery.
- A change to how injured claimants access care and support benefits[2] through no-fault and tort options.

The public delivery models we reviewed are all no-fault systems. The Ministry asked us to evaluate the required average premium of a Manitoba no-fault model under both a private insurer delivery system and public delivery model.

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1 We assume public entity pricing on a going-concern basis and pricing is prospective in nature. Any historical or current financial issues of any public system are assumed not to apply to Alberta. All public models are priced on the same expense, profit, and investment income assumptions.

2 The appropriateness of the benefit level (based either of fairness or medical criteria) is not within the scope of our review.

In this report we present our findings on the estimated premium savings for private passenger vehicles that could be available to Albertans under these specified alternative insurance systems.

The intended scope of this study is limited to the cost impact on average premiums between the current Alberta model and alternative systems specified by the Ministry.[3] The supporting calculations for the required average premiums are presented in the Technical Appendix. The differences amongst the average premiums of these systems will provide one source of input to the Ministry for its consideration. We recommend input from other sources be considered.

The purpose of this study is to inform the government rather than to recommend one system over another. **Oliver Wyman makes no recommendations to the Ministry.**

We recognize that there are many economic issues involved with long-term system reforms, including transition and start-up costs and economic issues that are outside the scope of this report. Nous Group is providing the Ministry with an overview of economic issues, start-up costs, and other transition considerations regarding alternative systems.

We also recognize that there are potential policy actions that government could adopt to reduce costs. Consideration of those policy options is outside the scope of this report.

Our summary of *full coverage* premium estimates for the alternative models under consideration, as well as the current Alberta model is presented in Exhibit 1. We include the key components of the premium estimate: claims costs, expenses, investment income, and (where applicable) profit provision. The required average premiums presented are as of July 1, 2024,[4] for a private passenger vehicle with full coverage including collision and comprehensive.[5]

As presented in Exhibit 1, the largest reduction in required average premium for Albertans would be a change to the British Columbia model, a no-fault public system with the automobile policy as second payer[6] for disability income benefits, followed by the Manitoba public system model as first payer for disability income benefits. This reduction in average premium is driven by lower claim costs,[7] expenses, and exclusion of a profit loading.

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3 The Ministry stated it did not include the Ontario model in its request since Ontario has the highest average premium in Canada.

4 The required average premiums represent the cost at an assumed average accident date of July 1, 2024. (A 1-year term policy effective January 1, 2024, would have an average accident date of July 1, 2024.) We use the term "required" average premium and "indicated" average premium interchangeably in this report. The required average premium includes the claims costs, a provision for expense and profit, offset by investment income and additional fees.

5 As some drivers purchase only mandatory coverages, and do not include collision and/or comprehensive, the current average premium per vehicle in Alberta would be lower than the full coverage average premium we present in Exhibit 1.

6 In some provinces the automobile insurance benefits apply after other collateral sources, such as employer health and disability income plans, are exhausted. In this case the automobile insurer is referred to as the second payer. Otherwise, without the application of the collateral sources, the automobile insurer is the first payer.

7 Part of the lower claim cost is attributed to lower claims settlement and adjustment costs.

Exhibit 1: Comparison of estimated required full coverage average premiums at a July 1, 2024 average accident date

Component	Current Alberta Product	Manitoba[8]	British Columbia	Saskatchewan[9]	Québec	New South Wales	Australian Capital Territory	IBC
Claim cost	**$1,447**	**$1,128**	**$1,060**	**$1,135**	**$1,131**	**$1,480**	**$1,589**	**$1,589**
Percent of premium	71.8%	90.6%	85.7%	90.7%	75.2%	70.9%	70.9%	71.0%
Expenses								
Commissions[10]	265	66	116	67	169	275	295	246
Premiums taxes	81	50	50	50	60	83	90	75
All other general expenses[11]	203	109	108	109	158	210	226	188
Total expenses	**549**	**225**	**274**	**226**	**388**	**568**	**610**	**510**
Percent of premium	27.2%	18.1%	22.1%	18.1%	25.8%	27.2%	27.2%	27.2%
Profit provision[12]	**121**	**0**	**0**	**0**	**69**	**125**	**134**	**112**
Percent of premium	6.0%	0.0%	0.0%	0.0%	4.6%	6.0%	6.0%	6.0%
Investment income[13]	**(101)**	**(77)**	**(65)**	**(78)**	**(74)**	**(87)**	**(93)**	**(79)**
Percent of premium	-5.0%	-6.2%	-5.3%	-6.2%	-4.9%	-4.2%	-4.2%	-4.2%
Finance fees	**Incl with Exp**	**(31)**	**(31)**	**(31)**	**(9)**	**Incl with Exp**	**Incl with Exp**	**Incl with Exp**
Percent of premium	0.0%	-2.5%	-2.5%	-2.5%	-0.6%	0.0%	0.0%	0.0%
Required average premium	**2,015**	**1,245**	**1,238**	**1,252**	**1,505**	**2,085**	**2,240**	**1,872**
Percent change		**-38.2%**	**-38.6%**	**-37.9%**	**-25.3%**	**3.5%**	**11.2%**	**-7.1%**

Source: Oliver Wyman calculations as presented in the technical appendix

8 This option is representative of a public delivery system.

9 We present the premiums for the Saskatchewan no-fault model choice in Exhibit 1 and Exhibit 3.

10 In Québec and British Columbia, a higher commission rate is included with coverages offered under private delivery.

11 In the supporting Appendix, general expenses are presented split between variable and fixed by coverage.

12 In Québec, a profit provision is only included with coverages offered under private delivery. We assume a 0% profit provision in the British Columbia model, the same as the public models in Manitoba and Saskatchewan.

13 All estimates assume an annual return on investment rate of 3.7%; any rounding or reconciliation to the Appendix is included in this row.

In Exhibit 2 below we present the no-fault Manitoba model required average premium under two delivery options: a public entity versus private insurers. For the private delivery option, we assume the same expense and profit provision percentages as presented for the current Alberta model. Based on these expense and profit assumptions differences between private and public delivery, the additional premium under the Manitoba model private delivery scheme is $389.

Exhibit 2: Comparison of Manitoba model under public and private delivery systems

Component	Manitoba public delivery	Manitoba private delivery	Difference
Claim cost	**$1,128**	**$1,128**	**$0**
Percent of premium	90.6%	69.1%	
Expenses			
Commissions	66	215	149
Premiums taxes	50	65	15
All other general expenses[14]	109	164	55
Total expenses	**225**	**445**	**220**
Percent of premium	18.1%	27.2%	
Profit, investment income, and finance fees	**(108)**	**61**	**169**
Percent of premium	-8.7%	3.7%	
Required average premium	**1,245**	**1,634**	**389**

We compared the required average full coverage premiums under the current Alberta system and alternative models in Exhibit 1. The most recent average premium for full coverage for the first half of 2023 is $1,794, as compiled by the General Insurance Statistical Agency (GISA). The actual average premium paid by Albertans for full coverage in 2024 would increase to $1,889 following the approved rate increases by Automobile Insurance Rate Board (AIRB). Hence, we estimate a current shortfall of $126 between the required rate of $2,015 and the actual premium to be paid in 2024 ($1,889).

In Exhibit 3, we compare the difference between our estimate of the current actual premium paid in 2024 and the required average premium of each of the models under consideration for a vehicle with full coverage.

14 In the supporting Appendix, general expenses are presented split between variable and fixed by coverage.

Exhibit 3: Comparison of estimated full coverage required average premiums (July 1, 2024) and current actual average premium in 2024

Component	Current Alberta product	Manitoba[15]	British Columbia	Saskatchewan	Québec	New South Wales	Australian Capital Territory	IBC
Required average premium	$2,015	$1,245	$1,238	$1,252	$1,505	$2,085	$2,240	$1,872
Current actual premium	1,889	1,889	1,889	1,889	1,889	1,889	1,889	1,889
Difference	126	-644	-651	-637	-384	196	351	-17

We developed the estimates in this report in accordance with the applicable Actuarial Standards of Practice issued by the Canadian Institute of Actuaries.

Oliver, Wyman Limited

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15 This option is the public delivery option.

1. BACKGROUND

1.1. CURRENT AUTOMOBILE INSURANCE SYSTEM IN ALBERTA

Automobile insurance is a regulated product that is required to operate a motor vehicle in Alberta on public roads. Albertans pay among the highest automobile insurance rates in Canada.

The Automobile Insurance Rate Board (AIRB or Board) regulates automobile insurance rates in the province and is responsible for reviewing and approving automobile insurance rates proposed by insurance companies operating in Alberta.

Ministerial Order 11/2023 (the "rate pause") prohibited the AIRB from approving changes to a private passenger vehicle insurance rating program where any individual policyholder would receive a premium increase for the period from January 25, 2023, through December 31, 2023. The rate pause only applied to private passenger vehicle insurance and did not apply to automobile insurance rate approvals for commercial vehicles and fleet insurance.

In Ministerial Order 38/2023 (the "rate cap"), effective January 1, 2024, the Alberta government announced a rate increase limit of 3.7% for renewal private passenger premiums for good drivers for 2024, which is equal to the inflation rate.

Despite the high average premiums compared to other jurisdictions, our analysis indicates that current industry average premiums need to be increased to provide a reasonable[16] return for insurers. In recent years, the industry average premiums have not kept pace with the high year-over-year change in average claim settlement costs.[17]

1.2. PURPOSE AND SCOPE

The rate pause and rate cap are short-term measures to address automobile insurance rate concerns. The Government of Alberta's (Government) long-term goal is to ensure automobile insurance is fair, affordable, and accessible for Albertans. The Government also seeks to ensure that Alberta's automobile insurance system is sustainable.

16 The AIRB has assessed a 6% of premium profit provision as reasonable.

17 During the COVID-19 pandemic, there was a reduction in claim frequency that improved the returns for insurers.

To support these goals, the Government asked Oliver, Wyman Limited (Oliver Wyman) to provide actuarial modeling of the following long-term automobile insurance reform options:

Current Canadian models

- Manitoba[18]
- British Columbia
- Québec
- Saskatchewan

Australian models

- New South Wales
- Australian Capital Territory

Other models

- Insurance Bureau of Canada proposal

These models are various combinations of (1) no-fault and tort systems and (2) public and private delivery systems for personal injury and vehicle damage. This report presents the modeling and estimation of required average private passenger vehicle premiums under these options compared to the current Alberta model.

The scope of this report does not include an evaluation of non-actuarial issues (for example, economic and legal issues) that the Government may consider in its decision for the long-term systemic reform. The Ministry requested Nous Group to address economic issues.

1.3. REPORT ORGANIZATION

In Section 2, we provide a discussion of the principal differences between public and private delivery models, and no-fault and tort systems.

In Section 3, we discuss analysis issues in the context of calculating premiums for this report.

In Section 4, we provide a discussion of the current Alberta model, historical results in Alberta, and our estimate of the required average premium under the current Alberta model.

In Section 5, we discuss expense differences between private and public systems.

In Section 6, we discuss differences in the profit provisions between private and public systems.

18 The Ministry asked us to provide a private delivery and public delivery estimate for the Manitoba model.

In Section 7, we discuss differences in the treatment of investment income between private and public systems.

In Sections 8-12, we discuss the Canadian models.

In Sections 13-14, we discuss the Australian models.

In Section 15, we discuss the IBC proposal.

In Section 16, we present a comparison of required average premiums for each of the models discussed in Sections 8-15, as well as the key drivers of the differences in the required average premiums between the models.

The Technical Appendix of this report includes our supporting exhibits for our calculations of the required average premiums presented in Exhibits 1-3.

1.4. REPORT LIMITATIONS

- The required private passenger vehicle average premiums we present in this report are estimates based on an average accident date of July 1, 2024, and are subject to change. As the cost of settling claims typically increases over time, an assessment of the average required premium at a date after July 1, 2024, would likely be higher.
- Our calculations of the premium estimates include numerous implicit and explicit assumptions.
- As with any estimate of claims, there is no certainty that the actual results will emerge as forecasted and could be materially different.
- Our estimates are based on averages and aggregated industry data and are not intended to apply to any individual insurer. Individual insurers may have different claims experience and expense costs than the industry averages.
- Our findings and discussions in this report are specific to private passenger vehicles. The estimated effect of changes from the current Alberta model to an alternative model is not necessarily representative of the change that would apply to other automobile lines of business. However, any decision by the Ministry to change the Alberta model would apply to all lines of automobile insurance.
- The premium estimates amongst the models we discuss in this report should be considered in their relative context to each other. Our absolute estimates reflect assumptions described in this report and a July 1, 2024, cost level. Certain changes will affect costs under all models. For example, if the investment income rate was higher than we assumed, this would reduce the required average premium for all models. Similarly, if the cost of repairing vehicles was more than we assumed, this would increase the required average premium for all models.
- An identical model from another jurisdiction will not result in the same average premium in Alberta. This is due to differences such as traffic patterns, driver profiles, geography, weather, and road conditions.

- There remain other models or combination of existing models for the Ministry's consideration. **This report is not intended to be an exhaustive list of all possible model options but instead to provide insights as to cost drivers of automobile insurance premiums under various models.**
- The Ministry's selection of benefits and level of benefits for a model it chooses will impact the average premium.
- The study is focused on the differences in the average premium between models specified by the Ministry. Some of these models could have regulatory operational mechanisms such as for-profit oversight, catastrophic claim funding, and/or tribunal claim settlement panels. While regulatory operational mechanisms may be integral to a successful system, a review of these regulatory mechanisms is outside the scope of this report.

1.5. DATA SOURCES

We considered information in the following data sources in our review.

- GISA's AUTO7001 Industry Exhibit (as of December 31, 2022)
- GISA's AUTO9502 Industry Exhibit
- Statistics Canada Table 11-10-0240-01 — Employment income distribution data
- Statistics Canada Table 14-10-0017-02 — Labour force data
- Canada Life & Health Insurance Association 2022 Insurance Facts
- 2019 Alberta Closed Claim Study (CCS): The CCS data includes claimant files that closed during 2010 to 2017, with summary injury type identification and payment amounts under various heads of damages, and associated claims handling costs (for example, legal fees).
- GISA Accident Benefits Transactional Data: 2016-2018 accident year claim data with payment and case reserve amounts by accident benefits subcoverage.
- Manitoba Public Insurance 2024 Rate Application
- Saskatchewan 2021 Auto Fund Rate Change Proposal
- Insurance Corporation of British Columbia 2021 and 2023 Revenue Requirements Applications
- MNP System Cost Analysis of Auto Insurance Premiums Prepared for the Insurance Bureau of Canada

2. COMPARISON OF AUTOMOBILE INSURANCE MODELS

The alternative insurance models within the scope of our review differ from the current Alberta model on two dimensions. We provide a discussion of these dimensions below.

2.1. PRIVATE VERSUS PUBLIC DELIVERY OF INSURANCE

Automobile insurance has highly automated processes to underwrite, price, and deliver documentation to consumers. With automobile insurance as a necessity provided under standardized policy wordings, other jurisdictions have chosen to provide insurance under a public program, generally through an entity such as a crown corporation.

Key differences

We provide a discussion of differences between private and public insurers below.

1. Ownership and structure:
   - Private insurance: Private insurance companies are privately owned entities that operate for profit. They are typically owned by shareholders and aim to generate profits for their owners.
   - Public entity: Public insurance entities are wholly owned provincial organizations structured like private or independent companies. Governments establish public insurance entities to provide specific services to the public. Public insurance entities typically operate on a non-profit basis.
2. Competition and market presence:
   - Private insurance: Private insurance companies operate in a competitive market subject to a standardized policy. Customers can choose from different insurers based on factors such as price, coverage, and customer service.
   - Public entity: Public insurance entities often operate as monopolies or have a significant market presence in the sectors they serve. In some cases, public insurance entities have exclusive rights to provide certain types of insurance. As a monopoly, public insurance entities would have lower marketing costs than private insurers.
3. Pricing and premiums:
   - Private insurance: Within regulatory boundaries, private insurers determine their premiums based on various factors, including risk assessment, claims history, and market conditions.
   - Public entity: Public insurance entities determine premiums like private insurers and are also subject to any regulated pricing structure(s) established by government authorities. The premium level is generally based on a non-profit approach, with lower operating costs.

4. Coverage and services:
   - Private insurance: Private automobile insurers offer a wide range of insurance products beyond automobile insurance and typically encourage bundling of automobile and personal property insurance. They often provide additional services such as claims assistance, customer support, and online tools for policy management.
   - Public entity: Public insurance entities typically focus on specific sectors or types of insurance. In some provinces, public insurance entities provide only mandatory coverages, and in others, both mandatory and optional automobile insurance coverage. Like private insurers, public insurance entities provide services such as claims assistance, customer support, and online tools for policy management. Unlike private insurers, public insurance entities often streamline the vehicle registration and automobile insurance process into one step.
5. Accountability and regulation:
   - Private insurance: Private insurers are subject to solvency and financial regulation by government authorities, such as Office of Superintendent of Financial Institutions (OSFI), to ensure compliance with laws and regulations. They are also accountable to their shareholders and customers.
   - Public entity: In addition to being accountable to their customers, public insurance entities are also accountable to the government and operate under specific mandates established by legislation. They are subject to government oversight and may have additional performance reporting requirements compared to private insurers.

Scale requirement

British Columbia, Saskatchewan, and Manitoba have public automobile insurance systems. Alberta, being more populous than Manitoba and Saskatchewan, and with approximately 85% of British Columbia's population, also has the capacity to establish a public automobile insurance company.

Tangential benefits

Private systems: Private systems offer choice to policyholders to shop amongst different insurance providers, comparing price, coverage, and service differences. Private systems create an opportunity to bundle automobile insurance policy with other insurance needs such as home insurance.

Public systems: Public systems create an opportunity for efficiency in other aspects of the vehicle regulation managed by the government — such as vehicle licensing and registration at the time of insurance, leading to fewer uninsured drivers. Public systems can facilitate special allocation of funds for road safety that are outside of traditional operational expenses. Road safety initiatives can lead to fewer accidents. Public systems collect very detailed transactional data that provides a large credible data source for fair pricing models.

Other considerations

If Alberta chose to adopt a public model for automobile insurance, it would most likely incur significant start-up costs, and there would be a transition period from a private to public system. In addition, we would expect some economic dislocation due to the transition. **An estimate of these public system start-up costs and an analysis of economic dislocation is outside the scope of our review in this report.**[19]

2.2. TORT VERSUS NO-FAULT INSURANCE

There are many types of systems to provide care and support benefits for injured claimants. The most common options are:

- a no-fault system with all necessary benefits for recovery for all injured claimants, without access to tort,
- a restricted or limited access to tort combined with no-fault benefits; the no-fault benefits can vary by the injury type, providing recovery assistance without the need for tort for the majority of claimants, and
- a tort system with limited no-fault benefits (as currently in Alberta).

Key differences

Tort and no-fault insurance are different approaches to providing for the care and support required by injured claimants or for damages resulting from accidents. They can vary on (1) the process to reach fair and reasonable recovery for care and support, (2) eligibility, (3) the level of care and support based upon medical criteria (or some other threshold), and (4) interpretation of "fair and reasonable".

Tort insurance: Tort insurance is a system where the party responsible for an accident must compensate the injured party. In tort insurance, the injured party can file a claim against the at-fault party to seek recovery for medical expenses, lost wages, and other damages. The injured party needs to prove that the other party was negligent or at fault for the accident. Access to recovery through tort insurance involves a longer and more complex legal process.

No-fault insurance: No-fault insurance is a system where each party involved in an accident is compensated by their insurance company, regardless of who was responsible. Under a pure no-fault insurance system, the recovery of medical expenses, lost wages, and other related costs for individuals involved in an accident occurs without[20] litigation. The no-fault systems offer generous benefits that focus on the care, treatment, and recovery of the injured claimant. This system aims to provide a more efficient recovery and benefit payment to accident victims, as there is no need to include a process of determining fault.

19 Nous Group is providing the Ministry with an overview of economic issues related to long-term reform options.

20 Litigation is generally not permitted.

While payments for care, treatment and recovery are not based on responsibility (that is, fault) for the accident event, no-fault does not mean the driver does not have premium consequences. For both tort and no-fault systems, the **premium paid by the driver typically considers driving history and accident events.**

On the premise that the design of both tort and no-fault systems can deliver the same fair and reasonable amount that is neither excessive nor insufficient, the tort system will result in higher premiums due to the added cost associated with (1) determining the degree of fault and (2) legal support to navigate the adversarial settlement process and benefit determination.

As presented in Exhibit 1, the claim cost per vehicle associated with injury claims under the four no-fault models (Manitoba, Saskatchewan, British Columbia, and Québec) is **more than $300 less** than in the current Alberta model, while providing higher and more generous benefits to all injured claimants on a no-fault basis. As discussed more fully later in this report, this lower claim cost under the no-fault model is mainly due to (1) a reduction in the adversarial costs associated with a tort model dependent upon external legal resources and (2) a replacement of the tort-based pain and suffering award with a no-fault permanent impairment benefit, scaled by injury, that is applied to all claimants.

Determination of fair and reasonable care and support

Hypothetically, both tort and no-fault systems can achieve the same goal of fair and appropriate care and support for the injured claimant,[21] and neither should result in excessive or insufficient payments for that care and support. However, the interpretation of "fair and reasonable" can be subjective. Tort systems leave the amount of recovery to the negotiations between the lawyer and the insurer. No-fault systems outline the limit of benefits available to claimants, scaled with the degree of the injury.[22] When claimants disagree with the benefit amount in a no-fault environment, an independent dispute resolution body typically resolves the case.

In a private model tort system, litigation is necessary, and private insurers are experts of the system. Lawyers play an important role in navigating a complex tort system and advocating for their client to enable claimants to recover care and support costs through the litigation process.

Public no-fault insurance operational goals are not the same as private tort models that seek profits for shareholders. Instead, public no-fault insurance operates on a break-even basis.

21 In tort systems, the driver responsible for the accident event has limited care and support recovery.

22 We do not address the benefits for various injury types (for example, the number physiotherapy treatments needed for a whiplash injury) as that is a medical issue.

Our objective is not to assess how benefits should vary according to the (degree of) injury. Instead, in this study, we review public and private systems operating in other jurisdictions with different care and support systems to estimate the differences in expected average premiums if those systems operated in Alberta. In addition, we consider a proposal by the IBC which includes, amongst other changes, modifying the standard benefit levels currently available in Alberta.

The required average premiums we present in this report are all estimated at the same July 1, 2024, date. Stability and predictability in claims costs over time is an important aspect of any system. Clear and specific treatment protocols, pre-negotiated fees (for example, medical services and repair garages), consistency in care and treatment for all claimants, and pre-set permanent impairment benefit[23] encourages more stable and predictable claims costs over time.

Accident events and catastrophically injured

No-fault models and tort model treat "accident events" differently.

- No-fault models are primarily focused on fair, consistent and appropriate recovery benefits for all injured claimants regardless of fault for the accident event. Apart from unusual criminal code driving related events, the no-fault models accept that accidents happen, and all injured claimants are eligible for the full and necessary care and treatment for recovery.
- The tort model is intended to ensure that not-at-fault claimants receive fair and appropriate recovery benefits through an adversarial process. In contrast, the driver found responsible for the accident event is provided with more limited no-fault benefits.[24]

No-fault models and tort models treat catastrophic claimants differently.

- While there are differences in the benefit levels amongst the three no-fault western provinces and Québec, they are all generally similar with high limits of coverage for those catastrophically injured (for example, $7.5 million+).
- In Alberta's tort process, even for not-at fault drivers, some catastrophically injured may never fully receive the recovery benefits needed since typical liability limits are $2 million or less.

23 The no-fault permanent impairment benefit is similar to the concept of a pain and suffering damages award in a tort case.

24 Claimants in accident events involving wildlife cannot seek recovery through tort.

2.3. DELIVERY SYSTEMS CONSIDERATIONS

Once Alberta determines a benefit model it chooses to introduce, the delivery of that model also impacts the premium level. The choices are 100% public, 100% private delivery, a combination of public and private delivery as in Québec, or the hybrid private model as in New South Wales. In addition, another consideration is for private insurers to compete with public insurers for physical damage coverages as in British Columbia.

As presented in Exhibit 1, the total expense costs as percentage of required premium amongst the public models for British Columbia, Manitoba, and Saskatchewan are in the range of 18-22%; lower than the average Alberta private system expense ratio of 27%[25] reported to GISA in the three year period ending 2022. And on a per vehicle basis, the estimated total expense costs for a full coverage policy under a public system (such as in British Columbia, Manitoba, and Saskatchewan) range from $225 to $275 per vehicle; lower than the current Alberta private system estimate at $549.

Public models have lower costs than private models because:

- rates do not include a profit provision (now 6% of premium in Alberta),
- all investment income is attributable to the benefit of policyholders,
- operational (for example, underwriting) costs on a per vehicle basis are lower, and
- commission/broker fees are lower.

Public models in Canada provide a comprehensive and streamlined process to vehicle licensing, registration, and insurance, ensuring fewer uninsured vehicles on the road. In addition, road safety initiatives are part of the public entity's responsibilities. We did not include the costs of these additional services in our pricing comparisons amongst the models, but it is a consideration for the Ministry in choosing changes to its model.

Any entity, either public or private individual insurer, may undergo periods of technology upgrades or other one-time capital expenditures. It would be expected the costs of such technology upgrades would impact expense costs (and expense ratios) for both private insurers and public systems.

Public models with no-fault benefits provide (effectively) lifetime benefits (for example, $7.5 million+) for catastrophically injured claimants. Individual private insurers typically are unable to provide lifetime benefits without the use of pools that fund these benefits and share the costs amongst all insurers.

In contrast, private insurance models offer choice of insurer to consumers. In addition, as many private insurers operate in multiple provinces and countries, they may be able to identify benefits to insureds through their experience.

25 At the time of this report preparation, the most recent GISA expense exhibit is for 2022 at 27.7%.

Private insurance models currently have higher cost components (associated with profit targets, operations costs, and commission/acquisition fees) that materially increase the premiums compared to public models. Steps to drive down those costs under the current private system are achievable and could require more regulation and more oversight. For example, government directives could stipulate restrictions on any of these components, (for example, capping commission to a maximum percentage and/or dollar amount) or create mechanisms to retroactively claw back excess profits as in New South Wales.

There are numerous economic considerations related to a change from a private to a public model. Any costs or timelines associated with such a transition is outside the scope of our review.

2.4. SPECIAL FUNDS

Private systems may be fully funded directly by the premiums collected by the insurers, or premiums can be combined with a levy for special fund schemes used to equalize costs amongst all insurers. An example of a private system fund scheme is in New South Wales, Australia for catastrophically injured claimants. The cost for the fund is equalized amongst all insurers. In contrast, public insurer models effectively act as a public funding scheme for a segment of drivers or claimants without the need for an additional levy.

Private delivery insurance models with funding schemes can:

- Equalize net operating results for high-risk drivers or the catastrophically injured across all insurers
- Increase market availability for high-risk drivers
- Allow full and necessary lifetime benefits for catastrophically injured claimants that an individual insurer may not have the capital to provide independently without participation in a fund scheme

In contrast, public system models do not need additional separate funding schemes for special segments such as high-risk drivers or catastrophically injured.

3. ANALYSIS ISSUES

Our objective is to assess how average premiums in Alberta may be impacted by a change from a private system to a public system, and/or a change from a tort system to a no-fault system similar to systems in other jurisdictions.

Should Alberta elect to make a change to the insurance model, there would be significant changes for the industry with broad economic impacts requiring significant resources to implement. For the purpose of our analysis, we make no adjustments to our premium estimates for any transition issues associated with a new insurance model.

3.1. NON-CLAIM COSTS

Cost differences between public and private insurance principally relate to operating expenses and profit. In Section 5, we present an analysis of these insurance related expense differences. Public models that conduct road safety initiatives, manage vehicle registration and driver licensing, and fine collections have separate operational budgets for these services. We do not discuss or include costs associated with these separate non-insurance operations in this report.

We present an analysis of the differences in the profit provision in Section 6.

3.2. INVESTMENT INCOME

Differences in payment patterns between tort and no-fault systems will affect the investment income earned. We present our discussion of investment income in Section 7.

3.3. CLAIMS COSTS

The term “claims costs” refers to the total amount paid by the insurer to settle the claims, including any additional costs associated with claims handling. Claims handling costs include medical reports and legal fees.

Claim costs vary between tort and no-fault systems. It is reasonable to assume that all insurance models have the basic goal that injured claimants recover and return to their daily lives as they existed before the accident as soon as possible. However, the interpretation,

execution, and restrictions applied to that basic goal differs amongst the models. In Sections 8 to 15, we discuss the different claim and claim handling expense costs between tort and no-fault systems for the various jurisdiction models under consideration.

Even if another jurisdiction's system was in effect in Alberta, the claim costs per vehicle will be different in Alberta due to the traffic density, road conditions, weather and driving patterns in Alberta compared to another jurisdiction. These geographic differences amongst jurisdictions lead to different accident rates, which in turn impact premium levels.

3.4. PREMIUM LEVELS

The premiums we determine for the models under consideration are at a common (July 1, 2024) cost level. Future changes in claims inflation will impact the future average premiums under any of the models under consideration. Therefore, the differences should be considered in their relative context, rather than in absolute value.

Insurers use classifications structures (for example, driving record, usage for commuting, discounts, etc.) to develop individual insured premiums. The determination of the average premium in an insurance model, whether delivered publicly or privately, or determined through a tort or no-fault system, is not affected by the classification structure used to differentiate premiums amongst drivers. This is because the average premiums are based on the aggregated claims costs of all drivers.

For example, some private insurers offer a discount to policyholders who also insure their property (for example, home, condominium, etc.) with the same insurer. However, the total claims costs for the insurer does not change. Hence, these discounts reduce the premium for some individuals, and then insurers offset this discount by increasing the premium of other policyholders not eligible for the discount.

Some insurers offer usage based rating programs that reflect the mileage and driving behaviours (for example, time of day, or speed, braking, etc.) of the driver. These programs can be offered by either public or private delivery systems. ICBC has recently announced its plan to explore options to introduce more usage-based products so customers who drive less will pay less for their insurance.

Changes to the classification structures are outside the scope of this review.

4. CURRENT ALBERTA MODEL

Exhibit 4: At a glance — Alberta

	Personal injury	Physical damage
Delivery of insurance	Private	Private
Compensation system	Mix of tort and no-fault	Deductible if at fault

4.1. INTRODUCTION

The Automobile Insurance Rate Board (AIRB) regulates premiums for automobile insurers in Alberta. Coverage benefit levels are regulated through insurance legislation and are therefore, common across all insurers.[26]

The Alberta Standard Policy Form (SPF#1) is the basic automobile insurance policy form used by all insurers in Alberta. The policy form provides standard insurance policy coverage wording for personal vehicles in Alberta. The Alberta SPF#1 is regulated by the Superintendent of Insurance and sets out the minimum coverage requirements and terms for automobile insurance in the province. Details, such as coverage limits, deductibles, and conditions that apply to the policy are outlined in the form.

While there are some differences in the automobile insurance product among insurers, the differences are relatively limited because the coverages are described in the SPF#1. The SPF#1 provides coverage for various aspects, including:

- Third-party liability coverage (TPL): This coverage protects the insured person if they are legally responsible for injuring someone or damaging someone else's property in an automobile accident. Premiums are typically determined separately for each of the TPL subcoverages: bodily injury, property damage, and direct compensation property damage (DCPD)
- Accident benefits coverage: This coverage provides benefits to the insured person and their passengers for medical expenses, rehabilitation costs, and income replacement in the event of an accident, regardless of fault
- Uninsured motorist coverage: This coverage protects the insured person if they are involved in an accident with an uninsured, or unidentified, driver who is at fault

26 Refer to the Alberta Insurance Act and regulations thereunder for specific details.

Individuals may choose to purchase additional coverages such as collision (for vehicle repairs in the event of an accident) or comprehensive (for non-moving events, such as theft). Additional endorsements are available to enhance the insurance protection.

4.2. BENEFITS

Insurance policies in Alberta provide coverage for the following benefits under accident benefits coverage.[27]

Exhibit 5: Alberta accident benefits coverage benefit levels as of November 1, 2020

Coverage	Benefits	Limit
Medical payments		All necessary expenses incurred within two years up to a maximum of $50,000 per person
	Chiropractic	$1,000 per person
	Massage therapy	$350
	Acupuncture	$350
Death, grief counselling, and funeral	Death benefit	Head of household: $10,000 + (20% for each survivor other than the first) + ($15,000 if spouse is living in the household + $4,000 for each remaining survivor) Spouse: $10,000 Dependent relative: $1,000-$3,000
	Funeral expenses	$6,150
	Grief counselling	$500 per family
Disability income		Earners: Weekly benefit is the minimum of • $600 • 80% of the average gross weekly earnings, less any payments from employer disability income plan Non-earners: Limited to $200 per week Not payable for the first seven days or any period in excess of 104 weeks

27 https://kings-printer.alberta.ca/1266.cfm?page=1972_352.cfm&leg_type=Regs&isbncln=9780779820511, accessed 21 February 2024.

4.3. HISTORICAL CLAIMS FREQUENCY AND SEVERITY BY COVERAGE

A purpose of this report is to estimate required average premiums for private passenger vehicles for the alternative models under consideration. If changes to the Alberta automobile insurance system are made, these changes will affect all vehicle types (for example, personal vehicles, commercial vehicles, motorhomes, motorcycles, etc.). In this section, we discuss historical private passenger vehicle statistics. The historical statistics of other vehicle types are not the same as those for private passenger vehicles.

The source for the private passenger vehicle claims data that we analyze is the *2022-2 AUTO7001 Automobile Industry Exhibit* (as of December 31, 2022) provided by GISA. This data includes the experience of all drivers in Alberta, including drivers insured by the Facility Association and the risk sharing pools (from the time they were formed).

We calculate the final ("ultimate") claim costs by accident half-year by developing our estimate of the needed actuarial reserve for all insurance companies in aggregate (that is, the Industry), and adding that amount to the reported incurred claim amounts as published by GISA.[28] We estimate the Industry actuarial reserve by applying "loss development factors" to the aggregated reported incurred claim amounts that are reported to GISA.[29] The selection of loss development factors is based on our analysis to determine the historical adequacy of the individual claim case reserves established by insurance companies (in aggregate).

We follow a similar approach (using what are referred to as claim count development factors) to estimate the final number of claims that will arise from events that have occurred by accident half-year separately for each of the coverages.

We use the ultimate claim counts and claims costs to estimate historical claims frequency and severity by coverage.

4.4. HISTORICAL AVERAGE PREMIUMS AND LOSS RATIOS

In Alberta, there are specific coverages that are mandatory (TPL and accident benefits), while the remainder of coverages are optional. The mandatory coverages in Alberta are referred to as "Basic Coverages", and the optional coverages are referred to as "Additional Coverages". In Exhibit 6, we present the average written premiums for Basic Coverage, Additional Coverage, and the total for all coverages, respectively, over the ten-year period, 2013 to 2022, in half-year increments.[30]

28 GISA edits and compiles the data reported by individual insurers.

29 Our selections are based on the Incurred Development Method.

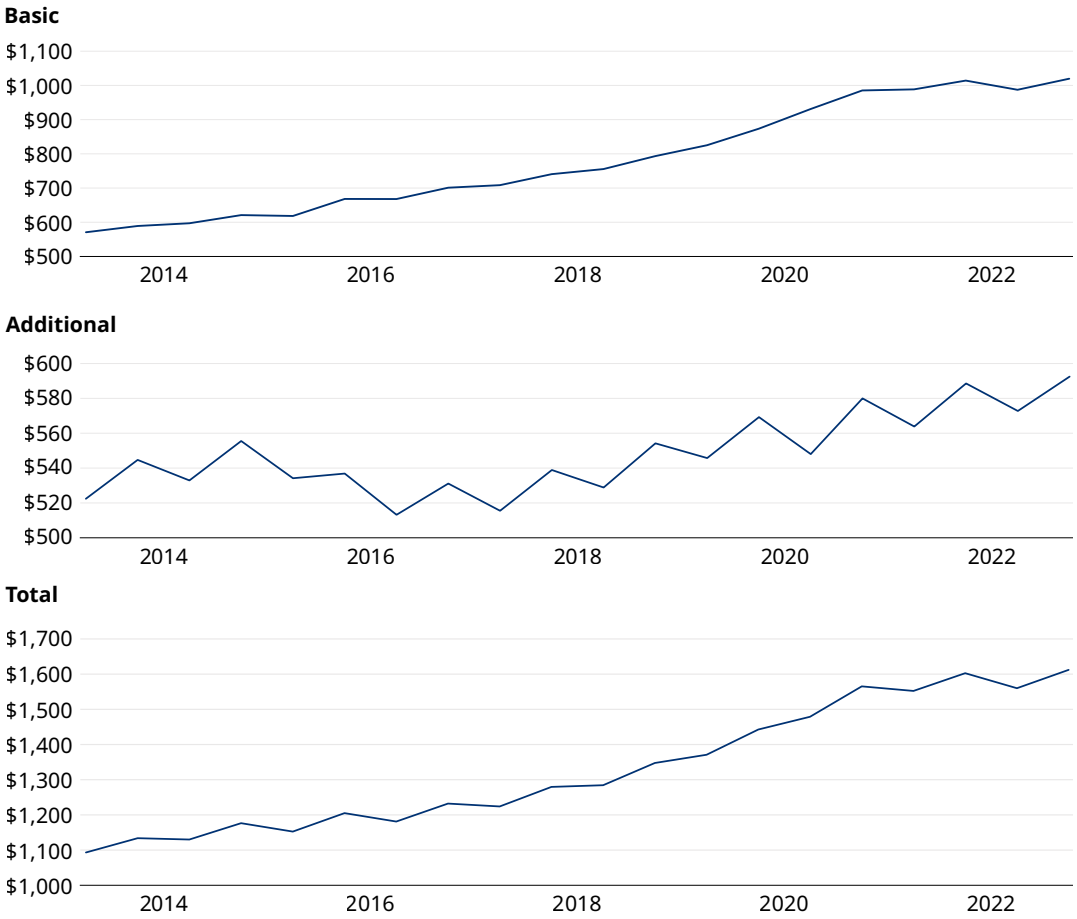
30 The average premium is representative of the coverages purchased by drivers. Some drivers do not purchase collision or comprehensive.

The Basic Coverages average premium has gradually increased since 2013; however, premiums have been relatively flat over the last 2 years ending 2022. The average premiums for Additional Coverages were relatively flat until an increasing pattern emerged beginning in 2016.[31] The increase in Additional Coverages average premiums may be partially attributable to higher average repair costs on the growing proportion of vehicles with advanced technology.

The amounts in Exhibit 6 differ from the required average premium presented in Exhibit 1. The amounts in Exhibit 1 represent the premiums for full coverage (including collision and comprehensive) for all vehicles. In comparison, Exhibit 6 is the average premium for each vehicle which reflects the percentage of vehicles purchasing optional coverages. As not all policyholders choose to purchase optional coverages, such as collision and comprehensive coverages, the average premiums in Exhibit 6 will be lower than those in Exhibit 1.

Exhibit 6: Private passenger vehicle average written premium

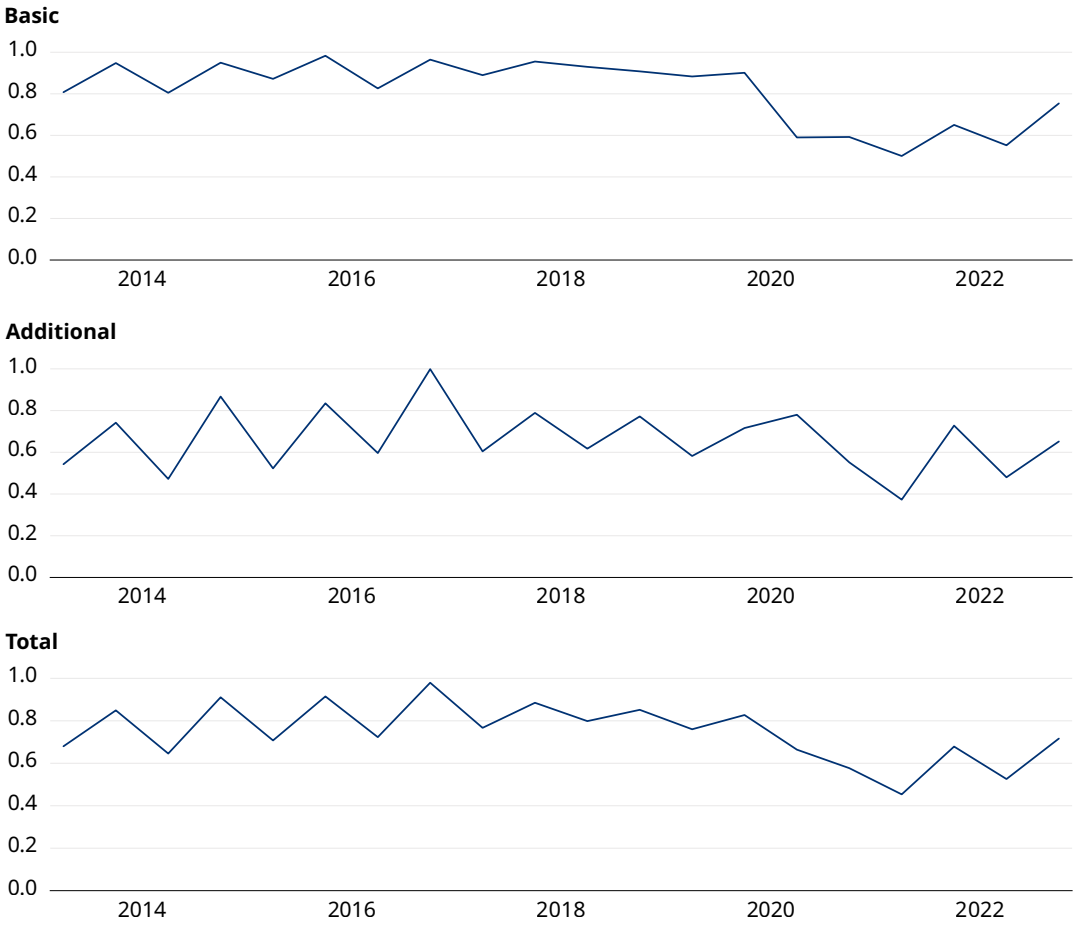
Average written premium



31 The average premium for additional coverages is subject to seasonal variability.

In Exhibit 7, we present ratios of loss and loss adjustment expense amounts to the earned premium to provide the relative change in the private passenger loss ratio over time. We note that the COVID-19 pandemic resulted in a decline in vehicle usage and accident events. The lower loss ratios in the 2020 through 2022 accident semesters can be mainly attributed to the COVID-19 pandemic.

Exhibit 7: Private passenger vehicle loss ratio[32]



4.5. COMPARISON OF CLAIM COSTS BY COVERAGE BETWEEN 2018-2022

Below we present our estimate of private passenger claim costs and loss adjustment expense per vehicle, average claim severity amount, and claims frequency rate per 1,000 insured vehicles for accident years 2018 to 2022, as of December 31, 2022. As expected, the claims frequency rate (for all coverages except comprehensive) declined during the COVID-19 pandemic years (2020-2022) leading to a decline in the claim cost per vehicle.

32 For visual clarity, the accident half-year loss ratio numerical values are only presented for the second half of each year.

As presented in Exhibit 8, in the case of bodily injury, there is evidence of some moderation in the claims severity level since the Bill 41 (November 2020) reforms, but the severity level continued to rise between 2021 and 2022. At the same time, the accident benefit reforms increased the average severity in 2021 and 2022.

For injured claimants, the majority of the recovery for their care and treatment is from the tort-based bodily injury coverage with more limited recovery from the no-fault accident benefits coverage. Specifically, we estimate the average 2022 claim severity for accident benefits was $9,217 whereas bodily injury was approximately nine times more at $80,770.

On January 1, 2022 the property damage coverage was split into (1) direct compensation property damage (DCPD) and (2) property damage-tort. It appears this change resulted in some claims that would have previously been reported under the collision coverage to shift to DCPD. This, in part, explains the collision claim costs that remain lower than pre-pandemic levels, and the rise in property damage-total claim cost for 2022.

Exhibit 8: Historical severity by coverage

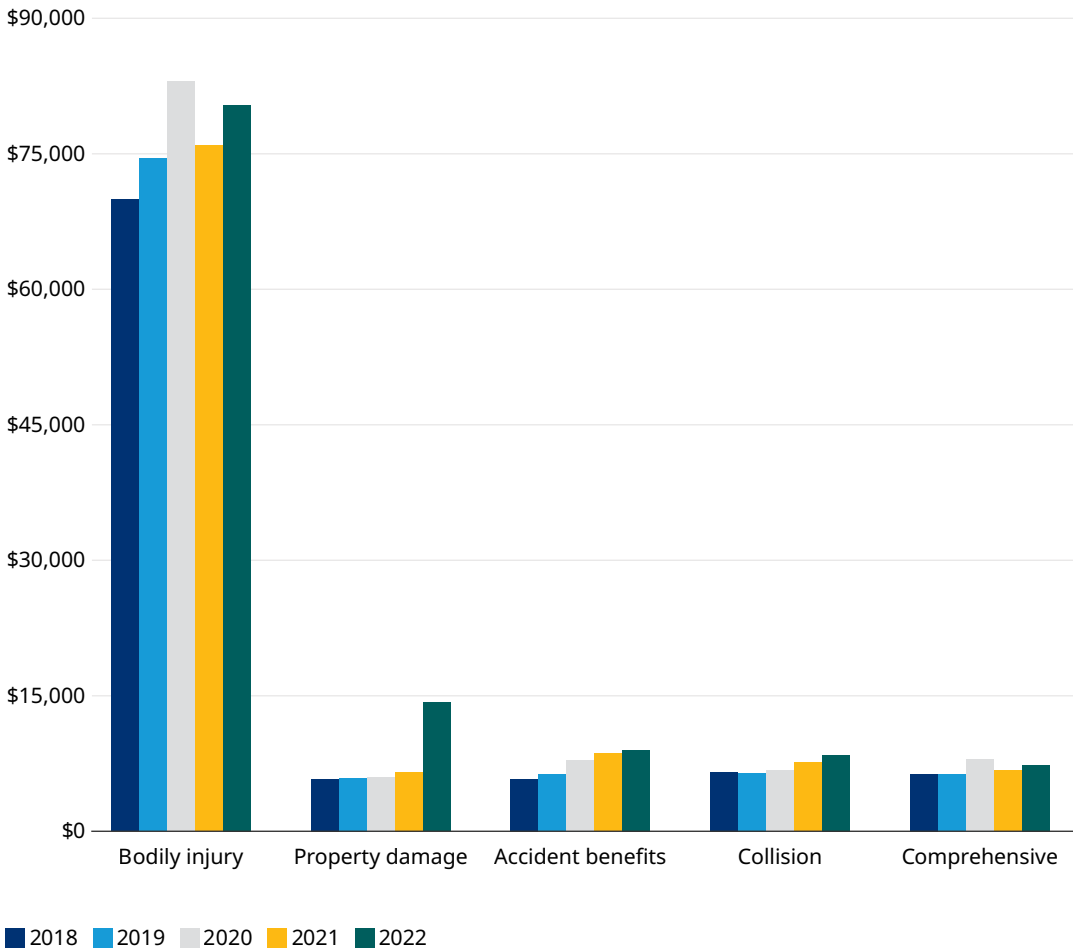
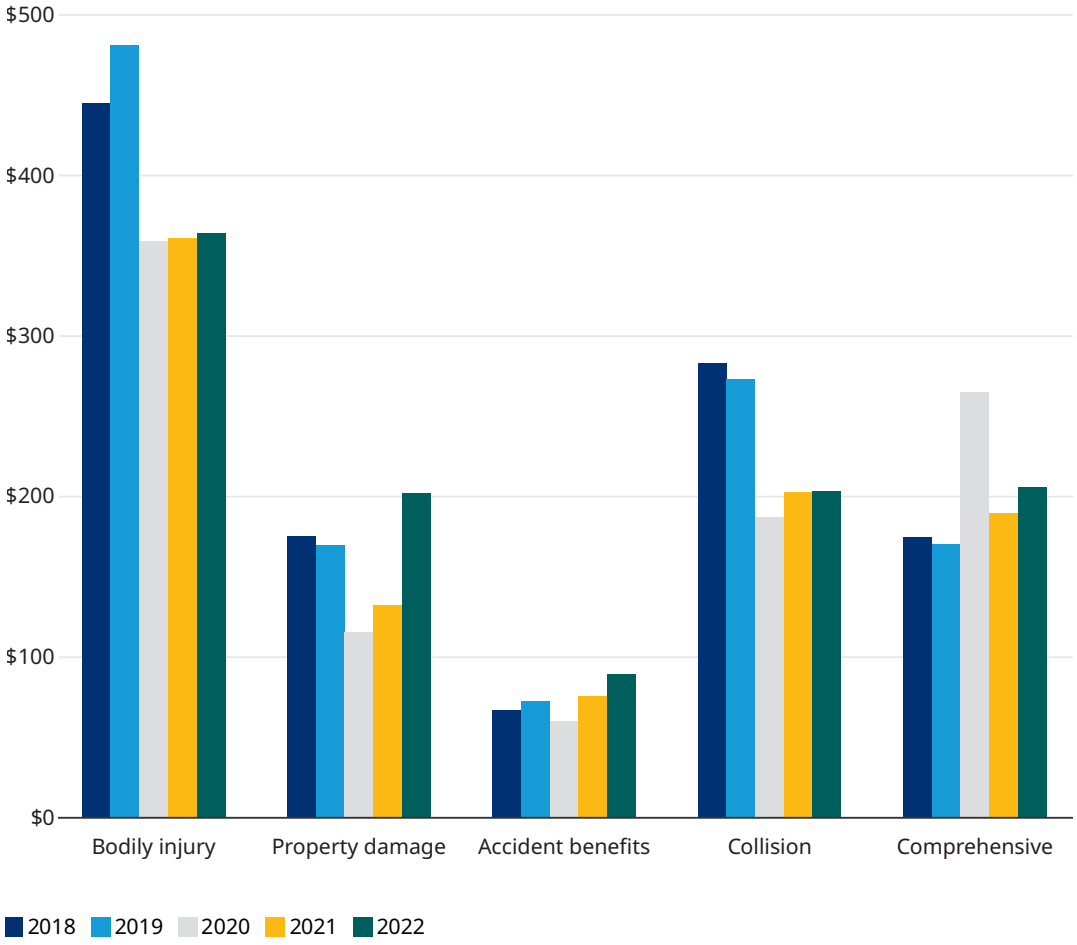


Exhibit 9: Historical claim cost by coverage



4.6. CURRENT MODEL REQUIRED AVERAGE PREMIUMS: JULY 1, 2024

We calculate the required average premium for private passenger vehicles in Alberta under the current model based on the benchmarks approved by the AIRB in the *Annual Review of Industry Experience as of December 31, 2022, Report* (Annual Review Report) using the following approach:

- We estimate the ultimate claim costs and claim related expenses for each of the accident years 2018-2022 based on the industry aggregated experience as of December 31, 2022, projected to July 1, 2024 with the benchmark loss trend rates in the Annual Review Report
- We include an allowance for unallocated loss adjustment expenses (ULAE) using the factors provided by the General Insurance Statistical Agency (GISA)

- We include an estimate of the Health Levy provision at $38 per vehicle, based on our review of the historical amount reported by GISA
- We unwind the impact of COVID-19 on claim costs as presented in the Annual Review Report
- We apply the following adjustments:
  - A claim frequency adjustment of -5% for the downward shift[33] under the post-pandemic era
  - An adjustment to the historical bodily injury and accident claim costs prior to the level of Bill 41 costs[34]
- We weight the projected ultimate loss amounts for 2018 to 2022 equally[35]
- We estimate profit and expense provisions using the following assumptions:
  - The industry average expense ratio of 27.2%[36] based on the average of GISA's reported expense data for the last three years, assume any payment plan fee revenues have been netted from the expense provisions reported to GISA and include a 0.9% provision for the delay in receipt of premiums
  - A 6% provision for profit
  - Investment income from associated cash flows (using the historical claims payment patterns by coverage) at a pre-tax annual rate of 3.7%

Based on these assumptions, we calculate the required average private passenger premium for each coverage at an average accident date of July 1, 2024.

We define "full coverage" as including bodily injury, property damage, direct compensation property damage, health levy, accident benefits, underinsured motorists, collision, and comprehensive. Combining these coverages, the required average full coverage private passenger vehicle premium is **$2,015.**

We present our supporting analysis in the Technical Appendix, Exhibits 1.1 to 2.3 of this report.

33 Frequency levels in the post-pandemic period have not returned to pre-pandemic levels. Commonplace remote and hybrid work options may be contributing to this. GISA data through June 30, 2023 supports this post-pandemic lower frequency observation.

34 We give 50% weight to early-emerged post-reform adjustment factors and 50% weight to the original estimates.

35 As DCDP was introduced in 2022, we apply 100% weight to accident year 2022.

36 We assume a 4% premium tax rate, and a 3-year (2020-2022) average for all other general expenses (10.1%) and commissions (13.1%) based on data reported to GISA. We assume general expenses are split 50/50 between variable and fixed. Assigning some portion of general expenses as fixed (across coverages) results in those drivers with only mandatory coverages paying less in fixed expenses per vehicle than those with full coverage.

5. OPERATING EXPENSES

As noted in Section 4.1, automobile insurance coverages are identical for all private insurers as regulations require that all insurers use the standard policy form #1 (SPF#1). However, operational costs between insurers differ.

As described in Section 4.6, premiums are based on provisions for loss amounts including claims handling costs, operating expenses, and profits. In this section, we discuss differences related to the expense component.[37] We compare operating expenses between public and private systems and estimate the resulting effect on the average premium level for Albertans.

5.1. OPERATING EXPENSES

Individual insurers annually report the non-claim related expense component under Alberta's private insurer delivery system to the GISA. There are three main categories of expenses:

- insurance premium tax
- general administrative expenses including head office costs
- acquisition costs

There are notable differences in expenses among independent brokers, company agents, and direct writers.

In the development of required premiums levels, insurers consider some expenses as variable (for example, premium tax and commissions) and include those costs as a percentage of the premium. Insurers include other expenses on fixed basis, as these expenses do not typically vary with the premium charged.

Insurance premiums tax

The insurance premiums tax for automobile policies[38] in Alberta is 4%. This is a variable expense as the absolute amount varies with premium, rather than being a fixed dollar amount. We assume there would be no change to the 4% premiums tax rate regardless of a private or public system. However, a government decision to remove or change the premiums tax would apply to any reform model under consideration.

37 Other aspects of differentiation amongst insurers include the pricing model that classifies risks, as well as the claims service.

38 The premiums tax rate varies for other insurance products, such as life or accident and sickness at 3%.

General administrative expenses

General administrative expenses are the costs incurred by insurance companies to manage their operations and support the administration of insurance policies. Some common general administrative expenses included within insurance premiums are:

- Salaries and wages: Includes the compensation paid to employees involved in various administrative functions, such as customer service representatives, underwriters, policy administrators, and support staff.
- Rent and utilities: Insurance companies have office spaces where they conduct their operations. These expenses include rent, utilities (such as electricity, water, and internet), and maintenance costs associated with these office spaces.
- Technology and software: Insurance companies invest in technology infrastructure, software systems, and information technology (IT) support to manage policy administration, claims processing, customer management, and other administrative functions. These expenses include costs related to software licenses, hardware, maintenance, and upgrades.
- Professional services: Insurance companies may engage external professional services, such as legal counsel, auditors, consultants, and actuaries, to support their administrative functions. These services help ensure compliance with regulations, financial reporting, risk assessment, and administrative requirements.
- Office supplies and equipment: Insurance companies require office supplies such as stationery, printers, computers, and other equipment, to support their administrative operations.
- Training and development: Insurance companies invest in training programs and professional development for their employees to enhance their skills and knowledge. These expenses cover training materials, workshops, seminars, and other educational resources.
- Regulatory and compliance costs: Insurance companies must comply with various regulatory requirements, such as licensing, regulatory filings, and compliance monitoring.

Acquisition costs

Insurance companies incur costs in the acquisition of new policyholders or in the renewal of existing policies. Acquisition costs typically include the following:

- Marketing and advertising expenses: Insurance companies spend money on marketing and advertising campaigns to attract new customers and promote their insurance products. These expenses can include advertising costs, media placements, digital marketing, and other promotional activities.
- Sales commissions: Insurance agents or brokers who sell insurance policies receive commissions as a percentage of the premium paid by the policyholder. These commissions compensate the agents/brokers for acquiring new customers or renewing policies.
- Underwriting expenses: Underwriting expenses include the costs associated with evaluating and assessing the risk of potential policyholders. This can involve conducting background checks, analyzing application forms, and performing risk assessments. Underwriting expenses also cover the administrative costs of processing policy applications.

- Policy issuance and administration costs: Insurance companies incur costs related to issuing policies and administering them throughout their duration. This includes the administrative expenses associated with policy documentation, policyholder communication, policy endorsements, and policy maintenance.
- Technology and infrastructure costs: Insurance companies invest in technology systems and infrastructure to support their operations, including customer relationship management (CRM) systems, policy management systems, and other software platforms.

5.2. EXPENSE PROVISIONS IN CURRENT ALBERTA RATES

Historical reported expenses

In Exhibit 10, we present a summary of the Alberta automobile expense data as reported by all Alberta insurers for 2018 to 2022 as summarized by GISA.

Exhibit 10: Expense by category (all insurers) as a percentage of direct written premium (DWP)[39]

Calendar year	Standard commissions	Contingent commissions	Premium tax	All other expenses	Total expenses
2018	11.6%	1.0%	3.8%	9.8%	26.2%
2019	11.8%	1.1%	3.7%	9.0%	25.6%
2020	11.1%	1.4%	3.7%	9.4%	25.6%
2021	11.5%	2.4%	3.8%	10.2%	27.8%
2022	11.7%	1.4%	3.8%	10.7%	27.7%

- The reported premiums tax as a percentage of direct written premiums is not exactly equal to the 4% premium tax rate. This difference is likely due to the timing of premiums tax payment data associated with the written premiums
- The increase in the 2021 total expense ratio over prior years is, in part, attributed to the increase in the "all other," or general expenses provision
- The one percentage point increase in contingent commissions between 2020 and 2021 is likely, in part, due to the favorable loss ratio experience of 2020 and 2021 during the COVID-19 pandemic

39 The term "direct written premiums" is in the context of reinsurance and means before any consideration of reinsurance premiums. This is the basis upon which GISA reports the expense ratios in the Auto 9502 Exhibit.

In 2022, the Alberta private passenger vehicle average written premium was $1,587.[40] With the average operational expense cost at 27.7%, the expense costs were $440 per vehicle. A large portion of the $440 operational expense costs is associated with sales commissions at $208 per vehicle.

The average expense costs of individual insurers in Alberta will vary from these industry averages; some higher, some lower. It is common for an insurer to net finance fee revenues from the total expense provision in a rate application. Without a finance fee offset, the average premium would be higher.

Due to the recent Ministerial Order 11/2022 ("rate pause") and Ministerial Order 28/2023 ("rate cap") fewer full filings have been submitted by insurers in the latest year. However, the AIRB reports the 15 most recent full filings submitted by insurers (a mix of broker-based and direct writers) requesting rate changes assumed the following total expense provisions as a percentage of premiums:

Exhibit 11: Most recent 15 full filing rate change applications submitted by insurers

Company	Total expense provision
1	24.6%
2	22.9%
3	24.6%
4	30.0%
5	30.0%
6	26.6%
7	31.3%
8	24.6%
9	39.0%
10	30.0%
11	21.8%
12	29.2%
13	29.7%
14	34.4%
15	29.8%
Average	28.6%

40 This is different than the full coverage average premium in 2022, as it considers that only some vehicles include optional coverages such as collision and comprehensive.

The expense provisions included by these insurers in their rate applications range from a low of 21.8% to a high of 39.0% (an average of 28.6%); and aligns with the reported expenses to GISA noted in Exhibit 10.

Acquisition costs are a key driver of differences in total expense cost between insurers. Acquisition costs vary among insurers depending upon the distribution channel. Insurers are generally categorized under three different distribution channels: independent broker, direct writer, or company (internal) agent. Understanding the difference in costs and services between different distribution channels allows policyholders to make informed decisions on their choice of insurer. The share of premiums written by independent brokers was relatively stable between 54% and 55% from 2017 to 2019 followed by a modest decline to between 49% to 51% from 2020 and 2022. Internal agents and direct writers absorbed the decline in the independent broker market share.

- Brokers who are independent from the insurance companies they represent are the largest distribution channel and interact with the policyholder to explain the coverages and options amongst the insurers that the broker represents. Insurers typically compensate independent brokers on a percentage of premium basis, referred to as standard commissions. Insurers may pay contingent commission to the broker when they meet target metrics such as growth and/or profit.
- Direct writers offer online presence, and internal agents represent only the insurer that employs them. Unlike independent brokers whose compensation is strictly commission stated as a percentage of premium basis, comparable compensation for direct writers is often a mix of commission and salary and may include contingent commissions.
- Agents, employed by a single insurer, can be compensated by a mix of commission and salary, and may include contingent commissions.

5.3. OPERATING EXPENSES FOR PUBLIC SYSTEMS

We reviewed the expense costs reported in the recent rate applications of the British Columbia, Saskatchewan, and Manitoba public automobile systems.

We assume long-run cost efficiencies under a public system and private system are achievable through effective operational management and oversight. We expect operational economies of scale under a public system would reduce costs per vehicle compared to private insurers simply due to the larger volume in a public system.[41] However, whether a private insurer or public entity, effective operational management can be elusive and is not a guarantee despite best oversight efforts. We acknowledge that both public and private insurers can experience periods of ineffective management for both claim costs and operating expenses.

41 Private insurers may achieve economies of scale by writing different lines of business across provincial and national boundaries.

However, we assumed that if Alberta were to adopt a public system model, it would achieve long-run cost efficiencies.

We considered the traditional[42] operational expenses of public insurance entities in Manitoba, Saskatchewan, and British Columbia. We developed these per-vehicle estimates using only vehicles authorized for road use (that is, excluding trailers and off-road vehicles).

- Manitoba Public Insurer (MPI) in its 2024 General Rate Application (2024 GRA) presents expense costs at $143[43] per vehicle (all types of vehicles) relative to average required premium of $892; or 16.1%. Similarly, the expenses for private passenger vehicles (only) are $192 per vehicle relative to average required premium of $1,182; or 16.3%. The 16.3% total expense provision for MPI policies is split into 3.1% for premium taxes, 7.8% for all general expenses, and the remainder, 5.4%, for acquisition costs.
- In its 2023 Rate Revenue Application (RRA), the Insurance Corporation of British Columbia (ICBC) submitted total operational expense costs[44] of $1,111,944,000 as part of its required total premiums of $6,063,325,000; or 18.3%. ICBC estimates the 2023 policy year required average premium per vehicle is $808.[45] The average expense per vehicle[46] is $148, or 18.3% of the average premium of $808. The 18.3% provision is split into 4.4% for premiums tax, 9.8% for all general expenses and the remainder, 4.1% for acquisition costs.
- In the most recent 2021 rate application by the Saskatchewan Auto Fund (SAF), its total expense provision was 18.6%, split into 5.0% for premiums tax, 8.6% for all general expenses and 5.0% for acquisition costs.[47]

Part of the reason for higher expense provision at ICBC (at 18.3%) and SAF (at 18.6%) compared to MPI (at 16.3%) is due to the premium tax rates; with a 4.4% rate in British Columbia and 5.0% rate in Saskatchewan, but 3.1% in Manitoba.

Exhibit 12 summarizes the expenses, as a dollar amount, and as a percentage of the total premium.[48] Note that in the British Columbia RRA, the ICBC average premiums *do not include collision and comprehensive.*

42 To be comparable to the current Alberta model, we did not include non-traditional items such as road safety initiatives.

43 The $143 includes all non-claim operating expenses, regulatory appeal, commissions for the vehicle, premiums tax for the vehicle, commission and premiums tax for the driver, and commission flat fees.

44 These costs include commissions and premium taxes.

45 ICBC's $808 estimate excludes collision and comprehensive coverages.

46 ICBC does not provide expense data separately for private passenger vehicles.

47 The SAF did not provide expense data separately for private passenger vehicles.

48 Only MPI provided expense data separately for private passenger vehicles. The expense rate for private passenger vehicles was similar to the all-vehicle expense percentages.

Exhibit 12: Summary of actual public system expense provisions

	Manitoba 2024 GRA[49]		British Columbia 2023 RRA[50]		Saskatchewan 2021 rate proposal[51]	
Expense category	**$ per vehicle**	**% of premium**	**$ per vehicle**	**% of premium**	**$ per vehicle**	**% of premium**
General operating expenses	92.48	7.8%	79.15	9.8%	92.70	8.6%
Acquisition costs	63.04	5.3%	33.51	4.1%	54.33	5.0%
Premiums tax	36.78	3.1%	35.56	4.4%	54.88	5.0%
Average total expense cost	192.30	16.3%	148.21	18.3%	201.91	18.6%
Average premium	1,182.79		808.00		1,082.71	

Acquisition costs are much lower in these public systems than currently in Alberta.

- MPI has an effective commission rate of 4.3% and a lower rate at 2.8% for on-line policies. In addition, additional fixed fees are paid to brokers. MPI estimates these total acquisition costs at 5.3% of premium.
- The 2023 per-vehicle fee paid to brokers by ICBC is $17.15 for a new policy, marginally less at $15.87 for a renewal policy, and $12.95 for policy changes.[52] ICBC provides additional fees throughout the term of the policy for various administrative amendments and changes that occur; with a total average cost of $33.51 as presented in Exhibit 12.
- The SAF estimates its acquisition costs at 5.0%.

In contrast, with average total commission fees of 13.1% (standard and contingent combined) on the 2022 average written premium of $1,587, the average commission fees/acquisition costs were $208 per private passenger vehicle in 2022 in Alberta.

We were not provided with the history behind the long-standing standard broker commission rate of 12.5% for automobile insurance in Alberta. Nor do we have knowledge of the basis for how the fees/rates are established in British Columbia, Manitoba, and Saskatchewan for the similar services. When commissions are percentage-based, policies with higher premiums pay higher amounts for brokers commissions. In contrast, when flat fees are agreed upon

49 https://apps.mpi.mb.ca/Rate-Application/2024/GRA/2024_GRA.pdf, Private Passenger Vehicles column on page 85. General operating expenses include operating expenses and regulatory/appeal. Acquisition costs include Commission: Vehicle, Comm & Prem Tax: Driver, and Commission Flat Fee.

50 In ICBC's 2023 RRA, Chapter 3, Appendix A.0, "Indicated Rate Change and Required Premiums," the general expense provision in the required average premium is $593,777,000 (Appendix A.2, row d, column 4) and the number of vehicles is 7,502,336 (Appendix A.3, row a). Therefore, the general expense per vehicle is $79.14 = $593,777,000/7,502,336.

51 In SAF's 2021 Rate Filing Proposal, Chapter 6, Section 4.2.2 Administrative expenses (that is, general expenses) are stated as $92.70. Section 4.2.8 states the acquisition and premium tax rates.

52 Presented in Figure 7A.1 of Chapter 7 in the ICBC RRA 2023.

for the service provided (for example, ICBC new business fee at $17.15) the same fee for service is therefore paid by all drivers and does not vary by the type of vehicle or other rating criteria (for example, rating territory).

In addition, the general administrative and underwriting costs are spread over a larger number of risks in a public system that could provide economies of scale and a reduction in per-vehicle costs compared to private systems. For example, ICBC's general expense costs per vehicle in its most recent 2023 RRA is $79.14 per vehicle; or 9.8% of the required average premium.[53] Similarly, the MPI general expense cost per vehicle in its 2024 GRA was $92.48 and SAF's general expense per vehicle in its 2021 Rate Proposal was $92.70. In contrast, GISA reports the 2022 general expenses at 10.7% on the 2022 average written premium of $1,587; or $169.81 per vehicle. While the percentage provision for general expenses may be in the same range (that is, 8% to 11%) between the current Alberta private system and public systems, the dollar amount per vehicle is materially higher in the current Alberta private system. The reader of this report should consider the per vehicle cost when comparing the difference in general expenses between public and private systems.

Per vehicle marketing costs may be lower in a public system operating as a monopoly. In the case of policy acquisition, costs based on fees for service result in a lower provision for public insurers than a percentage of the premium in the current Alberta system.

A large reduction in premium would be expected under a public automobile system due to the less costly acquisition approach and lower general operating expenses.

Our calculations of the premium levels under a public system assume a public automobile insurance system in Alberta would operate at a materially lower expense ratio than currently, at a total of 18.1%[54] as follows:

- An acquisition cost at 5.3% of premium, the same as MPI (the highest among British Columbia, Manitoba, and Saskatchewan)
- A 4% premiums tax rate, the same as currently in Alberta
- A general expense provision of 8.7% of required premiums, the average of British Columbia, Manitoba, and Saskatchewan.

53 ICBC's required average premium excludes collision and comprehensive.

54 Differences from the sum of the amounts below due to rounding.

5.4. ADDITIONAL FEES REDUCING PREMIUM LEVELS

Additional revenues are collected for premium payment plans and short-term policy fees which serve to reduce the average premium paid by policyholders.

- ICBC's 2023 RRA presents its fees for payment plans and short-term surcharge fees at 3.5% and 0.4%, respectively, of the required premium for a total of 3.9% of premium.
- Similarly, in SAF's 2021 rate filing, it presents its fees for automobile payment plans and short-term registrations at 2.0% and 1.6% of premiums, respectively, for a total of 3.6% of premiums.
- In MPI's 2024 rate application, it presents service fees which are 2.4% of the required premium.

Most insurers in Alberta charge a 3.0% of premium fee for monthly payment plans, and typically report revenues of approximately 2.0% of total premiums. For our public system cost estimates, we assume revenues for payment plan fees and short-term registration are 2.5% of premiums.

5.5. CLAIM HANDLING EXPENSES

There are costs associated with the processing and handling of settling a claim. Certain claim handling expenses are internal costs for the overhead of office facilities and salaries for staff handling the claims settlement process. Other costs are external, and typically these costs are specific to a particular to accident event. For example, legal fees or expert medical reports for a specific claim. Combined, these internal and external costs comprise the claims handling expenses and are collectively referred to as "loss adjustment expenses" (LAE).

In this report, unless noted otherwise, references to "claim costs" includes a provision for LAE along with indemnity amounts on a per vehicle basis.

- In its recent 2024 GRA, MPI reports LAE claims handling costs at 17.2%[55] of claim indemnity costs.
- ICBC does not report a total claims handling cost, instead it only reports internal claims adjustment costs.
- SAF reports a wide range of costs associated with LAE, however these costs appear to include a claims transformation project.[56]

For our cost estimates, we assume 17.2% loading on claim indemnity costs for claims handling, the same as MPI.

55 GRA 2004, Part VIII, Figure IR-10; $164.01 for claims expense is 17.2% of the indemnity amount of $953.28.

56 In its 2020 rate application, SAF presents claims indemnity costs as a percentage of indemnity claims over its historical and forecast periods; the range was 10% to 21%.

6. PROFIT PROVISION

6.1. SOURCE OF PROFIT

Profit provision

Alberta allows insurers to include a target profit provision when determining their rate level need. That provision was previously 7.0% of premium, and effective October 1, 2023, the provision was reduced to 6.0% of premium. As an example, when insurers determine their rates, for every $1,000 of premium, $60 is included for profit (previously $70). Similarly, a $2,000 premium would include $120 for profit (previously $140).

For public insurance entities, a profit provision is not added to the premium. Instead, public insurance entities target insurance pricing to achieve a break-even financial result.

Investment income

In addition to underwriting profit, the shareholder of a private insurer earns investment income on the supporting capital and policyholder cash flows held in assets such as bonds and stocks.

In public insurance entities, the investment income on the capital and policyholder cash flows accrues to the benefit of policyholders when setting rates, not the shareholder.

6.2. RISK CAPITAL

The key purpose of the capital is to support the operation in the event loss estimates are greater than expected, and capital is needed to pay claims. Both private companies and public insurance entities hold capital for this contingency.

A long-term sustainable model would be expected to have under- and over-estimation of claims costs from year to year, that would generally balance out over time. However, unsustainable models with steeply rising costs are more likely to experience underestimation of claims costs that could negatively impact capital.

We assume that as part of a public system start-up operation, initial capital levels would be established and funded, or backed, by government. The funding or estimation of the capital levels for such a public system is outside the scope of our review.

In both private and public systems, any misestimation of costs when estimating premiums eventually flows through to capital — to either increase or decrease the capital.

- In private systems, the shareholder bears the risk that the premium is inadequate. The shareholder receives a return as compensation for bearing the risk.
- In public systems, which are referred to as "closed systems," if premiums are underestimated, capital may be used to pay claims, and must be built back up in future rate programs. If premiums are overestimated in a closed system, the excess can be used to reduce future premium costs. For example, during the pandemic, premiums had been established using a higher claims frequency assumption than occurred. The windfall (excess premium over claims paid) during the pandemic flowed through to capital for the benefit of the policyholder in public systems. However, if premiums are inadequate, the policyholder premiums may include a "build provision" to replenish the lost capital.

ICBC's capital materially declined while operating under its prior tort regime. COVID-19 created a windfall for most insurers (both public and private) due to lower claim frequency rates than assumed in the underlying premiums charged during the pandemic and this helped ICBC's capital increase. However, the tort-era impact on ICBC's capital remained an issue in 2022. As a result, the British Columbia Lieutenant Governor issued Order in Council (OIC) 666/2022 requiring a 7% capital provision be included in the ICBC 2023 RRA. This 7% provision is an exception to the long-standing approach in British Columbia (Special Direction IC2 to the British Columbia Utilities Commission B.C. Reg. 307/2004) whereby ICBC operated under a capital maintenance, and build/release provision — as do MPI and SAF.

In calculating the average premiums for public models, we assume all public systems in Alberta, would follow the maintenance, build/release treatment for capital as is in MPI and SAF, and has traditionally been applied in ICBC. We don't consider ICBC's deterioration of capital under a tort regime and its steps to build back capital to recover the erosion of its capital relevant for the comparative required average premiums presented in this report. That is, we don't assume ICBC's history of capital deterioration should apply to Alberta in this comparative measure of required average premiums.

Additionally, ICBC's 7% of premium provision to build back capital to an appropriate level in the 2023 RRA is for the benefit of the policyholders. In the private scheme, the *6% profit provision* is for benefit of the shareholders and not for the explicit purpose of building capital.

6.3. MODELING ASSUMPTIONS

For our comparative purposes across the insurance models under consideration, we assume a “static” portfolio with sufficient capital, and therefore no need to return or build capital.

Under a public system we have assumed:

- a 0.0% profit provision in the premium,
- the investment income earned on the capital is attributed to the policyholder to reduce the premium, and,
- any under- or over-estimation of premium levels flows through to capital and future rates.

The first two assumptions reduce the average premium level by approximately 9 to 10 percentage points compared to the current private system in Alberta.

For the purposes of our calculations, we assume investment income on the capital at the same rate as the rate on invested assets held until needed to pay claims. We discuss investment income in the following section.

7. INVESTMENT INCOME

In Alberta, when calculating required rate levels, private insurers include a provision for the investment income they expect to earn on the premiums that are held (in bonds and stocks or other investments assets) until needed to pay claims. The investment rate assumed for the rate application varies among insurers depending upon their corporate investment policy. Generally, the average duration of claim payment cash flows is approximately three years, with some coverages such as collision paid more quickly, and others, such as bodily injury, having a longer duration. This duration affects the investment strategy, and in turn, the investment rate expectation.

In this report we discuss the Manitoba no-fault insurance options and other no-fault provinces too. As we describe, these no-fault benefits may be more generous and paid out over longer-time horizons for some claimants than the current benefit levels in Alberta. The longer duration of these benefits may impact the investment policy, providing an opportunity for a longer-term investment strategy. For example, in its 2023 RRA, ICBC assumes a net investment rate at 5.72%[57] to discount claims payments, which is higher than the 3-year Government of Canada bond rate of 3.90% noted below.

Consideration of how the selected investment rate should vary for longer-term versus shorter-term investment strategies is outside the scope of this report. In our analysis, we consider the most recent Government of Canada bond rates as of December 1, 2023: two years at 4.07%, three years at 3.90%, five years at 3.50% and ten years at 3.43%.

We select an average of the 3-year and 5-year bond rates, 3.70%, for our calculation of the required average premiums for all insurance systems under consideration in this report.

- In public system models, we assume investment income at an annual rate of 3.7%, from both supporting capital and policyholder supplied funds, accrues to the benefit of the policyholder to lower the required average premium.
- In private system models, we assume investment income an at annual rate of 3.7% from policyholder supplied funds accrues to the benefit of the policyholder to lower the required average premium.

57 The selected investment rate is discussed in Chapter 5 of the 2023 RRA.

A review of factors that may influence investment policy and strategy is outside the scope of our review. We expect a longer claim payment period for no-fault coverages that may result in a different investment strategy than a system with a shorter claim payment duration. As a sensitivity test, we calculate a 1 percentage point increase in our investment rate assumptions (3.7%) would reduce the current Alberta model required average premium by 1.6%.

The average required premium findings that we present for all models in this report are sensitive to the investment rate assumption. Our relative findings amongst the possible reform options under consideration are also sensitive to the time period over which the investment rate is applied (that is, claim duration).[58] The no-fault options with longer claim payment durations are more sensitive to the investment rate than the current Alberta tort regime with a shorter claim payment duration.

As does ICBC,[59] MPI and SAF, we assume investment income on capital (at 3.7% annual rate) accrues to the benefit of the policyholder.

58 Meaning, there is more investment income accrued to the policyholder premiums due to the longer claim payment pattern.

59 See Exhibit 17 in this report for ICBC example.

8. MANITOBA

Exhibit 13: At a glance — Manitoba

	Personal injury	Physical damage
Delivery of insurance	Public	Public
Compensation system	No-fault	Deductible if at-fault

8.1. INTRODUCTION

In 1971 the Government of Manitoba established the Manitoba Public Insurance Corporation (MPI) to provide a universally available mandatory insurance product. The basic insurance product in Manitoba is known as Autopac. In 2004, MPI became responsible for driver licensing and vehicle registration; with the integration reducing uninsured drivers on the roads. MPI also pursue traffic safety and loss prevention programs. Approximately 300 Autopac agents across the province handle the licensing, registration, and insurance.

MPI is the sole provider of the Autopac coverages to all drivers. Although private insurers could offer some limited optional coverages,[60] MPI is effectively the only insurer in Manitoba.

MPI is governed by the Crown Governance and Accountability Act, and MPI must obtain approval for its rate and premiums from the Public Utilities Board (PUB) through a rate hearing process.

Premium rates are not based on age, gender or other personal factors, but solely on the vehicle, its use, its territory, and the driver's safety rating.

8.2. BENEFITS

Personal Injury Protection Plan (PIPP) is the no-fault injury coverage. Certain benefits are indexed. The eight categories of PIPP benefits are as follows:

- Medical and personal expenses
- Personal care assistance expenses
- Rehabilitation expenses

60 An example of an optional coverage is higher liability limits than the standard $500,000.

- Income replacement indemnity
- Retirement income benefit
- Caregiver expenses
- Permanent impairment benefits
- Death benefits

Since its inception, various enhancements to the benefit levels have been made through continued monitoring and review based on MPI's core principle of supporting Manitobans in their recovery from automobile accidents with personalized rehabilitation plan. MPI states it has policies and guidelines in place to manage claims as PIPP provides "unlimited" coverage, based strictly on medical need and proven disability. The Autopac policy is the priority insurer, with arguably the most generous no-fault benefits package in Canada.[61]

Exhibit 14: Autopac coverage benefit levels for 2023-2024 insurance year

Coverage	Benefit limits
PIPP: Medical expenses	Unlimited for all eligible expenses
PIPP: Rehabilitation	Unlimited for all eligible expenses Enhanced coverage for catastrophically injured claimants includes: • Extraordinary expenses related to travel and accommodation • Attendant care to engage in employment • Adaptation of primary and secondary residences • Adaptation of more than one motor vehicle • Purchase of adapted motor vehicle for catastrophically injured claimant (no more than once every 5 years, up to $53,000 per acquisition) Enhanced coverage for extraordinary expenses to participate in leisure and recreation activities subject to biennial limits of $530-$4,240 every two years) based on permanent impairment rating
PIPP: Funeral expense reimbursement	Maximum of $9,851 per deceased person
PIPP: Death benefit	• Spouse: $72,271 to $552,500 based on victim's age and income • Dependent: $34,327 to $63,237 based on dependent's age • Non-dependent parent or child: $16,094 each • Disabled dependent: Additional sum of $31,618
PIPP: Permanent impairment benefits	Scheduled Lump Sum Payment ranging from a minimum of $902 to a maximum of $180,674. For catastrophically injured: Maximum $285,287 Lump Sum Payment

61 ICBC adopted a similar no-fault benefits program, Enhanced Care, based on MPI's PIPP.

Coverage	Benefit limits
PIPP: Income replacement indemnity (IRI)	• Earners: 90% of net income to a gross maximum of $110,500 if claimant is unable to hold employment • Non-earners: – Claimants who are unemployed but able to work prior to the accident receive any Employment Insurance or National Training Act benefit lost, or IRI after 180 days. (IRI during first 180 days if promised or seasonal employment is proven). – Claimants who are unemployable due to physical or mental infirmity do not receive IRI benefits; all other benefits apply. For claimants who meet the catastrophic definition, the Average Wage ($54,238 per year). • Student indemnity: Paid for delayed entry into the workforce due to missed school related to the MVA. Paid in addition to any IRI benefits. For each school year lost, students entitled to: Kindergarten to Grade 8: $6,142; Grade 9 to Grade 12: $11,382; Post-Secondary: $11,382 per term to a maximum of $22,768 per year. Students remaining disabled at scheduled end of studies: IRI payable; no less than Industrial Average Wage ($54,238 per year).
PIPP: Personal care assistance	Up to $5,419 per month, with no lifetime limit (non-catastrophic). The monthly limit increases by up to $1,061 per month for catastrophic injuries.
PIPP: Dependent care expense	Depending on the number of children or infirm persons cared for, a minimum of $136 up to maximum of $271 weekly reimbursement for additional care expenses incurred (part-time caregiver)
PIPP: Caregiver's weekly indemnity	Depending on the number of persons cared for, a minimum of $523 to a maximum of $687 per week for part-time earner or non-earner who cares for other person (full-time caregiver). Substitute Labour Costs for Unpaid Family Owned Business Up to $902 weekly reimbursement for the cost of hiring someone else to replace the labour of an unpaid family member for the first 180 days following the motor vehicle accident.
PIPP: Special expenses reimbursement	Specific expense amounts as governed by Regulations (for example, telephone, travel, clothing, etc.) Interest on any indemnity not paid within 30 days
PIPP: Grief counselling reimbursement	To a maximum of $4,119 per eligible claimant travel and accommodation/meals (to obtain grief counselling) to a maximum of $4,119 per eligible claimant.
PIPP: Critical care attendance reimbursement	To a maximum of $5,366 per claim, for up to two persons
PIPP: Retirement income	Benefit payable to claimants who remain disabled from working, paid the later of the claimant reaching age 65 or the claimant collecting IRI for 5 years; 70% of net income to a maximum insurable gross annual income of $110,500, less any other pension income (that is, CPP, OAS, private pension, RRIF)
Third party liability	$500,000
Underinsured motorist	$500,000 (off road vehicles only)
Uninsured motorist	$500,000 (property damage only)
All perils (collision and comprehensive)	$750 deductible for private passenger vehicles valued up to $70,000

8.3. EXPENSES

MPI, as a public insurer, includes a lower expense provision in its pricing model than private insurers — driven by both lower acquisition costs and economies of scale. MPI is currently undergoing a technology transformation, and any consideration of those costs is outside the scope of this review. In Section 5.3 we referenced MPI's expense provision in its recent (GRA 2024) rate application to the PUB.

Unlike private insurers, most public insurers, as is the case for MPI, have a mandate to consider road safety initiatives. To be comparable to current average premiums in Alberta under the current product, we do not include these additional road safety initiative costs in our premium estimates.[62]

8.4. PROFIT AND INVESTMENT INCOME

MPI does not include a provision for profit in its rates. Instead, MPI monitors the supporting capital level and includes provisions to build and maintain the capital as necessary in its rates. MPI refers to capital as rate stabilization reserve (RSR). MPI will release excess in the RSR to the policyholder through lower average premiums. The investment income on the supporting RSR is attributed to the policyholders to reduce the average premiums.

As MPI provides unlimited benefits, the claims payment period has a longer duration than the current Alberta product, resulting in additional investment income attributed to the policyholders than would occur with the current Alberta product. In its 2024 GRA, MPI assumes a pre-tax return on investment rate of 4.35% to discount its cash flow. MPI estimates its average PIPP claims payment patterns and these estimates impact the amount of investment income that can be used to discount the claims cost. For example, in its 2024 GRA, (Part VII RI-Appendix 3) income replacement claims costs are reduced by approximately 18%, while collision costs by 1% — due to the longer claim payment pattern for income replacement benefits.

8.5. ALBERTA'S TRANSITION TO THE MANITOBA MODEL

We assume the injury coverages would be provided under a public system with accident benefits coverage as described under MPI's PIPP product. We assume the physical damage coverages would be a mandatory part of the policy, as they are under MPI, and similar to coverages currently offered (optionally) in Alberta.

In some provinces the automobile insurance benefits apply after other collateral sources, such as employer health and disability income plans, are exhausted. In this case the automobile insurer is referred to as the second payer. Otherwise, without the application of the collateral

62 However, if a public insurer was created in Alberta, it is likely the government would favour the cost-benefit of these road safety initiatives and direct similar considerations. These costs would add to the average premium.

sources, the automobile insurer is the first payer. As requested by the Ministry, in the case of wage loss benefits, we estimate costs on two bases: (i) Alberta will continue to be a second payer after consideration of the injured claimant's access to payments under other sources and (ii) Alberta will be a first payer, like MPI.

We assume the claim costs for the physical damage coverages (direct compensation property damage (DCPD), collision and comprehensive) would be unchanged and be mandatory.

8.6. ESTIMATED COSTS UNDER THE MANITOBA MODEL

Benefits and claims costs

As a starting point, we rely upon the MPI average claimant severity estimates for each major PIPP subcoverage as presented in the MPI GRA 2024 filing for the 2024/2025 policy year and our estimate of Alberta's claim frequency to estimate the private passenger vehicle claim costs per vehicle.[63] We modify the MPI severity to reflect the Alberta environment for private passenger vehicles.

Frequency

- Differences in road conditions; traffic density; geography influencing the mix of urban and rural roads; average distances and speeds driven; weather conditions; and mix of drivers between Alberta and Manitoba contribute to differences in collision frequency rates between the two provinces. We reference the reported collisions in the MPI Traffic Collision Statistics and the Alberta Traffic Collision Statistics per 10,000 registered vehicles in 2019 (prior to the pandemic) at 343 in Alberta and 597 in Manitoba. All else being equal, the lower collision rate in Alberta compared to Manitoba will contribute to lower claim costs.
- We estimate the July 1, 2024, claimant frequency rate for medical/rehabilitation for Alberta under the current regime to be 13.9/1,000. In comparison, MPI GRA 2024 data infers comparable claimant frequency rate at 10.9/1,000.[64]
- In the case of the permanent impairment frequency, we adjust the Alberta death and funeral frequency rate to include the permanent impairment benefit, the same as MPI.

63 The estimate is based on a weighted average of the projected frequency of accident years 2018-2022.

64 The Manitoba and Alberta Traffic Collision Statistic reports for 2019 present Manitoba at 96 injured/10,000 drivers and Alberta at 36 injured/10,000 drivers. Given the Traffic Collision Statistics, we would expect the Alberta medical/rehabilitation claimant frequency rate to be (materially) less than MPI's. Despite the Traffic Collision Statistic report, MPI's medical/rehab frequency rate is lower than Alberta's for a variety of reasons that are outside the scope of our review. For this analysis, we did not modify the Alberta reported frequency level based on the reported collision statistics.

Severity

- We adjust the MPI total automobile claimant severity amount to a private passenger vehicle basis using MPI's distribution of vehicle types and claim cost estimates. Approximately 92% of the vehicles for MPI are private passenger.[65]
- Using the MPI GRA 2024 selected severity trend rate model, we derive the MPI severity at an average accident date of July 1, 2024.
- To be consistent with MPI's severity on a claimant basis, we adjust the Alberta claim frequency to a claimant basis. We assess these claimant/claim ratios using reported collision statistics:
  - The Manitoba Traffic Collision Statistic report for 2021 states the injured to collision event ratios are 1.266 in 2021 and 1.286 in 2019.
  - The Alberta Traffic Collision Statistics report for 2021 states the injured to collision event ratios at 1.281 in 2021 and 1.309 in 2019.

  We select an average ratio of 1.29 claimants per claim. We further refine this by personal injury subcoverage based on claimant to claim statistics stated in ICBC's 2020 RRA for its introduction to a no-fault regime (similar to MPI's) in May 2021.[66]
- MPI is the first payer of benefits available under the PIPP program.
  - In Alberta, for medical/rehabilitation treatment of sprain, strain and whiplash injuries under the Diagnostic and Treatment Protocols Regulation (DTPR), the automobile insurance policy pays first; for treatment of other injuries the Automobile Accident Insurance Benefits Regulation (AAIBR), the injured person's extended health coverage pays first, and the automobile insurance policy pays second.
  - In Alberta, for disability income benefits the injured person's extended wage loss coverage pays first, and the automobile insurance policy pays second.

  As directed by the Ministry, we consider collateral benefits for wage loss using two options.

  Option 1: We assume collateral benefits apply. Based on Statistics Canada and the Canadian Life and Health Insurance Association (CLHIA), we estimate approximately 50% of Albertans have disability income coverage, which provides roughly 60% of the gross wage as a benefit. Based on the income distribution in Alberta, we modify the MPI severity by -48% for these collateral sources.

  Option 2: We assume collateral benefits do not apply. We assume Alberta would follow MPI whereby there is no reduction for collateral benefits to disability income payments.

  We assume Alberta would follow the MPI model for medical and rehabilitation costs as a first payer for all injuries, not just those outside of the DTPR. We assume claimants with serious injuries (outside of the DTPR) currently exhaust collateral benefits and utilize their auto policy. Therefore, we make a very modest adjustment to the Alberta medical and rehabilitation frequency to account for additional claimants.

65 Higher public vehicle and motorcycle PIPP claim costs are offsetting to lower commercial vehicle PIPP claim costs.

66 ICBC's 2021 Revenue Requirements Application, Appendix C.4.0, (Appendix A) states the 5-year average (2017-2020) claimant to claim ratios are 1.25 for medical, 1.12 for weekly benefits and 1.60 for death benefits. Similar information for Alberta is not publicly available.

- Using Statistics Canada data, we modify the disability income severity for differences in (i) wage and (ii) employed, unemployed and student populations between Alberta and Manitoba. We approximate the median gross and net income in Alberta at +15% higher than Manitoba's.
- We estimate approximately 3% of current bodily injury liability claims cost are for out-of-province events.

Expenses

- We assume an expense provision per vehicle level similar to that of MPI (SGI and ICBC, see Section 5.3) and the current Alberta premiums tax rate of 4.0%.

Profit and investment income

- We assume a 0% profit provision, and all investment income accrues to the benefit of the policyholder.
- We estimate the average claim payment duration for PIPP subcoverages using the 2024 GRA discount factors presented by MPI and its selected 4.35% discount rate.[67] We use these claim payment durations to calculate discount factors using our selected discount rate of 3.7% discussed in Section 7.
- We assume supporting capital is held at a 1 to 2 ratio to premiums, similar to simplifying assumptions made by some insurers in their rate applications.

Other considerations

- Our premium estimates do not include any provisions for potential additional revenues from driver licensing, vehicle registration or costs associated with special programs such as road safety initiatives. We do not include a premium charge for these costs/revenues so as to be comparable to the current Alberta model required average premiums.
- Similar to Manitoba, we assume the fees to Alberta's Health Care Insurance Plan (AHCIP), which covers specific physician and hospital treatment, will continue. We assume $38 per vehicle, based on the recent history of Alberta health levy claim cost estimates presented by GISA.

8.7. FINDINGS

In the Technical Appendix, Exhibits Manitoba 1.1 to Manitoba 8.2, we present our detailed calculations and support to estimate the required full coverage premium[68] for a Manitoba model in Alberta for two options as follows:

- Alberta is 2nd payer, with Collateral Benefits Offset for disability income: $1,192, and
- Alberta is 1st payer, no Collateral Benefits Offset for disability income: $1,245.

67 The discount factors are presented in MPI's 2024 GRA, Part X, EAR Attachment-A, Exhibit 7, Sheet 1.

68 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

9. MANITOBA — PRIVATE DELIVERY SCHEME

As presented in Exhibit 1 of our report, our estimate of the 2024 required average premium under the MPI model (public no-fault) in Alberta is $1,245. We derived this estimate from a claims costs per vehicle estimate of $1,128, total expenses of $225, offset by investment income and other fees of $108.

Assuming the $1,128 claims costs per vehicle would be the same under a private delivery system, we calculate that the required average premium would increase by $389 to $1,634 if the Manitoba no-fault model were delivered under a private insurance scheme. This additional $389 required average premium under a private delivery option is due to the higher operational expense costs, higher commission costs, and a 6% of premium profit provision (equivalent to $98) — which are the current Alberta model private delivery percentage assumptions discussed in Section 4.6.

The (no-fault) claims costs under a public delivery system may not be the same under a private delivery system:

- More uniform claims handling under a public delivery system, while private delivery is subject to the variations in claims handling across the companies: A private insurer's claim operation can vary from another insurer regarding when a claim is opened, timing and amount of estimates to close the claim, and speed of claims handling.
- Due to scale, public models would have more offices across the province to handle claims, whereas a private individual insurer would have fewer claim office locations and resources for claims handling: This may impact costs.
- More uniform interpretation of appropriate care and recovery benefits for an injury within the public system — all staff trained in the same manner: There may be more variation among private insurers on how staff are trained; and there may be more variation across companies when interpreting fair and reasonable compensation.
- Large scale pre-negotiated fees and annual percentage increases to service providers under a public system: Individual insurers would have less leverage to negotiate fees than the public insurer.

Despite these possible differences in claims handling approach, steps could be taken by government and private insurers to narrow any possible differences between public and private delivery.

In addition to the above noted possible differences related to processing and handling by claims staff that may impact costs, the high level of care and recovery provided for catastrophically injured claimants under Manitoba's public systems may be problematic for some individual insurers in terms of their financial capacity. Specifically, MPI provides unlimited care and recovery benefits for claimants with severe/catastrophic injuries (for example, unlimited under MPI, and $7.5 million+ in other no-fault provinces) and these costs could far exceed the financial capacity of some individual insurers.

A solution may be a "fund" that is managed by a government body for claims that exceed a threshold. The threshold definition to determine which claimants should be assigned to the fund could be based on injury type, duration of injury, and/or expected claim cost. This fund mechanism would enable most claims to be handled by private insurers, and a government (public) fund to manage those claimants with severe/catastrophic injuries and receive the care and recovery required, similar to MPI's no-fault program. To mimic the benefits of a public system, the cost per vehicle of the fund could be a separate fee added at the time of vehicle licensing and registration to reduce the number of uninsured drivers on the roads.

In the Technical Appendix, Exhibit Manitoba 8.3, we present our detailed calculations and support to estimate the required full coverage premium[69] for a Manitoba model in Alberta under a private delivery option.

69 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

10. BRITISH COLUMBIA

Exhibit 15: At a glance — British Columbia

	Personal injury	Physical damage
Delivery of insurance	Public	Public and private
Compensation system	No-fault	Deductible if at fault

10.1. INTRODUCTION

In 1973 the Insurance Corporation of British Columbia (ICBC) was founded as a crown corporation providing mandatory coverage for injuries and optional physical damage coverages for all British Columbians. The mandatory injury coverages are referred to as Basic coverage, with rates regulated by the British Columbia Utility Commission (BCUC). The Basic coverages are provided by ICBC on a monopolistic basis, and commonly known as Autoplan. Vehicle licencing/registration is coordinated through ICBC at the time of the Autoplan policy purchase.

ICBC's most recent Rate Revenue Applications (RRA) for Basic was submitted to BCUC for approval, with rates effective April 1, 2023. As a public insurance entity, the RRA Hearing documents are available on the BCUC website.[70] This was the first RRA since the Enhanced Care product was introduced in May 2021; with required Basic rates indicating a -6.5% decrease that was subject to a lower bound cap of +0.0%.

Insurance delivery in British Columbia operates with a mix of public and private models. Optional physical damage coverages are offered by ICBC, competing with private insurers. The optional physical damage rates are not under the oversight of BCUC.

Although ICBC operates its optional physical damage coverage business independent of Basic coverages, there is oversight by BCUC for fair and appropriate expense sharing/ allocation between the Basic and optional coverages at the time of the review of the Basic rate application. The majority of policyholders choose ICBC for their optional coverages. The extra time required to deal with two insurers for the policy purchase transaction, and additional logistics in the event of a claim, may contribute to the higher ICBC policyholder participation.

70 https://www.bcuc.com/OurWork/ViewProceeding?applicationid=1068.

10.2. BENEFITS

In May 2021 ICBC introduced Enhanced Care, a change from the prior tort model to a no-fault model, with similar no-fault benefits as in Manitoba.[71]

In Exhibit 16, we present the basic coverage included under Enhanced Care.[72]

Exhibit 16: ICBC enhanced accident benefits coverage benefit levels as of April 1, 2023

Coverage	Benefit limits
Third party liability	• Minimum limit of $200,000 mainly for out of province accidents events. • Both ICBC and private insurers offers higher liability limits referred to as Extended Third-Party Liability
Enhanced accident benefits	• A full description of benefits in the event of a claim is provided by ICBC in "Your Guide to Enhanced Accident Benefits."[73] • ICBC is a secondary payer of medical expenses as a result of a crash, with personal health care plans primary. • ICBC will provide any excess coverage needed up to the policy limits. • Medical costs covered under the BC's Medical Services Plan (MSP) are excluded. • Subject to limits that are indexed, income replacement benefits up to 90% of net income are provided for earners, and benefits are available for students and non-earners too. • Funeral, death, and grief counseling are provided under the Enhanced Accident Benefits. Optional higher limits are available from ICBC beyond the stated standard limits.
Basic vehicle damage coverage (BVDC)	To extent the insured is not responsible for a crash, BVDC coverage will repair or replace their car (up to $200,000)
Underinsured motorist protection (UM)	In the rare event insured is not entitled to Enhanced Accident Benefits, UM provide up to $1 million in coverage when injured in a crash if the responsible driver lacks sufficient coverage to pay damages awarded in a claim.
Inverse liability coverage	To extent the insured is not responsible, inverse liability provide coverage for vehicle damage if the crash occurs in certain parts of Canada or the United States where lawsuits for vehicle damage are legally prohibited.
Protection for property damage caused by hit-and-run or uninsured drivers	Claims for property damage (for example, fence, building, bicycle) caused by a hit-and run driver are subject to a $750 deductible.
Optional physical damage coverages	ICBC provides the standard collision and comprehensive coverages; as well as additional protections similar to that offered by private insurers: new vehicle replacement, vehicle rental coverage, roadside assistance, etc.

71 See 2020 RRA Letter to ICBC dated Nov 20, 2020 from Minister of Public Safety and Solicitor General.

72 https://www.icbc.com/insurance/products-coverage/basic-insurance.

73 https://assets.ctfassets.net/nnc41duedoho/e8k4Hx5iP61FewKpuQJOW/2a0ea2b0d1d7a3a6477cc3286bd657d4/your-guide-enhanced-accident-benefits.pdf.

10.3. EXPENSES

The required average premiums presented below for Basic Coverage do not include collision and comprehensive coverages. The required average Basic Coverage premium effective April 1, 2023, was $808 based on the component cost elements presented in Figure 3.3 of the 2023 RRA.

Exhibit 17: ICBC 2023 RRA Figure 3.3 required average premium for basic coverage

Component of required premium	PY 2023
[1] Loss and allocated loss adjustment expenses	$789
[2] Unallocated loss adjustment expenses	$75
[3] Road safety and loss management and general expenses	$92
[4] Broker fees and premiums tax	$69
[5] Capital provision	$57
[6] Miscellaneous revenue	($39)
[7] Investment income on policyholder supplied funds	($208)
[8] Investment income on capital available for rate setting	($26)
Total — required premium per policy[74]	$ 808

The split of the $69 for broker fees and premiums tax (item 4) is $35.55 for premiums tax (premiums tax rate in BC is 4.4%) leaving $33.45 for broker fees. Excluding road safety initiatives, the total expense provision (including general expenses, broker fees, and premiums tax) is 18.3% or $148.

In ICBC's 2023/2024-2026/2027 Service Plan Report[75] for its total operation, including optional coverages, its 2024/2025 target expense ratio is 22.4%. ICBC states this target expense ratio is approximately 3 percentage points higher due to the inclusion of expense costs associated with non-insurance services — and therefore the comparable expense ratio is 19.4%.

As directed under OIC666/2022, a build back capital provision of $57 per vehicle is included, offset by $26 per vehicle of investment income on capital attributed to the policyholder. A further $208 per vehicle investment income from policyholder supplied funds (that is, premiums) offsets the required premium level.

The miscellaneous revenues include payment plan option fees, surcharges for short term cancellations, driver penalty points and driver risk premium, and unlisted driver accident premium.

74 Prior to the impact of the rate change floor.

75 https://assets.ctfassets.net/nnc41duedoho/6NI89S1kRiDwp5HjHi9CCJ/1aacd4c74a4d7d0e059ab7a45c880982/service-plan-2024-2027.pdf; page 15.

10.4. PROFIT AND INVESTMENT INCOME

ICBC includes a capital provision based on an assessed need to build and/or maintain a target capital level. Once a target capital level is achieved, growth/decline in the portfolio number of risks insured would require more/less capital to maintain the same target level. ICBC operates under OSFI's minimum capital test (MCT) target of 100%. ICBC's capital was significantly depleted during the years under its tort model and was directed to include a 7% of required premium (net of premiums tax) provision in the 2023 RRA to build back capital.

In determining its rate level need, ICBC considers the investment income on cash flow (time between receipt of premiums and when claims are paid) and investment income on supporting capital.

10.5. ALBERTA'S TRANSITION TO THE BRITISH COLUMBIA MODEL

The injury coverages in the British Columbia public system, stated under the Enhanced Care program, are effectively the same as in Manitoba.

For physical damage coverages, we assume these would be provided by both private insurers as well as in a public model. However, the public model physical damage coverages would be based on a 0% profit provision,[76] lower (public model) general operating expenses, but a (higher) broker commission rate the same as current private models.

10.6. ESTIMATED COSTS UNDER THE BRITISH COLUMBIA MODEL

Benefits and claims costs

As British Columbia made a change effective May 2021 to follow MPI's no-fault model, our cost estimate for British Columbia model uses the same MPI data we apply in estimating the premium if Alberta transitioned to the Manitoba model. However, there are four key differences.

Severity

- In BC, some medical expenses (such as pharmacy medications, medical equipment, dental) call upon the claimants personal/employer health care plans as primary. In Manitoba, the MPI plan is primary for all medical expenses for an injured claimant. We expect the cost impact of this difference in approach to be relatively minor, and reduce medical/rehabilitation claim costs by 5%.

76 We are unaware of the level of profit included by ICBC for optional physical damage coverages.

- We decrease our Manitoba permanent impairment estimate by -10%, due to the lower benefit level in British Columbia.
- In British Columbia, the weekly disability income benefit is second payer to other available collateral benefit sources. In MPI the plan is primary for the injured claimant.

Expenses

- We assume the same general operating expense provision as we assumed for the Manitoba model, including a premiums tax rate of 4.0%, the same as currently in Alberta. However, for collision and comprehensive, we include a higher commission expense provision. As a result, as presented in Exhibit 1, the total expense provision we assume is 22.1%.
- As stated in ICBC's 2023/2024-2025/2026 Service Plan Report, its target expense ratio for 2024/2025 without inclusion of non-insurance operations, is 19.4%. Therefore, our total provision, as presented in Exhibit 1 at 22.1%, in this context, may be considered high.

Profit and investment income

We include the same profit and investment income consideration as the Manitoba model.

Other considerations

Optional collision and comprehensive coverages are offered by ICBC, competing with private insurers. The commission expenses associated with these coverages is higher than for the Enhanced Care coverages.

10.7. FINDINGS

In the Technical Appendix, Exhibits BC 1.1 to BC 2.1, we present our detailed calculations and support to estimate the required full coverage premium[77] for an ICBC model in Alberta at $1,238.

77 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

11. SASKATCHEWAN

Exhibit 18: At a glance — Saskatchewan model

	Personal injury	Physical damage
Delivery of insurance	Public	Public
Compensation system	Choice tort or no-fault	Deductible if at fault

11.1. INTRODUCTION

Saskatchewan General Insurance (SGI) is an insurer owned by the Government of Saskatchewan that manages the compulsory automobile insurance plan called the Saskatchewan Auto Fund (SAF). SGI introduced a no-fault policy in 1995. SGI began offering the choice of a tort policy to drivers on January 1, 2003. The insured chooses between tort or no-fault at the time of purchase. There is no difference in premiums between the options. When initially introduced 2003, drivers needed to opt-in for the tort policy option, otherwise the no-fault option would continue to apply. Drivers have had nearly 20 years under the choice program, and the vast majority (>99%) choose the no-fault option.

11.2. BENEFITS

The no-fault option provides materially enhanced medical, rehabilitation and income replacement benefits, and a generous permanent impairment benefit compared to the tort option. We present the benefit charts (as provided by SGI Guides). These benefit levels, while not the same, are very similar to those of MPI.[78]

78 We assume that the average claim severity amounts would be similar between MPI and SGI due to the similarities in the benefits.

Exhibit 19: SAF no-fault coverage benefit levels as of 1/2023

Coverage	Benefit	Limit
Income benefits	Maximum insurable earnings	$108,253 annual income
	Industrial average wage	$58,552 annual income
	Substitute worker	$51,168 maximum per year
	Caregivers: Full	$984 maximum per week
	Caregivers: Reduced	$496 maximum per week
	Loss of studies for students: Elementary	$6,271 maximum per year
	Loss of studies for students: Secondary	$11,652 maximum per year
	Loss of studies for students: Post-secondary	$23,304 maximum per year
Medical and rehabilitation	Medical and rehabilitation costs	$7,819,241 maximum
	Living assistance: Functional	$984 maximum per week
	Living assistance: Cognitive	$693 maximum per week
Permanent impairment	Catastrophic injuries	$273,673 maximum
	Other permanent injuries	$224,073 maximum
Expenses	Meal allowance: Breakfast	$10.73 per day
	Meal allowance: Lunch	$15.33 per day
	Meal allowance: Dinner	$18.79 per day
	Private accommodation	$27 per day
	Travel by automobile	$0.47 per kilometre
	Clean, repair, replace clothing	$1,796 maximum
	Counselling expenses	$5,737 maximum
	Critical care	$34,428 maximum
	Non-refundable expenses	$2,870 maximum
	Financial counselling	$1,563 maximum

SAF tort option benefits[79]

Under the tort option, the SAF provides limited no-fault benefits to injured claimants. These (2023) benefits include:

- Disability income at a $520 per week for totally disabled employed claimant for up to two years. This amount reduces for partially disabled employed to $260. The amounts are either $260 or $130 for other claimants, depending upon employment status and/or disability level.

79 As we discuss in this section, we assume the current Alberta model would continue to apply as the tort option if the Saskatchewan model was adopted.

- Medical rehabilitation benefits are a maximum of $30,602 for non-catastrophic injuries and $229,516 for catastrophic injuries.
- Permanent impairment benefits are a maximum of $15,301 for non-catastrophic injuries and $198,914 for catastrophic injuries.

Other benefits are provided through the tort process. The pain and suffering damages amount is subject to a $5,000 deductible.

Benefit restrictions

In addition to the differences in the coverage benefits, there are differences in the circumstances as to when coverage benefits apply.

Benefit restrictions for the no-fault option are as follows:

- If you're responsible for the collision and found to be impaired by alcohol or drugs or convicted of an offence involving criminal negligence or convicted of using your vehicle to deliberately harm another at the time of the collision, you'll be denied a permanent impairment payment.
- If you're convicted of stealing a vehicle involved in a collision or convicted of possession of a stolen vehicle involved in a collision you will not receive the full package of benefits.

Benefit restrictions for the tort option are as follows:

- You won't receive the package of benefits in the following circumstances if:
  - You're impaired by alcohol or drugs at the time of the collision
  - You deliberately use your vehicle to harm another person or property
  - You're injured while the vehicle you're in is racing or in a speed test
  - You're injured while the vehicle is being used in an attempt to evade a law enforcement officer
  - The vehicle is unregistered or you're not qualified or authorized to drive
  - If you are convicted of criminal negligence, you won't receive a permanent impairment benefit. If it is your second conviction for criminal negligence in the last five years, you'll also be denied an income benefit.

Restrictions on the right to sue

There are restrictions on the right to sue that apply to both the drivers electing tort insurance and drivers electing no-fault.

The tort driver may not sue:

- If they are responsible for the accident
- If the accident is with wildlife, or
- If the accident is a single vehicle accident.

In addition, pain and suffering awards are subject to a $5,000 deduction and the tort driver can not sue to recover that deduction.

The no-fault insured is subject to the following restrictions:

- If they are not responsible for the accident, then they can sue for income loss or medical benefits in excess of benefits under the no-fault option.
- They can only sue for the pain and suffering award if responsible driver was impaired or criminally negligent.
- If the no-fault driver is the driver responsible for the accident, they can be sued by a tort driver for excess benefits, or, while less likely, sued by a no-fault driver for excess benefits.
- As part of the vehicle registration, at least $200,000 liability coverage is included. With the tort option available, there is increased need for the no fault driver to have sufficient liability coverage in the event they are sued by a tort driver with lower benefit levels.

The choice between no-fault and tort

Saskatchewan drivers appear to weigh these considerations and favour the certainty for full recovery with the no-fault option, with fewer than 1% choosing the tort option.

Under the tort option, the recovery of care and support costs after an accident event is uncertain; it may be higher or lower than the no-fault option.

- If you are the at-fault party, or there is not an at-fault party to sue (for example, wildlife), then the recovery is limited to lower benefit levels with the tort option. And if there is an at-fault party to sue, the at-fault party may have only the minimum $200,000 liability coverage and no other assets.
- There is uncertainty as to the amount of the pain and suffering award in a tort case. The permanent impairment benefit under no-fault was intended to be a replacement for the pain and suffering award under a tort process.
- Legal costs associated with the tort claim may impact the final recovery of care and support costs.

In addition, if the no-fault benefits are not sufficient the claimants retain the right to sue the at fault party for additional medical, rehabilitation and lost income.

In Saskatchewan, the premiums are the same for the tort and no-fault option; this appears to be a policy decision as we understand the premiums have continued to be the same since tort was introduced in 2003. With so few tort policies, this approach of identical premiums may be appropriate for Saskatchewan in the circumstances. Hence, the choice is not made on price, but rather the differences in claim settlement, coverage, and benefits in the event of a claim.

Additional liability and other extended auto coverages

When considering a choice model like Saskatchewan (tort and no-fault options), drivers of the no-fault option have increased need for liability coverage, as they may be sued by the tort driver with lower benefits levels. (They are less likely to be sued by no-fault drivers with higher benefit levels.) This adds more cost to the system, than a single no-fault option as in Manitoba and British Columbia. In the Saskatchewan model, the more drivers that choose the tort option, the more costs added to the system for the no-fault drivers who may be sued by the tort drivers.

Drivers in Saskatchewan may purchase extended automobile coverages from private insurers (including SGI Canada, an insurer owned by the Government of Saskatchewan that competes with private insurers); this is typically handled at the time of completing the vehicle registration and purchasing the mandatory insurance with SGI. The extended automobile options include higher liability limits, lower deductibles, increases to underinsured motorist coverage, loss of use, etc.

The Ministry asked us to consider a modified Saskatchewan model whereby those who choose no-fault can not be sued by those who opted for the tort model. For those drivers who choose tort, and are not responsible for the accident, they would sue the responsible tort-driver; or if no tort-driver, sue the public insurer.

11.3. EXPENSES

We discussed the historical expense of the Saskatchewan model in Section 5.3.

11.4. PROFIT AND INVESTMENT INCOME

Similar to Manitoba and British Columbia models, the SAF includes a capital provision based on an assessed need to build and/or maintain a target capital level. Once a target capital level is achieved, growth/decline in the portfolio number of risks insured would require more/less capital to maintain the same target level.

11.5. ALBERTA'S TRANSITION TO THE SASKATCHEWAN MODEL

We assume premiums for each option (tort versus no-fault) would be based on costs. Any decision to equalize no-fault and tort premiums (as is the case in Saskatchewan) is a separate policy decision.

11.6. ESTIMATED COSTS UNDER THE SASKATCHEWAN MODEL

Benefits and claim costs

- For the tort option, we assume the benefit model currently in Alberta would continue to apply.
- For the no-fault option, we assume the same claims cost benefit levels as MPI[80] with the following adjustments:
  - We add excess liability coverage for the possibility that the economic loss may be greater than the plan benefits.
  - We increase our Manitoba permanent impairment estimate by +10%, due to the higher maximum lump-sum benefit in Saskatchewan.

Expenses

We assume the same general operating expense provision as we assumed for the Manitoba model, including a premiums tax rate of 4.0%, the same as currently in Alberta.

Profit and investment income

For both options, we assume a 0% profit provision, investment income on supporting capital would accrue to the benefit of the policyholder, and the expense provision would be the same as that of our Manitoba model.

11.7. FINDINGS

In the Technical Appendix, Exhibits Saskatchewan 1.1 to Saskatchewan 2.2, we present our detailed calculations and support to estimate the required full coverage premium[81] for a Saskatchewan tort model at $1,548 and a Saskatchewan no-fault model at $1,252.

80 There are slight differences in the benefit levels between MPI and SAF. For example, MPI does not have a cap on medical & rehabilitation expenses, while SAF has a cap of $7,819,241. For disability income, the MPI benefit level is 90% of net income up to $110,500 max gross income, and the SAF benefit level is 90% of net income up to $108,253 max insurable income. For such cases where there are immaterial differences between the benefit levels, we assume the same cost benefit levels as MPI.

81 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

12. QUÉBEC MODEL

Exhibit 20: At a glance — Québec model

	Personal injury	Physical damage
Delivery of insurance	Public	Private
Compensation system	No-fault	Deductible if at fault

12.1. INTRODUCTION

Québec's bodily injury system is a public model managed by the Société de l'assurance automobile du Québec (SAAQ) which was created in 1978. SAAQ is a government agency under the Ministry of Transportation. The insurance plan is universally available to all Québecers and provides coverage for injuries sustained in a traffic accident, anywhere in the world, regardless of whether they are responsible for the accident. In addition to the insurance for bodily injury, SAAQ also manages vehicle licensing and registration, and road safety initiatives.

Private insurers provide coverage for the vehicle, for example, collision, property damage liability, and third-party liability for claims occurring outside the province.

12.2. BENEFITS

Québec operates under a no-fault system without access to tort for Québec residents. In 1990, the plan was streamlined to minimize under-and-over care and support cost recovery for injured claimants.

Coverage benefits and limits are indexed annually. SAAQ provides coverage for the following:[82]

Exhibit 21: SAAQ no-fault coverage 2024 benefit levels

Coverage	Benefit	Limit
Financial recovery for monetary and non-monetary damage	Income replacement	90% of net annual income up to a maximum gross income of $93,500
	Indemnity for students	$6,318 per elementary school year $11,596 per missed high school year $11,596 per missed semester of postsecondary education, maximum of $23,189 per year
	Indemnity for care expenses	$527 for 1 person $592 for 2 people $653 for 3 people $719 for 4 people
	Indemnity for impairment	Instead of a pain and suffering award, the recovery for impairment varies with the severity of the injury. Maximum of $295,687
Private health care covered by the public automobile insurance plan	Chiropractic	Instead of a pain and suffering award, the recovery for impairment varies with the severity of the injury. Maximum of $295,687
	Physiotherapy	$62 per treatment at a private clinic $72 per treatment for at home treatment
	Occupational therapy	Reimburse sessions on a per claimant basis
	Psychological	$110 per treatment at a private clinic
	Dental care	
	Acupuncture	$61 per treatment at a private clinic $70 per treatment for at home treatment
Automobile and home adaptation	Home adaptation	Will reimburse costs related to purchasing construction material, hiring labour to complete the adaptations, purchasing and installing specialized equipment, and obtaining legal documents
	Obtaining an accessible parking permit	
	Purchasing or adapting a vehicle	

82 https://saaq.gouv.qc.ca/en/traffic-accident/public-automobile-insurance-plan/covered-how, accessed 12 February 2024.

Coverage	Benefit	Limit
Occupational, educational, or social reintegration		
Clothing and accessories	Clothing	Maximum of $445 to clean, repair, or replace clothing Maximum of $1,112 for helmet and protective clothing for motorcycles
	Contact lenses	Maximum of $122
	Eyeglasses	Maximum of $22 for the frames Total cost of the lenses
	Prostheses and orthoses	Reimburse expenses to purchase, repair, or replace a prosthesis or an orthosis
Medical and medical supplies, devices, and reports	Medication	Reimburses cost of approved medications
	Medical supplies and devices	Medical supplies and devices
	Medical reports	$33 for initial report $89 for assessment report $89 for progress report $84 for aftereffects report
Personal home assistance		Maximum of $1,055 per week Maximum of $1,668 for severe accidents
Labour costs incurred for a family business		Maximum of $1,052 for 6 months for substitute labour costs
Funeral and death benefits	Lump sum benefit	Surviving spouse will receive a lump sum benefit of 5 times the victim's income subject to minimum and maximum amounts of $165,228 and $467,500 Lump sum payment to victim's dependents that differs based on their age
	Funeral expenses	$8,339

12.3. EXPENSES

Specific information on the actual operational expense costs of the Québec model was unavailable to us.

12.4. PROFIT AND INVESTMENT INCOME

Specific information on any capital required or the investment income of the Québec model was unavailable to us.

12.5. ALBERTA'S TRANSITION TO THE QUÉBEC MODEL

We assume all recovery for care and support costs for the injury coverages would be provided only by the public system. For physical damage coverages and out-of-province liability, we assume these coverages would be provided only by private insurers.

12.6. ESTIMATED COSTS UNDER THE QUÉBEC MODEL

Benefits and claims costs

Due to the similar injury benefits, we assume the same claim cost estimates as the Manitoba model.[83]

We increase our Manitoba permanent impairment estimate by +5%, due to the higher maximum benefit level in Québec. We assume that the same premium estimates as we provide in the current Alberta model for physical damage coverage (that is, all non-injury coverages).

Expenses

As private insurers deliver the physical damage coverages and out-of-province bodily injury, we base our required average premium estimates on the same expense assumptions we use in the current Alberta model. For Québec injury coverages, we assume the same general operating expense provision as we assumed for the Manitoba model, including a premiums tax rate of 4.0%, the same as currently in Alberta.

Profit and investment income

As private insurers deliver the physical damage coverages and out-of-province bodily injury, we base our cost estimates on the same assumptions we use in the current Alberta model for profit, and investment income. We use the same assumptions as applied in our Manitoba model for investment income, and 0% profit load in our calculations for Québec injury coverages.

12.7. FINDINGS

In the Technical Appendix, Exhibits Québec 1.1 to Québec 2.1, we present our detailed calculations and support to estimate the required full coverage premium[84] for an SAAQ no-fault model for injury coverages, and private insurer model for physical damage and out of province injury at $1,505.

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83 The automobile policy is the first payer for benefits.

84 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

13. NEW SOUTH WALES (AUSTRALIA) MODEL

Exhibit 22: At a glance — New South Wales model

	Personal injury	Physical damage
Delivery of insurance	Mix of private with public funds	Private
Compensation system	Mix of tort and no-fault	Deductible if at fault

13.1. INTRODUCTION

In December 2017, the New South Wales (NSW) government introduced a private hybrid no-fault, defined benefits system with common law benefits retained in parallel. Further amendments and updates to the new system have since been introduced.

For not at fault claimants, injuries are categorized as (i) threshold injuries, (ii) whole person impairment (WPI) 10% or less or (iii) WPI more than 10%. Treatment benefits vary depending upon fault and injuries of the claimant. A “threshold injury” is a soft tissue injury and/or a psychological or psychiatric injury that is not a recognised psychiatric illness.

NSW has a hybrid private model with a pooled approach to premiums (risk equalization mechanism) and management of excess profits retrospectively. Private insurers provide optional physical damage coverages.

- The NSW policies are distributed by private insurers, with premiums based on insurers’ costs, and special fund levies.
- Risk is also pooled through the Risk Equalization Mechanism (REM).

This creation of these government sponsored funds and the REM for premiums makes the NSW insurance model a mix of public and private enterprises for injury claims. The insurers are, effectively, service providers with government oversight and claw back on profit levels.

13.2. BENEFITS

NSW has two components to its benefit model: Compulsory Third Party (CTP) and Lifetime Care and Support (LTCS).

CTP scheme

- The CTP scheme provides income support and treatment/care that varies depending upon the claimant's injury.
  - Those who are wholly or mostly at-fault,[85] or with threshold injuries, receive care, treatment, and income replacement for up to 52 weeks.
  - Those claimants who are not at fault with non-threshold injuries, but not LTCS injuries, receive more and longer duration of treatment benefits than those who are wholly or mostly at-fault, or with threshold injuries. (LTCS injured claimants can access LTCS benefits noted below. Non-LTCS claimants requiring treatment beyond 5 years can access CTP Care program.)

    Those with WPI 10% or less can receive income replacement support benefits up to three years, and those with WPI more than 10% can receive benefits up to five years. After the first 52 weeks, there is a proportionate reduction if partially at-fault.
- Tort recovery for economic loss is only available for drivers that are not at fault and have injuries that are non-threshold. A proportionate adjustment applies for those partially at fault. Tort recovery for pain and suffering is only available for drivers with WPI more than 10%.

LTCS scheme

- The LTCS scheme provides reasonable and necessary treatment and care benefits for very severely injured claimants (including catastrophically injured) on a no-fault basis. Severe injuries include spinal cord injury, brain injury, amputations, burns, and permanent blindness and are defined in detail within NSW guidelines. Eligible claimants receive interim support for two years, and then apply to be a lifetime participant.
- LTCS claimants can access the tort system under CTP common law for pain and suffering and income support.

85 Drivers 61% or more at-fault would be categorized as wholly or mostly at-fault.

Exhibit 23: New South Wales Benefits as of April 1, 2023

Coverage	Benefit
CTP scheme	
Ambulance and hospital emergency treatment	Available for anyone injured in an automobile accident.
Income support payments	Benefit amounts: • In the first 13 weeks, claimants can receive 95% of pre-accident gross earnings • Following the 13 weeks, claimants can receive 80-85 per cent of pre-accident net earnings (depending on whether you have total or partial loss of earning capacity) • All payments are capped at $3,853 per week Duration of benefits: • Claimants that are wholly/mostly at-fault can receive benefits up to one year. • Claimants that have threshold injuries can receive benefits up to one year. • Claimants that have injuries that result in WPI 10% or less can receive benefits up to three years. • Claimants that have injuries that result in WPI more than 10% can receive benefits up to five years. • For non-threshold injuries, if claimant is partially at-fault, payments may reduce proportionally after one year.
Funeral expenses	Available whether at-fault or not.
Support payments for dependents of injured claimants	For claimants wholly/mostly at-fault or claimants with threshold injuries, support payments are not available to dependents of the injured claimant. For any non-threshold injuries, support payments to dependents is available. If claimant is deceased, dependent can claim reasonable domestic services costs regardless of fault.
Treatment and care	Reasonable and necessary expenses including: • Medical, dental, and pharmaceutical • Rehabilitation and treatment (for example, physiotherapy) • Cost of travel to/from appointments • In some cases, personal care/help around the home Injury can be physical or psychological Early treatment (one GP visit and two treatment sessions) can be approved by the insurer without a claim being lodged — just requires insurer notification. Duration of benefits: • Claimants that are wholly/mostly at-fault can receive benefits up to one year. • Claimants that have threshold injuries can receive benefits up to one year. • Claimants that have non-threshold injuries can receive benefits up to five years.
Damages for economic loss	Damages may be reduced for contributory negligence. Claim must be made within three years. For claimants wholly/mostly at-fault or claimants with threshold injuries, there is no recovery for economic loss. For any non-threshold injuries, recovery for economic loss is available.

Coverage	Benefit
Damages for pain and suffering	The award cap is $521,000 and damages may be reduced for contributory negligence. Claim must be made within three years. Only claimants that are not wholly/mostly at-fault with threshold injuries that result in WPI more than 10% can recover damages for pain and suffering. Damages for pain and suffering are not available for any other claimant.
Legal and other expenses	Available for all type of injury.
LTCS Scheme	
Treatment, rehabilitation, and care	Available for anyone severely injured in an automobile accident; severe injuries include spinal cord injury, brain injury, amputations, burns, and permanent blindness. An eligible person will be accepted as an interim participant and receive support for two years. Towards the end of the two-year period, an interim participant can apply to become a lifetime participant. Treatment, rehabilitation, and care includes: • Medical treatment (including medication); • Dental treatment; • Rehabilitation; • Ambulance transportation; • Attendant care services and respite; • Domestic assistance; • Aids and appliances; • Prostheses; • Education and vocational training; • Home and vehicle modification; and • Workplace and educational facility modifications. Participants in the LTCS scheme preclude themselves from CTP scheme treatment and care benefits. It does not impact participants' eligibility for income support and/or damages for pain and suffering under the CTP scheme.

In the NSW model, claimants with threshold injuries can not sue for economic loss, or pain and suffering.

The NSW model uses WPI to define which injured claimants would be eligible for recovery under tort, otherwise no-fault benefits apply as defined by the injury type.

There are similarities between this benefit model and Ontario (current and prior) models[86] as tort is only an option for some claimants, depending upon their injury type; and a dispute resolution system is utilized to resolve eligibility disputes.

86 For example, in Ontario, only those with permanent serious injuries as defined can sue for pain and suffering, subject to a deductible.

Limited legal involvement at early claim stage

The NSW Regulations have restrictions on the use of lawyers in some situations:

- Lawyers may not charge claimants for services associated with the internal review of an insurer's eligibility decision.
- If the claimant disagrees with the insurer's eligibility findings, it can apply to the Personal Injury Commission (PIC) (similar to a dispute resolution service). Lawyers may bill claimant a capped fee for legal services for the PIC application.

In addition, the State Insurance Regulatory Authority (SIRA) has established CTP Legal Advisory Services. This is a panel of independent lawyers that provide free advice on rules and process, but do not act as advocates.

Otherwise, the NSW offers a mix of no-fault and tort benefits, with lawyers involved in the tort aspect for the claimant, similar to Alberta's current model.

Levies

The government has special funds it manages for the no-fault CTP-Care and LTCS schemes; and determines levies to be added to the insurance premium to fund these schemes. There are three separate fees added for these funds:

- a levy for hospital treatments and services,
- a levy for the LTCS scheme, and
- a levy for the not wholly/mostly at-fault drivers who need additional treatment beyond the five-year limit under CTP, called CTP Care.

Through a retrospective profits program, any excess profits (as defined) are retained for the benefit of policyholders.

The government's LTCS fund approach allows lifetime benefits for care and treatment for those injured claimants who need these lifetime services. The LTCS is a national scheme with modifications by region.

Risk equalization mechanism

The REM is designed to ensure a fair premium for each private passenger vehicle. This is achieved by pooling all premiums into a risk pool and distributing them to insurers on a per vehicle basis. NSW states this approach promotes price stability and availability for drivers.

13.3. EXPENSES

As in Alberta, the NSW model features private insurer delivery.

13.4. PROFIT AND INVESTMENT INCOME

As in Alberta, the NSW model features private insurer delivery.

13.5. ALBERTA'S TRANSITION TO THE NSW MODEL

Arguably, the NSW is a very complicated model with many rules and mechanisms intended to promote fair average premiums, reduce tort access and associated legal fees, and minimize excess profits. For our determination of an average required premium we consider the described benefits and shifts to/from accident benefits and bodily injury. We assume Alberta's definition of a minor injury is similar to the NSW threshold injury definition.

Although private insurers provide the insurance product to consumers, mechanisms are used that would mimic a public delivery system. There are mechanisms for (1) excess profit claw-back and (2) rate equalization across all companies. These mechanisms make the NSW a hybrid public-private model.

Although private insurers include a "target" profit provision in their rate setting model (for example, 6% in Alberta currently), the realized profit may be higher or lower than the target profit included in the rate setting calculations due to the uncertainty of actual claims costs until all are settled and closed. In public systems, excess profits accrue to the benefit of policyholders. In NSW, any excess profits (of the six insurers) are determined and clawed back for the benefit of policyholders. Such mechanisms may be challenging to manage (that is, fair assessment of excess profits) with a larger number of insurers operating in Alberta.

As public insurers have one set of premium rates, NSW uses a rate equalization mechanism to pool the premiums of the six private insurers, then allocate a single rate per risk to all six insurers. This is intended to ensure fair and affordable rates for consumers and insurers.

Neither of these mechanisms (premium pooling and excess profit claw back) directly impacts our calculations of the required average premium under the NSW model.

13.6. ESTIMATED COSTS UNDER THE NEW SOUTH WALES MODEL

Benefits

We use our current Alberta frequency and severity injury coverage (bodily injury and accident benefits) estimates as the starting point, then estimate the change in claim cost for the NSW model. We assume there would be no change in the propensity to file claims with different benefit levels under an NSW model.

Due to differences in benefit levels and time limit on those benefits, we assume some claims previously under bodily injury would shift to accident benefits and vice versa. When recovery of benefits shifts from accident benefits to bodily injury, we apply an adjustment for the increase litigation costs and an adjustment for the reduction of claimants that pursue tort due to their degree of fault in the accident. The opposite adjustments apply for claims costs that shift from bodily injury to accident benefits.

We rely upon (i) the 2019 Closed Claim Study (CCS) commission by the Alberta Superintendent of Insurance and (ii) the 2016 to 2018 accident benefits transactional data compiled by GISA.[87]

A transition from Alberta's current model to an NSW model would result in costs changes (both increases and decreases) between accident benefits and bodily injury coverages.

Pain and suffering awards

The pain and suffering award is limited to only injured claimants with WPI>10%; whereas all claimants not responsible for the accident event are currently eligible in Alberta. Since pain and suffering awards are only for those with WPI>10%, with the CCS data we identify:

- The percentage of claimants that would be considered minor injury claimants (that is, threshold) and the amounts paid for pain and suffering that would be within the cap, along with other heads of damages, and associated claims handling expense costs — we assume that the definitions of threshold used in NSW and minor injury used in Alberta would result in claimants that are reasonably similar.
- Non-threshold injury claimants, who are WPI>10%, are eligible for pain and suffering awards — based on our review of injury types and payment amounts, we assume that less than 7% of claimants would be eligible for a pain and suffering award, and this represents those most severely injured (WPI>10%). On this basis, we estimate the total pain and suffering payments would reduce by approximately 50%.

Medical and rehab benefits

- Claimants with threshold injuries are limited to one year of no-fault medical and income replacement, rather than the current two years for injured claimants in Alberta. Those claimants not responsible for the accident event would pursue recovery through tort, adding additional legal and claims handling costs. However, since the vast majority of minor injury claims resolve within 12 months, we find a change to the NSW 52-week limitation would have limited shift in amounts paid for medical treatment benefits from accident benefits to bodily injury.

87 Specific assumptions of how we allocated claimants into injury categories is described in the Technical Appendix.

- For non-minor injury claimants, whose claim closed more than two years after the accident, but within five years, we assume the additional medical treatment costs beyond two years would have been recovered under bodily injury. These costs would now shift to the accident benefits coverage, with a commensurate reduction in litigation costs. We use the CCS to identify those claimants and their associated costs.
- The catastrophically injured medical and rehabilitation benefits are through the LTCS no-fault model, reducing friction costs. (However, these benefits are available to whole or mostly at-fault drivers too — which would increase costs.)[88] In addition, for more severely injured, but not catastrophically-injured claimants whose claim duration extends beyond five years (under CTP Care), we assume these costs would be "pooled" into special funds managed by government, and levies added to the premiums. This pooling mechanism benefits from reduced litigation costs. We use the CCS data base to assess the percentage of costs to exclude from bodily injury claims costs for these more severely injured claimants. (We separately include a provision for the fund levies and discuss this below.)

Disability income

- No-fault benefits for (only) up to one year for drivers who are wholly or mostly at fault; Alberta currently provides benefit access up to two years. Since the vast majority of minor injury claims resolve within 12 months, we find the NSW 52-week limitation would have a limited impact on costs due to the duration of benefits change from the current two years.
- For more severely injured claimants whose claim duration extends up to three years (WPI 10% or less) or five years (WPI>10%) there would be a shift in some costs from bodily injury to accident benefits, with a reduction in the claims litigation costs. We use the CCS data to identify those claimants and approximate the duration of their payments, and their payment amounts.
- However, the higher first payer benefit levels paid under the no-fault coverage would increase claims costs in Alberta. The cap on weekly disability income is significantly higher than currently in Alberta. In particular, the NSW maximum weekly benefit at AUD 3,853 is approximately AUD 200,000 per year — which would compensate the majority of employed claimants; and is approximately two times the average income. Similarly, we use Alberta's income distribution as provided by Statistics Canada to evaluate the increase in disability income costs with an offsetting reduction in bodily injury and associated legal costs. To apply the weekly cap, we use a comparative income level for Alberta at approximately two times the Alberta average income. We assume there is no change in benefits for non-employed claimants.

Legal fees

The NSW model is an enhanced no-fault model compared to the current Alberta model. Hence, it will reduce the number of claimants seeking recovery through tort and reduce legal expense costs in the system.

88 There appears to be a gap in benefits for those who are wholly or mostly at fault between after 52 weeks, unless catastrophically injured.

In addition, NSW Regulations have various restrictions at the initial stages of the claim to minimize the involvement of the legal service providers.

- No charging claimants for internal review of insurer's decision.
- If claimant disagrees with insurer decision, claimant has option to apply to a Personal Injury Commission (PIC) whereby there is a capped legal fee for assistance with application to PIC.[89] Legal costs can only be recovered if successful.
- Established a Legal Advisory Service panel that provides free advice from independent lawyers on the benefits, parameters, and processes of the NSW model.

Due to data limitations, we are unable to quantify the impact of these early-stage limitations on legal fees and advice, using the CCS data base. Therefore, based on our judgment, we assume any remaining legal fees {after our adjustment for the shift in coverage for some claimants from bodily injury (tort recovery) to accident benefits (no-fault)} would have a modest (5%) reduction of the remaining legal fees.[90]

The NSW model will require costs for assessing and categorizing claimant injuries; particularly those at the 10% WPI threshold. We understand that NSW noted a large year to year increase in the number of disputes for the PIC to address. We are unable to quantify the potential PIC costs.

Special funds

The NSW model provides claimants with the option for no-fault medical and rehab treatment if injuries are sustained beyond the five-year limitation of the no-fault benefits. While these are split between two separate funds, the LTCS (all claimants) and CTP-Care (not at fault claimants), for simplicity, we group these costs in our calculations. (Tort is used for these claimants for pain and suffering and income replacement; and is not part of these fund.)

The NSW LTCS fund is part of a country-wide Australia recovery approach. As part of the country-wide fund, significant investment income contributes to reduces the levies added to premiums in NSW. NSW reports that the premium levies contribute 20% to the total fund costs, with the balance from investment income.

NSW reports the total fund levies (which includes a health services levy) are approximately 1/3 of the claims cost for a policy in Sydney; and these fund levies have been increasing since NSW changed its model in 2017. NSW also reports that the levy for LTCS and CTP Care is 25% of the total injury costs.

89 NSW reports that in 2022 approximately 25% of the PIC cases are not resolved within 52 weeks; and this percentage of unresolved within the year has been increasing. NSW's restrictions based on more complicated medical criteria may contribute to this increasing delay.

90 However, increased use of tribunals may have an offsetting impact to reduction in legal fees.

Given 20% of the fund cost is from levy fees, and 80% from investments, it is unlikely that in the initial period Alberta would have commensurate capital to offset required levy fees through investment income to the degree of the NSW model. Based on our judgment, we assume these two levy fees (for LTCS and CTP Care) would be 25% of the total related claims costs.

Expenses

As private insurers deliver the NSW model, we base our cost estimates on the same assumption we use in the current Alberta model for expenses.

Profit and investment income

As private insurers deliver the NSW model, we base our cost estimates on the same assumption we use in the current Alberta model for profit, and investment income.

13.7. FINDINGS

In the Technical Appendix, Exhibits NSW 1.1 to NSW 6.2, we present our detailed calculations and support to estimate the required full coverage premium[91] for a NSW model in Alberta at $2,085.

91 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

14. AUSTRALIAN CAPITAL TERRITORY MODEL

Exhibit 24: At a glance — Australian Capital Territory model

	Personal injury	Physical damage
Delivery of insurance	Mix of private with public funds	Private
Compensation system	Mix of tort and no-fault	Deductible if at fault

14.1. INTRODUCTION

Australian Capital Territory (ACT) changed from a tort model to its current automobile insurance regime, a mix of no-fault and tort, on February 1, 2020. With roughly 1/10th the population of Alberta, ACT chose, due to its small size, not to consider a public system. Instead, four insurers provide insurance policies to the drivers in ACT.

Under ACT's prior tort model, legal costs (as a head of damage) during 2008 to 2015 averaged 22% of total injury claim costs.[92] At the time of introducing the change from a tort model to a mix of no-fault and tort, the average injury premium reduced by approximately 12%; from $510 to $450. The new ACT model reduced average payments for legal expenses (including investigative costs) to less than 7% of total injury payments from the start of the scheme on February 1, 2020, through September 30, 2023.[93] The same degree of reduction of costs (for example, legal fees) as occurred in ACT would not be expected in Alberta, since Alberta currently has no-fault benefits and ACT did not.

Physical damage coverages are provided by insurers on an optional basis.

92 Figure 9 in Motor Accident Injuries Commission (including ACT Compulsory Third-Party Insurance Regulator) — Annual Report 2019-20.

93 ACT Motor Accident Injuries Scheme Quarterly Report — 30 Sept 2023.

14.2. BENEFITS

The product comprises of no-fault benefits for all injured claimants which includes medical care, rehabilitation, income replacement, and a "quality of life" benefit for those claimants with 5% or more WPI. The defined and inflation-adjusted quality of life benefit varies with the degree of WPI assessment. The benefits are available for up to five years. These are referred to as the Motor Accident Injuries (MAI) Insurance Scheme benefits.

Tort recoveries are also available under the MAI Scheme for claimants with 10% or more WPI, children still receiving care at 4.5 years from accident date, or adults still receiving income replacement 4.5 years from the accident date for injuries causing "significant occupational impact." Compensation is available for medical care, rehabilitation, income replacement, quality of life, and death benefits. The insurer of the vehicle most at fault responds to the claim.

Similar to NSW, ACT has a no-fault LTCS medical care and assistance program for those who are catastrophically injured, as defined in their Guidelines. Like NSW, the LTCS program does not provide for lost income or quality of life benefits; these are available through the MAI no-fault or MAI tort schemes.

The government's LTCS fund approach allows lifetime benefits for care and treatment for those injured claimants who need these lifetime services. This creation of the government sponsored funds effectively makes the ACT insurance model a mix of public and private enterprises.

Exhibit 25: Australian Capital Territory benefits

Coverage	Benefits
MAI insurance scheme no-fault defined benefits	
Ambulance	Funded by a road rescue fee paid as part of every vehicle registration fee.
Hospital	All claimants whose personal injury applications are accepted by the insurer. The application should be made within 13 weeks of the accident.
Early treatment expenses	Claimant will be reimbursed for pre application expenses: • Two visits to a doctor including one long consultation to complete the relevant medical report; and • Two allied health treatment sessions, on referral from a doctor, such as physiotherapy or psychology (capped at $150 each). Claimant will be reimbursed for treatment expenses while waiting on assessment of a Personal Injury Application for cover to the relevant insurer: • Four consultations with a GP; and • Eight allied health treatment sessions, on referral from a doctor, with up to four sessions for any one service, such as physiotherapy or psychology (capped at $150 each).

Coverage	Benefits
Treatment and care benefits	Reasonable and necessary treatment (either directly or by reimbursement) for up to five years after the accident. This can include: • Medical treatment (including mental health treatment and pharmaceuticals), dental treatment, rehabilitation, respite care, ambulance transportation, aids and appliances, prostheses, education and vocational training, home and transport modification, workplace and educational facility modification, care services (for example, nursing, home maintenance and personal assistance); • Travel expenses to attend treatment; and • Domestic care expenses for paid care provided to the claimant, or for care the claimant usually provides to another family member but cannot provide due to their injuries, such as an elderly parent or child. If a claimant does not resume pre-accident activities/work duties within 28 days of having their application assessed, the insurer may consult their doctor to develop a recovery plan which is reviewable at least every 13 weeks. This helps clarify what treatment has been deemed reasonable and necessary, and therefore covered.
Quality of life benefit	Quantified based on the percentage of whole person impairment (WPI) using Quality of Life Tables (adjusted for inflation). To qualify for quality-of-life benefit, a claimant must have at least 5% WPI. An independent medical examiner (IME) contracted by the MAI Commission performs a WPI assessment at least six months post-accident and when injuries are stable and considered permanent. • Sample benefits are $7,730 for 5% WPI, $46,520 for 20% WPI, $139, 360 for 50% WPI, and $386,180 for 100% WPI.
Income replacement benefit	Benefit amounts: • For claimants earning below A$800 per week, claimants can receive 100% of their pre-accident earnings • For claimants making between A$800 and A$1,000 per week, claimants can receive 95% of their pre-accident earnings • For claimants making above A$1,000, for the first 13 weeks, claimants can receive 95% of their pre-accident earnings. Following 13 weeks, claimants can receive 80% of their pre-accident earnings. • All payments are capped at A$2,250 per week Duration of benefits: • Claimants can receive benefits up to five years.
Death benefits	Funeral benefits • Up to A$15,000 Dependent benefits • A$190,000 for domestic partner/former domestic partner; and • A$40,000 for each child up to 4 children
MAI insurance scheme common law compensation for not-at-fault injured	
Eligibility	• People with WPI≥10% • Children still receiving treatment and care benefits 4.5 years post-accident • Adults still receiving income replacement benefits 4.5 years post-accident and assessed (by one or more independent assessors, arranged by an IME) as having an injury with a significant occupational impact

Coverage	Benefits
Compensation	• Reasonable and necessary treatment and paid domestic care for as long as it is likely needed • Income replacement for as long as it is likely needed: – Year one: per the defined benefits income replacement benefit table above – Thereafter: 100% loss of earning capacity plus superannuation, capped at A$4,500 per week • Loss of quality of life up to a maximum of A$600,000, based on the WPI scale and any impacts the court considers were not taken into account as part of the independent medical examiner's WPI assessment • Death benefits
Award	• Takes into account any defined benefits received, and precludes access to any more defined benefits • Paid as a lump sum
LTCS scheme	
Eligibility and application	The hospital treating doctor completes a 'severe injury advice form' confirming whether injuries are likely to meet eligibility criteria for entry to the scheme. • Must be a catastrophic injury: spinal cord injury, traumatic brain injury, amputations, burns, or permanent blindness. If eligibility is likely to be met, a LTCS Coordinator is appointed to assist the injured person in completing an interim application. • Treatment and care is only covered when the injured person is accepted as an interim participant After two years as an interim participant, injuries are reassessed for lifetime participation.
Reasonable and necessary treatment and care	Section 9 of the LTCS Act defines treatment and care as: • Medical treatment (including pharmaceutical treatment) • Dental treatment • Rehabilitation • Ambulance transportation • Respite care • Attendant care services • Aids and appliances • Prostheses • Education and vocational training • Home and transport modification • Workplace and educational facility modifications • Any other service prescribed by regulation For a service to be "reasonable and necessary" it must be beneficial, appropriate, given by an appropriate provider, cost-effective, and injury-related. Services must also be pre-approved.
Access to other benefits	Participation in the LTCS scheme does not preclude an injured person from pursuing benefits and/or recovery for loss of income and loss of quality of life under the MAI insurance scheme. They are, however, precluded from access to treatment and care benefits and/or recovery under that scheme.

Dispute resolution

The insurer of the at-fault driver handles the claim settlement process. A dispute resolution system, (ACT's Civil and Administrative Tribunal) is used to address disagreements between the claimant and insurer on eligibility for benefits under MAI. Similarly, disputes about LTCS benefit eligibility, go to the LTCS Commission for review. Claimants often represent themselves and costs of tribunal may go to the losing party.

Premiums and fund levies

Personal injury insurance under the ACT model is distributed by four private insurers, with premiums based on the insurer's costs including the special fund levies. The rates are pre-approved by the governing Commission of the MAI. While rates vary amongst insurers, the insurers may not set premiums based on individual driver risk characteristics. Insurers may not decline a risk; they must accept all.

14.3. EXPENSES

As in Alberta, the ACT model features private insurers delivery.

14.4. PROFIT AND INVESTMENT INCOME

As in Alberta, the NSW model features private insurers delivery.

14.5. ALBERTA'S TRANSITION TO THE ACT MODEL

We assume there would be no change to the number of insurers operating in Alberta, and therefore no measurable impact to operating expenses of private insurers.

The ACT model is designed to segment injured claimant's access to tort benefits based on defined injury thresholds using WPI; disputes are handled by a tribunal. The tribunal's decision determines if the claimant is eligible to proceed to the tort system to recover additional medical and rehabilitation benefits.

The ACT model has some similarities to the Ontario model whereby no-fault benefits are provided for the majority of claimants[94] and a tort option is available for claimants with more serious and/or longer-lasting injuries. Like Ontario, tribunals (or dispute resolution mechanisms) are used for dispute issues of eligibility. However, we do not have ACT detailed claim experience to compare relationships between average claim sizes for the no-fault and tort components with Ontario.[95]

94 We assume the majority of ACT claimants have less than 10% WPI.

95 The Ontario average bodily injury-tort severity (average claim size) is roughly twice that of Alberta's since only the more serious injuries have tort recovery, while average accident benefits severity is roughly four times that of Alberta's.

We assume there would be a reduction in the total legal costs compared to that currently in Alberta, as claimants with injuries that resolve within five years and/or less than 10% WPI could recover with the stated no-fault benefits without the need for legal support in a tort process. In addition, ACT's "Quality of Life" as part of the no-fault benefits (for WPI>5%) may minimize tort actions for the (similar in concept) pain and suffering awards currently provided under tort in Alberta.

14.6. ESTIMATED COSTS UNDER THE ACT MODEL

Benefits

We use our current Alberta frequency and severity injury coverage (bodily injury and accident benefits) estimates as the starting point, then estimate the change in claim cost for the ACT model.

We assume there would be no change in the propensity to file claims with different benefit levels under the ACT model.

Due to differences in benefit levels and time limit on those benefits, we assume some claims previously under bodily injury would shift to accident benefits and vice versa. When recovery of benefits shifts from accident benefits to bodily injury, we apply an adjustment for the increase litigation costs and an adjustment for the reduction of claimants that pursue tort due to their degree of fault in the accident. The opposite adjustments apply for claims costs that shift from bodily injury to accident benefits.

We rely upon (i) the 2019 Closed Claim Study (CCS) commission by the Alberta Superintendent of Insurance and (ii) the 2016 to 2018 accident benefits transactional data compiled by GISA.[96]

Pain and suffering awards

The ACT model would replace the current tort-based pain and suffering awards with a no-fault "quality of life" benefit for those with WPI>5%. Pain and suffering costs for the first five year would shift from bodily injury to accident benefits with a commensurate reduction in legal fees, but an increase for partially at-fault claimants now eligible under no-fault. For claims with duration greater than five years, we only shift the proportion of the bodily injury pain and suffering damages for the first five years, assuming even distribution over the entire claim period.

WPI more than 10% claimants are eligible for additional quality of life (pain and suffering) recovery through tort. However, those claimants with on-going claims after five years who are not WPI>10%, would not be eligible for further quality of life benefits unless they are (i) children still receiving benefits after 4.5 years after the accident date or (ii) adults still

96 Specific assumptions of how we allocated claimants into injury categories is stated in the Technical Appendix.

receiving income replacement benefits after 4.5 years after accident date with an injury with significant occupational impact. We reduce the bodily injury claim costs amounts for this change.

Medical and rehab benefits

For non-minor injury claimants, whose claim closed more than two years after the accident, but within five years, we assume the additional medical treatment costs beyond two years would have been recovered under bodily injury. These costs would now shift to the accident benefits coverage, with a commensurate reduction in litigation costs. In addition, we assume additional claimants that were at-fault would now be eligible for the additional three years up to a five-year timeline. We use the CCS to identify those claimants and their associated costs.

For more severely injured LTCS claimants whose claim duration extends beyond five years, we assume these costs would be "pooled" into special funds managed by government; and levies added to the premiums. This pooling mechanism would benefit from reduced litigation costs. As these funds provide "lifetime" care, and those at-fault are eligible, we expect an increase in total indemnity. We use the CCS data base to assess the percentage of costs to exclude from bodily injury claims costs for these more severely injured claimants. (We separately include a provision for the LTCS fund levy and discuss this below.)

Disability income

For more seriously injured claimants whose claim duration extends beyond two years and up to five years, we assume there would be a shift in some costs from bodily injury to accident benefits, with a reduction in the claim litigation costs. We use the CCS data to identify those claimants and approximate the duration of their payments, and their payment amounts.

The ACT higher first payer benefit levels paid under the no-fault coverage would increase claims costs in Alberta. Similar to our calculations for NSW, we use Alberta's income distribution as provided by Statistics Canada to evaluate the increase in disability income costs with an offsetting reduction in bodily injury and associated legal costs. Stated in local currency, Australia's average income is approximately two times the average income in Alberta. Therefore, we adjust the limit on the weekly wage proportionately. We assume there is no change in benefits for non-employed claimants. We assume there would be a shift in some costs from bodily injury to accident benefits for these higher benefit levels, with a reduction in the claim litigation costs. We include a provision for the additional at-fault claimants that would also be eligible for these higher no-fault benefits.

Claimants with WPI<10% are not eligible to sue for loss of income beyond five years. We reduce the bodily injury claim costs for this restriction.

Special funds

The ACT model provides severely injured claimants, referred to as LTCS claimants with the option for no-fault medical and rehab treatment if injuries are sustained beyond the five-year limitation of the no-fault benefits. While claimants have the option to recover these medical benefits under tort, we assume that the no-fault option is the primary route. (Claimants may pursue recovery in tort for pain and suffering and income replacement; the LTCS does not respond to these claims.)

This LTCS fund is part of a country-wide Australia recovery approach.

Based on the more detailed information provided under the NSW model, we selected a 25% of costs estimate for two funds in NSW, one of which is the LTCS fund. Using that information, on a proportionate basis, we estimate an ACT LTCS loading factor of 20% of the total related claims costs.

Expenses

As private insurers deliver the ACT model, we base our cost estimates on the same assumption we use in the current Alberta model for expenses.

Profit and investment income

As private insurers deliver the ACT model, we assume there would be no change to Alberta's current 6% profit provision and investment income on the supporting capital would not benefit the policyholder, as is the case now in Alberta.

14.7. FINDINGS

In the Technical Appendix, Exhibits ACT 1.1 to ACT 4.2, we present our detailed calculations and support to estimate the required full coverage premium[97] for an ACT model in Alberta at $2,240.

97 Full coverage premiums include the following: bodily injury, accident, property damage, DCPD, collision, and comprehensive.

15. IBC PROPOSAL

Exhibit 26: At a glance — IBC proposal

	Personal injury	Physical damage
Delivery of insurance	Private	Private
Compensation system	Tort with limited no-fault	Deductible if at fault

15.1. INTRODUCTION

The Insurance Bureau of Canada (IBC) commissioned a study by MNP to understand the system trends and factors affecting private passenger vehicle insurance in tort-jurisdictions, with a focus on Alberta. As presented in the September 2023 report, findings for Alberta injury claims included:

- Between 2018 and 2022 there was a 48% increase in claimants seeking legal representation. This has led to fewer claimants subject to the minor injury cap and increasing average claim severity.
- Bodily injury litigation costs rose from 17.5% in 2018 to 27% in 2022; with a rise to total litigation costs over this period at +31%.
- Costs associated with litigation comprise 20% of the premium for mandatory coverages.[98]

In response to concerns of affordable automobile premiums, the IBC created a proposal to address concerns. The proposal includes three key components that it estimates will impact average premiums:

- Changes to the benefits for injury claimants
- Elimination of the 4% premiums tax
- Elimination of the GRID framework system.

The second and third proposals are policy matters, and not directly related to the cost estimate of premiums for a specific care and support cost recovery model.

98 Page 4 of 48.

IBC estimates the average private passenger vehicle premium[99] for 2024 to be $1,828, and estimates its proposed changes to the recovery for care and support for injury claimants would reduce the average premium by $200. We discuss the IBC proposed injury cost recovery system more fully below in Section 15.2.

The elimination of the 4% premiums tax is a policy decision that the Ministry could apply to any new insurance model it chooses to introduce. For comparison purposes, all models under consideration in this report are based on maintaining the current 4% premiums tax rate.

The GRID system is a tool to ensure a maximum rate for all drivers in the province. To the extent that GRID rates may be too low for those drivers capped by the GRID, the financial losses are shared amongst all insurers.

Removal of the GRID framework would result in premium increases for those capped by the GRID and premium reductions for other drivers.

The removal of the GRID framework *would not result in lower overall claims costs or lower average premiums* for the industry (all drivers). The GRID framework does not impact the required average premium — which is based on claim costs, expenses, profit and offsetting investment income and fees.

15.2. BENEFITS

IBC's proposal recommends various changes to injury benefits and introducing options to purchase additional benefits that would no longer be included in the standard accident benefits coverage. These proposed changes include:

- All "common injuries" (as defined) that would be limited to $2,500 for medical/rehab in the first 3 months, and then an additional $2,500 for months four to six; a total of $5,000. A "program of care" is to be followed by common injury claimants. As the case now for minor injury claimants, the auto insurer is the first payer.
- For claimants determined to have injuries more serious than common injuries, they would continue to be eligible for a $50,000 limit on medical/rehabilitation expenses over two years. And as is the case now, the auto insurer is the second payer.
- Option to purchase additional medical/rehabilitation coverage beyond the $50,000 limit for the two- year period after the accident. This additional optional coverage would be for select serious injuries defined as WPI at 60% or greater.

99 Average premium noted by IBC is based on a proportion of drivers choosing optional coverages such as collision and comprehensive. The full coverage average premium we calculate for the insurance models under consideration includes collision and comprehensive.

- As is the case now, not-at-fault drivers may sue for additional medical/rehabilitation benefits beyond standard limits through a bodily injury tort claim.
- Income replacement for earners and non-earners, as well as caregiver, housekeeping, and home maintenance costs would be removed from the standard policy. These benefits would only be available as an optional accident benefits coverage. Not-at-fault drivers may sue for recovery of care and support costs through a bodily injury tort claim.
- Only not-at fault seriously injured claimants can sue for non-pecuniary damages (pain and suffering award). Those with common injuries would no longer be eligible to sue for non-pecuniary damages. An option to purchase this benefit outside the standard policy is proposed.

The average injury claims costs for the proposed standard benefits compared to the current standard benefits will change due to: (1) disability income recovery through tort for not-at-fault drivers, (2) restriction to 6 months for a maximum of $5,000 medical/rehabilitation for "common injuries," and (3) restriction to pain & suffering awards only for seriously injured (that is, injury is more serious than a common injury.)

IBC defines common injuries as those consisting of "...physical impairments, such as sprains/strains, contusions, abrasions, lacerations, and pain or any other clinically associated sequelae of a sprain/strain, contusion, abrasion or laceration. It also consists of mental impairments, such as concussion, post-concussion syndrome and mild-traumatic brain injury. Lastly, it consists of conditions associated with physical and mental impairments, such as depressed mood, anxiety, fear, anger, frustration and poor expectation of recovery."

15.3. EXPENSES

We assume the same expense provision as our current Alberta model.

15.4. PROFIT AND INVESTMENT INCOME

We assume the same profit provision and investment income as our current Alberta model.

15.5. ALBERTA'S TRANSITION TO THE IBC MODEL

We base our required average premium estimate on full coverage for a standard policy; any proposed optional coverages are not included in the standard policy premium that we present.

One aspect of IBC's model is based on the removal of disability income benefits from the standard policy accident benefits coverage. To have the same/similar benefits as currently provided in Alberta, IBC proposes policyholders purchase additional optional coverages. This effectively would bring the premium level close to the current required premium.

15.6. ESTIMATED COSTS UNDER THE IBC MODEL

Benefits

We use our current Alberta frequency and severity injury coverage (bodily injury and accident benefits) estimates as the starting point, then estimate the change in claim cost for the IBC model. We assume there would be no change in the propensity to file claims with different benefit levels under the IBC model.

We rely upon (i) the 2019 Closed Claim Study (CCS) commission by the Alberta Superintendent of Insurance and (ii) the 2016 to 2018 accident benefits transactional data compiled by GISA.[100]

We estimate the current Alberta model 2024 disability income claims costs including claims handling expenses to be approximately $30. These costs (and benefits) would be eliminated from standard accident benefits. However, not-at fault claimants would then seek recovery through tort and require additional legal assistance for their claim. We assume 75% of the claimants would pursue disability income recovery through tort. As a result, we estimate a net average claim cost reduction of $3 for the change of disability income coverage to a strictly tort recovery basis.

Due to lack of claimant information on "common injuries" we assume an expansion of the number of claimants beyond those defined as minor (in the 2019 CCS) is reasonable and appropriate. Based on that claimant data, we estimate that the removal of the pain and suffering award would reduce the average claim cost (including claims handling and legal fees) by approximately $109 per vehicle.

100 Specific assumptions of how we allocated claimants into injury categories is stated in the Technical Appendix.

We use the GISA accident benefits transactional data to identify common injury claimants that may be subject to the proposed cap of $5,000 for medical and rehabilitation within the first 6 months.

Our estimate of the total loss and ALAE reduction based on the proposed changes is approximately $120, less than what we approximate IBC's to be ($150 to $160).[101]

Expenses

Like our current Alberta model, we assume an expense provision of 27.2%. This is based on an industry average of GISA's reported expense data for the last three years ending 2022. We assume any payment plan fee revenues have been netted from the expense provisions reported to GISA.

Profit and investment income

Like our current Alberta model, we use a profit provision of 6% of premiums and investment income from associated cash flows (using the historical claims payment patterns by coverage) at a pre-tax rate of 3.7%.

15.7. FINDINGS

In the Technical Appendix, Exhibits IBC 1.1 to IBC 3.2, we present our detailed calculations and support to estimate the required full coverage premium[102] for IBC's proposal at $1,872.

101 It is unclear if IBC assumes some claimants will seek recovery under tort if disability income is removed from accident benefits. If not, this may explain the difference in our estimates.

102 Full coverage premiums include the following: bodily injury, accident benefits), property damage, DCPD, collision, and comprehensive.

16. OVERVIEW OF MODEL OPTIONS

The Ministry asked Oliver Wyman to estimate the average premium for Albertans using models in other jurisdictions (Manitoba, British Columbia, Saskatchewan, Québec, Australia — NSW and ACT) a well as IBC's proposal. Our discussion and findings of required average premiums for these models are presented in Sections 8 to 15.

The required average premiums that we presented for these models, and the current Alberta model (Section 4), are based on cost estimates as at July 1, 2024. We recognize the lead time to implement any of these models may take several years; and it is likely that costs will continue to increase. This selected date serves to place less dependence on future loss trend rates and reflect the current state of costs.

A summary of the required average premiums for full coverage (which includes collision and comprehensive) for each of the models is presented below.

Exhibit 27: Comparison of estimated required full coverage average premiums at July 1, 2024 average accident date[103]

Component	Current Alberta Product	Manitoba	British Columbia	Saskatchewan	Québec	New South Wales	Australian Capital Territory	IBC
Claim cost	**$1,447**	**$1,128**	**$1,060**	**$1,135**	**$1,131**	**$1,480**	**$1,589**	**$1,589**
Percent of premium	71.8%	90.6%	85.7%	90.7%	75.2%	70.9%	70.9%	71.0%
Expenses								
Commissions	265	66	116	67	169	275	295	246
Premiums taxes	81	50	50	50	60	83	90	75
All other general expenses	203	109	108	109	158	210	226	188
Total expenses	**549**	**225**	**274**	**226**	**388**	**568**	**610**	**510**
Percent of premium	27.2%	18.1%	22.1%	18.1%	25.8%	27.2%	27.2%	27.2%
Profit provision	**121**	**0**	**0**	**0**	**69**	**125**	**134**	**112**
Percent of premium	6.0%	0.0%	0.0%	0.0%	4.6%	6.0%	6.0%	6.0%
Investment income	**(101)**	**(77)**	**(65)**	**(78)**	**(74)**	**(87)**	**(93)**	**(79)**
Percent of premium	-5.0%	-6.2%	-5.3%	-6.2%	-4.9%	-4.2%	-4.2%	-4.2%

103 This table is a duplicate of that presented in the Executive Summary.

Component	Current Alberta Product	Manitoba	British Columbia	Saskatchewan	Québec	New South Wales	Australian Capital Territory	IBC
Finance fees	**Incl with exp**	**(31)**	**(31)**	**(31)**	**(9)**	**Incl with Exp**	**Incl with Exp**	**Incl with Exp**
Percent of premium	0.0%	-2.5%	-2.5%	-2.5%	-0.6%	0.0%	0.0%	0.0%
Required average premium	**2,015**	**1,245**	**1,238**	**1,252**	**1,505**	**2,085**	**2,240**	**1,872**
Percent change		**-38.2%**	**-38.6%**	**-37.9%**	**-25.3%**	**3.5%**	**11.2%**	**-7.1%**

As discussed in Section 9, the Ministry asked that we estimate the Manitoba no-fault model under a private delivery option. In Exhibit 28 below we present the no-fault Manitoba model required average premium under two delivery options: a public entity and private insurers. For the private delivery option, we assume the same expense and profit provision percentages as presented for the current Alberta model. Based on these expense and profit assumptions differences between private and public delivery, the additional premium under the MPI model private delivery scheme is $389.

Exhibit 28: Comparison of Manitoba model under public and private delivery systems[104]

Component	Manitoba public delivery	Manitoba private delivery	Difference
Claim cost	**$1,128**	**$1,128**	**$0**
Percent of premium	90.6%	69.1%	
Expenses			
Commissions	66	215	149
Premiums taxes	50	65	15
All other general expenses[105]	109	164	55
Total expenses	**225**	**445**	**220**
Percent of premium	18.1%	27.2%	
Profit, investment income, and finance fees	**(108)**	**61**	**169**
Percent of premium	-8.7%	3.7%	
Required average premium	**1,245**	**1,634**	**389**

104 This is a duplicate of the table presented in the Executive Summary.

105 In the supporting Appendix, general expenses are presented split between variable and fixed by coverage.

The required average premium estimates that we calculate should be considered in the context of comparative premiums among these alternative models. The benefit of these comparisons is not the absolute values, rather the insights into the cost impact of variances among the models. The Ministry can consider these variances amongst the models and "take the best" to create a long-term sustainable model to achieve its policy objectives.

16.1. TORT VERSUS NO-FAULT SYSTEMS

Specific to benefits for injured claimants, the claim cost per vehicle associated with injury claims under the four no-fault models (Manitoba, Saskatchewan, British Columbia, and Québec) is less than in the current Alberta model, while providing higher and more generous benefits to all injured claimants on a no-fault basis. This lower claim cost under the no-fault model is due to (1) a reduction in the adversarial costs associated with a tort model dependent upon external legal resources and (2) a replacement of the tort-based pain and suffering award with a no-fault permanent impairment benefit, scaled by injury, that is applied to all claimants.

The four no-fault models and Alberta's current tort model treat "accidents" differently.

- No-fault models are primarily focused on fair, consistent and appropriate recovery benefits for all injured claimants regardless of fault for the accident event. Apart from unusual criminal code driving related events, the no-fault models accept that accidents happen, and all injured claimants are eligible for the full and necessary benefits and treatment for recovery.
- Alberta's current tort model is intended to ensure that not-at-fault claimants receive fair and appropriate recovery benefits through an adversarial process. In contrast, the driver found responsible for the accident event is provided with more limited no-fault recovery benefits.[106]

The four no-fault models and Alberta's current tort model treat catastrophic claimants differently.

- While there are differences in the benefit levels amongst the three no-fault western provinces and Québec, they are all generally the same with high limits of coverage for those catastrophically injured (for example, $7.5 million+).
- In Alberta's tort process, even for not-at fault drivers, some catastrophically injured may never fully receive the recovery benefits needed since typical liability limits are $2 million or less.

Alberta's long-term choices for benefit determination models include:

1. Change to full no-fault regime (like British Columbia, Manitoba, Saskatchewan, or Québec)
2. Keep tort but expand/contract current accident benefits. (For example, Ontario and the Australian models have more generous accident benefits coverage than current Alberta. IBC proposes to reduce the current standard accident benefits recoveries.)

106 Claimants in accident events involving wildlife cannot seek recovery through tort.

3. Keep tort but restrict eligibility for tort — similar to current Ontario, the Australian models and IBC's proposal. (Ontario, Australian, and IBC's proposals restrict who can sue for pain and suffering. In contrast the public systems provide a permanent impairment benefit that replaces the tort pain and suffering award.)
4. A combination of #2 and #3 above.

As presented in this report, the most comprehensive benefits for all injured claimants, while at the same time providing the lowest claim cost per vehicle is for the no-fault model (as in Manitoba, British Columbia, Saskatchewan, or Québec).

16.2. PUBLIC VERSUS PRIVATE DELIVERY SYSTEMS

Once Alberta determines which benefit determination model it chooses, the delivery of that model also impacts the premium level. The choices are 100% public, 100% private delivery, or as in Québec, a combination of public and private, or the hybrid private model as in NSW. In addition, private insurers have the option to compete with public insurers for physical damage coverages in some provinces.

Public models have lower costs than private models because:

- No profit provision (now 6% of premium in Alberta),
- All investment income is attributable to the benefit of policyholders,
- Lower operational (for example, underwriting) costs, and
- Lower commission/broker fees.

Public models in Canada provide a comprehensive and streamlined process to vehicle licensing, registration and insurance — ensuring fewer uninsured vehicles on the road. In addition, road safety initiatives are part of the public entity's responsibilities. We did not include the costs of these additional services in our pricing comparisons amongst the models, but it is a consideration for the Ministry in choosing changes to its model.

Public models with no-fault benefits (in British Columbia, Manitoba, Saskatchewan, or Québec) provide (effectively) lifetime benefits (for example, $7.5 million+) for catastrophically injured claimants. Individual private insurers typically are unable to provide lifetime benefits without the use of pools that fund these benefits and share the costs amongst all insurers.

Private insurance models currently have higher cost components (associated with profit targets, operations costs, and commission/acquisition fees) that materially increase the premiums compared to public models. Steps to drive down those costs would require more regulation and more oversight. For example, regulations could stipulate restrictions on any of these components, (for example, capping commission to a maximum percentage and/or dollar amount) or create mechanisms to retroactively claw back excess profits as in NSW.

There are numerous economic considerations related to a change from a private to a public model. Any costs or timelines associated with such a transition is outside the scope of our review.

17. GLOSSARY

To assist the reader in understanding our report, in this section we define and explain several insurance terms.

17.1. INSURANCE COVERAGES

We begin with a general description of the insurance coverages. We note that throughout this discussion of the insurance coverages, the term "insured" is generally used to mean the owner, and family of the owner of the policy, as well as any passengers or other drivers using the car with the owner's permission.

Third party liability (TPL)
Bodily injury (BI) coverage protects the insured against liability arising from an accident that causes bodily injury to another person. Coverage amounts available in Alberta range from the legal minimum of $200,000 per claim to well over $2,000,000 per claim.

Property damage (PD) coverage protects the insured against liability arising from an accident that causes damage to the property of another person, which is not covered by DCPD (for example, damage to a fence).

Direct compensation property damage (DCPD) provides coverage for insured's vehicle damage when not at fault in an accident.

All drivers must purchase at least the legally required minimum amount of TPL coverage available in Alberta.

Accident benefits (AB)
This coverage provides for such items as reimbursement of lost income, medical care costs, and funeral costs; it also provides benefits to the dependents of a deceased insured.

Underinsured motorist (UIM)
This coverage protects the insured if he or she is caused bodily injury by an at-fault driver who is insured, but who does not have sufficient insurance to cover the liability. In this case the insured collects, from his or her own insurer, the amount of the damage that is in excess of the at-fault driver's liability coverage and up to the limit of UIM coverage purchased.

Collision
This coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a collision.

Comprehensive
This coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a peril other than collision (for example, theft, vandalism, flood, hail, fire, etc.).

All perils
This coverage combines the coverages for both collision and comprehensive into one coverage, subject to a common deductible level.

Specified perils
This coverage, like comprehensive, provides coverage (subject to a deductible) for specific perils to the insured's vehicle.

17.2. OTHER TERMS

Allocated loss adjustment expense (ALAE)
ALAE is the claim and settlement expense that can be associated directly with individual claims (for example, legal expenses). (See ULAE).

Claim cost
Claim Cost is the average incurred loss and ALAE per insured vehicle. The claim cost is the product of claim frequency and claim severity. Using the above example, a claim frequency of 5 percent, multiplied by a claim severity of $20,000, produces a TPL claim cost of $1,000.

Claim frequency
Claim Frequency is the average number of claims that occur in a year, per insured vehicle. Claim frequency is a measure of the incidence of automobile claims. For example, if an insurance company provided insurance on 100 vehicles in year 2024 and 5 TPL claims occurred during 2015, the company's TPL claim frequency for 2024 would be 5 percent.

Claim severity
Claim Severity is the average reported incurred loss and ALAE per claim. Claim severity is a measure of the average cost of automobile claims. For example, if the 5 claims in the previous example resulted in a total incurred loss and ALAE of $100,000, the claim severity would be $20,000.

Claim count development
Claim Count Development refers to the change in the number of initially reported claims for a particular accident year over time until all claims are eventually reported. (See loss development).

Earned premium
Earned Premium is the amount of written premium that is associated with the portion of the policy term that has expired. For example, assume an automobile policy with a 12-month term is sold on January 1 for $1,000. The amount of earned premium would be $500 on June 30.

Exposure unit
Exposure unit is a measure of loss potential. In Private Passenger vehicle insurance, the exposure unit that is commonly used is the number of insured vehicles. For example, all else being equal, it would be expected that the cost to an insurance company to insure 50 cars would be twice the cost to insure 25 cars.

Health cost recovery assessment
As per Provincial legislation, each insurer is assessed to achieve a target amount set by Government. The Minister of Finance publishes the assessment percentage applied to Third Party Liability written premiums every year. GISA calculates and provides the assessment as a percentage of earned third party liability premiums. Under the legislation, the Government has no subrogation rights against the at-fault parties who are insured by policies of TPL insurance; but instead, collects the assessment.

Loss development
Loss development is the amount by which reported incurred losses and ALAE for a particular accident year change over time. The two main reasons why reported incurred losses and ALAE amounts change (or develop) over time are:

a. Reported incurred losses and ALAE only include case reserve estimates on claims for which the claim adjuster has knowledge, that is, case reserves are only established on the claims that have been reported to the insurance company. Since typically some period of time elapses between the time of the incident and when it is reported as a claim, the number of reported claims for an accident year would be expected to increase over time. Claims that are reported after the close of an accident year are referred to as “late-reported” claims; and
b. Reported incurred losses and ALAE also develop because, for a number of reasons, the initial case reserves established by claims adjusters, cannot fully and accurately reflect the amount the claim will ultimately settle at. Over time, the percentage by which reported incurred losses and ALAE develop for a given accident year should decline. This is because as accident years become more mature (that is, become older), fewer and fewer reserve estimates are adjusted to reflect newly reported late claims, actual payments, and additional information that becomes available to the claims adjuster.

Loss ratio
Loss ratio is the common measure of premium adequacy. Loss ratio is usually defined as estimated ultimate incurred losses and ALAE, divided by earned premium. The ultimate incurred losses and ALAE may also include provisions for ULAE and the Health Cost Recovery assessment.

Operating expenses
Insurance company expenses, other than ALAE and ULAE, are typically categorized as Commissions, Other Acquisition, Premiums Taxe, and All Other General, including Licenses, and Fees.

Percent of premium profit provision
The percent of premium profit provision is the ratio of profit to premium included in the determination of required premium.

Surplus (Capital)
Surplus is the excess of the assets of an insurance company over its liabilities.

Unallocated loss adjustment expense (ULAE)
ULAE is the claim and settlement related expense that cannot be associated directly with individual claims (for example, claim adjuster salaries). (See ALAE).

Written premium
Written premium represents the total amount of premium charged by an insurance company for the insurance policies it has sold. It is generally compiled over a one-year period.

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FEASIBILITY STUDY OF LONG-TERM AUTO INSURANCE REFORMS

Technical Appendix

April 2024

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Bodily Injury
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	15,787	2,480,356	6.365	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.905	0%
2014	16,386	2,576,725	6.359	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.899	0%
2015	16,926	2,652,217	6.382	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.920	0%
2016	16,809	2,678,712	6.275	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.821	0%
2017	17,651	2,692,631	6.555	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	6.081	0%
2018	17,491	2,747,668	6.366	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.905	20%
2019	17,969	2,782,735	6.457	0%	0%	11/01/20	1.000	1.000	0.977	1.000	0.950	5.990	20%
2020	12,013	2,780,159	4.321	0%	0%	11/01/20	1.000	1.000	0.980	1.371	0.950	5.518	20%
2021	13,340	2,806,828	4.753	0%	0%	11/01/20	1.000	1.000	1.000	1.374	0.950	6.202	20%
2022	12,862	2,841,580	4.526	0%	0%	11/01/20	1.000	1.000	1.000	1.107	0.975	4.885	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	5.700	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	732,007,929	15,787	46,367	8%	5%	11/01/20	2.103	1.000	0.862	1.000	1.000	84,029	0%
2014	809,952,046	16,386	49,430	8%	5%	11/01/20	1.947	1.000	0.862	1.000	1.000	82,944	0%
2015	950,722,301	16,926	56,170	8%	5%	11/01/20	1.803	1.000	0.862	1.000	1.000	87,272	0%
2016	1,030,215,420	16,809	61,290	8%	5%	11/01/20	1.669	1.000	0.862	1.000	1.000	88,173	0%
2017	1,117,415,227	17,651	63,304	8%	5%	11/01/20	1.546	1.000	0.862	1.000	1.000	84,325	0%
2018	1,223,271,588	17,491	69,938	8%	5%	11/01/20	1.431	1.000	0.862	1.000	1.000	86,261	20%
2019	1,337,922,441	17,969	74,459	8%	5%	11/01/20	1.325	1.000	0.862	1.000	1.000	85,034	20%
2020	997,652,378	12,013	83,045	8%	5%	11/01/20	1.227	1.000	0.885	1.000	1.000	90,163	20%
2021	1,012,499,898	13,340	75,897	8%	5%	11/01/20	1.158	1.000	1.000	1.000	1.000	87,861	20%
2022	1,034,185,177	12,862	80,407	8%	5%	11/01/20	1.103	1.000	1.000	1.000	1.000	88,649	20%
											B. Selected Severity at 7/1/2024 Cost Level	87,594	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	732,007,929	2,480,356	295	8%	5%	11/01/20	2.103	1.000	0.841	1.000	0.950	496	0%
2014	809,952,046	2,576,725	314	8%	5%	11/01/20	1.947	1.000	0.841	1.000	0.950	489	0%
2015	950,722,301	2,652,217	358	8%	5%	11/01/20	1.803	1.000	0.841	1.000	0.950	517	0%
2016	1,030,215,420	2,678,712	385	8%	5%	11/01/20	1.669	1.000	0.841	1.000	0.950	513	0%
2017	1,117,415,227	2,692,631	415	8%	5%	11/01/20	1.546	1.000	0.841	1.000	0.950	513	0%
2018	1,223,271,588	2,747,668	445	8%	5%	11/01/20	1.431	1.000	0.841	1.000	0.950	509	20%
2019	1,337,922,441	2,782,735	481	8%	5%	11/01/20	1.325	1.000	0.841	1.000	0.950	509	20%
2020	997,652,378	2,780,159	359	8%	5%	11/01/20	1.227	1.000	0.867	1.371	0.950	497	20%
2021	1,012,499,898	2,806,828	361	8%	5%	11/01/20	1.158	1.000	1.000	1.374	0.950	545	20%
2022	1,034,185,177	2,841,580	364	8%	5%	11/01/20	1.103	1.000	1.000	1.107	0.975	433	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	499	Sum[(13) x (14)]
											D. Frequency x Severity Method	499	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	499	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(10) Reform Impact calculated as:
50% weight to *a priori* estimate of -18%
50% weight to measured impact of -13.9%
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Direct Compensation
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	0	2,480,356	0.000	-2%	-2%	10/01/22	0.801	1.000	1.000	1.000	0.950	0.000	0%
2014	0	2,576,725	0.000	-2%	-2%	10/01/22	0.817	1.000	1.000	1.000	0.950	0.000	0%
2015	0	2,652,217	0.000	-2%	-2%	10/01/22	0.834	1.000	1.000	1.000	0.950	0.000	0%
2016	0	2,678,712	0.000	-2%	-2%	10/01/22	0.851	1.000	1.000	1.000	0.950	0.000	0%
2017	0	2,692,631	0.000	-2%	-2%	10/01/22	0.868	1.000	1.000	1.000	0.950	0.000	0%
2018	0	2,747,668	0.000	-2%	-2%	10/01/22	0.886	1.000	1.000	1.000	0.950	0.000	0%
2019	0	2,782,735	0.000	-2%	-2%	10/01/22	0.904	1.000	1.000	1.000	0.950	0.000	0%
2020	0	2,780,159	0.000	-2%	-2%	10/01/22	0.922	1.000	1.000	1.475	0.950	0.000	0%
2021	0	2,806,828	0.000	-2%	-2%	10/01/22	0.941	1.000	1.000	1.480	0.950	0.000	0%
2022	67,873	2,841,580	23.886	-2%	-2%	10/01/22	0.960	1.000	1.000	1.135	0.975	25.377	100%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	25.377	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	0	0	0	3%	3%	10/01/22	1.384	1.130	1.000	1.000	1.000	0	0%
2014	0	0	0	3%	3%	10/01/22	1.344	1.130	1.000	1.000	1.000	0	0%
2015	0	0	0	3%	3%	10/01/22	1.305	1.130	1.000	1.000	1.000	0	0%
2016	0	0	0	3%	3%	10/01/22	1.267	1.130	1.000	1.000	1.000	0	0%
2017	0	0	0	3%	3%	10/01/22	1.230	1.130	1.000	1.000	1.000	0	0%
2018	0	0	0	3%	3%	10/01/22	1.194	1.130	1.000	1.000	1.000	0	0%
2019	0	0	0	3%	3%	10/01/22	1.159	1.130	1.000	1.000	1.000	0	0%
2020	0	0	0	3%	3%	10/01/22	1.126	1.130	1.000	1.000	1.000	0	0%
2021	0	0	0	3%	3%	10/01/22	1.093	1.065	1.000	1.000	1.000	0	0%
2022	524,975,804	67,873	7,735	3%	3%	10/01/22	1.061	1.000	1.000	1.000	1.000	8,206	100%
											B. Selected Severity at 7/1/2024 Cost Level	8,206	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	0	2,480,356	0	1%	1%	10/01/22	1.116	1.130	1.000	1.000	0.950	0	0%
2014	0	2,576,725	0	1%	1%	10/01/22	1.105	1.130	1.000	1.000	0.950	0	0%
2015	0	2,652,217	0	1%	1%	10/01/22	1.094	1.130	1.000	1.000	0.950	0	0%
2016	0	2,678,712	0	1%	1%	10/01/22	1.083	1.130	1.000	1.000	0.950	0	0%
2017	0	2,692,631	0	1%	1%	10/01/22	1.072	1.130	1.000	1.000	0.950	0	0%
2018	0	2,747,668	0	1%	1%	10/01/22	1.062	1.130	1.000	1.000	0.950	0	0%
2019	0	2,782,735	0	1%	1%	10/01/22	1.051	1.130	1.000	1.000	0.950	0	0%
2020	0	2,780,159	0	1%	1%	10/01/22	1.041	1.130	1.000	1.475	0.950	0	0%
2021	0	2,806,828	0	1%	1%	10/01/22	1.030	1.065	1.000	1.480	0.950	0	0%
2022	524,975,804	2,841,580	185	1%	1%	10/01/22	1.020	1.000	1.000	1.135	0.975	208	100%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	208	Sum[(13) x (14)]
											D. Frequency x Severity Method	208	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	208	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Property Damage
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	81,674	2,480,356	32.928	-2%	-2%	10/01/22	0.801	1.000	1.000	1.000	0.950	25.048	0%
2014	83,844	2,576,725	32.539	-2%	-2%	10/01/22	0.817	1.000	1.000	1.000	0.950	25.257	0%
2015	83,696	2,652,217	31.557	-2%	-2%	10/01/22	0.834	1.000	1.000	1.000	0.950	24.995	0%
2016	78,916	2,678,712	29.460	-2%	-2%	10/01/22	0.851	1.000	1.000	1.000	0.950	23.811	0%
2017	82,821	2,692,631	30.758	-2%	-2%	10/01/22	0.868	1.000	1.000	1.000	0.950	25.367	0%
2018	83,129	2,747,668	30.254	-2%	-2%	10/01/22	0.886	1.000	1.000	1.000	0.950	25.461	0%
2019	79,860	2,782,735	28.698	-2%	-2%	10/01/22	0.904	1.000	1.000	1.000	0.950	24.644	0%
2020	53,997	2,780,159	19.422	-2%	-2%	10/01/22	0.922	1.000	1.000	1.475	0.950	25.096	0%
2021	56,527	2,806,828	20.139	-2%	-2%	10/01/22	0.941	1.000	1.000	1.480	0.950	26.651	0%
2022	7,450	2,841,580	2.622	-2%	-2%	10/01/22	0.960	1.000	1.000	1.135	0.975	2.785	100%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	2.785	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	411,058,459	81,674	5,033	3%	3%	10/01/22	1.384	1.130	1.000	1.000	1.000	7,872	0%
2014	432,163,885	83,844	5,154	3%	3%	10/01/22	1.344	1.130	1.000	1.000	1.000	7,828	0%
2015	449,497,225	83,696	5,371	3%	3%	10/01/22	1.305	1.130	1.000	1.000	1.000	7,918	0%
2016	424,059,711	78,916	5,374	3%	3%	10/01/22	1.267	1.130	1.000	1.000	1.000	7,692	0%
2017	466,477,948	82,821	5,632	3%	3%	10/01/22	1.230	1.130	1.000	1.000	1.000	7,828	0%
2018	482,180,502	83,129	5,800	3%	3%	10/01/22	1.194	1.130	1.000	1.000	1.000	7,826	0%
2019	471,847,712	79,860	5,908	3%	3%	10/01/22	1.159	1.130	1.000	1.000	1.000	7,740	0%
2020	321,113,574	53,997	5,947	3%	3%	10/01/22	1.126	1.130	1.000	1.000	1.000	7,563	0%
2021	372,035,313	56,527	6,582	3%	3%	10/01/22	1.093	1.065	1.000	1.000	1.000	7,659	0%
2022	48,506,160	7,450	6,511	3%	3%	10/01/22	1.061	1.000	1.000	1.000	1.000	6,908	100%
											B. Selected Severity at 7/1/2024 Cost Level	6,908	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	411,058,459	2,480,356	166	1%	1%	10/01/22	1.116	1.130	1.000	1.000	0.950	198	0%
2014	432,163,885	2,576,725	168	1%	1%	10/01/22	1.105	1.130	1.000	1.000	0.950	199	0%
2015	449,497,225	2,652,217	169	1%	1%	10/01/22	1.094	1.130	1.000	1.000	0.950	199	0%
2016	424,059,711	2,678,712	158	1%	1%	10/01/22	1.083	1.130	1.000	1.000	0.950	184	0%
2017	466,477,948	2,692,631	173	1%	1%	10/01/22	1.072	1.130	1.000	1.000	0.950	199	0%
2018	482,180,502	2,747,668	175	1%	1%	10/01/22	1.062	1.130	1.000	1.000	0.950	200	0%
2019	471,847,712	2,782,735	170	1%	1%	10/01/22	1.051	1.130	1.000	1.000	0.950	191	0%
2020	321,113,574	2,780,159	116	1%	1%	10/01/22	1.041	1.130	1.000	1.475	0.950	190	0%
2021	372,035,313	2,806,828	133	1%	1%	10/01/22	1.030	1.065	1.000	1.480	0.950	204	0%
2022	48,506,160	2,841,580	17	1%	1%	10/01/22	1.020	1.000	1.000	1.135	0.975	19	100%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	19	Sum[(13) x (14)]
											D. Frequency x Severity Method	19	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	19	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Accident Benefits - Total
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	28,465	2,482,300	11.467	1%	1%	01/01/15	1.116	1.000	1.000	1.000	0.950	12.154	0%
2014	29,370	2,577,311	11.396	1%	1%	01/01/15	1.105	1.000	1.000	1.000	0.950	11.958	0%
2015	29,768	2,649,234	11.236	1%	1%	01/01/15	1.094	1.000	1.000	1.000	0.950	11.675	0%
2016	29,619	2,677,480	11.062	1%	1%	01/01/15	1.083	1.000	1.000	1.000	0.950	11.380	0%
2017	31,202	2,695,021	11.577	1%	1%	01/01/15	1.072	1.000	1.000	1.000	0.950	11.792	0%
2018	31,557	2,750,324	11.474	1%	1%	01/01/15	1.062	1.000	1.000	1.000	0.950	11.571	20%
2019	32,015	2,782,979	11.504	1%	1%	01/01/15	1.051	1.000	1.000	1.000	0.950	11.486	20%
2020	21,224	2,780,467	7.633	1%	1%	01/01/15	1.041	1.000	1.000	1.439	0.950	10.860	20%
2021	24,562	2,807,872	8.748	1%	1%	01/01/15	1.030	1.000	1.000	1.444	0.950	12.360	20%
2022	28,237	2,837,304	9.952	1%	1%	01/01/15	1.020	1.000	1.000	1.125	0.975	11.138	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	11.483	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	104,412,119	28,465	3,668	0%	10%	01/01/15	2.472	1.000	1.086	1.000	1.000	9,843	0%
2014	107,546,390	29,370	3,662	0%	10%	01/01/15	2.472	1.000	1.086	1.000	1.000	9,826	0%
2015	134,977,669	29,768	4,534	0%	10%	01/01/15	2.358	1.000	1.086	1.000	1.000	11,606	0%
2016	139,687,760	29,619	4,716	0%	10%	01/01/15	2.144	1.000	1.086	1.000	1.000	10,974	0%
2017	167,925,256	31,202	5,382	0%	10%	01/01/15	1.949	1.000	1.086	1.000	1.000	11,385	0%
2018	183,280,174	31,557	5,808	0%	10%	01/01/15	1.772	1.000	1.086	1.000	1.000	11,169	20%
2019	201,687,673	32,015	6,300	0%	10%	01/01/15	1.611	1.000	1.086	1.000	1.000	11,013	20%
2020	166,426,476	21,224	7,841	0%	10%	01/01/15	1.464	1.000	1.071	1.000	1.000	12,299	20%
2021	211,696,435	24,562	8,619	0%	10%	01/01/15	1.331	1.000	1.000	1.000	1.000	11,472	20%
2022	253,762,348	28,237	8,987	0%	10%	01/01/15	1.210	1.000	1.000	1.000	1.000	10,874	20%
											B. Selected Severity at 7/1/2024 Cost Level	11,365	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	104,412,119	2,482,300	42	1%	11%	01/01/15	2.735	1.000	1.086	1.000	0.950	119	0%
2014	107,546,390	2,577,311	42	1%	11%	01/01/15	2.707	1.000	1.086	1.000	0.950	117	0%
2015	134,977,669	2,649,234	51	1%	11%	01/01/15	2.558	1.000	1.086	1.000	0.950	134	0%
2016	139,687,760	2,677,480	52	1%	11%	01/01/15	2.305	1.000	1.086	1.000	0.950	124	0%
2017	167,925,256	2,695,021	62	1%	11%	01/01/15	2.076	1.000	1.086	1.000	0.950	133	0%
2018	183,280,174	2,750,324	67	1%	11%	01/01/15	1.870	1.000	1.086	1.000	0.950	129	20%
2019	201,687,673	2,782,979	72	1%	11%	01/01/15	1.685	1.000	1.086	1.000	0.950	126	20%
2020	166,426,476	2,780,467	60	1%	11%	01/01/15	1.518	1.000	1.071	1.439	0.950	133	20%
2021	211,696,435	2,807,872	75	1%	11%	01/01/15	1.368	1.000	1.000	1.444	0.950	141	20%
2022	253,762,348	2,837,304	89	1%	11%	01/01/15	1.232	1.000	1.000	1.125	0.975	121	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	130	Sum[(13) x (14)]
											D. Frequency x Severity Method	131	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	130	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(10) Reform Impact calculated as:
50% weight to a priori estimate of +8%
50% weight to measured impact of +9.1%
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Collision
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	OW Loss Trend Report	GISA Report AUTO7001					OW Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	81,926	1,842,849	44.456	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	42.233	0%
2014	82,065	1,918,765	42.770	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	40.631	0%
2015	80,381	1,971,290	40.776	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	38.737	0%
2016	78,030	1,980,766	39.394	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	37.424	0%
2017	83,738	1,989,815	42.083	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	39.979	0%
2018	87,554	2,029,423	43.142	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	40.985	20%
2019	86,468	2,046,163	42.259	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	40.146	20%
2020	56,076	2,028,790	27.640	0%	0%	10/01/22	1.000	1.000	1.000	1.405	0.950	36.884	20%
2021	54,043	2,032,634	26.587	0%	0%	10/01/22	1.000	1.000	1.000	1.408	0.950	35.567	20%
2022	49,379	2,055,647	24.021	0%	0%	10/01/22	1.000	1.000	1.000	1.116	0.975	26.137	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	35.944	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	451,385,621	81,926	5,510	2%	2%	10/01/22	1.243	1.180	1.000	1.000	1.000	8,084	0%
2014	482,507,953	82,065	5,880	2%	2%	10/01/22	1.219	1.180	1.000	1.000	1.000	8,457	0%
2015	495,925,031	80,381	6,170	2%	2%	10/01/22	1.195	1.180	1.000	1.000	1.000	8,701	0%
2016	491,428,885	78,030	6,298	2%	2%	10/01/22	1.172	1.180	1.000	1.000	1.000	8,707	0%
2017	546,253,994	83,738	6,523	2%	2%	10/01/22	1.149	1.180	1.000	1.000	1.000	8,842	0%
2018	574,215,754	87,554	6,558	2%	2%	10/01/22	1.126	1.180	1.000	1.000	1.000	8,715	20%
2019	559,232,558	86,468	6,468	2%	2%	10/01/22	1.104	1.180	1.000	1.000	1.000	8,426	20%
2020	379,468,984	56,076	6,767	2%	2%	10/01/22	1.082	1.180	1.000	1.000	1.000	8,643	20%
2021	412,140,925	54,043	7,626	2%	2%	10/01/22	1.061	1.090	1.000	1.000	1.000	8,821	20%
2022	417,534,626	49,379	8,456	2%	2%	10/01/22	1.040	1.000	1.000	1.000	1.000	8,797	20%
											B. Selected Severity at 7/1/2024 Cost Level	8,681	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	451,385,621	1,842,849	245	2%	2%	10/01/22	1.243	1.180	1.000	1.000	0.950	341	0%
2014	482,507,953	1,918,765	251	2%	2%	10/01/22	1.219	1.180	1.000	1.000	0.950	344	0%
2015	495,925,031	1,971,290	252	2%	2%	10/01/22	1.195	1.180	1.000	1.000	0.950	337	0%
2016	491,428,885	1,980,766	248	2%	2%	10/01/22	1.172	1.180	1.000	1.000	0.950	326	0%
2017	546,253,994	1,989,815	275	2%	2%	10/01/22	1.149	1.180	1.000	1.000	0.950	353	0%
2018	574,215,754	2,029,423	283	2%	2%	10/01/22	1.126	1.180	1.000	1.000	0.950	357	20%
2019	559,232,558	2,046,163	273	2%	2%	10/01/22	1.104	1.180	1.000	1.000	0.950	338	20%
2020	379,468,984	2,028,790	187	2%	2%	10/01/22	1.082	1.180	1.000	1.405	0.950	319	20%
2021	412,140,925	2,032,634	203	2%	2%	10/01/22	1.061	1.090	1.000	1.408	0.950	314	20%
2022	417,534,626	2,055,647	203	2%	2%	10/01/22	1.040	1.000	1.000	1.116	0.975	230	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	312	Sum[(13) x (14)]
											D. Frequency x Severity Method	312	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	312	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Comprehensive - Total
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	70,660	2,248,929	31.420	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	31.420	0%
2014	75,605	2,324,204	32.530	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	32.530	0%
2015	75,209	2,371,088	31.719	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	31.719	0%
2016	100,408	2,364,674	42.462	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	42.462	0%
2017	65,931	2,368,107	27.841	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	27.841	0%
2018	66,466	2,403,982	27.648	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	27.648	20%
2019	65,024	2,400,148	27.092	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	27.092	20%
2020	79,070	2,378,473	33.244	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	33.244	20%
2021	66,433	2,359,327	28.158	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	28.158	20%
2022	65,951	2,361,161	27.932	0%	0%	10/01/22	1.000	1.000	1.000	1.000	1.000	27.932	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	28.815	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	376,772,165	70,660	5,332	4%	4%	10/01/22	1.539	1.000	1.000	1.000	1.000	8,209	0%
2014	434,884,699	75,605	5,752	4%	4%	10/01/22	1.480	1.000	1.000	1.000	1.000	8,514	0%
2015	451,932,527	75,209	6,009	4%	4%	10/01/22	1.423	1.000	1.000	1.000	1.000	8,553	0%
2016	602,793,938	100,408	6,003	4%	4%	10/01/22	1.369	1.000	1.000	1.000	1.000	8,216	0%
2017	412,103,658	65,931	6,251	4%	4%	10/01/22	1.316	1.000	1.000	1.000	1.000	8,225	0%
2018	420,538,322	66,466	6,327	4%	4%	10/01/22	1.265	1.000	1.000	1.000	1.000	8,006	20%
2019	408,614,701	65,024	6,284	4%	4%	10/01/22	1.217	1.000	1.000	1.000	1.000	7,645	20%
2020	629,752,311	79,070	7,964	4%	4%	10/01/22	1.170	1.000	1.000	1.000	1.000	9,317	20%
2021	448,036,290	66,433	6,744	4%	4%	10/01/22	1.125	1.000	1.000	1.000	1.000	7,586	20%
2022	485,857,437	65,951	7,367	4%	4%	10/01/22	1.082	1.000	1.000	1.000	1.000	7,968	20%
											B. Selected Severity at 7/1/2024 Cost Level	8,105	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	376,772,165	2,248,929	168	4%	4%	10/01/22	1.539	1.000	1.000	1.000	1.000	257.9	0%
2014	434,884,699	2,324,204	187	4%	4%	10/01/22	1.480	1.000	1.000	1.000	1.000	277.0	0%
2015	451,932,527	2,371,088	191	4%	4%	10/01/22	1.423	1.000	1.000	1.000	1.000	271.3	0%
2016	602,793,938	2,364,674	255	4%	4%	10/01/22	1.369	1.000	1.000	1.000	1.000	348.9	0%
2017	412,103,658	2,368,107	174	4%	4%	10/01/22	1.316	1.000	1.000	1.000	1.000	229.0	0%
2018	420,538,322	2,403,982	175	4%	4%	10/01/22	1.265	1.000	1.000	1.000	1.000	221.3	20%
2019	408,614,701	2,400,148	170	4%	4%	10/01/22	1.217	1.000	1.000	1.000	1.000	207.1	20%
2020	629,752,311	2,378,473	265	4%	4%	10/01/22	1.170	1.000	1.000	1.000	1.000	309.7	20%
2021	448,036,290	2,359,327	190	4%	4%	10/01/22	1.125	1.000	1.000	1.000	1.000	213.6	20%
2022	485,857,437	2,361,161	206	4%	4%	10/01/22	1.082	1.000	1.000	1.000	1.000	222.6	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	234.9	Sum[(13) x (14)]
											D. Frequency x Severity Method	233.5	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	234.2	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
All Perils
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	3,459	20,100	172.091	-3%	-3%	10/01/22	0.715	1.000	1.000	1.000	0.950	116.942	0%
2014	2,956	22,277	132.692	-3%	-3%	10/01/22	0.737	1.000	1.000	1.000	0.950	92.958	0%
2015	2,797	24,320	115.009	-3%	-3%	10/01/22	0.760	1.000	1.000	1.000	0.950	83.062	0%
2016	2,923	22,596	129.360	-3%	-3%	10/01/22	0.784	1.000	1.000	1.000	0.950	96.316	0%
2017	2,380	21,967	108.346	-3%	-3%	10/01/22	0.808	1.000	1.000	1.000	0.950	83.165	0%
2018	1,874	22,216	84.353	-3%	-3%	10/01/22	0.833	1.000	1.000	1.000	0.950	66.750	20%
2019	1,482	23,032	64.338	-3%	-3%	10/01/22	0.859	1.000	1.000	1.000	0.950	52.487	20%
2020	1,194	22,015	54.234	-3%	-3%	10/01/22	0.885	1.000	1.000	1.000	0.950	45.612	20%
2021	1,432	25,439	56.298	-3%	-3%	10/01/22	0.913	1.000	1.000	1.000	0.950	48.812	20%
2022	1,850	32,792	56.422	-3%	-3%	10/01/22	0.941	1.000	1.000	1.000	0.975	51.761	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	53.084	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	10,249,991	3,459	2,963	3%	3%	10/01/22	1.384	1.000	1.000	1.000	1.000	4,102	0%
2014	10,461,467	2,956	3,539	3%	3%	10/01/22	1.344	1.000	1.000	1.000	1.000	4,756	0%
2015	10,389,772	2,797	3,715	3%	3%	10/01/22	1.305	1.000	1.000	1.000	1.000	4,847	0%
2016	11,190,365	2,923	3,828	3%	3%	10/01/22	1.267	1.000	1.000	1.000	1.000	4,850	0%
2017	9,970,944	2,380	4,189	3%	3%	10/01/22	1.230	1.000	1.000	1.000	1.000	5,153	0%
2018	11,347,875	1,874	6,055	3%	3%	10/01/22	1.194	1.000	1.000	1.000	1.000	7,230	20%
2019	10,334,211	1,482	6,974	3%	3%	10/01/22	1.159	1.000	1.000	1.000	1.000	8,085	20%
2020	8,754,008	1,194	7,332	3%	3%	10/01/22	1.126	1.000	1.000	1.000	1.000	8,252	20%
2021	11,578,017	1,432	8,084	3%	3%	10/01/22	1.093	1.000	1.000	1.000	1.000	8,834	20%
2022	15,830,501	1,850	8,556	3%	3%	10/01/22	1.061	1.000	1.000	1.000	1.000	9,077	20%
											B. Selected Severity at 7/1/2024 Cost Level	8,296	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	10,249,991	20,100	510	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	484	0%
2014	10,461,467	22,277	470	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	446	0%
2015	10,389,772	24,320	427	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	406	0%
2016	11,190,365	22,596	495	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	470	0%
2017	9,970,944	21,967	454	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	431	0%
2018	11,347,875	22,216	511	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	485	20%
2019	10,334,211	23,032	449	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	426	20%
2020	8,754,008	22,015	398	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	378	20%
2021	11,578,017	25,439	455	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	432	20%
2022	15,830,501	32,792	483	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.975	471	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	438	Sum[(13) x (14)]
											D. Frequency x Severity Method	440	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	439	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Specified Perils
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	153	17,827	8.582	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	8.153	0%
2014	184	17,378	10.588	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	10.058	0%
2015	183	17,332	10.559	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	10.031	0%
2016	211	17,832	11.833	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	11.241	0%
2017	197	19,125	10.301	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	9.786	0%
2018	181	21,493	8.421	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	8.000	20%
2019	194	21,802	8.895	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	8.451	20%
2020	276	23,287	11.852	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	11.260	20%
2021	225	24,094	9.357	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	8.889	20%
2022	247	24,538	10.081	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.975	9.829	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	9.286	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	710,193	153	4,642	3%	3%	10/01/22	1.384	1.000	1.000	1.000	1.000	6,425	0%
2014	936,428	184	5,089	3%	3%	10/01/22	1.344	1.000	1.000	1.000	1.000	6,840	0%
2015	870,391	183	4,756	3%	3%	10/01/22	1.305	1.000	1.000	1.000	1.000	6,206	0%
2016	1,157,104	211	5,484	3%	3%	10/01/22	1.267	1.000	1.000	1.000	1.000	6,947	0%
2017	1,144,131	197	5,808	3%	3%	10/01/22	1.230	1.000	1.000	1.000	1.000	7,143	0%
2018	1,218,758	181	6,733	3%	3%	10/01/22	1.194	1.000	1.000	1.000	1.000	8,040	20%
2019	1,055,577	194	5,443	3%	3%	10/01/22	1.159	1.000	1.000	1.000	1.000	6,310	20%
2020	1,584,648	276	5,742	3%	3%	10/01/22	1.126	1.000	1.000	1.000	1.000	6,462	20%
2021	1,472,943	225	6,534	3%	3%	10/01/22	1.093	1.000	1.000	1.000	1.000	7,139	20%
2022	1,777,107	247	7,184	3%	3%	10/01/22	1.061	1.000	1.000	1.000	1.000	7,622	20%
											B. Selected Severity at 7/1/2024 Cost Level	7,115	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	710,193	17,827	40	3%	3%	10/01/22	1.384	1.000	1.000	1.000	0.950	52	0%
2014	936,428	17,378	54	3%	3%	10/01/22	1.344	1.000	1.000	1.000	0.950	69	0%
2015	870,391	17,332	50	3%	3%	10/01/22	1.305	1.000	1.000	1.000	0.950	62	0%
2016	1,157,104	17,832	65	3%	3%	10/01/22	1.267	1.000	1.000	1.000	0.950	78	0%
2017	1,144,131	19,125	60	3%	3%	10/01/22	1.230	1.000	1.000	1.000	0.950	70	0%
2018	1,218,758	21,493	57	3%	3%	10/01/22	1.194	1.000	1.000	1.000	0.950	64	20%
2019	1,055,577	21,802	48	3%	3%	10/01/22	1.159	1.000	1.000	1.000	0.950	53	20%
2020	1,584,648	23,287	68	3%	3%	10/01/22	1.126	1.000	1.000	1.000	0.950	73	20%
2021	1,472,943	24,094	61	3%	3%	10/01/22	1.093	1.000	1.000	1.000	0.950	63	20%
2022	1,777,107	24,538	72	3%	3%	10/01/22	1.061	1.000	1.000	1.000	0.975	75	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	66	Sum[(13) x (14)]
											D. Frequency x Severity Method	66	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	66	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing

Forecasted Loss Cost - Current Product
Underinsured Motorist
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Oliver Wyman Loss Trend Report	GISA Report AUTO7001					Oliver Wyman Loss Trend Report				Selected	(4) * (8) * (9) * (10) * (11) * (12)	Selected

Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level

Accident Year	Ultimate Claim Counts	Earned Vehicles	Frequency (per 1000 Vehicles)	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	43	2,461,075	0.017	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.017	0%
2014	45	2,551,257	0.018	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.017	0%
2015	57	2,616,047	0.022	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.021	0%
2016	53	2,638,396	0.020	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.019	0%
2017	58	2,650,725	0.022	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.021	0%
2018	54	2,698,919	0.020	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.019	20%
2019	67	2,717,201	0.025	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.023	20%
2020	46	2,708,186	0.017	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.016	20%
2021	32	2,728,212	0.012	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.950	0.011	20%
2022	86	2,753,413	0.031	0%	0%	10/01/22	1.000	1.000	1.000	1.000	0.975	0.031	20%
											A. Selected Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	0.020	Sum[(13) x (14)]

Selected Severity at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Ultimate Claim Counts	Severity	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Severity at 7/1/2024 Cost Level	Weights
2013	6,651,637	43	154,727	2%	2%	10/01/22	1.178	1.000	1.000	1.000	1.000	182,260	0%
2014	8,827,245	45	196,338	2%	2%	10/01/22	1.161	1.000	1.000	1.000	1.000	227,859	0%
2015	18,645,035	57	329,770	2%	2%	10/01/22	1.143	1.000	1.000	1.000	1.000	377,056	0%
2016	18,040,679	53	340,646	2%	2%	10/01/22	1.126	1.000	1.000	1.000	1.000	383,735	0%
2017	16,260,129	58	282,739	2%	2%	10/01/22	1.110	1.000	1.000	1.000	1.000	313,796	0%
2018	15,003,596	54	276,141	2%	2%	10/01/22	1.093	1.000	1.000	1.000	1.000	301,944	20%
2019	15,591,826	67	232,713	2%	2%	10/01/22	1.077	1.000	1.000	1.000	1.000	250,698	20%
2020	13,638,151	46	298,007	2%	2%	10/01/22	1.061	1.000	1.000	1.000	1.000	316,294	20%
2021	15,505,188	32	485,376	2%	2%	10/01/22	1.046	1.000	1.000	1.000	1.000	507,547	20%
2022	14,993,382	86	173,418	2%	2%	10/01/22	1.030	1.000	1.000	1.000	1.000	178,660	20%
											B. Selected Severity at 7/1/2024 Cost Level	311,029	Sum[(13) x (14)]

Selected Loss Cost at 7/1/2024 Cost Level

Accident Year	Ultimate Loss and LAE Estimate	Earned Vehicles	Loss Cost	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	6,651,637	2,461,075	3	2%	2%	10/01/22	1.178	1.000	1.000	1.000	0.950	3	0%
2014	8,827,245	2,551,257	3	2%	2%	10/01/22	1.161	1.000	1.000	1.000	0.950	4	0%
2015	18,645,035	2,616,047	7	2%	2%	10/01/22	1.143	1.000	1.000	1.000	0.950	8	0%
2016	18,040,679	2,638,396	7	2%	2%	10/01/22	1.126	1.000	1.000	1.000	0.950	7	0%
2017	16,260,129	2,650,725	6	2%	2%	10/01/22	1.110	1.000	1.000	1.000	0.950	6	0%
2018	15,003,596	2,698,919	6	2%	2%	10/01/22	1.093	1.000	1.000	1.000	0.950	6	20%
2019	15,591,826	2,717,201	6	2%	2%	10/01/22	1.077	1.000	1.000	1.000	0.950	6	20%
2020	13,638,151	2,708,186	5	2%	2%	10/01/22	1.061	1.000	1.000	1.000	0.950	5	20%
2021	15,505,188	2,728,212	6	2%	2%	10/01/22	1.046	1.000	1.000	1.000	0.950	6	20%
2022	14,993,382	2,753,413	5	2%	2%	10/01/22	1.030	1.000	1.000	1.000	0.975	5	20%
											C. Initial Selected Loss Cost at 7/1/2024 Cost Level	6	Sum[(13) x (14)]
											D. Frequency x Severity Method	6	A * B
											E. Selected Loss Cost at 7/1/2024 Cost Level	6	average[A * B, C)

Notes
(9) Scalar factor for inflation spike
(11) Factor to adjust to pre-pandemic frequency levels
(12) Factor to adjust for lower post-pandemic frequency level

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Forecasted Non-Claim Expenses - Current Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		GISA Report AUTO9502			(2) / (5)	(3) / (5)	(4) / (5)
					as Percentage of Direct Written Premium		
Accident Year	Total Commissions (included CPC)	Taxes	Other Acquisition and General Expenses	Written Premium	Total Commissions (included CPC)	Taxes	Other Acquisition and General Expenses
2013	320,427	819	280,337	2,765,368	11.6%	0.0%	10.1%
2014	352,333	85,892	285,744	2,953,871	11.9%	2.9%	9.7%
2015	383,224	89,901	322,421	3,082,662	12.4%	2.9%	10.5%
2016	409,860	110,048	339,836	3,185,181	12.9%	3.5%	10.7%
2017	410,837	123,977	324,246	3,283,702	12.5%	3.8%	9.9%
2018	439,082	132,549	342,369	3,485,132	12.6%	3.8%	9.8%
2019	472,382	141,452	356,228	3,777,861	12.5%	3.7%	9.4%
2020	514,309	152,341	387,439	4,118,148	12.5%	3.7%	9.4%
2021	596,336	163,803	435,174	4,300,800	13.9%	3.8%	10.1%
2022	586,607	171,350	476,330	4,461,891	13.1%	3.8%	10.7%
			A.1. Selected Expense Provision		13.2%	4.0%	10.1% Selected
			A.2. Percent Variable		100%	100%	50% Selected
			A.3. Percent Fixed		0%	0%	50% Selected

B. Estimated Variable Expense Provision	**22.2%**	Sum[A.1 x A.2]
C.1. Estimated Fixed Expense (as % of Premium)	5.0%	Sum[A.1 x A.3]
C.2. 2022-2 Average Premium	1,581	GISA Report AUTO7001
C.3. Estimated Fixed Expense (per Vehicle)	80	C.1 * C.2
D.1. Fixed Expense Trend Rate	4.0%	Selected
D.2. Trend From Date	10/01/22	
D.3. Trend To Date	07/01/24	
D.4. Fixed Expense Trend	1.071	(1 + D.1)^[(D.3 - D.2) / 365.25]
D.5. Estimated Fixed Expense per Earned Vehicle	85	C.3 * D.4

Notes
(2) ; (6) CPC stands for contingent profit commission.

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Forecasted Health Levy - Current Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)
	See Note	GISA Report AUTO7001	(2) * (3)	GISA Report AUTO7001	(4) / (5)
Accident Year	Health Levy	TPL Earned Premium	Total Health Levy	Earned Vehicles	Health Levy Cost per Vehicles
2013	4.80%	1,283,938,947	61,629,069	2,480,356	24.85
2014	5.00%	1,390,864,061	69,543,203	2,576,725	26.99
2015	6.44%	1,502,186,029	96,740,780	2,652,217	36.48
2016	5.90%	1,624,280,374	95,832,542	2,678,712	35.78
2017	5.67%	1,741,819,532	98,761,167	2,692,631	36.68
2018	7.04%	1,892,484,260	133,230,892	2,747,668	48.49
2019	6.70%	2,075,809,062	139,079,207	2,782,735	49.98
2020	4.74%	2,305,597,688	109,285,330	2,780,159	39.31
2021	2.94%	2,518,676,546	74,049,090	2,806,828	26.38
2022	3.55%	2,572,152,737	91,311,422	2,841,580	32.13
2023	2.86%		100,442,564	2,869,996	35.00
2024			110,486,821	2,898,696	**38.12**
2025			121,535,503	2,927,683	41.51

	Indicated Trend	
2013 - 2022	3.7%	1.3%
2013 - 2019	14.4%	1.8%
2015 - 2019	11.1%	1.2%
Selected	10.0%	1.0%

Note
(2) Tax and Revenue Administration (TRA) - Health Cost Recovery Special Notice Vol. 6 No. 26
(4) & (5) 2023 - 2025 projected based on actual 2022 health levy and selected trend.
Health levy trend selection implicitly considers reduction in frequency observed during the pandemic.

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Forecasted Required Premium - Current Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			per (3)	Exhibit 1.1 - Exhibit 1.8	See Note	(5) * (6)	See Note	Exhibit 2.1	Board Benchmark	(7) * (8) / (1 - (9) - (10))	See Note	(11) + (12)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			499.06	0.847	422.62	1.009	22%	6%	594	41	635
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	22%	6%	282	20	302
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	22%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	22%	6%	54	4	57
Third Party Liability	Total	1,458,392	100%	764.789	0.890	680.30	1.009	22%	6%	956	66	1,023
Accident Benefits	Accident Benefits - Total	1,451,913	100%	130.24	0.933	121.51	1.009	22%	6%	171	12	183
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	22%	6%	430	30	459
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	22%	6%	321	22	343
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	22%	6%	603	42	645
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	22%	6%	90	6	97
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	5.90	0.798	4.71	1.009	22%	6%	7	0	7
				D.5. Estimated Fixed Expense per Earned Vehicle		85	1.009	22%	6%	120		
Package	**Basic Coverage**			895	0.896	802	1.009	22%	6%	1,127	78	1,205
Package	**Full Coverage**			1,447	0.927	1,341	1.009	22%	6%	1,884	131	**2,015**
Package	**Industry Weighted Average**			1,330	0.922	1,227	1.009	22%	6%	1,724	120	1,844

Notes

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern

(8) Based on investment rate of 3.70% and assumed three month delay

(12) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (11).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Bodily Injury - Ultimate Loss and ALAE Allocation
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	AUTO-7001	AUTO-7001	SUM((2):(3))	(2) / (4)	(3) / (4)	(4) / (4)
	Ultimate Loss and ALAE Estimate			Distribution		
Accident Half Year	Within Province	Out of Province	Total	Within Province	Out of Province	Total
202201	174,908,869	5,680,264	180,589,133	96.9%	3.1%	100.0%
202202	165,809,155	5,442,157	171,251,312	96.8%	3.2%	100.0%
				Weighted Average		
			All-Year	96.8%	3.2%	
			Selected	96.8%	3.2%	100.0%
		E. Selected Loss Cost at 7/1/2024 Cost Level		483	16	499

Exhibit 1.1

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Underinsured Motorist - Ultimate Loss and ALAE Allocation
Data as of 12/31/2022

(1)	(2)	(3)
	Exhibit 1.8	(2) * A.
Accident Year	Loss Cost at 7/1/2024 Cost Level	Estimated Loss Cost for Out of Province Accidents
2013	3.02	0.10
2014	3.81	0.12
2015	7.74	0.24
2016	7.32	0.23
2017	6.47	0.20
2018	5.77	0.18
2019	5.87	0.19
2020	5.08	0.16
2021	5.65	0.18
2022	5.47	0.17
A. Selected Out of Province Distribution		3.2%
		Manitoba Exhibit 1.1
All-Year Average		0.18
E. Selected Loss Cost at 7/1/2024 Cost Level		0.18

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Accident Benefits - Frequency
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Olivery Wyman Analysis				(3) / (2) * 1000	(4) / (2) * 1000	(5) / (2) * 1000	(6) / (2) * 1000
		Alberta Ultimate Claim Counts				Alberta Frequency (per 1000 Vehicles)			
Accident Year	Earned Vehicles	Medical Expenses	Disability Income	Funeral and Death Benefits	Excess and Uninsured	Medical Expenses	Disability Income	Funeral and Death Benefits	Excess and Uninsured
2013	2,482,300	25,412	2,772	268	12	10.2	1.1	0.1	0.0
2014	2,577,311	26,246	2,834	284	6	10.2	1.1	0.1	0.0
2015	2,649,234	26,636	2,850	263	19	10.1	1.1	0.1	0.0
2016	2,677,480	26,520	2,822	266	12	9.9	1.1	0.1	0.0
2017	2,695,021	27,896	3,077	218	11	10.4	1.1	0.1	0.0
2018	2,750,324	28,234	3,062	245	16	10.3	1.1	0.1	0.0
2019	2,782,979	28,654	3,146	202	12	10.3	1.1	0.1	0.0
2020	2,780,467	18,777	2,261	176	10	6.8	0.8	0.1	0.0
2021	2,807,872	21,490	2,854	206	13	7.7	1.0	0.1	0.0
2022	2,837,304	24,828	3,172	214	23	8.8	1.1	0.1	0.0

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Accident Benefits Medical Expenses - Selected Frequency
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Manitoba Exhibit 2.1			Oliver Wyman Loss Trend Report				(2) * (6) * (7) * (8)	Selected
Accident Year	Alberta Frequency (per 1000 Vehicles)	Alberta Past Trend	Alberta Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Alberta Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	10.2	1%	1%	01/01/15	1.116	1.000	0.950	10.9	0%
2014	10.2	1%	1%	01/01/15	1.105	1.000	0.950	10.7	0%
2015	10.1	1%	1%	01/01/15	1.094	1.000	0.950	10.4	0%
2016	9.9	1%	1%	01/01/15	1.083	1.000	0.950	10.2	0%
2017	10.4	1%	1%	01/01/15	1.072	1.000	0.950	10.5	0%
2018	10.3	1%	1%	01/01/15	1.062	1.000	0.950	10.4	20%
2019	10.3	1%	1%	01/01/15	1.051	1.000	0.950	10.3	20%
2020	6.8	1%	1%	01/01/15	1.041	1.439	0.950	9.6	20%
2021	7.7	1%	1%	01/01/15	1.030	1.444	0.950	10.8	20%
2022	8.8	1%	1%	01/01/15	1.020	1.125	0.975	9.8	20%
							Selected Weights	10.2	Sum [(9) x (10)]

Notes
(7) Factor to adjust to pre-pandemic frequency levels
(8) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Accident Benefits Disability Income - Selected Frequency
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Manitoba Exhibit 2.1			Oliver Wyman Loss Trend Report				(2) * (6) * (7) * (8)	Selected
Accident Year	Alberta Frequency (per 1000 Vehicles)	Alberta Past Trend	Alberta Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Alberta Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	1.1	1%	1%	01/01/15	1.116	1.000	0.950	1.18	0%
2014	1.1	1%	1%	01/01/15	1.105	1.000	0.950	1.15	0%
2015	1.1	1%	1%	01/01/15	1.094	1.000	0.950	1.12	0%
2016	1.1	1%	1%	01/01/15	1.083	1.000	0.950	1.08	0%
2017	1.1	1%	1%	01/01/15	1.072	1.000	0.950	1.16	0%
2018	1.1	1%	1%	01/01/15	1.062	1.000	0.950	1.12	20%
2019	1.1	1%	1%	01/01/15	1.051	1.000	0.950	1.13	20%
2020	0.8	1%	1%	01/01/15	1.041	1.439	0.950	1.16	20%
2021	1.0	1%	1%	01/01/15	1.030	1.444	0.950	1.44	20%
2022	1.1	1%	1%	01/01/15	1.020	1.125	0.975	1.25	20%
							Selected Weights	1.22	Sum [(9) x (10)]

Notes
(7) Factor to adjust to pre-pandemic frequency levels
(8) Factor to adjust for lower post-pandemic frequency level

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Accident Benefits Funeral and Death Benefits - Selected Frequency
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Manitoba Exhibit 2.1			Oliver Wyman Loss Trend Report				(2) * (6) * (7) * (8)	Selected
Accident Year	Alberta Frequency (per 1000 Vehicles)	Alberta Past Trend	Alberta Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Alberta Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Weights
2013	0.1	1%	1%	01/01/15	1.116	1.000	0.950	0.11	0%
2014	0.1	1%	1%	01/01/15	1.105	1.000	0.950	0.12	0%
2015	0.1	1%	1%	01/01/15	1.094	1.000	0.950	0.10	0%
2016	0.1	1%	1%	01/01/15	1.083	1.000	0.950	0.10	0%
2017	0.1	1%	1%	01/01/15	1.072	1.000	0.950	0.08	0%
2018	0.1	1%	1%	01/01/15	1.062	1.000	0.950	0.09	20%
2019	0.1	1%	1%	01/01/15	1.051	1.000	0.950	0.07	20%
2020	0.1	1%	1%	01/01/15	1.041	1.439	0.950	0.09	20%
2021	0.1	1%	1%	01/01/15	1.030	1.444	0.950	0.10	20%
2022	0.1	1%	1%	01/01/15	1.020	1.125	0.975	0.08	20%
							Selected Weights	0.09	Sum [(9) x (10)]

Notes
(7) Factor to adjust to pre-pandemic frequency levels
(8) Factor to adjust for lower post-pandemic frequency level

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Accident Benefits Funeral and Death Benefits - Frequency Adjustment
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(4) * A.	MPI 2024 GRA	(6) / (5)
	Alberta				Manitoba Including Permanent Impairment	
Accident Year	Claim Counts	Earned Cars	Frequency (per 1000 Vehicles)	Frequency Adjusted for Claimant to Claim Ratio	Frequency (per 1000 Vehicles)	Adjustment Factor
2013	268	2,482,300	0.11	0.18	1.54	8.576
2014	284	2,577,311	0.11	0.18	1.34	7.292
2015	263	2,649,234	0.10	0.17	1.46	8.839
2016	266	2,677,480	0.10	0.17	1.53	9.282
2017	218	2,695,021	0.08	0.13	1.45	10.773
2018	245	2,750,324	0.09	0.15	1.28	8.612
2019	202	2,782,979	0.07	0.12	1.07	8.813
2020	176	2,780,467	0.06	0.11	0.90	8.593
2021	206	2,807,872	0.07	0.12	1.14	9.382
2022	214	2,837,304	0.08	0.13	1.11	8.854

A. Claimant Basis Adjustment 1.67

Manitoba Exhibit 6.1

	Average
All-Year	8.902
6-Year	9.171
3-Year	8.943
Selected	9.000

Province of Alberta

Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Disability Income Collateral Benefits Adjustment (Severity)
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)	(9)	(10)	(11)
	See Note	See Note	See Note	See Note	See Note	See Note			(6) + (7)	(3) - (4) - (5) - (8)	(3) / 52	(9) / 52
Gross Income Level	Percent in Level	Mid Point of Interval	CPP Contribution	EI Premium	Provincial Income Tax	Federal Income Tax			Income Tax	Average Net Income	Average Gross Weekly Income	Average Net Weekly Income
		Rate	5.45%	1.58%	10.00%	15.00%	20.50%	26.00%				
		Income Limit	61,600	56,300		49,020	98,040	151,978				
		Basic Exemption	3,500			0	49,020	98,040				
0 to 4,999	11.8%	2,500	0	40	250	375	0	0	625	1,836	48	35
5,000 to 9,999	7.3%	7,500	218	119	750	1,125	0	0	1,875	5,289	144	102
10,000 to 19,999	11.4%	15,000	627	237	1,500	2,250	0	0	3,750	10,386	288	200
20,000 to 29,999	8.6%	25,000	1,172	395	2,500	3,750	0	0	6,250	17,183	481	330
30,000 to 39,999	8.3%	35,000	1,717	553	3,500	5,250	0	0	8,750	23,980	673	461
40,000 to 49,999	8.4%	45,000	2,262	711	4,500	6,750	0	0	11,250	30,777	865	592
50,000 to 59,999	7.0%	55,000	2,807	869	5,500	7,353	1,226	0	14,079	37,245	1,058	716
60,000 to 79,999	12.9%	70,000	3,166	890	7,000	7,353	4,301	0	18,654	47,290	1,346	909
80,000 to 99,999	8.2%	90,000	3,166	890	9,000	7,353	8,401	0	24,754	61,190	1,731	1,177
over 100,000	16.0%	124,381	3,166	890	12,438	7,353	10,049	6,849	36,689	83,636	2,392	1,608
Total	100.0%	51,600										
Maximum Eligible Income		110,500	3,166	890	11,050	7,353	10,049	3,240	31,692	74,752	2,125	1,438
		2024 MPI GRA										

Note

(2) Statistics Canada Table 11-10-0240-01 for 2021.
(3) Mid-point for over 100,000 level based on average income of $51,600.
(4) For 2021, the employee contribution rate was 5.45%; maximum pensionable earnings was $61,600; basic exemption amount of $3,500.
(5) For 2021, the rate was 1.58% and the maximum insurable earnings was $56,300.
(6) For 2021, the Alberta income tax rate was 10% up to an income of $131,220; the federal rate was 15%.
(7) 2021 Federal Tax Brackets: 15% for first $49,020, 20.5% for income between $49,020 and $98,040, and 26.0% for income between $98,040 and $151,978

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Disability Income Collateral Benefits Adjustment (Severity)
Data as of 12/31/2022

(1) Gross Income Level	(2) Manitoba Exhibit 4.1 Percent in Level	(3) Manitoba Exhibit 4.1 Average Gross Weekly Income	(4) Manitoba Exhibit 4.1 Average Net Weekly Income	(5) A.1 * (3) Weekly Benefits from Collateral Source Plan	(6) A.3 * MIN((4) , A.4 / 52) No Group Disability Plan Weekly Indemnity Benefit	(7) MAX((6) - (5),0) With Group Disability Plan Weekly Indemnity Benefit after Group Disability Plan Payments
0 to 4,999	11.8%	48	35	29	32	3
5,000 to 9,999	7.3%	144	102	87	92	5
10,000 to 19,999	11.4%	288	200	173	180	7
20,000 to 29,999	8.6%	481	330	288	297	9
30,000 to 39,999	8.3%	673	461	404	415	11
40,000 to 49,999	8.4%	865	592	519	533	13
50,000 to 59,999	7.0%	1,058	716	635	645	10
60,000 to 79,999	12.9%	1,346	909	808	818	11
80,000 to 99,999	8.2%	1,731	1,177	1,038	1,059	21
over 100,000	16.0%	2,392	1,608	1,435	1,294	0
Total		992	673	595	581	8

A.1 Percentage of income long term disabilty covers	60%	Selected based on Government of Canada website (long-term disability)
A.2 Percentage of disability plans where Auto policy will be 1st payer	0%	Current AB auto policy is 2nd payer
A.3 Percentage of net income covered by plan benefits	90%	2024 MPI GRA
A.4 Maximum Net Income covered by plan benefits	74,752	Manitoba Exhibit 4.1

	(8) Proportion of Claimants	(9) Severity Net of Collateral Benefits	
Employed Claimants without Group Disability Plan	25.2%	581	per (6)
Employed Claimants with Group Disability Plan, Auto Ins. is 1st payer	0.0%	581	per (6)
Employed Claimants with Group Disability Plan, Auto Ins. is 2nd payer	74.8%	8	per (7)
Total	100.0%	152	
B. Reduction Factor		-74%	(per (9))
C. Percentage of costs where collateral benefits are applicable (Employment Rate)		66%	Table 14-10-0017-02
D. Severity Adjustment Factor		-49%	B. x C. + 0 * (1 - C)
E. Collateral Adjustment		51%	1 + D.

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Accident Benefits - Forecasted Severity
Data as of 12/31/2022

(1)	(2) Table 11-10-0190-01	(3) Table 11-10-0190-01
Province	2021 Median Gross Income	2021 Median After Tax Income
Alberta	88,100	76,200
Manitoba	76,600	66,200
Ratio	1.150	1.151

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Accident Benefits - Forecasted Frequency
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				(3) * (4)	Selected	Manitoba Exhibit 3.1	(2) * (5) * (6) * (7)
Accident Year	Alberta Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	ICBC AB Subcoverage Claimant/Claim Relativities	Claimant/Claim Factor (Based on Collision Data)	Claimant Basis Adjustment	Collateral Benefits	Permanent Impairment	Final Selected Claimant Frequency
Medical Expenses	10.2 Manitoba Exhibit 2.2	1.006	1.29	1.30	1.050		13.9
Disability Income	1.2 Manitoba Exhibit 2.3	0.907	1.29	1.17			1.4
Funeral and Death Benefits	0.1 Manitoba Exhibit 2.4	1.291	1.29	1.67			0.1
Permanent Impairment						9.00	1.2
Funeral, Death Benefits, and Permanant Impairment							1.3

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Accident Benefits - Forecasted Severity
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)
	per MPI 2024 GRA	Table 11-10-0190-01	Manitoba Exhibit 4.2	MPI 2024 GRA Figure RI-10	(2) * (3) * (4) * (5)
Accident Year	Severity at 7/1/2024 Cost Level	Population and Wage Adjustment	Collateral Adjustment	Loss Adjustment Expense	Final Selected Claimant Severity
Medical Expenses	7,758			1.172	9,093
Disability Income					
First Payer	60,517	1.151	1.000	1.172	81,643
Second Payer	60,517	1.151	0.514	1.172	41,928
Funeral, Death Benefits, and Permanant Impairment	32,722	1.150		1.172	44,110

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Accident Benefits - Selected Loss Cost
Data as of 12/31/2022

(1)	(2)	(3)	(4)
	Manitoba Exhibit 6.1	Manitoba Exhibit 6.2	(2) * (3) / 1000
A. Medical Expenses			
Accident Year	Selected Alberta Claimant Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Selected Claimant Severity at 7/1/2024 Cost Level	Loss Cost per Vehicle
2022-23	13.9	9,093	126.05
B. Disability Income			
Accident Year	Selected Alberta Claimant Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Selected Claimant Severity at 7/1/2024 Cost Level	Loss Cost per Vehicle
2022-23			
First Payer	1.4	81,643	116.50
Second Payer	1.4	41,928	59.83
C. Funeral, Death Benefits, & Permanant Impairment			
Accident Year	Selected Alberta Claimant Frequency (per 1000 Vehicles) at 7/1/2024 Cost Level	Selected Claimant Severity at 7/1/2024 Cost Level	Loss Cost per Vehicle
2022-23	1.3	44,110	58.20

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

Manitoba Model

Forecasted Non-Claim Expenses - Public Delivery
Data as of 12/31/2022

(1)	(2)	(3)	(4)

	Selected Expense Provision		
Province	Total Commissions (included CPC)	Taxes	Other Acquisition and General Expenses
Manitoba 2024 GRA	5.3%	3.1%	7.8%
British Columbia 2022 RRA	4.1%	4.4%	9.8%
Saskatchewan	5.0%	5.0%	8.6%
A.1. Selected Expense Provision	5.3%	4.0%	8.7%
A.2. Percent Variable	100%	100%	50%
A.3. Percent Fixed	0%	0%	50%

B.1. Estimated Variable Expenses	**13.7%**	Sum[A.1 x A.2]
C.1. Estimated Fixed Expense (as % of Premium)	4.4%	Sum[A.1 x A.3]
C.2. Average Estimated Required Premium	1,058	Manitoba Exhibit 8.1
C.3. Estimated Fixed Expense (per Vehicle)	46	C.1 * C.2

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Forecasted Required Premium - Manitoba Model (Auto Policy is Second Payer)
Public Delivery
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)		See Note	(5) * (6)	See Note	Manitoba Exhibit 7		See Note		(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	13.7%	-2.5%	-1.9%	0%	15	1	16
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	13.7%	-2.5%	-1.9%	0%	224	11	235
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	13.7%	-2.5%	-1.9%	0%	21	1	22
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	45
Third Party Liability	Total	1,458,392	100%	281.502	0.963	271.04	1.009	13.7%	-2.5%	-1.9%	0%	302	15	317
Accident Benefits	Disability Income			59.83	0.843	50.44	1.009	13.7%	-2.5%	-1.9%	0%	56	3	59
Accident Benefits	Medical Expenses and Rehabilitation			126.05	0.866	109.20	1.009	13.7%	-2.5%	-1.9%	0%	122	6	128
Accident Benefits	Funeral and Death Benefits			58.20	0.928	54.02	1.009	13.7%	-2.5%	-1.9%	0%	60	3	63
Accident Benefits	Accident Benefits - Total	1,451,913	100%	244.07	0.875	213.65	1.009	13.7%	-2.5%	-1.9%	0%	238	12	250
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	13.7%	-2.5%	-1.9%	0%	340	17	358
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	13.7%	-2.5%	-1.9%	0%	254	13	267
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	13.7%	-2.5%	-1.9%	0%	478	24	502
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	13.7%	-2.5%	-1.9%	0%	72	4	75
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	13.7%	-2.5%	-1.9%	0%	0	0	0
			D.5. Estimated Fixed Expense per Earned Vehicle			46	1.009	13.7%	-2.5%	-1.9%	0%	51		
Package	**Basic Coverage**			526	0.922	485	1.009	13.7%	-2.5%	-1.9%	0%	540	28	567
Package	**Full Coverage**			1,072	0.951	1,019	1.009	13.7%	-2.5%	-1.9%	0%	1,134	58	**1,192**

Notes

We assume Alberta is the second payer for disability income claims for all claimants with a group disability plan.

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern

(8) Based on investment rate of 3.70% and assumed three month delay

(11) Based on investment rate of 3.70% and assumed supporting capital is held at a 1 to 2 ratio to premiums.

(14) Total fixed expense per Earned Vehicle from Manitoba Exhibit 7. Fixed expenses allocated to coverages proportional to (13).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Forecasted Required Premium - Manitoba Model (Auto Policy is First Payer)
Public Delivery
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)		See Note	(5) * (6)	See Note	Manitoba Exhibit 7		See Note		(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	13.7%	-2.5%	-1.9%	0%	15	1	16
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	13.7%	-2.5%	-1.9%	0%	224	11	235
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	13.7%	-2.5%	-1.9%	0%	21	1	22
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	44
Third Party Liability	Total	1,458,392	100%	281.502	0.963	271.04	1.009	13.7%	-2.5%	-1.9%	0%	302	15	316
Accident Benefits	Disability Income			116.50	0.843	98.21	1.009	13.7%	-2.5%	-1.9%	0%	109	5	115
Accident Benefits	Medical Expenses and Rehabilitation			126.05	0.866	109.20	1.009	13.7%	-2.5%	-1.9%	0%	122	6	127
Accident Benefits	Funeral and Death Benefits			58.20	0.928	54.02	1.009	13.7%	-2.5%	-1.9%	0%	60	3	63
Accident Benefits	Accident Benefits - Total	1,451,913	100%	300.74	0.869	261.43	1.009	13.7%	-2.5%	-1.9%	0%	291	14	305
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	13.7%	-2.5%	-1.9%	0%	340	16	357
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	13.7%	-2.5%	-1.9%	0%	254	12	267
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	13.7%	-2.5%	-1.9%	0%	478	23	501
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	13.7%	-2.5%	-1.9%	0%	72	3	75
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	13.7%	-2.5%	-1.9%	0%	0	0	0
				D.5. Estimated Fixed Expense per Earned Vehicle		46	1.009	13.7%	-2.5%	-1.9%	0%	51		
Package	**Basic Coverage**			582	0.915	532	1.009	13.7%	-2.5%	-1.9%	0%	593	29	621
Package	**Full Coverage**			1,128	0.945	1,067	1.009	13.7%	-2.5%	-1.9%	0%	1,187	58	**1,245**

Notes

We assume Alberta is the first payer for all disability income claims.

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern

(8) Based on investment rate of 3.70% and assumed three month delay

(11) Based on investment rate of 3.70% and assumed supporting capital is held at a 1 to 2 ratio to premiums.

(14) Total fixed expense per Earned Vehicle from Manitoba Exhibit 7. Fixed expenses allocated to coverages proportional to (13).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Manitoba Model

Forecasted Required Premium - Manitoba Model (Auto Policy is First Payer)
Private Delivery
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			per (3)		See Note	(5) * (6)	See Note	Exhibit 2.1		(7) * (8) / (1 - (9) - (10))	See Note	(11) + (12)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Profit Provision	Estimated Required Premium (Excluding Fixed Expense)	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	22.2%	6%	19	2	20
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	22.2%	6%	282	25	308
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	22.2%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	22.2%	6%	54	5	58
Third Party Liability	Total	1,458,392	100%	281.502	0.963	271.04	1.009	22.2%	6%	381	34	415
Accident Benefits	Disability Income			116.50	0.843	98.21	1.009	22.2%	6%	138	12	150
Accident Benefits	Medical Expenses and Rehabilitation			126.05	0.866	109.20	1.009	22.2%	6%	153	14	167
Accident Benefits	Funeral and Death Benefits			58.20	0.928	54.02	1.009	22.2%	6%	76	7	83
Accident Benefits	Accident Benefits - Total	1,451,913	100%	300.74	0.869	261.43	1.009	22.2%	6%	367	33	400
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	22.2%	6%	430	38	468
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	22.2%	6%	321	29	350
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	22.2%	6%	603	54	657
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	22.2%	6%	90	8	98
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	22.2%	6%	0	0	0
				D.5. Estimated Fixed Expense per Earned Vehicle		85	1.009	22.2%	6%	120		
Package	**Basic Coverage**			582	0.915	532	1.009	22.2%	6%	748	67	815
Package	**Full Coverage**			1,128	0.945	1,067	1.009	22.2%	6%	1,499	134	**1,634**

Notes

We assume Alberta is the first payer for all disability income claims.

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern

(8) Based on investment rate of 3.70% and assumed three month delay

(12) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (11).

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

British Columbia Model

Forecasted Non-Claim Expenses - Public Delivery of Optional Coverages
Data as of 12/31/2022

(1)	(2)	(3)	(4)
	Selected Expense Provision		
Province	Total Commissions (included CPC)	Taxes	Other Acquisition and General Expenses
Alberta	13.2%	4.0%	10.1%
Manitoba	5.3%	3.1%	7.8%
British Columbia	4.1%	4.4%	9.8%
Saskatchewan	5.0%	5.0%	8.6%
A.1. Selected Expense Provision	13.2%	4.0%	8.7%
A.2. Percent Variable	100%	100%	50%
A.3. Percent Fixed	0%	0%	50%
B. Estimated Variable Expenses		**21.5%**	Sum[A.1 x A.2]
C.3. Estimated Fixed Expense (per Vehicle)		46	Manitoba Exhibit 7

Province of Alberta

Private Passengers Vehicles
Actuarial Analysis - Reform Costing
British Columbia Model

Permanent Impairment Severity Adjustment
Data as of 12/31/2022

(1)	(2)	(3)
Accident Half Year	Maximum Lump Sum Payment for Catastrophic Injuries	Maximum Lump Sum Payment for Non-Catastrophic Injuries
Manitoba	285,287	180,674
British Columbia	259,245	164,181
Ratio	90.9%	90.9%
A. Selected Adjustment	-10.0%	Selected
B.1 Manitoba Funeral, Death Benefits, and Permanent Impairment Loss Cost	58.20	Manitoba Exhibit 6.3
B.2 Percent Permanent Impairment	95.0%	Selected, see note
C. British Columbia Funeral, Death Benefits, and Permanent Impairment Loss Cost	52.67	(1 + A.) * B.2 * B.1 + 1 * (1 - B.2) * B.1

Notes

B.2 8/9 of the funeral and death benefits frequency is permanent impairment; assume it's a larger percentage of claim amounts.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
British Columbia Model

Accident Benefits Medical & Rehabilition Collateral Sources Adjustment
Data as of 12/31/2022

(1)	(2)	(3)
A. Manitoba Accident Benefits Medical & Rehabilitation Loss Cost	126.05	Manitoba Exhibit 8.2
B. Selected Adjustment for medical expense paid by personal/employer health care	-5.0%	Selected, see text
C. Adjusted Accident Benefits Medical & Rehabilitation Loss Cost	119.75	A. * (1 + B.)

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
British Columbia Model

Forecasted Required Premium - British Columbia Model
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)		See Note	(5) * (6)	See Note	Manitoba Exhibit 7; BC Exhibit 1.1		See Note	Board Benchmark	(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed Expense)	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	13.7%	-2.5%	-1.9%	0%	15	1	16
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	13.7%	-2.5%	-1.9%	0%	224	11	235
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	13.7%	-2.5%	-1.9%	0%	21	1	22
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	45
Third Party Liability	Total	1,458,392	100%	281.502	0.963	271.04	1.009	13.7%	-2.5%	-1.9%	0%	302	15	317
Accident Benefits	Disability Income			59.83	0.843	50.44	1.009	13.7%	-2.5%	-1.9%	0%	56	3	59
Accident Benefits	Medical Expenses and Rehabilitation			119.75	0.866	103.74	1.009	13.7%	-2.5%	-1.9%	0%	115	6	121
Accident Benefits	Funeral and Death Benefits			52.67	0.928	48.89	1.009	13.7%	-2.5%	-1.9%	0%	54	3	57
Accident Benefits	Accident Benefits - Total	1,451,913	100%	232.24	0.874	203.06	1.009	13.7%	-2.5%	-1.9%	0%	226	11	237
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	21.5%	-2.5%	-1.9%	0%	372	19	391
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	21.5%	-2.5%	-1.9%	0%	278	14	292
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	13.7%	-2.5%	-1.9%	0%	478	24	501
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	13.7%	-2.5%	-1.9%	0%	72	4	75
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	13.7%	-2.5%	-1.9%	0%	0	0	0
				D.5. Estimated Fixed Expense per Earned Vehicle		46	1.009	13.7%	-2.5%	-1.9%	0%	51		
									-2.5%	-1.9%				
Package	**Basic Coverage**			514	0.923	474	1.009	13.7%	-2.5%	-1.9%	0%	528	26	554
Package	**Full Coverage**			1,060	0.951	1,009	1.009					1,179	59	**1,238**

Notes
(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
(8) Based on investment rate of 3.70% and assumed three month delay
(11) Based on investment rate of 3.70% and assumed supporting capital is held at a 1 to 2 ratio to premiums.
(14) Total fixed expense per Earned Vehicle from Manitoba Exhibit 7. Fixed expenses allocated to coverages proportional to (13).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Saskatchewan Model

Collateral Benefits Adjustment
Data as of 12/31/2022

(1) Gross Income Level			(2) Manitoba Exhibit 4.1 Percent in Level	(3) Manitoba Exhibit 4.1 Average Gross Weekly Income	(4) Manitoba Exhibit 4.1 Average Net Weekly Income	(5) 90% * (4) 90% of Avg Net Weekly Income	(6) Manitoba Exhibit 4.2 Weekly Indemnity Benefit (Includes Benefit Cap)	(7) (5) - (6) Excess Liability	
0	to	4,999	11.8%	48	35	32	32	0	
5,000	to	9,999	7.3%	144	102	92	92	0	
10,000	to	19,999	11.4%	288	200	180	180	0	
20,000	to	29,999	8.6%	481	330	297	297	0	
30,000	to	39,999	8.3%	673	461	415	415	0	
40,000	to	49,999	8.4%	865	592	533	533	0	
50,000	to	59,999	7.0%	1,058	716	645	645	0	
60,000	to	79,999	12.9%	1,346	909	818	818	0	
80,000	to	99,999	8.2%	1,731	1,177	1,059	1,059	0	
over 100,000			16.0%	2,392	1,608	1,448	1,294	154	excess tort

A.1 Benefits from Insurance Package	1,294	
A.2 Benefits Excess of Insurance	154	
A.3 Excess Percentage	11.9%	A.2 / A.1
B.1 Percent of Claimants that Receive Excess Benefits	16.0%	
B.2 Percent of Claimants that will not Receive Excess Benefits	84.0%	
B.3 Adjustment Factor	1.019	1 + B.1 * A.3 + B.2 * 0
C.1 Manitoba Disability Income Loss Cost	59.83	Manitoba Exhibit 6.3
C.2 Adjusted Total Loss Cost	60.97	C.1 * B.3
C.3 Excess Liability Loss Cost	1.14	C.2 - C.1
D.1 Frictional Cost Factor	1.20	NSW Exhibit 1.1
D.2. Propensity to Sue Factor	75.0%	NSW Exhibit 1.1
D.3 Adjusted Excess Liablity Loss Cost	1.02	C.3 * D.1 * D.2

Permanent Impairment Severity Adjustment
Data as of 12/31/2022

(1)	(2)	(3)
Accident Half Year	Maximum Lump Sum Payment for Catastrophic Injuries	Maximum Lump Sum Payment for Non-Catastrophic Injuries
Manitoba	285,287	180,674
Saskatchewan	273,673	224,073
Ratio	95.9%	124.0%
Indicated Adjustment	-4.1%	24.0%
A. Selected Adjustment	10.0%	Selected, See note
B.1 Selected Funeral & Death Benefits Loss Cost	58.20	Manitoba Exhibit 6.3
B.2 B.2 Percent Permanent Impairment	95.0%	Selected, See Note
C. Adjusted Funeral & Death Benefits Loss Cost	63.72	(1 + A.) * B.2 * B.1 + 1 * (1 - B.2) * B.1

Notes

A.	We expect a greater percentage of claims to be non-catastrophic, though the catastrophic claims will have a higher severity, which is more likely limited by the maximum.
B.2	8/9 of the funeral and death benefits frequency is permanent impairment; assume it's a larger percentage of claim amounts.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Saskatchewan Model

Forecasted Required Premium - Saskatchewan Tort Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)	Exhibit 1.1 - Exhibit 1.8	See Note	(5) * (6)	See Note	Manitoba Exhibit 7				(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			499.06	0.847	422.62	1.009	13.7%	-2.5%	-1.9%	0%	470	18	488
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	13.7%	-2.5%	-1.9%	0%	224	8	232
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	13.7%	-2.5%	-1.9%	0%	21	1	21
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	44
Third Party Liability	Total	1,458,392	100%	764.79	0.890	680.30	1.009	13.7%	-2.5%	-1.9%	0%	757	28	785
Accident Benefits	Accident Benefits - Total	1,451,913	100%	130.24	0.933	121.51	1.009	13.7%	-2.5%	-1.9%	0%	135	5	140
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	13.7%	-2.5%	-1.9%	0%	340	13	353
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	13.7%	-2.5%	-1.9%	0%	254	10	264
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	13.7%	-2.5%	-1.9%	0%	477	18	495
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	13.7%	-2.5%	-1.9%	0%	72	3	74
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	5.90	0.798	4.71	1.009	13.7%	-2.5%	-1.9%	0%	5	0	5
		D.5. Estimated Fixed Expense per Earned Vehicle				46	1.009	13.7%	-2.5%	-1.9%	0%	51		
Package	**Basic Coverage**			895	0.896	802	1.009	13.7%	-2.5%	-1.9%	0%	892	34	926
Package	**Full Coverage**			1,447	0.927	1,341	1.009	13.7%	-2.5%	-1.9%	0%	1,492	56	**1,548**

Notes
(4) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
(8) Based on investment rate of 3.70% and assumed three month delay
(14) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (13).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Saskatchewan Model

Forecasted Required Premium - Saskatchewan No-Fault Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)		See Note	(5) * (6)	See Note	Manitoba Exhibit 7		See Note	Board Benchmark	(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	13.7%	-2.5%	-1.9%	0%	15	1	16
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	13.7%	-2.5%	-1.9%	0%	224	11	235
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	13.7%	-2.5%	-1.9%	0%	21	1	22
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	44
Third Party Liability	Total	1,458,392	100%	281.50	0.963	271.04	1.009	13.7%	-2.5%	-1.9%	0%	302	15	316
Accident Benefits	Disability Income			116.50	0.843	98.21	1.009	13.7%	-2.5%	-1.9%	0%	109	5	115
Accident Benefits	Medical Expenses and Rehabilitation			126.05	0.866	109.20	1.009	13.7%	-2.5%	-1.9%	0%	122	6	127
Accident Benefits	Funeral and Death Benefits			63.72	0.928	59.15	1.009	13.7%	-2.5%	-1.9%	0%	66	3	69
Accident Benefits	Accident Benefits - Total	1,451,913	100%	306.27	0.870	266.56	1.009	13.7%	-2.5%	-1.9%	0%	297	14	311
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	13.7%	-2.5%	-1.9%	0%	340	16	357
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	13.7%	-2.5%	-1.9%	0%	254	12	267
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	13.7%	-2.5%	-1.9%	0%	478	23	501
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	13.7%	-2.5%	-1.9%	0%	72	3	75
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	13.7%	-2.5%	-1.9%	0%	0	0	0
Excess Liability	Excess Liability			1.02	0.843	0.86	1.009	13.7%	-2.5%	-1.9%	0%	1	0	1
			D.5. Estimated Fixed Expense per Earned Vehicle			46	1.009	13.7%	-2.5%	-1.9%	0%	51		
Package	**Basic Coverage**			588	0.915	538	1.009	13.7%	-2.5%	-1.9%	0%	598	29	627
Package	**Full Coverage**			1,135	0.945	1,073	1.009	13.7%	-2.5%	-1.9%	0%	1,194	58	**1,252**

Notes

(5) Claimants can sue for excess liability.
(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
(8) Based on investment rate of 3.70% and assumed three month delay
(11) Based on investment rate of 3.70% and assume supporting capital is held at a 1 to 2 ratio to premiums.
(14) Total fixed expense per Earned Vehicle from Manitoba Exhibit 7. Fixed expenses allocated to coverages proportional to (13).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Quebec Model

Permanent Impairment Severity Adjustment
Data as of 12/31/2022

(1)	(2)		(3)
Accident Half Year	Maximum Lump Sum Payment for Catastrophic Injuries		Maximum Lump Sum Payment for Non-Catastrophic Injuries
Manitoba	285,287		180,674
Quebec (Single Maximum)		295,687	
Ratio	3.6%		63.7%
A. Selected Adjustment		5.0%	Selected, See note
B.1 Selected Funeral & Death Benefits Loss Cost		58.20	Manitoba Exhibit 6.3
B.2 Percent Permanent Impairment		95.0%	Selected, see note
C.Adjusted Funeral & Death Benefits Loss Cost		60.96	(1 + A.) * B.2 * B.1 + 1 * (1 - B.2) * B.1

Notes

A. We expect a greater percentage of claims to be non-catastrophic, though the catastrophic claims will have a higher severity, which is more likely limited by the maximum.

B.2. 8/9 of the funeral and death benefits frequency is permanent impairment; assume it's a larger percentage of claim amounts.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Quebec Model

Forecasted Required Premium - Quebec Model
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			per (3)		See Note	(5) * (6)	See Note	Exhibit 2.1; Manitoba Exhibit 7	See Note	See Note	See Note	(7) * (8) / (1 - (9) - (10) - (11) - (12))	See Note	(13) + (14)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Credit for Revenue from Finance Fees	Credit for Investment Income	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			15.78	0.847	13.36	1.009	22.2%	0.0%	0.0%	6%	19	1	19
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	22.2%	0.0%	0.0%	6%	282	20	302
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	22.2%	0.0%	0.0%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	13.7%	-2.5%	-1.9%	0%	42	2	44
Third Party Liability	Total	1,458,392	100%	281.50	0.963	271.04	1.009					370	24	394
Accident Benefits	Disability Income			116.50	0.843	98.21	1.009	13.7%	-2.5%	-1.9%	0%	109	5	115
Accident Benefits	Medical Expenses and Rehabilitation			126.05	0.866	109.20	1.009	13.7%	-2.5%	-1.9%	0%	122	6	127
Accident Benefits	Funeral and Death Benefits			60.96	0.928	56.58	1.009	13.7%	-2.5%	-1.9%	0%	63	3	66
Accident Benefits	Accident Benefits - Total	1,451,913	100%	303.51	0.870	263.99	1.009	13.7%	-2.5%	-1.9%	0%	294	14	308
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	22.2%	0.0%	0.0%	6%	430	30	459
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	22.2%	0.0%	0.0%	6%	321	22	343
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	22.2%	0.0%	0.0%	6%	603	42	645
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	22.2%	0.0%	0.0%	6%	90	6	97
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	0.18	0.798	0.14	1.009	13.7%	-2.5%	-1.9%	0%	0	0	0
			D.5. Estimated Fixed Expense per Earned Vehicle			61						79		
Package	**Basic Coverage**			585	0.915	535						664	38	702
Package	**Full Coverage**			1,131	0.945	1,069						1,415	91	**1,505**

Notes

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern

(8) Based on investment rate of 3.70% and assumed three month delay

(9) - (12) Physical damage coverages and bodily injury based on private delivery model; AB + UM based on public delivery model

(11) Based on investment rate of 3.70% and assumed supporting capital is held at a 1 to 2 ratio to premiums.

(14) Total fixed expense per Earned Vehicle from Manitoba Exhibit 8.2 for publicly administered coverages and from Exhibit 2.3 for privately administered coverages.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Modeling Assumptions for New South Wales

(1) Item	(2) Selected Factor	(3)
Frictional Cost Factor	1.200	From page 4/48 in MNP System Cost Analysis for IBC.
Propensity to Sue Factor	0.750	Selected, Considers percentage of at-fault drivers
LTCS & MAITC Levy as a Percentage of Premiums	25.0%	Selected, NSW Model Description
Legal Access Restriction	-0.050	Selected, Judgement

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Summary of Closed Claim Study Data
All Costs Projected to 01/01/2018

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) SUM((2):(8))
Type of Claim / Injury Type	Pain & Suffering	Past Medical & Rehabilitation Payments	Future Medical & Rehabilitation Payments	Past Disability Income Payments	Future Disability Income Payments	Other Payments	ALAE	Total
Reported Payments								
Wholly/Mostly at Fault								
All Injury Types	340,717	50,888	149,586	63,507	184,000	139,700	183,825	1,112,223
Not at Fault								
Threshold Injuries	5,412,996	583,399	172,325	638,514	93,837	1,725,166	604,155	9,230,391
Non-threshold (WPI =< 10%)	11,292,395	1,056,875	866,517	1,101,924	720,078	1,355,089	1,568,277	17,961,155
Non-threshold (WPI > 10%)	16,765,205	1,885,007	2,827,159	3,470,572	5,997,571	2,159,659	2,546,324	35,651,497
Projected Payments								
Wholly/Mostly at Fault								
All Injury Types	629,189	115,083	374,520	154,064	481,154	311,189	421,233	2,486,432
Not at Fault								
Threshold Injuries	8,767,208	1,043,875	305,557	1,151,428	169,060	2,718,959	1,219,586	15,375,673
Non-threshold (WPI =< 10%)	20,299,376	1,882,348	1,540,249	2,003,348	1,523,867	2,646,100	3,608,964	33,504,251
Non-threshold (WPI > 10%)	30,388,296	3,506,886	5,602,055	7,547,163	11,920,561	4,307,335	5,707,937	68,980,233
Claim Counts								
Wholly/Mostly at Fault								
All Injury Types	22	14	9	6	3	20		
Not at Fault								
Threshold Injuries	1,659	508	171	320	24	322		
Non-threshold (WPI =< 10%)	497	310	207	160	56	332		
Non-threshold (WPI > 10%)	156	106	105	85	83	125		

Note
(1) Claimants are selected to be wholly/mostly at fault if, in response to question 40 in the closed claim study, the settlement amount was reduced by at least 61%.
Claimants are selected to be Threshold, WPI ≤ 10%, or WPI >10% by answer to question 13, injury type, and pain & suffering settlement amount.
(2) - (8) Based on Alberta's Claim Closed Study; each claimant's losses and ALAE were projected to a common accident date of Jan 1, 2018 using the Board's benchmark for bodily injury severity trend rate, +8.0%/+5.0%.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Accident Benefits Medical Expenses Selected Loss Cost
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Accident Year	Earned Vehicles	Ultimate Loss and LAE Estimate	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	2,482,300	73,512,764	1.0%	11%	01/01/15	2.735	1.000	1.086	1.000	0.950	83.51	0%
2014	2,577,311	77,810,738	1.0%	11%	01/01/15	2.707	1.000	1.086	1.000	0.950	84.29	0%
2015	2,649,234	93,434,093	1.0%	11%	01/01/15	2.558	1.000	1.086	1.000	0.950	93.03	0%
2016	2,677,480	99,862,722	1.0%	11%	01/01/15	2.305	1.000	1.086	1.000	0.950	88.64	0%
2017	2,695,021	126,135,014	1.0%	11%	01/01/15	2.076	1.000	1.086	1.000	0.950	100.20	0%
2018	2,750,324	138,695,697	1.0%	11%	01/01/15	1.870	1.000	1.086	1.000	0.950	97.27	20%
2019	2,782,979	152,188,955	1.0%	11%	01/01/15	1.685	1.000	1.086	1.000	0.950	95.03	20%
2020	2,780,467	122,493,810	1.0%	11%	01/01/15	1.518	1.000	1.071	1.439	0.950	97.96	20%
2021	2,807,872	154,565,095	1.0%	11%	01/01/15	1.368	1.000	1.000	1.444	0.950	103.25	20%
2022	2,837,304	183,080,389	1.0%	11%	01/01/15	1.232	1.000	1.000	1.125	0.975	87.22	20%
										Selected Loss Cost at 7/1/2024 Cost Level	96.14	Sum [(12) x (13)]

Notes
(9) Reform Impact calculated as:
50% weight to a priori estimate of +8%
50% weight to measured impact of +9.1%
(10) Factor to adjust to pre-pandemic frequency levels
(11) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Accident Benefits Disability Income - Selected Loss Cost
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Accident Year	Earned Vehicles	Ultimate Loss and LAE Estimate	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	2,482,300	25,514,177	1.0%	11%	01/01/15	2.735	1.000	1.086	1.000	0.950	28.98	0%
2014	2,577,311	25,790,812	1.0%	11%	01/01/15	2.707	1.000	1.086	1.000	0.950	27.94	0%
2015	2,649,234	34,516,680	1.0%	11%	01/01/15	2.558	1.000	1.086	1.000	0.950	34.37	0%
2016	2,677,480	32,154,525	1.0%	11%	01/01/15	2.305	1.000	1.086	1.000	0.950	28.54	0%
2017	2,695,021	36,193,164	1.0%	11%	01/01/15	2.076	1.000	1.086	1.000	0.950	28.75	0%
2018	2,750,324	37,446,157	1.0%	11%	01/01/15	1.870	1.000	1.086	1.000	0.950	26.26	20%
2019	2,782,979	42,753,128	1.0%	11%	01/01/15	1.685	1.000	1.086	1.000	0.950	26.69	20%
2020	2,780,467	39,082,670	1.0%	11%	01/01/15	1.518	1.000	1.071	1.439	0.950	31.25	20%
2021	2,807,872	50,753,729	1.0%	11%	01/01/15	1.368	1.000	1.000	1.444	0.950	33.90	20%
2022	2,837,304	66,312,655	1.0%	11%	01/01/15	1.232	1.000	1.000	1.125	0.975	31.59	20%
										Selected Loss Cost at 7/1/2024 Cost Level	29.94	Sum [(12) x (13)]

Notes
(9) Reform Impact calculated as:
50% weight to a priori estimate of +8%
50% weight to measured impact of +9.1%
(10) Factor to adjust to pre-pandemic frequency levels
(11) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Accident Benefits Funeral and Death Benefits - Selected Loss Cost
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Accident Year	Earned Vehicles	Ultimate Loss and LAE Estimate	Past Trend	Future Trend	Trend (Transition) Date	Trend Factor to 7/1/2024	2021-2 Scalar (Inflation)	Reform Impact	COVID-19 (Unwinding) Factors	Post-COVID Adjustment	Loss Cost at 7/1/2024 Cost Level	Weights
2013	2,482,300	4,169,488	1.0%	11%	01/01/15	2.735	1.000	1.086	1.000	0.950	4.74	0%
2014	2,577,311	3,714,508	1.0%	11%	01/01/15	2.707	1.000	1.086	1.000	0.950	4.02	0%
2015	2,649,234	4,329,088	1.0%	11%	01/01/15	2.558	1.000	1.086	1.000	0.950	4.31	0%
2016	2,677,480	4,490,304	1.0%	11%	01/01/15	2.305	1.000	1.086	1.000	0.950	3.99	0%
2017	2,695,021	3,781,675	1.0%	11%	01/01/15	2.076	1.000	1.086	1.000	0.950	3.00	0%
2018	2,750,324	3,716,680	1.0%	11%	01/01/15	1.870	1.000	1.086	1.000	0.950	2.61	20%
2019	2,782,979	2,151,668	1.0%	11%	01/01/15	1.685	1.000	1.086	1.000	0.950	1.34	20%
2020	2,780,467	2,289,812	1.0%	11%	01/01/15	1.518	1.000	1.071	1.439	0.950	1.83	20%
2021	2,807,872	3,213,169	1.0%	11%	01/01/15	1.368	1.000	1.000	1.444	0.950	2.15	20%
2022	2,837,304	3,468,831	1.0%	11%	01/01/15	1.232	1.000	1.000	1.125	0.975	1.65	20%
										Selected Loss Cost at 7/1/2024 Cost Level	1.92	Sum [(12) x (13)]

Notes
(9) Reform Impact calculated as:
50% weight to a priori estimate of +8%
50% weight to measured impact of +9.1%
(10) Factor to adjust to pre-pandemic frequency levels
(11) Factor to adjust for lower post-pandemic frequency level

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Expected Distribution of Bodily Injury Claim Amounts

(1)	(2) See Note	(3) (2) / (2) total	(4) Selected
Type of Claim / Injury Type	Projected Bodily Injury Loss and ALAE	Expected Percent of Bodily Injury Loss and ALAE	Selected Percent of Bodily Injury Loss and ALAE
Wholly/Mostly at Fault			
All Injury Types	2,486,432	2.1%	2.5%
Not at Fault			
Threshold Injuries	15,375,673	12.8%	12.5%
Non-threshold (WPI =< 10%)	33,504,251	27.8%	30.0%
Non-threshold (WPI > 10%)	68,980,233	57.3%	55.0%
Total	120,346,589	100.0%	100.0%

Note
(2) Based on Alberta's Claim Closed Study; losses and ALAE projected using the Board's bodily injury severity trend, +8.0%/+5.0%.
See NSW Exhibit 1.2

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Pain and Suffering Damages Adjustment

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	NSW Exhibit 3.1	See Notes					(3) + (5) - (6)	((4) - (8)) / (4)	Selected, See Note
Type of Claim / Injury Type	Expected % of Total Loss	Projected Pain & Suffering Damages	Projected Total Indemnity and ALAE	Projected Total ALAE	Allocation of Projected ALAE for Non Pain & Suffering	CTP Scheme Common Law Compensation Eligibility	Total Reduction of Loss and ALAE	Proportion of Bodily Injury Loss Cost Remaining	Selected Proportion of Bodily Injury Loss Cost Remaining
Wholly/Mostly at Fault									
All Injury Types	2.50%	629,189	2,486,432	421,233	274,992	No	775,430	0.688	0.800
Not at Fault									
Threshold Injuries	12.50%	8,767,208	15,375,673	1,219,586	513,380	No	9,473,414	0.384	0.380
Non-threshold (WPI =< 10%)	30.00%	20,299,376	33,504,251	3,608,964	1,345,515	No	22,562,825	0.327	0.330
Non-threshold (WPI > 10%)	55.00%	30,388,296	68,980,233	5,707,937	3,271,542	Yes			1.000
Total	100.00%	60,084,068	120,346,589	10,957,720	5,405,429		32,811,669	0.727	0.717
Control		60,084,068	120,346,589	10,957,720					

A. Percentage of Loss Costs for Pain & Suffering Excluding WPI > 10%	0.284
	1- (10)
B. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level	499.06
	Exhibit 1.1
C. Bodily Injury Loss Costs Provision for Pain & Suffering Claims	(141.48)
	A * B * -1

Note

(2) Estimated based on Alberta's Claim Closed Study; see NSW Exhibit 1.2

(3) - (6) Based on Alberta's Claim Closed Study; losses and ALAE projected using the Board's bodily injury severity trend, +8.0%/+5.0%.

(6) ALAE was adjusted proportionally to the ratio of pain and suffering damages to the total indemnity amount, per claim.

(10) Selected, Non-Threshold (WPI >10%) claimants eligible for pain and suffering damages under the NSW model.
There is limited claims experience for Wholly/Mostly at Fault claimants in the Claim Closed Study.
We expect Wholly/Mostly at Fault claimants will have limited compensation for Pain and Suffering damages, which is reflected in our selection.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Disability Income Duration Adjustment (2 years to 1 year)

(1)	(2)	(3)	(4)	(5)	(6)
	NSW Exhibit 3.1		See Note		(3) / (4)
Type of Claim	Expected % of Total Loss	Expected Percentage of Loss Paid by 1 Year	Expected Percentage of Loss Paid by 2 Years	NSW CTP Scheme Benefit Duration	Selected Adjustment to AB DI for Decreased Duration of Benefits
Wholly/Mostly at Fault					
All Injury Types	2.50%	64%	94%	1 year	0.68
Not at Fault					
Threshold Injuries	12.50%	91%	99%	1 year	0.92
Non-threshold (WPI =< 10%)	30.00%			3 years	
Non-threshold (WPI > 10%)	55.00%			5 years	
Total	100.00%			sum[(2) * (6)]	0.982

A. Selected AB Disability Income Loss Cost at 7/1/2024 Cost Level (NSW Exhibit 2.2)	29.94	NSW Exhibit 2.2
B. Reduction to Accident Benefits Disability Income Loss Cost	(0.54)	-1 * A. * (6) total
C. Frictional Cost Factor	1.20	NSW Exhibit 1.1
D. Propensity to Sue Factor	0.75	NSW Exhibit 1.1
E. Addition to Bodily Injury Loss Cost	0.49	-1 * B. * C. * D.

Note

(3) & (4) Based on Accident Benefits transactional data. See report for additional information.
Claims in the transactional data are selected to be common injuries if total payments are less than $10,000.

(6) Current Alberta benefit is 2 years; NSW duration for Wholly/Mostly at fault and Threshold injuries is one year

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Disability Income Duration Adjustment (2 years to 3 or 5 years)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	NSW Exhibit 3.1	See Note			(4) / (3)	(5) / (3)		Selected
Type of Claim	Bodily Injury Expected Distribution of Claims	Loss of Income Limited to 2 years	Loss of Income Limited to 3 years	Loss of Income Limited to 5 years	Indicated Adjustment Factor from 2 to 3 years	Indicated Adjustment Factor from 2 to 5 years	NSW CTP Scheme Benefit Duration	Selected AB DI Adjustment for Increased Duration of Benefits
Wholly/Mostly at Fault								
All Injury Types	2.50%	83,187	114,697	154,064	1.38	1.85	1 year	
Not at Fault								
Threshold Injuries	12.50%	1,151,428	1,151,428	1,151,428	1.00	1.00	1 year	
Non-threshold (WPI =< 10%)	30.00%	1,821,142	1,870,281	1,932,133	1.03	1.06	3 years	1.03
Non-threshold (WPI > 10%)	55.00%	6,090,678	6,494,857	7,115,775	1.07	1.17	5 years	1.17
Total	100.00%	9,146,435	9,631,262	10,353,400	1.05	1.13		1.101
								sum[(2) * (9)]
							A. Selected Adjustment for AB DI Benefits paid in first 2 years	0.50
							B. Adjustment factor for change in duration of benefits	1.050
								(9) total * A.

Note

(3) - (5) Based on Alberta's Claim Closed Study; assume disability income payments are uniformly distributed over time.
Losses were projected based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.

Province of Alberta

Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Disability Income Benefits Weekly Amount Adjustment
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)	(9)	(10)	(11)
	Manitoba Exhibit 4.1	See Note	See Note	See Note	See Note	See Note			(6) + (7)	(3) - (4) - (5) - (8)	(3) / 52	(9) / 52
Gross Income Level	Percent in Level	Mid Point of Interval	Canada Pension Plan Contribution	Employment Insurance Premium	Provincial Income Tax	Federal Income Tax			Total Income Tax	Average Net Income	Average Gross Weekly Income	Average Net Weekly Income
		Rate	5.45%	1.58%	10.00%	15.00%	20.50%	26.00%				
		Income Limit	61,600	56,300		49,020	98,040	151,978				
		Basic Expemption	3,500			0	49,020	98,040				
0 to 4,999	11.8%	2,500	0	40	250	375	0	0	625	1,836	48	35
5,000 to 9,999	7.3%	7,500	218	119	750	1,125	0	0	1,875	5,289	144	102
10,000 to 19,999	11.4%	15,000	627	237	1,500	2,250	0	0	3,750	10,386	288	200
20,000 to 29,999	8.6%	25,000	1,172	395	2,500	3,750	0	0	6,250	17,183	481	330
30,000 to 39,999	8.3%	35,000	1,717	553	3,500	5,250	0	0	8,750	23,980	673	461
40,000 to 49,999	8.4%	45,000	2,262	711	4,500	6,750	0	0	11,250	30,777	865	592
50,000 to 59,999	7.0%	55,000	2,807	869	5,500	7,353	1,226	0	14,079	37,245	1,058	716
60,000 to 79,999	12.9%	70,000	3,166	890	7,000	7,353	4,301	0	18,654	47,290	1,346	909
80,000 to 99,999	8.2%	90,000	3,166	890	9,000	7,353	8,401	0	24,754	61,190	1,731	1,177
over 100,000	16.0%	124,381	3,166	890	12,438	7,353	10,049	6,849	36,689	83,636	2,392	1,608
Total	100.0%	51,600										
Maximum Eligible Income		103,200	3,166	890	10,320	7,353	10,049	1,342	29,064	70,080	1,985	1,348

Note

(2) Statistics Canada 2021 Table 11-10-0240-01.
(3) Mid-point for over 100,000 level based on average income of $51,600.
(4) For 2021, the employee contribution rate was 5.45%; maximum pensionable earnings was $61,600; basic exemption amount of $3,500.
(5) For 2021, the rate was 1.58% and the maximum insurable earnings was $56,300.
(6) For 2021, the Alberta income tax rate was 10% up to an income of $131,220; the federal rate was 15%.
(7) 2021 Federal Tax Brackets: 15% for first $49,020, 20.5% for income between $49,020 and $98,040, and 26.0% for income between $98,040 and $151,978

Province of Alberta

Private Passengers Vehicles

Actuarial Analysis - Reform Costing

New South Wales Model

Current Alberta Severity for Employed Claimants
Data as of 12/31/2022

(1) Gross Income Level			(2) Percent in Level (Manitoba Exhibit 4.2)	(3) Average Gross Weekly Income (Manitoba Exhibit 4.2)	(4) Average Net Weekly Income (Manitoba Exhibit 4.2)	(5) Weekly Benefits from Collateral Source Plan (60% * (3))	(6) Weekly Indemnity Benefit (52) No Group Disability Plan	(7) Weekly Indemnity Benefit after Group Disability Plan Payments (MAX((6) - (5),0)) With Group Disability Plan
0	to	4,999	11.8%	48	35	29	38	10
5,000	to	9,999	7.3%	144	102	87	115	29
10,000	to	19,999	11.4%	288	200	173	231	58
20,000	to	29,999	8.6%	481	330	288	385	96
30,000	to	39,999	8.3%	673	461	404	538	135
40,000	to	49,999	8.4%	865	592	519	600	81
50,000	to	59,999	7.0%	1,058	716	635	600	0
60,000	to	79,999	12.9%	1,346	909	808	600	0
80,000	to	99,999	8.2%	1,731	1,177	1,038	600	0
over 100,000			16.0%	2,392	1,608	1,435	600	0
Total				992	673	595	432	36

A.1 Percentage of income long term disabilty covers	60%
A.2 Percentage of gross income covered by auto plan benefits	80%
A.3 Maximum Weekly Benefit from auto plan	600

B. Average Duration (Weeks)	42.5	Based on Accident Benefits transactional data.
C.1. Average Severity for Employed Claimants with a Group Disability Plan	1,533	(7) total * B.
C.2. Average Severity for Employed Claimants without a Group Disability Plan	18,378	(6) total * B.
D.1 Employed Individuals in Alberta in 000's	2,407	Table 14-10-0017-02
D.2. Number of Individuals with a Group Disability Plan in 000's	1,800	2022 CLHIA FB Appendix Provincial Data
D.3. Number of Employed Individuals without a Group Disability Plan in 000's	607	D.1 - D.2
E. Average Severity for Employed Claimants	5,780	C.1 * D.2 / D.1 + C.2 * D.3 / D.1

Notes
A.1 https://www.canada.ca/en/financial-consumer-agency/services/insurance/disability.html

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Disability Income Benefits Level Adjustment
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)
	Manitoba Exhibit 4.2	Manitoba Exhibit 4.2	Manitoba Exhibit 4.2	MIN(A.3 * (4) , A.2)	MIN(A.4 * (3) , A.2)
Gross Income Level	Percent in Level	Average Gross Weekly Income	Average Net Weekly Income	Net Weekly Benefits first 13 Weeks	Gross Weekly Benefits After 13 Weeks
			A.1 Max Eligible Income	70,080	103,200
			A.2 Maximum Weekly NSW Exhibit 4.3	1,348	1,985
0 to 4,999	11.8%	48	35	34	38
5,000 to 9,999	7.3%	144	102	97	115
10,000 to 19,999	11.4%	288	200	190	231
20,000 to 29,999	8.6%	481	330	314	385
30,000 to 39,999	8.3%	673	461	438	538
40,000 to 49,999	8.4%	865	592	562	692
50,000 to 59,999	7.0%	1,058	716	680	846
60,000 to 79,999	12.9%	1,346	909	864	1,077
80,000 to 99,999	8.2%	1,731	1,177	1,118	1,385
over 100,000	16.0%	2,392	1,608	1,348	1,914
Total	100.0%	992	673	610	794

A.3. Percentage of net income support plan covers first 13 weeks	95%	New South Wales benefits
A.4. Percentage of gross income support plan covers after 13 weeks	80%	New South Wales benefits
B. Average Duration (Weeks)	42.5	Based on Accident Benefits transactional data.
C. Average DI Severity NSW Model	31,347	Based on (5), (6), and B.
D. Current Alberta DI Severity (Excluding ALAE)	5,780	NSW Exhibit 4.4
E. Severity Adjustment Factor	5.423	D. / C.
F. Percentage of costs where benefits are applicable (Employment Rate)	65.37%	Table 14-10-0017-02
G. Adjustment Factor for increased benefits	3.892	E. * F. + (1 - F.) * 1.0
H. Adjustment factor for change in duration of benefits	1.050	NSW Exhibit 4.2
I. Total Disability Income Adjustment Factor	4.087	G. * H.
J.1 Selected AB Disability Income Loss Cost at 7/1/2024 Cost Level	29.94	NSW Exhibit 2.2
J.2. Reduction to Accident Benefits Disability Income Loss Cost From Duration Adjustment	(0.54)	NSW Exhibit 4.1
J.3. Addition to Accident Benefits Disability Income Loss Cost	90.77	(J.1 + J.2) * (I. - 1)
K.1 Average Current Alberta Weekly Benefits for Employed Individuals Without a Disability Plan	432	NSW Exhibit 4.4
K.2 Average Severity for Employed Individuals Without a Disability Plan	18,378	K.1 * B.
K.3 Percentage of Severity Adjustment Due to Switching to First Payer	49.3%	(K.2 - D.) / (C. - D.)
K.4 Percentage of Severity Adjustment Due to Higher Benefit Levels for Employed Claimants	50.7%	1 - K.3
L.1 Frictional Cost Factor	1.20	
L.2 Propensity to Sue Factor	0.75	
L.3. Reduction to Bodily Injury Loss Cost	(41.44)	-1 * J.3 * K.4 * L.1 * L.2

Notes
(5) & (6) The New South Wales benefit cap is $3,853 per week. We adjust the benefit cap to be twice the average income in Alberta

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Bodily Injury: Medical & Rehabilition Duration Adjustment

(1)	(2)	(3)	(4)	(5)	
		See Note		(2) - (4)	
	Bodily Injury Claims (Excess of AB Medical & Rehabilitation Benefits)				
Type of Claim	Projected Medical & Rehabilitation Loss and ALAE	Projected Total Indemnity Loss and ALAE	Medical & Rehabilitation Loss and ALAE Paid After 5 Years From Accident Date	Medical & Rehabilitation Loss and ALAE Paid Prior to 5 Years From Accident Date	
Wholly/Mostly at Fault					
All Injury Types	720,552	2,486,432	379,158		
Not at Fault					
Threshold Injuries	1,627,958	15,375,673	317,965		
Non-threshold (WPI =< 10%)	4,217,095	33,504,251	1,789,276	2,427,818	
Non-threshold (WPI > 10%)	11,215,692	68,980,233	6,657,531	4,558,162	
Total	17,781,298	120,346,589	9,143,930	6,985,980	
A. Percentage of Total Indemnity Loss and ALAE			7.60%	5.80%	
B. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level			499.06	499.06	Exhibit 1.1
C. Bodily Injury Loss Costs Adjustments for Medical & Rehabilitation Changes			(37.92)	28.97	
D.1. Frictional Cost Factor				1.20	NSW Exhibit 1.1
D.2. Propensity to Sue Factor				0.75	NSW Exhibit 1.1
Reduction to Bodily Injury Loss Cost				(28.97)	-1 * C.
Addition to Accident Benefits Medical & Rehabilition Loss Cost				32.19	C. / (D.2 + D.1)

Note

(2) - (4) Based on Alberta's Claim Closed Study; losses and ALAE were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Bodily Injury: Medical & Rehabilition Duration Adjustment

(1)	(2)	(3)	(4)	(5)
	NSW Exhibit 3.1	See Note		(3) / (4)
		Accident Benefits Medical & Rehabilitation Claims		
Type of Claim	Selected Percent of Bodily Injury Loss and ALAE	Percentage of Loss Paid by 1 Year	Percentage of Loss Paid by 2 Years	Reduction in Loss due to Shorter Duration
Wholly/Mostly at Fault				
All Injury Types	2.50%	70.6%	94.7%	0.745
Not at Fault				
Threshold Injuries	12.50%	84.7%	97.7%	0.866
Non-threshold (WPI =< 10%)	30.00%			1.000
Non-threshold (WPI > 10%)	55.00%			1.000
			Total	0.977

A: Selected Loss Cost at 7/1/2024 Cost Level :	Accident Benefits Medical Expenses Selected Loss Cost	96.14	NSW Exhibit 2.1
	B. Reduction to Accident Benefits Medical & Rehabilition Loss Cost	2.22	(5), total * A.
	C. Frictional Cost Factor	1.20	NSW Exhibit 1.1
	D. Propensity to Sue Factor	75.0%	NSW Exhibit 1.1
	E. Addition to Bodily Injury Loss Cost	2.00	B * C * D

Note
(3) - (4) Based on Accident Benefits transactional data. See report for additional information.
Claims in the transactional data are selected to be common injuries if total payments are less than $10,000.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Summary of NSW Adjustments

(1)	(2)	(3)	(4)	(5)
Adjustment	Cross-Reference	Accident Benefit Disability Income Impact	Accident Benefits Medical & Rehab Impact	Bodily Injury Impact
Initial Loss Costs	Current Alberta Model	29.94	96.14	499.06
Pain & Suffering Damages Reduction	NSW Exhibit 3.2			(141.48)
Adjustment to AB DI for Decreased Duration of Benefits	NSW Exhibit 4.1	(0.54)		0.49
AB DI Adjustment for Increased Benefits	NSW Exhibit 4.5	90.77		(41.44)
AB Med & Rehab Adjustment for Longer Benefits Period for Severly Injured Claimants	NSW Exhibit 5.1		32.19	(28.97)
Removal of Large Claims Greater than 5 Years Replaced by Levies (CTP + LTCS)	NSW Exhibit 5.1			(37.92)
AB Med & Rehab Adjustment for Shorter Benefits Period for Threshold Claimants	NSW Exhibit 5.2		(2.22)	2.00
Adjusted Loss Cost		120.17	126.11	251.73
Legal Access Restriction	NSW Exhibit 1.1			-5%
Restricted Access to Legal Fees in Early Stages of Claim				(12.59)
Final Loss Cost		120.17	126.11	239.14
Health Levy				38.12
LTCS & MAITC Levy as a Percentage of Premiums			NSW Exhibit 1.1	25.0%
LTCS & MAITC Levy				174.52
Total				698.06

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
New South Wales Model

Forecasted Required Premium - New South Wales Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			per (3)	Exhibit 1.1 - Exhibit 1.8	See Note	(5) * (6)	See Note	Exhibit 2.1	Board Benchmark	(7) * (8) / (1 - (9) - (10))	See Note	(11) + (12)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			239.14	0.847	202.52	1.009	22%	6%	285	22	306
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	22%	6%	282	22	304
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	22%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	22%	6%	54	4	58
Third Party Liability	Total	1,458,392	100%	504.87	0.912	460.20	1.009	22%	6%	647	49	696
Accident Benefits	Accident Benefits - Total	1,451,913	100%	248.20	0.933	231.57	1.009	22%	6%	325	25	350
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	22%	6%	430	33	462
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	22%	6%	321	25	346
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	22%	6%	603	46	649
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	22%	6%	90	7	97
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	5.90	0.798	4.71	1.009	22%	6%	7	1	7
Levies	LTCS & MAITC			174.52	0.847	147.79	1.009	22%	6%	208	16	224
			D.5. Estimated Fixed Expense per Earned Vehicle			85	1.009	22%	6%	120		
Package	**Basic Coverage**			928	0.905	840	1.009	22%	6%	1,180	90	1,270
Package	**Full Coverage**			1,480	0.932	1,378	1.009	22%	6%	1,937	148	**2,085**

Notes

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
We recognize the shift of costs between bodily injury and accident benefits may result in a different payment pattern. We do not find this effect to be material.

(8) Based on investment rate of 3.70% and assumed three month delay

(12) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (11).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Disability Income Duration Adjustment

(1)	(2)	(3)	(4)	(5)	(6)
	See Note		(3) / (2)		Selected
Type of Claim	Projected Disability Income Limited to 2 years	Projected Disability Income Limited to 5 years	Indicated Adjustment Factor from 2 to 5 years	ACT MAI Scheme Benefit Duration	Selected AB DI Adjustment for Increased Duration of Benefits
All Injury Types	9,146,435	10,353,400	1.13	5 years	1.13

Note

(2) - (3) Based on Alberta's Claim Closed Study; loss of Income Payments were assumed to be uniformly distributed. Losses were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.

Province of Alberta

Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Disability Income Benefits Adjustment
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)	(9)	(10)	(11)
	Manitoba Exhibit 4.1	See Note	See Note	See Note	See Note	See Note			(6) + (7)	(3) - (4) - (5) - (8)	(3) / 52	(9) / 52
Gross Income Level	Percent in Level	Mid Point of Interval	Canada Pension Plan Contribution	Employment Insurance Premium	Provincial Income Tax	Federal Income Tax			Total Income Tax	Average Net Income	Average Gross Weekly Income	Average Net Weekly Income
		Rate	5.45%	1.58%	10.00%	15.00%	20.50%	26.00%				
		Income Limit	61,600	56,300		49,020	98,040	151,978				
		Basic Exemption	3,500			0	49,020	98,040				
0 to 4,999	11.8%	2,500	0	40	250	375	0	0	625	1,836	48	35
5,000 to 9,999	7.3%	7,500	218	119	750	1,125	0	0	1,875	5,289	144	102
10,000 to 19,999	11.4%	15,000	627	237	1,500	2,250	0	0	3,750	10,386	288	200
20,000 to 29,999	8.6%	25,000	1,172	395	2,500	3,750	0	0	6,250	17,183	481	330
30,000 to 39,999	8.3%	35,000	1,717	553	3,500	5,250	0	0	8,750	23,980	673	461
40,000 to 49,999	8.4%	45,000	2,262	711	4,500	6,750	0	0	11,250	30,777	865	592
50,000 to 59,999	7.0%	55,000	2,807	869	5,500	7,353	1,226	0	14,079	37,245	1,058	716
60,000 to 79,999	12.9%	70,000	3,166	890	7,000	7,353	4,301	0	18,654	47,290	1,346	909
80,000 to 99,999	8.2%	90,000	3,166	890	9,000	7,353	8,401	0	24,754	61,190	1,731	1,177
over 100,000	16.0%	124,381	3,166	890	12,438	7,353	10,049	6,849	36,689	83,636	2,392	1,608
Total	100.0%	51,600	2,621	815	5,160	7,353	529	0	13,042	35,121	992	675
Maximum Eligible Income		103,200	3,166	890	10,320	7,353	10,049	1,342	29,064	70,080	1,985	1,348

Note

(2) Statistics Canada Table 11-10-0240-01.
(3) Mid-point for over 100,000 level based on average income of $51,600.
(4) For 2021, the employee contribution rate was 5.45%; maximum pensionable earnings was $61,600; basic exemption amount of $3,500.
(5) For 2021, the rate was 1.58% and the maximum insurable earnings was $56,300.
(6) For 2021, the Alberta income tax rate was 10% up to an income of $131,220; the federal rate was 15%.
(7) 2021 Federal Tax Brackets: 15% for first $49,020, 20.5% for income between $49,020 and $98,040, and 26.0% for income between $98,040 and $151,978

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Disability Income Benefits Adjustment
Data as of 12/31/2022

(1) Gross Income Level			(2) Percent in Level (ACT Exhibit 1.2)	(3) Average Gross Weekly Income (ACT Exhibit 1.2)	(4) Average Net Weekly Income (ACT Exhibit 1.2)	(5) Weekly Benefits first 13 Weeks (Based on (4) and A.1)	(6) Weekly Benefits After 13 Weeks (Based on (4) and A.1)
					Weekly Cap	1,125	1,125
					Income cap is adjusted to account for for relative income in home currency.		
0	to	4,999	11.8%	48	35	35	35
5,000	to	9,999	7.3%	144	102	102	102
10,000	to	19,999	11.4%	288	200	200	200
20,000	to	29,999	8.6%	481	330	314	314
30,000	to	39,999	8.3%	673	461	438	369
40,000	to	49,999	8.4%	865	592	562	473
50,000	to	59,999	7.0%	1,058	716	680	573
60,000	to	79,999	12.9%	1,346	909	864	728
80,000	to	99,999	8.2%	1,731	1,177	1,118	941
over 100,000			16.0%	2,392	1,608	1,125	1,125
Total			100.0%	992	673	576	523

A.1 Weekly Benefit Levels

Weekly income thresholds	First 13 weeks post-accident	14 weeks to 5 years post-accident	
Below $400	100%	100%	Australian Capital Territory benefits
$400-$500	95%	95%	Ranges are adjusted for relative income in home currency.
Above $500 ($1125 cap)	95%	80%	

A.2 Australian Capital Territory Average Net Income	1,406	https://www.act.gov.au/wellbeing/explore-overall-wellbeing/living-standards/income-levels
A.3 Alberta Average Net Income	675	ACT Exhibit 1.2
A.4 Income Relativity in Home Currency	0.48	A.3 / A.2
A.5 Selected Adjustment to Income Thresholds and Cap Amount	0.50	Selected

B. Average Duration (Weeks)	42.5	Based on Accident Benefits transactional data.
C. Average DI Severity ACT Model	22,930	Based on (5), (6), and B.
D. Current Alberta DI Severity (Excluding ALAE)	5,780	NSW Exhibit 4.4
E. Severity Adjustment Factor	3.967	C. / D.
F. Percentage of costs where benefits are applicable (Employment Rate)	65.37%	Table 14-10-0017-02
G. Adjustment Factor for increased benefits	2.940	E. * F. + (1 - F.) * 1.0
H. Adjustment factor for change in duration of benefits	1.132	ACT Exhibit 1.1
I. Total Disability Adjustment Factor	3.328	G. * H.
J.1 Selected AB Disability Income Loss Cost at 7/1/2024 Cost Level	29.94	NSW Exhibit 2.2
J.2. Addition to Accident Benefits Disability Income Loss Cost	69.69	J.1 * (I. - 1)
K.1 Average Current Alberta Weekly Benefits for Employed Individuals Without a Disability Plan	432.47	NSW Exhibit 4.5
K.2 Average Severity for Employed Individuals Without a Disability Plan	18,377.57	K.1 * B.
K.3 Percentage of Severity Adjustment Due to Switching to First Payer	73.5%	
K.4 Percentage of Severity Adjustment Due to Higher Benefit Levels	26.5%	
L.1 Frictional Cost Factor	1.20	
L.2 Propensity to Sue Factor	0.75	
L.3. Reduction to Bodily Injury Loss Cost	(16.65)	-1 * J.2. * K.4. * L.1. * L.2.

Notes
A.1 In Australian Capital Territory, the income thresholds are < $800, $800 - $1000, and > $1000. The benefit cap is $2,250.
We adjust the thresholds and benefit cap so the relativity to the average income in home currency is similar.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Disability Income Duration Adjustment

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ACT Exhibit 3.1		See Note		(4) - (5)		(6) / (3)
Type of Claim	Expected % of Total Loss	Projected Losses for Total Indemnity and ALAE	Projected Loss of Income & ALAE	Projected Loss of Income & ALAE Limited to 5 years	Projected Loss of Income & ALAE After 5 Years	Eligible for Loss of Income Common Law Compensation	Percent of Loss of Income Not Eligible for Benefits Under MAI Scheme
Wholly/Mostly at Fault							
All Injury Types	2.5%	2,486,432	955,222	154,064	801,159	No	0.322
Not at Fault							
WPI < 5%	12.5%	15,375,673	1,598,755	1,151,428	447,327	No	0.029
5% =< WPI =< 10%	30.0%	33,504,251	4,765,951	1,979,366	2,786,586	No	0.083
WPI > 10%	55.0%	68,980,233	24,363,373	7,522,548	16,840,825	Yes	0.000
Total		120,346,589	31,683,302	10,807,406	20,875,896		0.037
					E. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level (Exhibit 1.1)		499.06
					Reduction to Bodily Injury Loss Cost		(18.29)

Note

(3) - (5) Based on Alberta's Claim Closed Study; loss of Income Payments were assumed to be uniformly distributed.
Losses were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.
ALAE is allocated based on the proportion of loss of income payments to the total settlement amount.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Bodily Injury: Medical & Rehabilitation Duration Adjustment

(1)	(2)	(3)	(4)	(5)	
		See Note		(2) - (4)	
	Bodily Injury Claims (Excess of AB Medical & Rehabilitation Benefits)				
Type of Claim	Projected Medical & Rehabilitation Loss and ALAE	Projected Total Indemnity Loss and ALAE	Medical & Rehabilitation Loss and ALAE Paid After 5 Years From Accident Date	Medical & Rehabilitation Loss and ALAE Paid Prior to 5 Years From Accident Date	
All Injury Types	17,781,298	120,346,589	9,143,930	8,637,368	
A. Percentage of Total Indemnity Loss and ALAE			7.60%	7.18%	
B. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level			499.06	499.06	Exhibit 1.1
C. Bodily Injury Loss Costs Adjustments for Medical & Rehabilitation Changes			(37.92)	35.82	
D.1. Frictional Cost Factor				1.20	NSW Exhibit 1.1
D.2. Propensity to Sue Factor				0.75	NSW Exhibit 1.1
Reduction to Bodily Injury Loss Cost				(35.82)	-1 * C.
Addition to Accident Benefits Medical & Rehabilitation Loss Cost				39.80	C. / (D.2 + D.1)

Note

(2) - (4) Based on Alberta's Claim Closed Study; losses and ALAE were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.

(2) ALAE is allocated based on the proportion of medical & rehabilitation payments to the total settlement amount.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Expected Distribution of Bodily Injury Claim Amounts

(1)	(2) See Notes	(3) (2) / (2) total	(4) Selected
Type of Claim / Injury Type	Projected Bodily Injury Loss and ALAE	Expected Percent of Bodily Injury Loss and ALAE	Selected Percent of Bodily Injury Loss and ALAE
Wholly/Mostly at Fault			
All Injury Types	2,486,432	2.1%	2.5%
Not at Fault			
WPI < 5%	15,375,673	12.8%	12.5%
5% =< WPI =< 10%	33,504,251	27.8%	30.0%
WPI > 10%	68,980,233	57.3%	55.0%
Total	120,346,589	100.0%	100.0%

Note

(1) Claimants we assign to threshold injuries in the New South Wales model are assigned to WPI < 5%. Non-threshold claimants with WPI < 10% in the New South Wales model are assigned to 5% ≤ WPI ≤ 10%. Non-threshold claimants with WPI > 10% are the same as the New South Wales

(2) Based on Alberta's Claim Closed Study; losses and ALAE projected using the Board's bodily injury severity trend, +8.0%/+5.0%.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Pain and Suffering Damages Adjustment for Quality of Life Benefits - Shift to Accident Benefits

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	ACT Exhibit 3.1	See Notes					Based on (3); See Note	Based on (5) and (6); See Note	((4) - (8) - (9)) / (4); See Note	Selected
Type of Claim / Injury Type	Expected % of Total Loss	Projected Loss for Pain & Suffering Damages	Projected Losses for Total Indemnity and ALAE	Projected ALAE	Allocation of Projected ALAE for Non Pain & Suffering Damages	MAI Scheme Quality of Life Benefit Eligibility	Projected Loss shifted to MAI Scheme Quality of Life	Projected ALAE shifted to MAI Scheme Quality of Life	Proportion of Bodily Injury Loss Cost Not Shifted to Accident Benefits	Selected Proportion of Bodily Injury Loss Cost Not Shifted to Accident Benefits
Wholly/Mostly at Fault										
All Injury Types	2.50%	629,189	2,486,432	421,233	274,992	No			0.561	0.561
Not at Fault										
WPI < 5%	12.50%	8,767,208	15,375,673	1,219,586	513,380	No			1.000	1.000
5% =< WPI =< 10%	30.00%	20,299,376	33,504,251	3,608,964	1,345,515	Yes	19,510,396	1,996,177	0.358	0.360
WPI > 10%	55.00%	30,388,296	68,980,233	5,707,937	3,271,542	Yes	27,505,763	1,964,665	0.573	0.570
Total	100.00%	60,084,068	120,346,589	10,957,720	5,405,429		47,016,158	3,960,842	0.561	0.561
Control		60,084,068	120,346,589	10,957,720						

A. Percentage of Loss Costs Shifted to Accident Benefits	0.439
	1- (11)
B. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level	499.06
	Exhibit 1.1
C. Bodily Injury Loss Costs Provision for Pain and Suffering Damages Adjustment - Quality of Life Benefits - Shift to Accident Benefits	(219.32)
	-1 * A * B
D.1. Frictional Cost Factor	1.20
D.2. Propensity to Sue Factor	0.75
Addition to Accident Benefits Permanent Disability Loss Cost	**243.7**
	C. / (D.1 * D.2) * -1

Note

(2) Estimated based on the Claim Closed Study and prior knowledge of claim distribution in Alberta. See the report for more details.

(3) - (6) Based on Alberta's Claim Closed Study; losses and ALAE were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.

(6) ALAE was adjusted proportionally to the ratio of pain and suffering damages awarded to the total indemnity loss, per claim.

(8) & (9) Assumes that ALAE and pain & suffering damages are paid evenly throughout the settlement period. After 5 years, quality of life benefits do not apply.

(10) At-Fault claims are expected to follow same distribution of losses as not-at-fault claims.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Pain and Suffering Damages Adjustment for Bodily Injury

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	ACT Exhibit 3.1	See Notes				ACT Exhibit 3.2	ACT Exhibit 3.2		(3) - (7)	(5) - (6) - (8)	(3) - (7) - (10)	((4) - (11) - (12)) / (4), See Note	Selected, See Note
Type of Claim / Injury Type	Expected % of Total Loss	Projected Loss for Pain & Suffering Damages	Projected Losses for Total Indemnity and ALAE	Projected ALAE	Allocation of Projected ALAE for Non Pain & Suffering Damages	Projected Loss shifted to MAI Scheme Quality of Life	Projected ALAE shifted to MAI Scheme Quality of Life	MAI Scheme Common Law Compensation Eligibility	Projected Loss in MAI Scheme Common Law Compensation	Total Reduction of ALAE	Total Reduction of Indemnity	Proportion of Loss Cost Remaining in Bodily Injury	Selected Proportion of Loss Cost Remaining in Bodily Injury
Wholly/Mostly at Fault													
All Injury Types	2.50%	629,189	2,486,432	421,233	274,992	0	0	No		146,241	629,189	0.911	0.910
Not at Fault													
WPI < 5%	12.50%	8,767,208	15,375,673	1,219,586	513,380	0	0	No		706,206	8,767,208	0.384	0.380
5% =< WPI =< 10%	30.00%	20,299,376	33,504,251	3,608,964	1,345,515	19,510,396	1,996,177	No		267,272	788,980	0.968	0.970
WPI > 10%	55.00%	30,388,296	68,980,233	5,707,937	3,271,542	27,505,763	1,964,665	Yes	2,882,533			1.000	1.000
Total	100.00%	60,084,068	120,346,589	10,957,720	5,405,429				2,882,533	1,119,719	10,185,377	0.911	0.911
Control		60,084,068	120,346,589	10,957,720									

A. Percentage of loss cost attributable to pain & suffering, WPI< 10%, less compensation from quality of life benefit	0.089
	1 - (14)
B. Selected Bodily Injury Loss Cost at 7/1/2024 Cost Level	499.06
	Exhibit 1.1
C. Bodily Injury Loss Costs Reduction for Pain & Suffering Claims	(44.29)
	-1 * A * B

Note

(2)	Estimated based on the Claim Closed Study and prior knowledge of claim distribution in Alberta. See the report for more details.
(3) - (6)	Based on Alberta's Claim Closed Study; losses and ALAE were trended based on the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.
(6)	ALAE was adjusted proportionally to the ratio of pain and suffering damages awarded e to the total indemnity loss, per claim.
(7) & (8)	MAI Scheme Quality of Life only covers the first five years of damages.
(10)	We assume Pain and Suffering damages are paid evenly throughout the settlement period.
(13)	There is limited claims experience for Wholly/Mostly at Fault claimants in the Claim Closed Study. At-Fault claims are expected to follow same distribution of losses as not-at-fault claims.
(14)	Selected, Non-Threshold (WPI >10%) claims can be awarded for pain and suffering damages under the ACT model.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Summary of ACT Adjustments

(1)	(2)	(3)	(4)	(5)	(6)
Adjustment	Cross-Reference	Accident Benefit Disability Income Impact	Accident Benefits Medical & Rehab Impact	Accident Benefits Permanent Impairment	Bodily Injury Impact
Initial Loss Costs		29.94	96.14	0.00	499.06
Quality of Life Benefits Adjustment for Pain & Suffering Damages	ACT Exhibit 3.2			243.69	(219.32)
Common Law Compensation Adjustment for Pain & Suffering Damages					(44.29)
AB DI Adjustment for Increased Benefits	ACT Exhibit 1.3	69.69			(16.65)
Bodily Injury Loss of Income Common Law Compensation	ACT Exhibit 1.4				(18.29)
AB Med & Rehab Adjustment for Longer Benefits Period for Severly Injured Claimants	ACT Exhibit 2.1		39.80		(35.82)
Removal of Large Claims Greater than 5 Years Replaced by Levies (MAI + LTCS)	ACT Exhibit 2.1				(37.92)
Adjusted Loss Cost		99.63	135.94	243.69	126.78
Health Levy					38.12
LTCS Levy as a Percentage of Premiums				NSW Exhibit 1.1; See Note	20.0%
LTCS Levy					161.04
Total					805.19

Notes

Australian Capital Territory only includes the LTCS levy, but not the MAITC levy. The LTCS levy accounts for 80% of the total LTCS and MAITC levy. We adjust the selected 25% levy provision by a factor of 0

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
Australian Capital Territory Model

Forecasted Required Premium - Australian Capital Territory Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			per (3)	Exhibit 1.1 - Exhibit 1.8	See Note	(5) * (6)	See Note	Exhibit 2.1	Board Benchmark	(7) * (8) / (1 - (9) - (10))	See Note	(11) + (12)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Profit Provision	Estimated Required Premium (Excluding Fixed Expense)	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			126.78	0.847	107.361	1.009	22%	6%	151	10	161
Third Party Liability	DCPD			208.36	0.965	200.993	1.009	22%	6%	282	19	302
Third Party Liability	Property Damage			19.25	0.965	18.571	1.009	22%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.116	1.009	22%	6%	54	4	57
Third Party Liability	Total	1,458,392	100%	392.505	0.930	365.042	1.009	22%	6%	513	35	548
Accident Benefits	Accident Benefits - Total	1,451,913	100%	483.41	0.933	451.017	1.009	22%	6%	634	44	677
Collision	Collision	1,061,143	73%	311.80	0.980	305.683	1.009	22%	6%	430	30	459
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.477	1.009	22%	6%	321	22	343
All Perils	All Perils	21,465	1%	439.42	0.976	429.042	1.009	22%	6%	603	41	644
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.280	1.009	22%	6%	90	6	97
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	5.90	0.798	4.710	1.009	22%	6%	7	0	7
Levies	LTCS			161.04	0.847	136.37	1.009	22%	6%	192	13	205
			D.5. Estimated Fixed Expense per Earned Vehicle			85	1.009	22%	6%	120		
Package	**Basic Coverage**			1,037	0.918	952	1.009	22%	6%	1,339	92	1,431
Package	**Full Coverage**			1,589	0.939	1,491	1.009	22%	6%	2,096	144	**2,240**

Notes

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
We recognize the shift of costs between bodily injury and accident benefits may result in a different payment pattern. We do not find this effect to be material.

(8) Based on investment rate of 3.70% and assumed three month delay

(12) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (11).

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
IBC Model

Pain and Suffering Damages Adjustment

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	See Notes				(2) + (4) - (5)	((3) - (6)) / (3)	Selected	Selected
Type of Claim	Projected Pain & Suffering Damages	Projected Total Indemnity and ALAE	Projected Total ALAE	Allocation of Projected ALAE for Non Pain & Suffering Damages	Total Reduction of Loss and ALAE	Proportion of Bodily Injury Loss Cost Remaining	Selected Proportion of Bodily Injury Loss Cost Remaining	Expected % of Total Loss
Common Injuries	23,803,286	43,631,620	4,083,056	1,697,908	26,188,434	0.400	0.400	36.25%
Severe Injuries	36,280,782	76,714,969	6,874,664	3,707,521			1.000	63.75%
Total	60,084,068	120,346,589	10,957,720	5,405,429	26,188,434	0.782	0.782	100.00%

Note
(1) Claimants assigned based on the Closed Claim Study question 13, injury type, and pain & suffering settlement amount.
(2) - (5) Based on Alberta's Claim Closed Study; losses and ALAE projected using the Board's benchmark for bodily injury severity trend, +8.0%/+5.0%.
(5) ALAE adjusted proportionally by ratio of pain and suffering damages to the total indemnity, per claimant.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
IBC Model

Medical & Rehab Adjustment

(1)	(2)	(3)	(4)
	See Note	See Note	(3) / (2)
Type of Claim	Total Medical & Rehabilitation Expenses	Adjusted Total Medical & Rehabilitation Expenses	Benefit Level Adjustment
Common Injuries	190,933,416	178,239,811	0.934
Severe Injuries	123,316,649	115,529,895	0.937
Total	314,250,065	293,769,706	0.935

Note

(2) Based on Alberta's Accident Benefits transactional data.
Losses projected using the Board's benchmark for AB severity trend, +10.0%.

(3) Adjusted based on proposed benefit caps.
Assumed 1.29 claimants per claim
Claims in the transactional data are selected to be common injuries if total payments are less than $10,000.

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
IBC Model

Summary of IBC Adjustments

(1)			(2)	(3)	(4)
Item			Accident Benefit Disability Income	Accident Benefits Medical & Rehab	Bodily Injury
Initial Loss Costs			29.94 NSW Exhibit 2.2	96.14 NSW Exhibit 2.1	499.06 Exhibit 1.1
Pain & Suffering Damages Reduction	Factor Adjustment	IBC Exhibit 1.1			0.782 (108.56)
Removal of Disability Income			(29.94)		26.95
Medical & Rehab Benefit Levels	Factor Adjustment	IBC Exhibit 2.1		0.935 (6.27)	
Adjusted Loss Costs			0.00	89.88	417.45

Province of Alberta
Private Passengers Vehicles
Actuarial Analysis - Reform Costing
IBC Model

Forecasted Required Premium - IBC Product
Data as of 12/31/2022

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			per (3)		See Note	(5) * (6)	See Note	Exhibit 2.1	Board Benchmark	(7) * (8) / (1 - (9) - (10))	See Note	(11) + (12)
Coverage	Subcoverage	2022-2 Written Vehicles	Percent of Vehicles with Coverage	E. Selected Loss Cost at 7/1/2024 Cost Level	Claim Payment Pattern Factor	Projected Discounted Loss Cost per Vehicle	Delay in Receiving Premiums	Estimated Variable Expense Provision	Profit Provision	Estimated Required Premium (Excluding Fixed	Allocated Fixed Expense	Estimated Required Premium
Third Party Liability	Bodily Injury			417.45	0.847	353.51	1.009	22%	6%	497	38	535
Third Party Liability	DCPD			208.36	0.965	200.99	1.009	22%	6%	282	21	304
Third Party Liability	Property Damage			19.25	0.965	18.57	1.009	22%	6%	26	2	28
Third Party Liability	Health Levy			38.12	1.000	38.12	1.009	22%	6%	54	4	58
Third Party Liability	Total	1,458,392	100%	683.17	0.895	611.19	1.009	22%	6%	859	65	924
Accident Benefits	Accident Benefits - Total	1,451,913	100%	94.03	0.933	87.73	1.009	22%	6%	123	9	133
Collision	Collision	1,061,143	73%	311.80	0.980	305.68	1.009	22%	6%	430	33	462
Comprehensive	Comprehensive - Total	1,221,846	84%	234.21	0.976	228.48	1.009	22%	6%	321	24	345
All Perils	All Perils	21,465	1%	439.42	0.976	429.04	1.009	22%	6%	603	46	649
Specified Perils	Specified Perils	12,962	1%	65.91	0.975	64.28	1.009	22%	6%	90	7	97
Underinsured Motorists	Underinsured Motorist	1,409,716	97%	5.90	0.798	4.71	1.009	22%	6%	7	1	7
			D.5. Estimated Fixed Expense per Earned Vehicle			85	1.009	22%	6%	120		
Package	**Basic Coverage**			777	0.899	699	1.009	22%	6%	982	75	1,057
Package	**Full Coverage**			1,329	0.931	1,238	1.009	22%	6%	1,740	132	**1,872**

Notes

(6) Based on 5-year industry average investment income rate of 3.70% and selected payment pattern
We recognize the shift of costs between bodily injury and accident benefits may result in a different payment pattern. We do not find this effect to be material.

(8) Based on investment rate of 3.70% and assumed three month delay

(12) Total fixed expense per Earned Vehicle from Exhibit 2.1. Fixed expenses allocated to coverages proportional to (11).

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Economic impact assessment of alternative automobile insurance models in Alberta

Alberta Ministry of Treasury Board and Finance

April 2024

nous

Disclaimer:

*Nous Group (**Nous**) has prepared this report for the benefit of Alberta Ministry of Treasury Board and Finance (the **Client**).*

The report should not be used or relied upon for any purpose other than as an expression of the conclusions and recommendations of Nous to the Client as to the matters within the scope of the report. Nous and its officers and employees expressly disclaim any liability to any person other than the Client who relies or purports to rely on the report for any other purpose.

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Land acknowledgement:

Nous Group acknowledges the Indigenous caregivers and stewards of the land we now call Canada. Alberta is on the traditional territories of the Cree, the ᓀᐦᐃᔭᐤ ᐊᐢᑭᐩ Nêhiyaw-Askiy (Plains Cree), the Woodland Cree, the Îyãħé Nakón mąkóce (Stoney), and the Michif Piyii (Métis) Peoples. This land is now home to many diverse First Nations, Inuit and Métis Peoples. We are grateful for the opportunity to work on this land and reaffirm our commitment as a group and as individuals in working towards truth, reconciliation, justice, and peace.

Contents

1 Executive summary

The escalating cost of automobile (auto) insurance premiums in Alberta has become a pressing concern for consumers, spurred by a range of domestic and global trends. Estimates suggest auto insurance premiums have increased by over 20 per cent between 2018 and 2022[1]. Contributing factors include the increase in bodily injury claims costs, the effects of the COVID-19 pandemic on the availability and cost of car repair and replacement, and vehicle construction and increasing sensor calibration requirements leading to higher repair costs. Other factors include regulatory changes, and the increased frequency and severity of natural disasters.

Governments can employ various policy levers to alleviate the upward pressure on insurance premiums for consumers. These policy interventions seek to promote efficiency, fairness, and stability within the insurance market and must be carefully considered in each context to ultimately benefit policyholders through more affordable and accessible insurance coverage. The impact and implementation of these levers can have far-reaching effects that must be consider in decision-making.

The Alberta Ministry of Treasury Board and Finance (the Ministry) identified six models from comparable jurisdictions and one future model that might represent a future-state approach for Alberta. The seven models considered are:

Table 1 | The seven in-scope models[2,3]

CANADIAN PROVINCES	AUSTRALIAN JURISDICTIONS	FUTURE MODEL PROPOSALS
1 Manitoba[2]	5 New South Wales	7 Insurance Bureau Of Canada[3]
2 British Columbia	6 Australian Capital Territory	
3 Saskatchewan		
4 Quebec		

Nous Group (Nous) was engaged by the Ministry to conduct a high-level economic impact assessment of these alternative auto insurance models, detailing the potential impacts and considerations if similar models were to be implemented in Alberta. Specifically, Nous was commissioned to answer two questions:

1. What are the high-level economic impacts of moving from the current insurance model in Alberta to each of the seven identified auto insurance models?
2. What are the high-level estimates of costs, challenges, and economic effects of implementing each of the seven models on the local economy, employers, and provincial government?

The report is intended to inform an evidence-base for the Ministry to consider when determining the future of Alberta's auto insurance model. This report does not provide any recommendations regarding the benefits or viability of any of the seven alternative models, nor their suitability for Alberta's context. It is intended to provide an impartial assessment of the economic implications of adopting one of the seven models. This report sits alongside a report prepared by Oliver Wyman (OW), titled *Feasibility Study of Long-Term Auto Insurance Reforms*. This report is not intended to duplicate OW's work and does not conduct a separate calculation of anticipated changes in auto insurance premiums. Where relevant, this report uses analysis conducted by OW to calculate certain economic impacts and are referenced accordingly. Future work will require more extensive analysis and consultation to explore impacts on key stakeholder groups and detailed modelling once preferred options are identified.

[1] Automobile Insurance Rate Board, Market & Trends Report 2023, and Annual Report 2019.
[2] The Ministry asked Nous Group to evaluate Manitoba's no-fault model under both public (model 1A) and private (model 1B) delivery.
[3] Insurance Bureau of Canada (2023), Improving the affordability of auto insurance in Alberta: Enhancing care and expanding choice. The IBC is the national industry association representing Canada's private home, auto, and business insurers.

2 Background

2.1 This report is a rapid and high-level economic analysis of seven auto insurance model alternatives.

This report was developed over a four-week period based on desktop research of publicly available and provided documentation and data (see Appendix A), in addition to interviews with a range of stakeholder groups (see Appendix B). Through previous work prior to commissioning this report, the Ministry identified the seven alternative automotive insurance models that form the basis of this report. The seven models detailed below in Table 2 are the same as those considered in the OW report.

Table 2 | The seven in-scope models[4,5]

2.2 Key terms are defined to ensure that they are consistently used and understood.

A range of key insurance terms have slightly different meanings and implications in different jurisdictions. Table 3 below defines how these terms are used in this report. These definitions have been developed in agreement with the Ministry and are consistent with terminology used in the OW report.

Table 3 | Key terminology

Term	Definition
Deductible if at fault	If a policy holder is determined to be at fault in an accident, they will be responsible for paying the deductible amount before the insurance coverage starts to cover the remaining costs.
No-Fault[6]	A system where care and support benefits are provided by your own insurer, regardless of fault.
Private	A system where insurance products are provided and underwritten by insurance companies (insurers) operating in the private market on a for-profit basis.

[4] The Ministry asked Nous Group to evaluate Manitoba's no-fault model under both public (model 1A) and private (model 1B) delivery.
[5] Insurance Bureau of Canada (2023), Improving the affordability of auto insurance in Alberta: Enhancing care and expanding choice. The IBC is the national industry association representing Canada's private home, auto, and business insurers.
[6] In the two Australian models, no-fault benefits are paid by the insurer of the most at fault driver.

Public	A system where insurance products are provided and underwritten by the government (typically through a crown corporation). This service is typically provided on a cost-recovery or notional-profit basis.
Tort	A system where the at fault party (or their insurer) is legally responsible for damages to other parties.

2.3 An understanding of Alberta's current model provides useful context for assessing potential changes.

Alberta currently operates a private, tort-based model with some no-fault elements. The at fault party can be held liable for compensation for damages, and except for Albertans who are considered to have suffered a "minor injury", as defined under the Minor Injury Regulation, there are few restrictions to litigation.

All drivers in Alberta are required to purchase at least the minimum mandatory insurance from a private provider. This insurance provides:

- No-fault accident benefits in the event of injury or death, covering medical benefits and lost income (up to $50,000 for medical treatments for up to two years, also including death, total disability, grief counselling, funeral benefits).
- Third-party liability (minimum limit of $200,000).
- Direct Compensation for Property Damage (DCPD).

Additional optional coverage, including collision or comprehensive can be purchased from private providers. Consumers may opt out of DCPD if agreed by insurers. Alberta operates a 'Provincial Grid' framework which sets a cap on rates for mandatory auto insurance coverage (except for DCPD).

Further detail on Alberta's current insurance premiums can be found on page 22 of the OW report.

2.4 Nous developed a standard framework to assess potential economic impacts and implementation considerations.

To understand the different economic effects associated with implementing each of the seven different models, and allow for consistent comparison between the assessments, we have developed a framework with three sections, which are described in turn below:

1 ECONOMIC IMPACTS

2 IMPLEMENTATION CONSIDERATIONS

3 UNQUANTIFIED IMPACTS

Section 3 addresses these three factors, in turn, in relation to each of the seven models individually. An identical table structure, based on the focus areas detailed in the remainder of this section, is provided for each of the seven models. In addition, we identified a range of additional factors that were not included in the final analysis. These factors are listed in 2.5.

2.4.1 Economic impacts

Economic impacts refer to the immediate and measurable changes in economic activity that may occur because of a change in a province's auto insurance model. These impacts can be measured in terms of their magnitude, duration, and distribution across various sectors of the economy. The key direct economic impacts Nous identified are detailed in turn below:

- changes in insurance premiums
- changes in employment by sector
- changes in tax revenue.

Changes in insurance premiums

Calculating changes in insurance premiums associated with a move to a new model is out of scope for this report, and instead conducted by OW. Nous has adopted the results of the OW Report as the basis for this analysis.[7,8] The aggregate benefit (or loss) is then calculated as:

$$Change\ in\ average\ premium\ \times\ quantity\ of\ auto\ insurance\ policies\ active\ in\ Alberta$$

Changes to an insurance model can have direct impacts on the cost of insurance premiums for consumers. This is because insurance premiums are influenced by a variety of factors, including:

- the cost of claims,
- the cost of reinsurance,
- administrative expenses, and
- the insurer's profit margin (which is currently capped at six per cent by the Automobile Insurance Rate Board (AIRB).

For example, if an alternative auto insurance model drives a reduction in claims costs or administrative expenses incurred for an insurer, it may result in lower insurance premiums for consumers. This can make insurance coverage more affordable for consumers, potentially increasing the number of insured drivers. The extent of the impact on demand for insurance resulting from change in price (i.e., elasticity of demand for basic auto insurance) is difficult to compute and for further analysis at a later stage. Thus, it is not factored into calculations.

A related economic impact is the change in revenues by businesses who, either directly or indirectly, profit from insurance premiums. This change is effectively equal to the change in premiums paid by consumers. Consequently, while savings realized by consumers are a positive impact of reduced premiums, there are

[7] OW analysis calculates the change in average premiums. We recognize that potential disparity exists among various insurance models regarding the differentiation of fees for policyholders, and the change in average premium may not reflect every individual's experience. Certain models may have a lesser inclination to differentiate fees, which could consequently impact the premiums paid by individuals relative to the average premiums noted in this report.

[8] OW analysis is based on private passenger vehicles (PPV) only and does not calculate the impact on commercially rated vehicles. Where necessary, this report assumes that the change in premiums for non-PPV vehicles is proportional to the change for PPV.

offsetting business revenue losses that should be considered. This report does not seek to quantify the specific value of these losses, beyond the change in premium.

See Appendix A.1 for further detail.

Changes in employment by sector

Change to a province's insurance model can have a direct impact on the employment market and demand for different sectors. The nature and extent of these impacts depend on the specific model selected. For example, a move to a no-fault system would likely impact demand for legal professionals and trial lawyers, as there is no requirement to establish fault or quantify damages through litigation. In another case, establishing a public insurer would create new public sector jobs, while simultaneously reducing the size of the private auto insurance market. The extent to which demand for, and employment in, different sectors are impacted depends heavily on the model selected.

Analysis draws on employment data for Alberta only. The extent to which any change would impact employment outside Alberta (i.e., insurers operating at a national level) is assumed to be zero, and for further analysis at a later stage.

For this analysis, we have selected the following sectors to assess the potential employment and demand impacts, based on the anticipated magnitude of change:

- insurance companies (insurers)
- insurance brokers/agents
- legal services
- the provincial government sector.

The analytical methodology for each sector group varies based on the publicly available data, both by sector and jurisdiction.

We acknowledge that there are other sectors where employment may be impacted by a change in Alberta's auto insurance model. Changes in employment in auto-repair shops is included in unquantified impacts (see page 11 for explanation). Other sectors were excluded due to the complexity to calculate within the scope of this project. These groups may include but are not limited to:

- healthcare providers
- third-party service providers (e.g., towing, roadside assistance)
- regulatory bodies
- independent adjusters.

See Appendix A.2 for further detail.

Changes in tax revenue

Changes to a province's auto insurance model can have an impact on the levels of tax revenue generated by the government. This is primarily due to three factors:

1. insurance premiums taxes (currently set at 4 per cent of premiums paid in Alberta)[9],

[9] Noting insurance premium tax rates are three per cent on premiums receivable on contracts of life, accident, and sickness insurance and 4 per cent on all other contracts of insurance as legislated under the *Alberta Corporate Tax Act.*

2. taxation of businesses involved in or adjacent to the auto insurance sector, and
3. income taxes per changes in employment status.

Firstly, insurance premiums taxes can change based on changes in insurance rates, coverage options, and the overall insurance market landscape. Assuming Alberta's 4 per cent tax on insurance premiums is held constant, changes in premium levels due to a new auto insurance model will directly impact tax revenues. We acknowledge that the Government of Alberta has the authority to alter this 4 per cent rate to manage tax implications or that insurers factor in commissions and other fixed amounts above this amount but have assumed that this does not occur as part of this analysis (except for the Insurance Bureau of Canada [IBC] model which involves removing the tax. In this instance, we present both figures to allow for ease of comparison across models).

Second, private companies (including those either operating in, or adjacent to, the existing auto insurance industry) are subject to corporate taxes. Changes to profitability (due to a new operating context, changed regulations, or market dynamics) can have a direct impact on tax revenues. For example, if a range of insurers close following a move to a public insurer, those companies would cease to pay tax (noting that public insurers generally operate on a break-even basis and therefore do noy pay corporate taxes). We have calculated the change in corporate tax revenue as:

$$Change\ in\ industry\ aggregate\ industry\ profit\ \times corporate\ tax\ rate$$

Finally, aggregate changes in employment status will lead to changes in government annual income tax revenue. In many of the models considered, there is aggregate job loss, which leads to a proportional decline in annual income tax revenue.

See Appendix A.3 for further detail.

2.4.2 Implementation considerations

This section addresses the implications of the practical steps and challenges involved in the transition to the seven different auto insurance models, both in terms of cost and time. By carefully planning and managing the implementation process, key stakeholders can minimize risks and maximize the benefits of a new model. The key implementation considerations Nous identified are detailed below:

- establishing and operating a public insurer
- establishing a publicly funded capital reserve for insurance benefits.

Establishing and operating a public insurer

This analysis considers the costs associated with establishing and operating a public insurer as a crown corporation (or jurisdictional equivalent). This is applicable in four of the in-scope jurisdictions. The section is divided into two components:

1. Costs associated with establishing a public insurer and LTCS scheme, including funding a capital reserve from which insurance payments are made.
2. Costs associated with operating a public insurer (or LTCS scheme).

For the purposes of this analysis, this report assumes that a public insurer providing both injury and vehicle coverage would employ between 4,500 and 5,000 staff, including all necessary corporate and back-office functionality. This is based on analysis of comparable institutions in Manitoba and Saskatchewan

(approximately 2,000 staff each), and British Columbia (5,200 staff).[10,11] It is assumed that a public insurer operates on a 'cost-recovery', rather than 'for-profit' basis.

Overall, the cost to establish a public insurer is significant across six of the seven in-scope models and is an important consideration for government prior to selecting a preferred option to explore in more detail.

Costs associated with establishing a public insurer

Establishing a capital reserve to fund insurance payments

A key cost to establish a public insurer is the necessary upfront government investment to ensure the insurer has sufficient capital reserve to make payments to claimants. Computing the exact size of the capital reserve is a highly complex financial calculation based on an insurer's ability to pay claims in the future and is highly subject to the design of the public insurer, as well as government decisions regarding how the insurer will be financed. However, to give an order of magnitude estimate, the general rule of thumb used is the ratio of premiums written to capital reserve is 2:1.

Holding this true, a public insurer will need up to $2.3 billion in capital reserves available to pay out claims under depending on the model used. Models with higher premiums to the public insurer (and therefore generally higher public benefit provision) would require a larger capital reserve, with the inverse holding true for jurisdictions with lower premiums.

Additionally, both Australian jurisdictions (NSW and ACT) operate a Lifetime Care and Support (LTCS) scheme, which provides support for treatment, rehabilitation, and care for people who have been severely injured in a motor accident (subject to eligibility criteria). In essence, the LTCS is a separate insurance pool that provides treatment and care benefits to those meeting certain criteria. This support can be provided 'for-life' (subject to certain conditions) and removes the risk of an individual running out of money to fund their care. Importantly, the LTCS only provides coverage that is deemed 'reasonable and necessary'.

Much like with a public insurer, an LTCS scheme would require an initial provision of capital to cover its liabilities. In NSW and ACT, the LTCS scheme is heavily funded (approximately 55 per cent in 2023) by investment revenues, which requires a large capital reserve necessary relative to the amount of care provided. This allows costs of long-term care to be funded by investment revenues, rather than through increased insurance premiums. The Government of Alberta could opt to finance an LTCS-equivalent with less upfront capital, noting that this would likely place upward pressure on premiums.

For the purpose of this analysis, we have assumed that a LTCS model implemented in Alberta would be primarily fee funded, and not largely supported by investment returns. Such a scheme would require a capital injection of $460 million. The models that include a LTCS component do not have a public insurer for mandatory auto insurance. This $460 million capital reserve is a separate investment applicable only to jurisdictions with an LTCS component.

It is assumed that premiums charged by a public insurer include a sufficient component used to replenish the capital reserve as claimant payments are made. Based on this assumption, no further government investment will be required to maintain the capital reserve beyond an initial injection.

The exact size of the initial capital injection required, both for the basic capital reserve, as well as an LTCS equivalent, is a matter for government, on the advice of an actuary, and subject to regulatory requirements mandated by the regulator. It is important to note that the fund may not need to be immediately available to the public insurer and could grow over time.

[10] Manitoba Public Insurance (2022), Manitoba Public Insurance Annual Business Plan
[11] SGI Canada (2024), Our business

It is important to note that this analysis assumes the capital reserve for insurance benefits is appropriately managed and ring-fenced. This is dealt with in the section titled *"Considerations for operating a public insurer"* below.

See Appendix A.4 for detail on how we estimate the capital reserve needed for a public insurer for different models.

Activities required to establish a government agency

Establishing a public insurer will require a significant investment of time and financial resources. While a detailed calculation of estimated costs is contingent on future-state design work that is yet to be considered, there are several common costs incurred when establishing any new government agency. Comparison to other recently established government agencies provides a useful reference point for determining cost estimates.

Between 2014 and 2016, the Government of Ontario investigated establishing an administrative corporation to oversee the Ontario Retirement Pension Plan. While this work ultimately did not proceed, the Government of Ontario estimated that it spent approximately $30 million in preparatory works to establish the administrative corporation, with approximately 50 staff.[12] Given the significantly larger scale required of a public insurer, and the need to have sufficient scale to operate, this cost is likely a significant underestimate for a potential public insurer.

Key establishment cost drivers will include:

- Recruitment and training activities for up to 5,000 staff.
- Accommodation and office fit-out for up to 5,000 staff.
- Procurement of IT platforms, systems, and hardware (including ERP systems, claims management systems, and computers for up to 5,000 staff).
- External legal advisory expenditure to develop enabling legislation and necessary governance frameworks.

More detailed design is required to accurately estimate the costs of these activities. However, we anticipate that, given the scale of the public insurer, government investment of between $100 million and $500 million will be required to establish a new agency, in addition to funds used to develop the capital reserve. It is anticipated that an agency of this size would take at least 18-24 months to establish although this estimate is highly contingent on further design and scoping work.

Costs associated with operating a public insurer on an ongoing basis

Once a public insurer has been established and is operating, it will begin incurring a range of operating expenses, including staff salaries, rent, utilities, legal fees, and IT and software costs. In jurisdictions where a public insurer is operational, OW's analysis of insurance premium changes include a calculation of the proportion of average premiums needed to sustain the public insurer's operations.

For example, Manitoba Public Insurer's 2024 General Rate Application includes a provision that 16.1 per cent of total of average premiums ($143.41 of $892.45) is used to cover operating expenses, including general expenses, acquisition costs, and relevant premium taxes. Applying this percentage to the weighted average premium in Alberta using the Manitoba model ($1,112, per Appendix A.1) provides an operating cost component of an average premium of $179.03. Multiplying this by the number of auto insurance policies in Alberta provides an operating cost estimate of $519.2 million. Analysis of other jurisdictions with a public insurer indicates results of $578.5 million (British Columbia) and $603.6 million (Saskatchewan).

Extrapolating to such precise numbers is likely to be inaccurate, for a range of reasons. This includes the potential differences in operating efficiency and achievable economies of scale between jurisdictions.

[12] Government of Ontario (2016), Ontario Retirement Pension Plan Accomplishments and Costs

However, this report estimates that a public insurer in Alberta would require an annual operating expenditure budget of between $500 million and $600 million. It is important to note that, ideally, the insurer funds ongoing operations through premiums, and is not reliant on the Government of Alberta for any additional funding beyond the initial establishment costs.

There may be options to structure the provision of upfront funding in a way that minimizes the economic impact, such as providing funding as a contingent loan. The range of options, and an assessment of the benefits and drawbacks of each, is beyond the scope of this report.

Considerations for operating a public insurer

It is necessary to acknowledge that public insurers may not necessarily operate as efficiently as private counterparts, particularly as they lack the same incentive structures as private insurers. Additionally, public insurers risk being subject to political decision-making that undermines their ability to operate sustainability. For example, public insurers in other jurisdictions have previously been subject to political decision-making that undermined their ability to operate effectively. These decisions include:

- Government-imposed rate freezes, undermining an insurer's ability to keep premiums at a sufficient level to cover costs and maintain the size of its capital reserve, ultimately leading to financial losses.
- Government requiring the public insurer to commence non-insurance activities without extra funding or an ability to recover costs, effectively requiring consumers to subsidize other government operations.

In instances where public insurers do incur a loss (either due to poor management, political interference, or economic conditions), or require further financial support from government, the financial burden may be borne by all relevant taxpayers, including those who do not drive a vehicle.

These risks can be avoided through prudent management and achieving efficient, cost-effective operations, as well as independence from government. However, engagement with relevant industry stakeholders noted that this has not always occurred in Canada. This report is not intended to provide guidance on the best approach to managing a public insurer, or the benefits and risks associated with public delivery of auto insurance.

Establishing and maintaining a mechanism for medical assessment appeals

This involves establishing an appeal mechanism for claimants denied entitlement to certain benefits to be able to pursue an appeal of the insurer's decision. This appeal mechanism would be necessary regardless of whether the delivery mechanism for a no-fault insurance model would be public or private. Costs and time to set up the mechanism involved would include developing policies and regulations outlining the process for medical assessment appeals, running relevant training and education into the new model for stakeholders involved and continuous improvement activities to monitor effectiveness and adjust where necessary. We estimate a small appeals body would require $1-2 million annually, plus nominal establishment costs.[13]

2.4.3 Unquantified impacts

Unquantified impacts refer to factors that are more difficult to measure or express in numerical terms. They require detailed consideration at a later stage as they are subject to key policy decisions on the model by government.

The impacts Nous identified are detailed below:

- distributional effects in the auto-repair sector
- establishing and maintaining an appropriate regulatory framework and public education

[13] Saskatchewan Government (2024), Ministry of Corrections, Policing and Public Safety annual Report for 2022-23, page 17

- reallocation of court resources
- consumer choice of insurance providers.

Distributional effects in the auto-repair sector

When regulations or standards change in a new model, such as the requirement for accreditation in body shops, it often leads to a redistribution of resources rather than an overall reduction in labour force. Accredited body shops, by complying with the new standards, may need to hire more staff to meet the increased demand for their services. Meanwhile, unaccredited shops may face challenges in adapting to the new requirements and could potentially shrink or close if they are unable to meet the standards. Ultimately, the need for repair work and the labour required to perform it remain relatively constant. However, the distribution of this labour may shift because of changes in regulations or industry standards.

Establishing and maintaining an appropriate regulatory framework and public education

Alberta already operates a regulatory framework for its auto insurance industry, led by the AIRB, Alberta Insurance Council (AIC) and the Superintendent of Insurance. Alberta's existing regulators are broadly similar to those operating in the seven in-scope models, meaning that significant transformation and investment is unlikely to be required. We acknowledge that there may be a need to reallocate and redirect resources (for example, a need to move certain regulatory functions between different organisations). However, given that most of the required functionality already exists, we have not accounted for material cost increases in auto insurance regulation.

There is one exception to this, where we anticipate additional investment will be required. Whether this is funded through government expenditure, or an element of insurance premiums is a decision beyond the scope of this report. This refers to the education and communication required to ensure consumers, staff in relevant industries and the public are aware, and understand the implications of the new auto insurance model. This would likely be delivered by the regulators.

Reallocation of court resources

Alberta's existing tort-based auto insurance system utilizes a portion of the province's court resources to resolve legal proceedings and disputes. For example, in cases of disputed liability or significant damages, the resolution of an auto insurance claim may require administrative legal attention outside the courts, noting that most cases are resolved prior to trial.

A model that moves away from a tort-based system presents an opportunity for court resources to be deployed to support other priorities within Alberta's existing legal system and streamline processes. This can reduce the burden on the court system and allocate resources to other critical areas, such as improving access to justice, addressing systemic issues, and enhancing the effectiveness of the legal system.

Determining the exact efficiency gained through reduction in auto insurance litigation is for further analysis at a later stage. A lack of available data, both on potential efficiency gains in the court system, and the benefits of resolving other non-insurance cases (i.e., criminal cases, family law cases) more quickly, meant that conducting a benefit calculation was not achievable.

Consumer choice of insurance providers

Transitioning to a public insurer will reduce consumer choice regarding their auto insurance provider. Consumers may have limited flexibility in selecting insurance coverage that best suits their needs and preferences, as there are fewer options available to them. However, quantifying the extent of changes in consumer choices is challenging due to individual preferences, risk tolerance, and specific coverage

requirements. Additionally, introduction of a public insurer may limit the ability to bundle insurance policies such as home and auto insurance under private insurers. Bundling often results in discounts or reduced premiums, however calculating the exact impact on bundled premiums is for further analysis at a later stage.

While a reduction in competition typically leads to increased prices, the regulated nature of Alberta's auto insurance industry means that the AIRB monitors the rating algorithms used to determine an individual's premiums. Alberta would need to weigh for examples, the implications of a larger risk pool (or even a single publicly run risk pool) against a reduction in choice of providers.

2.5 Several factors were excluded from the high-level analysis.

A range of additional factors were considered, but not included in the final analysis. This is for one of two reasons, outlined below:

1. **Factors that are external to the final choice of future auto insurance model:**
    - Rising costs of labour for auto-repair work.
    - Rising costs and complexity of replacement parts for damaged vehicles.
2. **Factors that are anticipated to have an economic impact, but require more complex analysis than can be achieved through high-level desktop research:**
    - Determining employment impacts on the private healthcare industry. Impacts on healthcare providers are heavily contingent on detailed system design and controls on the provision of 'reasonable and necessary' care. More detailed design of the final model is required before this analysis can be conducted.
    - Determining employment impacts outside the province of Alberta (i.e., insurers or law firms operating nationally, with staff who deal with matters both in, and external to, Alberta).
    - Calculating changes in demand for insurance resulting from changes in price (i.e., elasticity of demand for basic or mandatory auto insurance).
    - Calculating cost impacts on premiums from changes in how different insurance policies can be bundled (i.e., purchasing of home and auto insurance through the same insurer to receive a discount).
    - Detailed analysis and costing to establish and operate a public insurer, best-practice approaches or benefits and risks associated with public delivery of auto insurance.
    - Impact of changes in insurance mode on driver behaviour.
    - The ancillary impact that a potential change may have on other government programs or services (examples may include the Motor Vehicle Accident Claims program, the impact on the primary healthcare system, or the Assured Income for the Severely Handicapped program).
    - Second-order economic impacts, such as a potential reduction in the number of uninsured drivers on Alberta's roadways if auto insurance affordability is improved.

3 Key findings

Presented below in Table 4 is an overview of key findings from Nous' assessment as explored in detail in Section 4.

Table 4 | Impact assessment key findings

MODEL	Manitoba (Public delivery)	Manitoba (Private delivery)	British Columbia	Saskatchewan	Quebec	NSW	ACT	IBC
ECONOMIC IMPACT								
Changes in annual insurance PPV premiums[14]	$732 decrease in average consumer PPV premiums $2.1 billion in aggregate consumer savings across Alberta	$385 decrease in average consumer PPV premiums $1.1 billion in aggregate consumer savings across Alberta	$753 decrease in average consumer PPV premiums $2.2 billion in aggregate consumer savings across Alberta	$725 decrease in average consumer PPV premiums 2.1 billion in aggregate consumer savings across Alberta	$510 decrease in average consumer PPV premiums $1.5 billion in aggregate consumer savings across Alberta	$69 increase in average consumer PPV premiums $200 million in aggregate excess consumer costs across Alberta	$224 increase in average consumer PPV premiums $640 million in aggregate excess consumer costs across Alberta	$145 decrease in average consumer PPV premiums $420 million in aggregate consumer savings across Alberta
Changes in employment by sector[15]	Loss of 3,200-3,900 private insurance jobs Loss of 750-900 broker jobs Loss of 700-850 legal services jobs. Creation of 4,500-5,000 public insurer jobs	Loss of 600-750 private insurance jobs Loss of 200-250 broker jobs Loss of 650-800 legal services jobs.	Loss of 3,200–3,900 private insurance jobs Loss of 550-700 broker jobs Loss of 700-850 legal services jobs Creation of 4,500-5,000 public insurer jobs	Loss of 3,200–3,900 private insurance jobs Loss of 750-900 broker jobs Loss of 700-850 legal services jobs Creation of 4,500-5,000 public insurer jobs	Loss of 1,450-1,750 private insurance jobs Loss of 400-500 broker jobs Loss of 700-850 legal services jobs Creation of 1,350-1,500 public insurer jobs	Creation of 100-150 private insurance jobs Creation of 50 broker jobs Loss of 350-450 legal services jobs Creation of 250 LTCS scheme jobs	Creation of 400-450 private insurance jobs Creation of 100-150 broker jobs Loss of 550-650 legal services jobs Creation of 250 LTCS scheme jobs	Loss of 250-300 private insurance jobs Loss of 100 broker jobs Loss of 100-150 legal services jobs

[14] Average and new change in insurance premiums is only calculated for PPV vehicles. See Appendix A.1 for detail. Other financial calculations are done with respect to insurance for all vehicle types.
[15] See Appendix A.2 for detail.

MODEL	Manitoba (Public delivery)	Manitoba (Private delivery)	British Columbia	Saskatchewan	Quebec	NSW	ACT	IBC
Changes in tax revenue[16]	$163-171 million decline in annual provincial tax revenue	$87-91 million decline in annual provincial tax revenue	$160-165 million decline in annual provincial tax revenue	$162-167 million decline in annual provincial tax revenue	$105-110 million decline in annual provincial tax revenue	$11 million increase in annual provincial tax revenue	$46 million increase in annual provincial tax revenue	$281 million decrease in annual provincial tax revenue if premium tax eliminated[17]
IMPLEMENTATION CONSIDERATIONS								
Establishing a public insurer (incl. LTCS scheme)[18]	$100-500 million set up cost for public insurer $2.3 billion for capital reserve	N/A	$100-500 million set up cost for public insurer $2.3 billion for capital reserve	$100-500 million set up cost for public insurer $2.3 billion for capital reserve	$100-500 million set up cost for public insurer $700 million for capital reserve	$50-100 million set up cost for LTCS scheme $460 million for capital reserve	$50-100 million set up cost for LTCS scheme $460 million for capital reserve	N/A
Operating a public insurer (or LTCS scheme)	N/A (assumes public insurer can self-fund operating costs)	N/A	N/A (assumes public insurer can self-fund operating costs)	N/A (assumes public insurer can self-fund operating costs)	N/A (assumes public insurer can self-fund operating costs)	N/A (assumes LTCS can self-fund any operating costs)	N/A (assumes LTCS can self-fund any operating costs)	N/A
Establishing & maintaining an appeals mechanism	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	$1-2 million annually, plus nominal establishment costs	N/A
UNQUANTIFIED IMPACT (RELEVANT YES/NO)								
Distributional effects in the auto-repair sector	Yes	No	Yes	Yes	No	No	No	No
Establishing and maintaining a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

[16] Total change in tax revenue is shown, calculated by summing the change in tax revenue by tax category. See Appendix A.3 for detail.
[17] The IBC proposal would instead result in a $24 million decrease in provincial tax revenue if the insurance premium tax was not removed.
[18] See Appendix A.4 for detail.

MODEL	Manitoba (Public delivery)	Manitoba (Private delivery)	British Columbia	Saskatchewan	Quebec	NSW	ACT	IBC
regulatory framework and public education								
Reallocation of court resources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Change in consumer choice	Yes	No	Yes	Yes	Yes	No	No	No

4 Alternative Models

This section provides context on each of the seven models individually and applies the standard framework discussed in Section 2.4.

4.1 Alternative model 1: Manitoba

4.1.1 Model 1A: Manitoba (Public Delivery)

Manitoba has a no-fault insurance model, with comprehensive public insurance and near-total restrictions on litigation.

Manitoba has a strict no-fault model where claimants' own insurers are responsible for all benefits. Litigation is prohibited in almost all circumstances. All drivers in Manitoba are required to purchase the *Basic Autopac* from Manitoba Public Insurance (MPI), the province's crown insurance provider. The MPI's *Basic Autopac* provides:

- Comprehensive personal injury protection, including unlimited rehabilitation expenses, capped income replacement, personal attendant care and possible cash compensation for severe impairment.
- Third-party liability insurance (minimum limit of $500,000).
- All perils 'comprehensive' vehicle coverage up to the actual cash value of the vehicle.

Additional optional coverage is offered by the MPI. Private insurers are not prohibited from offering private insurance in Manitoba, but in practice there is little to no private auto insurance provision.

Table 5 | Economic impacts and implementation considerations arising from a shift to the Manitoba model with public delivery

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to this model would reduce premiums for consumers.	$732 decrease in average consumer PPV premiums annually $2.1 billion in aggregate consumer PPV savings across Alberta annually

Impact and rationale	Impact assessment
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model all mandatory and effectively all optional coverage would be provided by the public insurer. While private companies are not prohibited from offering private insurance, in practice the public insurer is the only auto insurance provider in the Manitoba model.	Loss of 3,200–3,900 jobs in Alberta's private insurance sector
Decrease in employment demand for insurance brokers/agents. Under this model brokerage fees through a public insurer are lower than for private insurers. This would reduce employment demand for insurance agents and brokers.	Loss of 750-900 private insurance broker jobs
Decrease in employment in the legal services sector. Under this model the right to sue for accident compensation would be eliminated in almost all cases. This would reduce employment demand for legal practitioners who work in accident and personal injury law. A public insurer equivalent may still use lawyers to recover funds from other parties (i.e., manufacturers of a faulty vehicle), however there is likely less work for lawyers in disputes between car owners in a 2-vehicle accident.	Loss of 700-850 legal services jobs
Increase in public sector employment from establishment of a crown insurer. Establishing a public insurer would create employment opportunities. This will offset a large portion of jobs lost in the private insurance sector.	Between 4,500-5,000 employees
Changes in tax revenue	
Decrease in insurance premium taxes. Under this model, a proportional decrease in insurance premium tax generated by the government would occur based on the decrease in average insurance premiums for consumers.	$121 million decline in annual insurance premium tax revenue
Reduction in private sector business activity will reduce corporate tax revenue. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues. Crown Corporations in Canada are generally exempt from provincial taxes and would not substantially offset tax revenue lost from the private insurance industry.	$37-45 million decline in annual corporate tax revenue
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes. It should be noted that much of the lost income tax revenue from reduction in private industry would be offset by an increase in tax revenue from employees at the new public insurer.	Up to $5 million decline in annual provincial income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a public insurer. Under this model a significant investment of time and resources is required to establish a public insurer as a crown corporation. Injection of funding would also be required to ensure the public insurer has sufficient capital reserves to make the necessary payments to claimants.	$100-500 million set up cost $2.3 billion for capital reserve

Impact and rationale	Impact assessment
Operating a public insurer (or LTCS scheme)	
No change in investment to operate a public insurer. After establishment, a well-run public insurer can be self-sustaining and would not require ongoing government subsidization.	N/A (assumes public insurer can self-fund operating costs)
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
Increase in demand for accredited repair shops. The public insurer in this model provides preferential treatment to accredited repair shops. This will lead to distributional effects where shops which cannot become accredited lose business, and shops which can gain it. Larger and more organized shops would be expected to gain market share from smaller and less organized ones. The volume of repair work done, and thus employment, should not be expected to change from a change in insurance model.	Yes
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model significant restrictions on litigation exist. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
Decrease in consumer choice due to less competition. Under this model a public insurer would provide all mandatory insurance and consumers would have no choice in selecting an auto insurer. While a public insurer can continue to offer coverage tailored to specific needs (i.e., lower kilometres driven per year, age), overall consumers are likely to have less flexibility in selecting an insurance provider that best suits their needs and preferences.	Yes

4.1.2 Model 1B: Manitoba (Private Delivery)

Manitoba's model with private delivery would have comprehensive private no-fault insurance and near-total restrictions on litigation.

Manitoba's model adapted for private instead of public delivery would be a strict no-fault model where claimants' own insurers are responsible for all benefits. Litigation would prohibited in almost all circumstances, and all drivers would be required to purchase basic insurance equivalent to Manitoba's *Basic Autopac* from a private insurer. This basic insurance would provide:

- Comprehensive personal injury protection, including unlimited rehabilitation expenses, capped income replacement, personal attendant care and possible cash compensation for severe impairment.
- Third-party liability insurance (minimum limit of $500,000).
- All perils 'comprehensive' vehicle coverage up to the actual cash value of the vehicle.

Additional optional coverage could be purchased from private insurers.

Table 6 | Economic impacts and implementation considerations arising from a shift to the Manitoba model with private delivery

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to this model would reduce premiums for consumers.	$385 decrease in average consumer PPV premiums annually $1.1 billion in aggregate consumer PPV savings across Alberta annually
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model insurance is largely private like Alberta. Lower aggregate premiums and profits lead to a decrease in market size and jobs in the insurance industry.	Loss of 600–750 jobs in Alberta's private insurance sector
Decrease in employment demand for insurance brokers/agents. Lower premiums for auto insurance lead to a decrease in profits for brokers and therefore a decrease to the number of jobs in the sector.	Loss of 200-250 private insurance broker jobs

Impact and rationale	Impact assessment
Decrease in employment in the legal services sector. Under this model the right to sue for accident compensation would be eliminated in almost all cases. This would reduce employment demand for legal practitioners who work in accident and personal injury law. A public insurer equivalent may still use lawyers to recover funds from other parties (i.e., manufacturers of a faulty vehicle), however there is likely less work for lawyers in disputes between car owners in a 2-vehicle accident.	Loss of 650-800 legal services jobs
No change in public sector employment.	N/A
Changes in tax revenue	
Decrease in insurance premium taxes. Under this model, a proportional decrease in insurance premium tax generated by the government would occur based on the decrease in average insurance premiums for consumers.	$64 million decline in annual insurance premium tax revenue
Reduction in private sector business activity will reduce corporate tax revenue. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues.	$8-9 million decline in annual corporate tax revenue
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes.	Up to $15-18 million decline in annual provincial income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
No public insurer or fund established.	N/A. Not included in model.
Operating a public insurer (or LTCS scheme)	
No public insurer or fund.	N/A. Not included in model.
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision. An appeals mechanism for private no-fault insurance will need to accommodate claims with a wide range of private insurers and is likely to be more complex than an equivalent appeals mechanism for a public insurer. The impact of potentially increased demand for medical assessment appeals has not been factored into ongoing operating costs in this analysis.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	

Impact and rationale	Impact assessment
No change in demand in the auto-repair services sector.	No
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model significant restrictions on litigation exist. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
No change in competition or consumer choice.	No

4.2 Alternative Model 2: British Columbia

British Columbia operates a no-fault insurance model, with comprehensive public insurance and near-total restrictions on litigation.

British Columbia (BC) has a strict no-fault model where claimants' own insurer is responsible for all benefits. Litigation is prohibited in all circumstances except criminal driving, and monetary compensation is not provided for pain and suffering. All drivers in BC are required to purchase the *Basic Autoplan* from the Insurance Corporation of British Columbia (ICBC), the province's crown insurance provider. There is no private provision of mandatory auto insurance. The ICBC's *Basic Autoplan* provides:

- Unlimited care and recovery benefits and capped income replacement.
- Third-party liability insurance (minimum limit of $200,000).
- Personal vehicle damage coverage if not at fault (minimum limit of $200,000).
- Underinsured Motorist Protection and inverse liability protection.

Additional optional coverage, including collision, comprehensive, and additional third-party liability, is offered by the ICBC and private insurers.

Table 7 | Economic impacts and implementation considerations arising from a shift to the BC model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to this model would reduce premiums.	$753 decrease in average consumer PPV premiums annually $2.2 billion in aggregate consumer PPV savings across Alberta annually
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model, all mandatory and most optional coverage would be provided by a public insurer. A small number of providers sell optional insurance in BC's model, but private industry would be extremely small.	Loss of 3,200-3,900[19] jobs in Alberta's private insurance sector

[19] To align with OW analysis, we have assumed zero profit provision and no private industry under the BC model. BC has a small private auto insurance sector and job loss would be slightly less severe than indicated here.

Impact and rationale	Impact assessment
Decrease in employment demand for insurance brokers/agents. Under this model brokerage fees through a public insurer are lower than for private insurers. This would reduce employment demand for insurance agents and brokers.	Loss of 550-700 private insurance broker jobs
Decrease in employment in the legal services sector. Under this model the right to sue for accident compensation would be eliminated in almost all cases. This would reduce employment demand for legal practitioners who work in accident and personal injury law. A public insurer equivalent may still use lawyers to recover funds from other parties (i.e., manufacturers of a faulty vehicle), however there is likely less work for lawyers in disputes between car owners in a 2-vehicle accident.	Loss of 700-850 legal services jobs
Increase in public sector employment from establishment of a crown insurer. Establishing a public insurer would create employment opportunities. This would serve to offset a large proportion of the job losses associated with a contraction in the private insurance market.	Between 4,500-5,000 employees
Changes in tax revenue	
Decrease in insurance premium taxes. Under this model, a proportional decrease in insurance premium tax generated by the government would occur based on the decrease in average insurance premiums for consumers.	$125 million decline in annual insurance premium tax revenue
Decrease in tax revenue from businesses associated with the sector. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues. Crown Corporations in Canada are generally exempt from provincial taxes and would not substantially offset tax revenue lost from the private insurance industry.	$36-41 million decline in annual corporate tax revenue
Reduction in income taxes from aggregate job loss. Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes. It should be noted that much of the lost income tax revenue from reduction in private industry would be offset by an increase in tax revenue from employees at the new public insurer.	Between $1 million increase and $4 million decline in annual income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a public insurer. Under this model a significant investment of time and resources is required to establish a public insurer as a crown corporation. Injection of funding would also be required to ensure the public insurer has sufficient capital reserves to make the necessary payments to claimants.	$100-500 million set up cost $2.3 billion for capital reserve
Operating a public insurer (or LTCS scheme)	
No change in investment to operate a public insurer. After establishment, a well-run public insurer can be self-sustaining and would not require ongoing government subsidization.	N/A (assumes public insurer can self-fund operating costs)

Impact and rationale	Impact assessment
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
Increase in demand for accredited repair shops. The public insurer in this model has a system of accreditation and an integrated 'repair network' but does not appear to provide preferential treatment to these shops. Despite not providing explicit preferential treatment, shops which can become designated as accredited will likely benefit. This will lead to distributional effects where shops which cannot become accredited lose business, and shops which can gain it. Larger and more organized shops would be expected to gain market share from smaller and less organized ones. The volume of repair work done, and thus employment, should not be expected to change from a change in insurance model.	Yes
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model significant restrictions on litigation exist. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
Decrease in consumer choice due to less competition. Under this model a public insurer would provide all mandatory insurance and choice of optional insurance would be limited. While a public insurer can continue to offer coverage tailored to specific needs (i.e., lower kilometres driven per year, age), overall consumers are likely to have less flexibility in selecting an insurance provider that best suits their needs and preferences.	Yes

4.3 Alternative Model 3: Saskatchewan

Saskatchewan's auto insurance model provides comprehensive public coverage and a choice between no-fault and tort plans.

All Saskatchewan residents are automatically covered by the Saskatchewan Government Insurance (SGI)'s Injury Insurance. Residents have no-fault coverage by default but can switch to the tort plan at will. **Both plans provide a level of predefined no-fault coverage,** including:

- medical rehabilitation benefits,
- capped income replacement,
- permanent impairment payment.

However, the predefined benefit limit is significantly higher in the no-fault scheme than in the tort scheme. Both plans allow for litigation if damages exceed predefined benefits, but in practice no-fault policy holders rarely exceed their benefits and therefore can rarely sue. Only tort policy holders can sue for pain and suffering, but if the at fault driver has a no-fault plan, they cannot be sued for pain and suffering, and a tort policy holder would sue the SGI in their place. All Saskatchewan drivers are also covered by the SGI's *Basic Auto Fund*, which provides:

- Coverage for damage to your vehicle up to its current cash value,
- third-party liability insurance (minimum limit of $200,000).

Damage to vehicles of not at fault drivers is covered by the liability insurance of at fault drivers. All mandatory public coverage is funded through vehicle registration fees, and there is no fee differential between the no-fault and tort plan. Optional coverage is provided by the SGI. Private insurers are not prohibited from offering private insurance in Saskatchewan, but in practice there is little to no private auto insurance provision.

Table 8 | Economic impacts and implementation considerations arising from a shift to the Saskatchewan model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to Saskatchewan's model would reduce premiums.	$725 decrease in average consumer PPV premiums annually $2.1 billion in aggregate consumer PPV savings across Alberta annually

Impact and rationale	Impact assessment
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model all mandatory and optional insurance would be provided by the public insurer. While private companies are not prohibited from offering private insurance, in practice the public insurer is the only auto insurance provider in the Saskatchewan model.	Loss of 3,200-3900 jobs in Alberta's private insurance sector
Decrease in employment for insurance brokers/agents. Under this model public injury insurance is funded through vehicle registration fees. This would eliminate the need for brokers/agents for injury coverage. Employment demand would still exist for brokers/agents who work in vehicle damage and third-party liability.	Loss of 750-900 private insurance broker jobs
Decrease in employment in the legal services sector. Under this model over 99 per cent of drivers choose no-fault insurance. Assuming consumers in Alberta similarly prefer no-fault insurance, this would reduce employment demand for legal practitioners who work in accident and personal injury law.	Loss of 700-850 legal services jobs
Increase in public sector employment from establishment of a crown insurer. Establishing a public insurer would create employment opportunities. This would help offset large proportion of the job losses associated with a contraction in private insurance market.	Between 4,500-5,000 employees
Changes in tax revenue	
Decrease in insurance premium taxes. Under this model, a proportional decrease in insurance premium tax generated by the government would occur based on the decrease in average insurance premiums for consumers.	$120 million decline in annual insurance premium tax revenue
Decrease in tax revenue from businesses associated with the sector. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues. Crown Corporations in Canada are generally exempt from provincial taxes and would not substantially offset tax revenue lost from the private insurance industry.	$37-42 million decline in annual corporate tax revenue
Reduction in income taxes from aggregate job loss. Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes. It should be noted that much of the lost income tax revenue from reduction in private industry would be offset by an increase in tax revenue from employees at the new public insurer.	Up to $5 million decline in annual provincial income tax revenue

Impact and rationale	Impact assessment
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a public insurer. Under this model a significant investment of time and resources is required to establish a public insurer as a crown corporation. Injection of funding would also be required to ensure the public insurer has sufficient capital reserves to make the necessary payments to claimants.	$100-500 million set up cost $2.3 billion for capital reserve
Operating a public insurer (or LTCS scheme)	
No change in investment to operate a public insurer. After establishment, a well-run public insurer can be self-sustaining and would not require ongoing government subsidization.	N/A (assumes public insurer can self-fund operating costs)
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
Increase in demand for accredited repair shops. Public insurers often prioritize or provide preferential treatment to accredited repair shops. This will lead to distributional effects where shops which cannot become accredited lose business, and shops which can gain it. Larger and more organized shops would be expected to gain market share from smaller and less organized ones. The volume of repair work done, and thus employment, should not be expected to change from a change in insurance model.	Yes
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model tort claims exists, however the majority (99.6 per cent) of all consumers pick no-fault insurance and are severely restricted in terms of litigation. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes

Impact and rationale	Impact assessment
UNQUANTIFIED IMPACT	
Consumer choice of insurance providers	
Decrease in consumer choice due to less competition. Under this model a public insurer would provide all mandatory insurance and consumer choice may be more restricted. While a public insurer can continue to offer coverage tailored to specific needs (i.e., lower kilometres driven per year, age), overall consumers are likely to have less flexibility in selecting an insurance provider that best suits their needs and preferences. This does not apply to optional coverage.	Yes

4.4 Alternative Model 4: Quebec

Quebec has a fully no-fault model with public injury and private vehicle coverage.

Quebec's model is entirely no-fault. Any injury and vehicle damage claims are made with your own insurer, and litigation is entirely prohibited. Injury coverage in Quebec is covered by the Société de l'assurance automobile du Québec (SAAQ)'s Public Automobile Insurance Plan. The plan is funded through vehicle registration fees, drivers license fees, and a proportion of fuel taxes and provides the following to anyone injured in an auto accident in Quebec regardless of fault:

- reimbursement for private healthcare up to per-visit limits,
- capped income replacement,
- lump sum financial compensation for non-pecuniary damages,
- reimbursement for home adaption, assistance, and other care needs.

Drivers in Quebec must also purchase at least $50,000 in civil liability insurance from a private provider for possible non-vehicle damage and out of province liability. Additional vehicle and liability insurance can be purchased from private insurers.

Table 9 | Economic impacts and implementation considerations arising from a shift to the Quebec model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to this model would reduce premiums.	$510 decrease in average consumer PPV premiums annually $1.5 billion in aggregate consumer PPV savings across Alberta annually
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model all mandatory injury coverage is provided by the public insurer. Private insurers still provide third party liability and vehicle damage coverage, but the loss of injury coverage would reduce the size of the private insurance market.	Loss of 1,450-1,750 jobs in Alberta's private insurance sector

Impact and rationale	Impact assessment
Decrease in employment for insurance brokers/agents. Under this model brokerage fees through a public insurer are lower than for private insurers. This would reduce employment demand for insurance agents and brokers.	Loss of 400-500 private insurance broker jobs
Decrease in employment in the legal services sector. Under this model the right to sue for accident compensation would be eliminated in almost all cases. This would reduce employment demand for legal practitioners who work in accident and personal injury law. A public insurer equivalent may still use lawyers to recover funds from other parties (i.e., manufacturers of a faulty vehicle), however there is likely less work for lawyers in disputes between car owners in a 2-vehicle accident.	Loss of 700-850 legal services jobs
Increase in public sector employment from establishment of a crown insurer. Establishing a public insurer would create employment opportunities. This would offset large portion of the job losses associated with a contraction in private insurance market.	Between 1,350-1,500 employees
Changes in tax revenue	
Decrease in insurance premium taxes. Under this model, a proportional decrease in insurance premium tax generated by the government would occur based on the decrease in average insurance premiums for consumers.	$85 million decline in annual insurance premium tax revenue
Decrease in tax revenue from businesses associated with the sector. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues. Crown Corporations in Canada are generally exempt from provincial taxes and would not substantially offset tax revenue lost from the private insurance industry.	$17-19 million decline in annual corporate tax revenue
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes. It should be noted that much of the lost income tax revenue from reduction in private industry would be offset by an increase in tax revenue from employees at the new public insurer.	$3-6 million decline in annual provincial income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a public insurer. Under this model a significant investment of time and resources is required to establish a public insurer as a crown corporation. Injection of funding would also be required to ensure the public insurer has sufficient capital reserves to make the necessary payments to claimants. Costs are lower for this model as it only includes injury, whereas other public insurers include both injury and vehicle damage.	$100-300 million set up cost $700 million for capital reserve
Operating a public insurer (or LTCS scheme)	
No change in investment to operate a public insurer. After establishment, a well-run public insurer can be self-sustaining and would not require ongoing government subsidization (i.e., funded through vehicle registration fees, driver's license fees, and a proportion of fuel taxes as in Quebec).	N/A (assumes public insurer can self-fund operating costs)

Impact and rationale	Impact assessment
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
No change in demand in the auto-repair services sector. There is no impact as Quebec's public insurer does not deal with vehicle damage claims.	No
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model litigation is entirely prohibited. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
Decrease in consumer choice due to less competition. Under this model a public insurer would provide all mandatory personal injury insurance and consumer choice may be more restricted. While a public insurer can continue to offer coverage tailored to specific needs (i.e., lower kilometres driven per year, age), overall consumers are likely to have less flexibility in selecting an insurance provider that best suits their needs and preferences. This does not apply to private vehicle coverage or optional coverage.	Yes

4.5 Alternative Model 5: New South Wales (Australia)

New South Wales (NSW) has a primarily private and combined tort and no-fault model but incorporates some public elements and limits to benefits for at fault claimants.

Drivers in NSW are required to purchase *Compulsory Third Party* (CTP) insurance from a private insurer before registering a vehicle. CTP insurance covers injury benefits for all injured parties, provided by the insurer of the most at fault party. These benefits broadly cover:

- All 'reasonable and necessary' treatment and care
- Capped income replacement
- Tort compensation for claimants not wholly at fault and whose injuries are more than minor. Claimants whose injuries are more than minor can be compensated for lost past/future income. If their whole person impairment exceeds 10 per cent, claimants can also receive compensation for non-economic loss, i.e., pain and suffering (statutorily capped).

Duration of treatment and care and income replacement benefits is scaled according to injury severity and how at fault the claimant was. Claimants who were not at fault and with more serious injuries receive these benefits for longer, up to five years post-accident. Injury severity is quantified using a 'whole person impairment' assessment.

In addition, the NSW government operates a Lifetime Care and Support scheme (LTCS scheme) which provides lifetime treatment and care to people with severe injuries on a no-fault basis, funded through a levy on all CTP sales. The LTCS scheme only covers treatment and care costs and does not provide direct financial compensation.

Vehicle damage insurance is optional and claims for this are tort-based.

NSW also operates a 'Risk Equalization Mechanism' (REM) to cross-subsidize between insurers with low-risk and high-risk policy holders, and a 'transitional excess profits and losses' (TEPL) mechanism that caps excess insurer profits and reimburses their excess losses. The TEPL is meant to manage excess insurer profits/losses in the transitory reform period and may not be a permanent part of NSW's auto insurance environment.

Table 10 | Economic impacts and implementation considerations arising from a shift to the NSW Model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Increase in average annual insurance premiums for consumers. OW analysis indicates a move to the NSW model would increase premiums.	$69 increase in average consumer PPV premiums annually $200 million in aggregate excess consumer PPV costs across Alberta annually
Changes in employment by sector	
Increase in employment in the private insurance sector. Under this model insurance is largely private like Alberta. Higher aggregate premiums and profits lead to an increase in market size and jobs in the insurance industry.	Between 100-150 private insurance jobs created
Increase in employment for insurance brokers/agents. Higher premiums for auto insurance lead to an increase in profits for brokers and therefore a slight increase to the number of jobs in the sector.	Estimated 50 private insurance broker jobs created
Decrease in employment in the legal services sector. Under this model the right to sue the at fault party for treatment and care damages is eliminated. Instead, claims for treatment and care benefits are made with and provided by the insurer of the at fault party directly. Legal services may still be required to dispute benefits eligibility, benefits provision, and support other tort claims. NSW regulates litigation costs and handles disputes in a special Personal Injury Commission, which may further reduce the need for legal services.	Loss of 350-450 legal services jobs.
Increase in public sector employment from establishment of an LTCS scheme. Establishing an LTCS scheme would create employment opportunities. This would offset a small portion of the job losses associated with a contraction in private insurance market.	Estimated 250 new employees for an LTCS scheme
Changes in tax revenue	
Increase in insurance premium taxes. Under this model, a proportional increase in insurance premiums tax generated by the government would occur based on the increase in average insurance premiums for consumers.	$11 million increase in annual insurance premium tax revenue
Decrease in tax revenue from businesses associated with the sector. Under this model, net growth private industry would lead to an increase in provincial corporate tax revenues.	Up to $1 million increase in annual provincial tax revenue

Impact and rationale	Impact assessment
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes.	Up to $1 million decrease in annual provincial income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a LTCS scheme. Under this model an investment of time and resources is required to establish a LTCS scheme. Injection of funding would also be required to ensure the scheme has sufficient capital reserve to make the necessary payments to claimants. Compared to public insurers, this model has lower initial expenses however, is heavily funded through investment revenue and would need a higher amount of capital to fund ongoing expenses.	$50-100 million set up cost $460 million for capital reserve
Operating a public insurer (or LTCS scheme)	
No change in investment to operate a public insurer. After establishment a well-run LTCS scheme or similar can be self-sustaining and would not require ongoing government subsidization (i.e., funded through a levy on insurance premiums and investment revenue as is the case in NSW).	N/A (assumes LTCS can self-fund any operating costs)
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision. An appeals mechanism for private no-fault insurance will need to accommodate claims with a wide range of private insurers and is likely to be more complex than an equivalent appeals mechanism for a public insurer. The impact of potentially increased demand for medical assessment appeals has not been factored into ongoing operating costs in this analysis.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
No change in demand in the auto-repair services sector.	No
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes

Impact and rationale	Impact assessment
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model only vehicle damage is tort based. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
No change in competition or consumer choice.	No

4.6 Alternative Model 6: Australian Capital Territory

The Australian Capital Territory (ACT) has a primarily private hybrid tort no-fault model but incorporates some public care.

Drivers in the ACT are required to purchase *Motor Accident Injuries* (MAI) insurance from a private provider at the time of vehicle registration. MAI insurance is 'community-rated, and insurers cannot adjust premium based on personal characteristics. MAI insurance covers injury benefits for all injured parties, provided by the insurer of the most at fault party. These benefits broadly cover:

- All 'reasonable and necessary' treatment and care for up to five years post-accident,
- Capped income replacement for up to five years post-accident,
- A lump sum quality-of-life payment for claimants with more serious injuries.

Claimants who were not at fault and with more serious injuries can also seek tort compensation. This can include compensation for treatment and care costs for as long as likely needed, loss of income (statutorily capped), and non-economic loss, i.e., pain and suffering. Injury severity is quantified using a 'whole person impairment' (WPI) assessment.

The ACT government also operates a Lifetime Care and Support scheme (LTCS scheme) which provides lifetime treatment and care to people with severe injuries on a no-fault basis, funded through a levy on all MAI sales. The LTCS scheme only covers treatment and care costs and does not provide direct financial compensation.

Vehicle damage insurance is optional and claims for this are tort based.

Table 11 | Economic impacts and implementation considerations arising from a shift to the ACT Model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Increase in average annual insurance premiums for consumers. OW analysis indicates a move to the ACT model would increase premiums.	$224 decrease in average consumer PPV premiums annually $640 million in aggregate excess consumer PPV costs across Alberta annually

Impact and rationale	Impact assessment
Changes in employment by sector	
Increase in employment in the private insurance sector. Under this model insurance is largely private like Alberta. Higher aggregate premiums and profits lead to an increase in market size and jobs in the insurance industry.	Creation of 400-450 jobs in Alberta's private insurance sector
Increase in employment for insurance brokers/agents. Higher premiums for auto insurance lead to an increase in profits for brokers and therefore an increase to the number of jobs in the sector.	Between 100-150 private insurance broker jobs created
Decrease in employment in the legal services sector. Under this model the right to sue the at fault party for damages would be limited to cases where injuries are more serious (e.g., where whole person impairment is 10 per cent or more, or a child's treatment and care is ongoing 4.5 years post-accident). Injury compensation claims are made with and provided by the insurer of the at fault party directly and damages for lost income and/or pain and suffering are statutorily capped.	Loss of 550-650 legal services jobs
Increase in public sector employment from establishment of an LTCS scheme. Establishing an LTCS scheme would create employment opportunities. This would offset a small portion of the job losses associated with a contraction in private insurance market.	Estimated 250 new employees for an LTCS scheme
Changes in tax revenue	
Increase in insurance premium taxes. Under this model, a proportional increase in insurance premiums tax generated by the government would occur based on the increase in average insurance premiums for consumers.	$37 million increase in annual insurance premium tax revenue
Decrease in tax revenue from businesses associated with the sector. Under this model, a net growth in private industry would lead to an increase in provincial corporate tax revenues.	Estimated $8 million increase in annual provincial tax revenue
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes.	Estimated $1 million increase in annual provincial income tax revenue
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
Increase in investment to establish a LTCS scheme. Under this model an investment of time and resources is required to establish a LTCS scheme. Injection of funding would also be required to ensure the scheme has sufficient capital reserve to make the necessary payments to claimants. Compared to public insurers, this model has lower initial expenses however, is heavily funded through investment revenue and would need a higher amount of capital to fund ongoing expenses.	$50-100 million set up cost $460 million for capital reserve
Operating a public insurer (or LTCS scheme)	

Impact and rationale	Impact assessment
No change in investment to operate a public insurer. After establishment a well-run LTCS Scheme or similar can be self-sustaining and would not require ongoing government subsidization (i.e., funded through a levy on insurance premiums and investment revenue as is the case in ACT).	N/A (assumes LTCS can self-fund any operating costs)
Establishing and maintaining a mechanism for medical assessment appeals	
Increase in investment to establish and maintain a mechanism for medical assessment appeals. Under this model an appeal mechanism would need to be established. This is for claimants who have been denied entitlement to certain medical benefits to be able to pursue an appeal of the insurer's decision. An appeals mechanism for private no-fault insurance will need to accommodate claims with a wide range of private insurers and is likely to be more complex than an equivalent appeals mechanism for a public insurer. The impact of potentially increased demand for medical assessment appeals has not been factored into ongoing operating costs in this analysis.	$1-2 million annually, plus nominal establishment costs
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
No change in demand in the auto-repair services sector.	No
Establishing and maintaining an appropriate regulatory framework and public education	
Increase in investment to reallocate resources and funding for public education. Under this model the relevant regulatory function would remain, and smaller investment would be required to reallocate resources. In addition, the current funding for public education would need to be reviewed for adequacy to inform consumers of the change.	Yes
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model only claimants who were not at fault with more serious injuries and for vehicle damage are tort based. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
No change in competition or consumer choice.	No

4.7 Alternative Model 7: Insurance Bureau of Canada

The IBC's proposal represents a reform of Alberta's existing insurance model rather than something entirely new.

Instead of a new insurance model, the IBC proposes reform to Alberta's existing insurance model. Proposed changes are summarized below:

Changes in coverage for mandatory accident benefits

- Income replacement removed from mandatory coverage and made optional.
- The use of 'programs of care' for people with common collision injuries. Programs of care would allow for six months of preapproved treatment instead of three, after which standard additional care could be accessed.

Limits to tort claims

- Only people with serious injuries can sue for non-pecuniary damages (i.e. pain and suffering). Optional insurance would allow consumers to buy the option to receive non-pecuniary compensation from their own insurer for any type of injury, if not at fault.
- People may only sue for treatment, care, and income replacement if their needs exceed available treatment.
- All treatment and care, income replacement, and optional no-fault pain and suffering compensation would be deducted from any future tort settlements.

Changes to the insurance regulatory environment

- Eliminate the existing 4 per cent Insurance Premium Tax.
- Eliminate the provincial grid framework and instead require mandatory discounts for new drivers.
- Adopt a use-and-file rate system, allowing insurers to adjust premiums without pre-approval.

The IBC has also proposed regulatory changes to prevent fraud. These are not a core part of the insurance reform proposal and could be implemented into any new insurance model, but are included for completeness:

- Implement an Insurance Validation Program database to confirm vehicle insurance status.
- Introduce physical VIN inspection as part of mandatory safety inspections that occur before vehicle transfer.
- Ban third-party registrations by private actors that lack Power of Attorney.

Table 12 | Economic impacts and implementation considerations arising from a shift to the IBC Model

Impact and rationale	Impact assessment
ECONOMIC IMPACT	
Changes in annual insurance premiums	
Decrease in average annual insurance premiums for consumers. OW analysis indicates a move to the IBC model would decrease premiums.	$145 decrease in average consumer PPV premiums annually $420 million in aggregate consumer PPV savings across Alberta annually
Changes in employment by sector	
Decrease in employment in the private insurance sector. Under this model insurance is largely private like Alberta. Lower aggregate premiums and profits lead to a decrease in market size and jobs in the insurance industry.	Loss of 250-300 jobs in Alberta's private insurance sector
Decrease in employment for insurance brokers/agents. Lower premiums for auto insurance lead to a decrease in profits for brokers and therefore a decrease to the number of jobs in the sector.	Estimated loss of 100 private insurance broker jobs
Decrease in employment in the legal services sector. The IBC proposal includes restrictions to litigation. This leads to a decline in the legal services industry and a loss of jobs in the sector.	Loss of 100-150 legal services jobs
No change in public sector employment.	N/A
Changes in tax revenue	
Removal of insurance premium taxes Under this model, an elimination in insurance premium tax generated by the government would occur based on the proposed elimination of tax revenue that the Government of Alberta receives from auto insurance policy sales. If the IBC's model was adopted without eliminating the 4% insurance premium tax, a much smaller decrease in premium tax revenue would occur.	$281 million decrease in annual insurance premium tax revenue if 4% tax is eliminated $24 million decrease in annual insurance premium tax revenue if 4% tax is not eliminated
Decrease in tax revenue from businesses associated with the sector. Under this model, a net decline in private industry would lead to a reduction in provincial corporate tax revenues.	Estimated $3 million decrease in annual corporate tax revenue
Reduction in income taxes from aggregate job loss Under this model, an aggregate decline in industry would bring a commensurate decline in income taxes.	$4-5 million decline in annual provincial income tax revenue

Impact and rationale	Impact assessment
IMPLEMENTATION CONSIDERATIONS	
Establishing a public insurer (incl. LTCS scheme)	
No public insurer or fund established.	N/A
Operating a public insurer (or LTCS scheme)	
No public insurer or fund.	N/A
Establishing and maintaining a mechanism for medical assessment appeals	
No appeal mechanism established.	N/A
UNQUANTIFIED IMPACT	**RELEVANT (YES/NO)**
Distributional effects in the auto-repair sector	
No change in demand in the auto-repair services sector.	No
Establishing and maintaining an appropriate regulatory framework and public education	
No significant change in the regulatory environment.	No
Reallocation of court resources	
Potential opportunity to reallocate court resources. Under this model there are limit to tort claims. This may present an opportunity for court resources to be deployed to support other priorities, however, requires further analysis.	Yes
Consumer choice of insurance providers	
No change in competition or consumer choice.	No

Appendix A Data calculations

Data calculations in this report are, designed to align with OW's actuarial analysis wherever possible. We take OW's calculated cost values as given and use these to inform economic impact analysis.

A.1 Change in annual insurance premiums

Analysis in the OW report shows insurance premiums is for average **full coverage**. Given that not all consumers have full coverage, we must instead calculate an *'industry weighted average premium'* across each of the seven in-scope models to find average and aggregate consumer savings after a transition to each model.

Step 1: Calculate industry weighted average premium

OW analysis breaks down insurance premium cost by type of coverage. These types of coverage are for things like accident benefits, third party liability, or collision coverage. Type of coverage has an associated premium cost under each model and percentage uptake in Alberta today. From this, we calculate an *industry weighted average premium* for each model and coverage item using the following:

$$\begin{aligned} &Industry\ weighted\ average\ premium \\ &\quad = Type\ of\ coverage\ 1 \times type\ of\ coverage\ 1\ uptake \\ &\quad + type\ of\ coverage\ 2 \times type\ of\ coverage\ 2\ uptake + \cdots \\ &\quad + type\ of\ coverage\ N \times type\ of\ coverage\ N\ uptake \end{aligned}$$

For all types of coverage, industry weighted average premiums are shown below in Table 13. All costs are shown at required 01/01/24 premium levels.

Table 13 | Industry weighted average premium outputs

Model	Industry weighted required average premiums
Alberta	$1,844
Manitoba (public delivery)	$1,112
Manitoba (private delivery)	$1,485
British Columbia	$1,090
Saskatchewan	$1,119
Quebec	$1,333
New South Wales	$1,912
The ACT	$2,067
IBC proposal	$1,698

Step 2: Calculate aggregate consumer savings (or excess costs)

Aggregate consumer savings (or excess costs) are then calculated as:

$$Aggregate\ consumer\ savings\ (costs) = (Alberta\ required\ average\ premium - comparator\ model\ average\ premium) \times number\ of\ insurance\ policies\ in\ Alberta\ today$$

Assumptions and caveats

- We assume that percentage uptake of optional coverage would not change if Alberta were to shift to an alternative insurance model.
- We calculate consumer savings with respect to Alberta's required premiums at 2024 cost levels, not actual premiums today. This is due to auto insurance premiums in Alberta today being held at artificially low levels and must eventually rise to required levels to achieve sustainability. Comparing to required premium levels represents a more accurate comparison between models and may lead to slight variations between the effect calculated and the actual change for Albertan consumers if the change was implemented today.
- Aggregate consumer savings only consider PPV, not other vehicle types.

Data sources

- Oliver Wyman – Feasibility Study of Long-Term Auto Insurance Reforms

A.2 Calculations for change in employment

Identify jobs supported by auto insurance in Alberta today

Nous first estimated the number of jobs in each sector directly supported by auto insurance in Alberta. Insurance and broker job numbers must be scaled down from P&C numbers to the estimated portion supported by auto insurance.

Insurance jobs supported by auto insurance today is calculated as:

$$Number\ of\ P\&C\ insurance\ workers\ in\ Alberta\ today \times auto\ insurance\ proportion\ of\ P\&C\ insurance$$

Broker jobs supported by auto insurance today is calculated as:

$$Number\ of\ P\&C\ brokers\ in\ Alberta\ today \times auto\ insurance\ proportion\ of\ P\&C\ insurance$$

For insurance and broker jobs, *auto insurance proportion of P&C insurance* is calculated from premium data as:

$$Auto\ insurance\ proportion\ of\ P\&C\ insurance = \frac{Net\ auto\ insurance\ premiums}{Net\ P\&C\ insurance\ premiums}$$

There is no clear estimation of the number of legal services jobs supported by auto insurance tort claims. We instead estimate this number based on the estimated revenue received by legal services and compensation in the sector.

Legal services jobs supported by auto insurance is calculated as:

$$Number\ of\ legal\ servies\ jobs = \frac{Total\ revenue\ for\ legal\ services\ attributable\ to\ automobile\ tort\ claims * \frac{1}{3}}{The\ average\ compensation\ of\ a\ legal\ services\ worker}$$

Where 1/3 is an assumed ratio of compensation as a proportion industry revenue.

Calculate change in jobs per sector

We then scale down the number of jobs in each sector according to the loss of industry size/revenue.

Jobs in the insurance industry are scaled according to the estimated size of insurer profits in each model. The number of jobs after a transition to a new model is calculated as:

$$Insurer\ jobs\ in\ new\ model = Insurer\ jobs\ in\ Alberta\ today \times \frac{Industry\ profit\ in\ new\ model}{Industry\ profit\ in\ Alberta\ today}$$

Jobs in the brokerage industry are scaled according to estimated broker fees in each model. The number of jobs after a transition to a new model is calculated as:

$$Broker\ jobs\ in\ new\ model = Broker\ jobs\ in\ Alberta\ today \times \frac{Broker\ revenue\ in\ new\ model}{Broker\ revenue\ in\ Alberta\ today}$$

Insurance profit and broker revenue is calculated using data from the OW analysis and the calculated industry weighted average premiums.

Jobs in the legal industry are scaled according to estimated claims costs for third party liability for bodily injury and property damage in each model. The number of jobs after a transition to a new model is calculated as:

$$Legal\ jobs\ in\ new\ model$$
$$= legal\ jobs\ in\ Alberta\ today\ \frac{Bodily\ injury\ and\ property\ damage\ claims\ costs\ in\ new\ model}{Bodily\ injury\ and\ property\ damage\ claims\ costs\ today}$$

For all industries, change in jobs is then calculated as:

$$Change\ in\ sector\ jobs = \ Number\ of\ sector\ jobs\ in\ new\ model - Number\ of\ sector\ jobs\ today$$

Assumptions and caveats

- These calculations assume that uptake of insurance remains constant between models.
- We assume that legal services capture the same proportion of revenue from third party liability claims between models. In practice, if a new model has a less adversarial/more streamlined process for processing third-party liability claims, legal service may capture less revenue and therefore see a larger loss in jobs than indicated in our analysis.
- We do not factor in that some liability claims may be related to accidents that occur outside of Alberta.

Data sources

- The Conference Board of Canada - Demographic Analysis of the P&C Insurance Industry in Canada
- MNP – Systems Costs and Auto Insurance Premiums
- The Government of Alberta - Superintendent of Insurance 2022 Annual Report
- Oliver Wyman – Feasibility Study of Long-Term Auto Insurance Reforms

A.3 Change in tax revenue

Change in insurance premium tax revenue

Change in insurance premium tax revenue is calculated as:

$$Change\ in\ net\ premiums\ across\ Alberta \times 4\%\ insurance\ premium\ tax$$

Net premiums in each model are calculated in each model as:

$$Net\ premiums = average\ PPV\ premium\ \times number\ of\ PPV\ policies\ avtive\ \times non\text{-}PPV\ multiplier$$

Change in premiums is calculated by taking the difference between Alberta's current model and the model examined.

OW analysis is limited to PPV vehicles. The *non-PPV multiplier* is used to account for entire auto-insurance market.

Non-PPV multiplier is calculated as:

$$Non\text{-}PPV\ multiplier = \frac{Total\ auto\text{-}insurance\ premiums\ written}{PPV\ auto\text{-}insurance\ premiums\ written}$$

Change in corporate tax revenue

Change in corporate tax revenue is calculated as:

$$Change\ in\ corporate\ profit\ per\ sector \times 8\%\ corporate\ tax$$

To support this calculation, we must find industry profit in each sector.

Insurance industry profit in each model is calculated as:

$$Industry\ profit = Average\ PPV\ premium\ \times number\ of\ PPV\ policies\ active\ \times profit\ margin \times non\text{-}PPV\ multiplier$$

Brokerage industry profit in each model is calculated as:

$$Industry\ profit = Average\ PPV\ premium\ \times number\ of\ PPV\ policies\ active \times brokerage\ commision\ percent\ \times brokerage\ profit\ margin\ \times non\text{-}PPV\ multiplier$$

Legal services profit in each model is calculated by scaling down legal services revenue similarly to job number calculations:

$$Legal\ services\ profit\ \ in\ new\ model = Legal\ services\ revenue\ today\ \times \frac{Bodily\ injury\ and\ property\ damage\ claims\ costs\ in\ new\ model}{Bodily\ injury\ and\ property\ damage\ claims\ costs\ today} \times profit\ margin$$

Change in industry profit is calculated by taking the difference between Alberta's current model and the model examined.

Change in income tax revenue

Change in income tax revenue is calculated as:

$$Change\ in\ employment\ by\ sector * average\ income\ by\ sector * provincial\ income\ tax\ rate$$

Each sector is calculated individually and summed to get a total change in tax revenue.

Assumptions and caveats

- We assume the same proportional change in insurance premiums for PPV and non-PPV vehicles.
- We assume a constant 6 per cent profit margin across non-insurance sectors.
- We use the lowest income tax bracket for all jobs since average compensation for all affected industries falls well below the first bracket cut-off.
- Like in the *change in insurance premiums* section, change in tax revenue is calculated with respect to Alberta's required premium levels, not actual premium levels today. This is because auto insurance premiums in Alberta today are held at artificially low levels and must eventually rise to required levels to achieve sustainability. Comparing to required premium levels represents a more accurate comparison between models but may lead to slight variations between the effect calculated and the actual change for Albertan consumers if the change was implemented today.

Data sources

- Oliver Wyman – Feasibility Study of Long-Term Auto Insurance Reforms
- The Government of Alberta - Superintendent of Insurance 2022 Annual Report
- MNP – Systems Costs and Auto Insurance Premiums
- Statistics Canada - Total compensation per job, by NAICS industry

A.4 Public insurer capital reserve

We calculate the size of the capital reserve using a rule of thumb of 2:1 net premiums to capital reserve ratio.

Public insurer capital reserve is calculated as:

$$Capital\ reserve = \frac{Average\ PPV\ premiums\ in\ new\ model \times\ number\ of\ PPV\ policies\ active}{2} \times non\text{-}PPV\ multiplier$$

As noted in section A.3, a *non-PPV multiplier* must be used to account for non-PPV vehicles in Alberta.

Non-PPV multiplier is calculated as:

$$Non\text{-}PPV\ multiplier = \frac{Total\ auto\text{-}insurance\ premiums\ written}{PPV\ auto\text{-}insurance\ premiums\ written}$$

Assumptions and caveats

- We assume the same proportional change in insurance premiums for PPV and non-PPV vehicles.
- Quebec's public insurer only provides injury coverage. As such, only premiums for injury coverage are included in premiums calculations for the public insurer capital reserve in the Quebec model.

Data sources

- Oliver Wyman – Feasibility Study of Long-Term Auto Insurance Reforms
- The Government of Alberta - Superintendent of Insurance 2022 Annual Report

Appendix B Stakeholder groups consulted

Organization	Date
Automobile Insurance Rate Board (AIRB)	February 27, 2024
Financial Sector Regulation and Policy, Treasury Board and Finance, Alberta Government	February 27, 2024
Insurance Brokers Association of Alberta (IBAA)	March 5, 2024
Insurance Regulations and Market Conduct, Alberta Government	February 27, 2024
Oliver Wyman (OW)	March 1, 2024
Alberta Civil Trial Lawyers Association (ACTLA)	March 4, 2024
The Insurance Bureau of Canada (IBC)	March 5, 2024

Appendix C Data Sources

Conference Board of Canada, 2023, *Demographic Analysis of the P&C Insurance Industry in Canada*

Government of Alberta, 2022, *Superintendent of Insurance Annual Report*

MNP, 2023, *Final Report: System Costs and Auto Insurance Premiums*

Statistics Canada, 2024, Table 36-10-0489-01 - Labour statistics consistent with the System of National Accounts (SNA), by job category and industry

Statistics Canada, 2024, Table 36-10-0489-05 - Total compensation per job, by NAICS industry

Oliver Wyman – Feasibility Study of Long-Term Auto Insurance Reforms

Appendix D Acronym list

Acronym	Name
ACT	Australian Capital Territory
ACTLA	The Alberta Civil Trial Lawyers Association
AIC	Alberta Insurance Council
AIRB	Automobile Insurance Rate Board
CTP	Compulsory Third Party
DCPD	Direct Compensation for Property Damage
IBAA	Insurance Brokers Association of Alberta
IBC	Insurance Bureau of Canada
ICBC	Insurance Corporation of British Columbia
LTCS	Lifetime Care and Support
MAI	Motor Accident Injuries
MPI	Manitoba Public Insurance
NSW	New South Wales
OW	Oliver Wyman
PPV	Private Passenger Vehicles
REM	Risk Equalization Mechanism’
SAAQ	Société de l'assurance automobile du Québec
SGI	Saskatchewan Government Insurance
TEPL	Transitional Excess Profits and Losses