2024 AUTOMOBILE INSURANCE AFFORDABILITY

Alberta airb Automobile Insurance Rate Board

Table of Contents

Executive Summary

In recent years, there has been a lot of discussion about the affordability of auto insurance. Affordability is a subjective term, and it is difficult to develop one measure to clearly state whether it is affordable. In addition, like other goods and services Albertans must purchase, there is not a single price everyone pays. Auto insurance is priced based on the individual driver, the vehicle and where they drive, which means no two drivers have the same price.

Historically the Automobile Insurance Rate Board (AIRB) has defined affordability as the ratio between auto premiums and after-tax income, which considers an individual's capacity to pay compared to the price they are charged. Therefore, two factors driving this concern on affordability are:

1. Recessions caused by the COVID-19 pandemic and the subsequent slow economic recovery.
2. Premium increases caused by high inflation which has significantly increased the cost of claims on all coverages.

All drivers in Alberta are required to have third party liability and accident benefits coverages to operate their vehicle. Many drivers purchase other coverages, such as collision and comprehensive, which are considered optional. In the first half of 2023, the premium written for mandatory or basic coverages was $1,049 according to the General Insurance Statistical Agency, up 6.2% from $987 in the first six months of the prior year.

Since third party liability and accident benefits coverages are mandatory for all vehicles in the province, the ability to pay for the coverage can be the difference between a low-income individual being able to afford a vehicle and not. Individuals with vehicles can have greater access to employment opportunities, making them more employable and therefore better off economically. If coverage is unaffordable, then an individual cannot afford a vehicle they might need to commute to or find work, limiting their economic movement and trapping them in poverty. Therefore, in this report we focus on the affordability of mandatory coverage.

Unlike previous AIRB publications, this report considers Canadian census data, and the analysis is aligned to the dates of the census, which is looking back at historical data. Auto insurance uses past performance to predict future results, which supports the value of considering the census data in predicting the future. This report considers the current auto insurance product and would need to be reconsidered should product reforms be implemented in the future.

Using data from the most recent Canadian census conducted in 2021, we determine forward sortation area (FSA) level affordability ratios for the 2020 accident year. We find rural FSAs are more affordable, contained to affordability ratios between 1.7% and 2.5%, while urban FSAs have a much broader distribution with values ranging from 1.2% to 4.6%.

We also found between 2015 and 2021, the share of after-tax income spent on mandatory coverage in Alberta has increased from 1.72% in 2015, to 2.48% in 2021. For comparison, during the same time, Ontario had their share of after-tax income spent on mandatory coverage decreased from 3.69% to 3.14%.

Background

Affordability is a subjective term, defined by the Oxford dictionary as "cheap enough people can afford to buy it or pay for it." The definition does not take into consideration the different income levels which makes the ability to pay for something differ from individual to individual, nor the way auto insurance is priced – based on individual characteristics of the driver, the vehicle and where the vehicle is garaged – all of which result in no two drivers having the same price. This makes finding a single measure to evaluate if auto insurance is affordable a difficult task.

We have referenced a study conducted in January of 2017 by the Federal Insurance Office in the United States (US) with a focus on low and moderate income individuals and the affordability of auto insurance premiums. They focused on auto insurance since studies have shown having access to a vehicle greatly expands the ability to establish and maintain employment. The inability to have a vehicle, due in part to premiums, is a barrier to individuals rising out of poverty.

There are significant differences in mandatory coverages throughout the US, not unlike in Canada, so the study considered premiums spent on third party liability coverages, which is the only mandatory coverage in every state. In their study, they said auto insurance is "affordable" in a forward sortation area (FSA)[1] if the ratio of third party liability premiums to the median household income is at or below 2%.

Their study found 18 million Americans, or 845 FSAs (9.2%), had an affordability index above 2%, meaning people living in 9.2% of the FSA's had unaffordable auto insurance. However, the selection of 2% as the definition of affordability has been criticized. Therefore, critics suggest, to avoid subjectivity, one should observe the affordability index over time, within the same area. However, due to data granularity, getting data promptly remains a challenge.

While the AIRB has access to income and premium data by FSA in Alberta, these values lag by one to three years, and has similar challenges to those experienced with the data in the US. We have used this study as a basis for conducting analysis based on Alberta data, with comparators to other Canadian jurisdictions where possible.

Our three primary data sources and what they provide are:

1. General Insurance Statistical Agency (GISA): Insurance related data - premiums, losses, vehicles, etc.
2. Statistics Canada (Census): Median after-tax income and demographics at the FSA level for the years 2015, 2019, and 2020. Census data was collected in 2016, and 2021.
   - The 2020 census was delayed due to the COVID-19 pandemic.
   - The 2019 data has median after-tax income, since it was asked in the 2021 census, but does not have any demographic information.
3. Statistics Canada (Non-Census): Province wide median after-tax income, published annually.

Using the data available, we adopted the spirit of the US study and altered the metrics for Alberta's context and data. The alterations were the inclusion of accident benefits coverage in our premium since it is a mandatory coverage in Alberta, and use of after-tax income gross income used in the US.

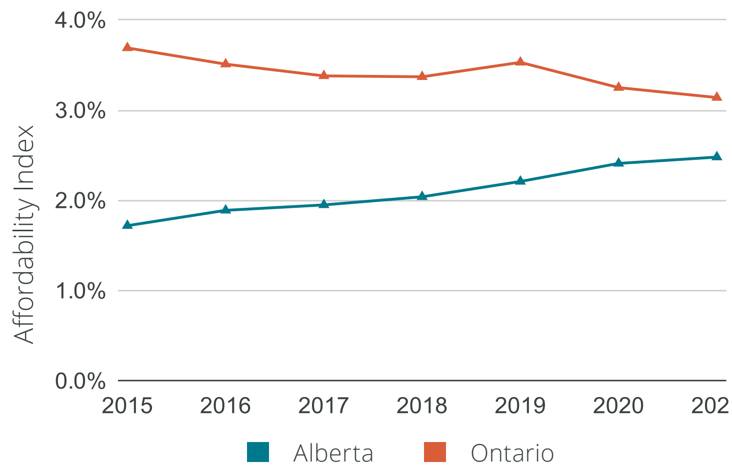
[1] A forward sortation area (FSA) is the first three characters of a Canadian postal code.

Affordability

Overall Affordability Between 2015 & 2021

One measure the AIRB has used in the past as a proxy for affordability is the percentage of after-tax income spent on auto insurance premiums. Past Market and Trends reports have benchmarked Alberta against other Canadian jurisdictions, based on most recent premium and after-tax income data. This affordability index for Alberta and Ontario between 2015 and 2021 is shown, comparing Canada's two most expensive auto insurance provinces when looking solely on after tax income spent on average premiums. While Alberta remains more affordable based on this measure, Ontario's affordability is improving while Alberta is worsening. In 2015, the difference between the two provinces was nearly 2.0 percentage points but has decreased to a difference of just 0.7 percentage points.

Share of After-Tax Income Spent on Premiums (Basic Coverage)[2]



Affordability in Alberta

To focus our review of affordability within Alberta, we have considered results based on forward sortation areas (FSA). Using FSA, we can determine levels of affordability by region, and how this differs across the province, considering urban versus rural impacts as well. It is important to remember FSAs are not drawn up with private passenger vehicle (PPV) insurance in mind. They are not created to represent similar risks. Therefore, there is considerable variation within an FSA, and so while an FSA may be unaffordable, many policyholders within the FSA may find it affordable. As well, there may not be enough observations within a given FSA for it to be fully credible.

Least Affordable FSAs (2020)[3]

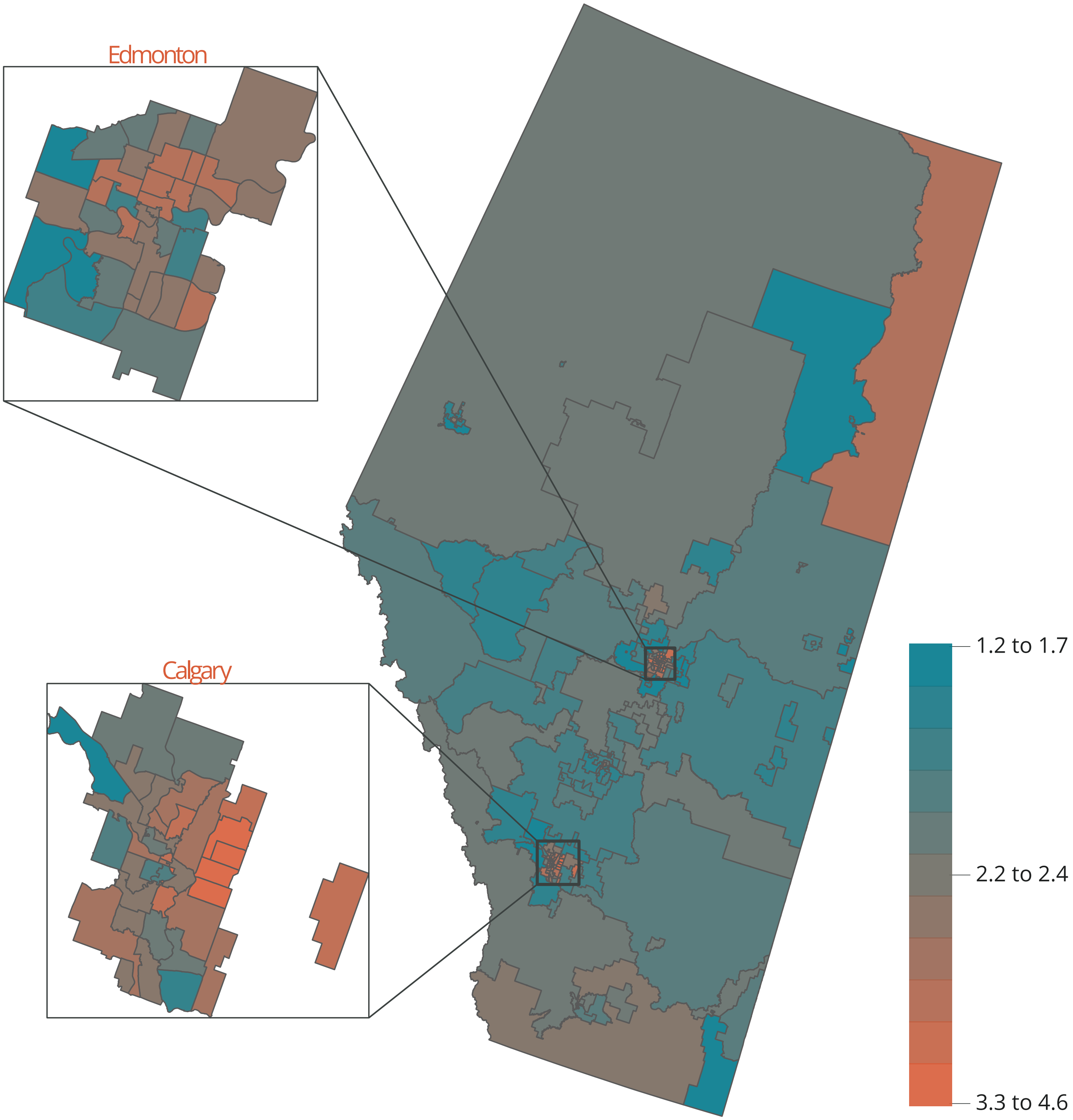
FSA	City	Neighborhood	Share of Income on Premiums	After Tax Income	Average Written Premium	Loss Cost
T5H	Edmonton	North Downtown	4.6%	$31,400	$1,442	$1,563
T3J	Calgary	Martindale	4.2%	$32,000	$1,349	$1,440
T5G	Edmonton	Queen Mary Park/ Blatchford	4.1%	$32,800	$1,344	$1,020
T5B	Edmonton	East North Central	3.9%	$32,800	$1,291	$1,428
T2A	Calgary	Penbrooke Meadows	3.9%	$32,400	$1,269	$1,196
T1Y	Calgary	Rundle	3.8%	$32,400	$1,243	$1,141
T5P	Edmonton	North Jasper Place	3.8%	$33,600	$1,277	$934
T5C	Edmonton	Central Londonderry	3.6%	$35,200	$1,264	$906
T2B	Calgary	Forest Lawn/ Dover	3.6%	$34,000	$1,206	$854
T5E	Edmonton	West Londonderry	3.5%	$36,000	$1,258	$939
		Alberta Average[4]	2.4%	$39,820	$929	$712

The ten FSAs with the highest share of average after tax income spent on mandatory coverage in 2019 are in the Table. All ten FSAs had after tax incomes below the Alberta average of $39,820 in 2020, and the majority were operated with loss costs exceeding premium. All the FSAs shown below are in either of the province's two largest cities, which is expected given they have the largest population.

[2] Source: General Insurance Statistical Agency Auto 1085 & Statistics Canada v30627084 and v30621270.
[3] Source: General Insurance Statistical Agency Auto 1085 & 2021 Canadian Census.
[4] Weighted average by number of third party liability vehicles in a given FSA.

Looking at a map to visualize all FSAs, we see urban areas like Edmonton and Calgary have most of the large values, suggesting an urban/rural split. The orange rural area in the Northeast is the T0P FSA, with communities such as Fort Chipewyan and Fort McKay. It has an average after-tax income of $36,800, and an average premium of $946. The teal FSA to its left is Fort McMurray (T9H), which has a premium of $861 and an average after-tax income of $54,400.

Share of Income Spent on Mandatory Coverage Premiums (2020)[5]



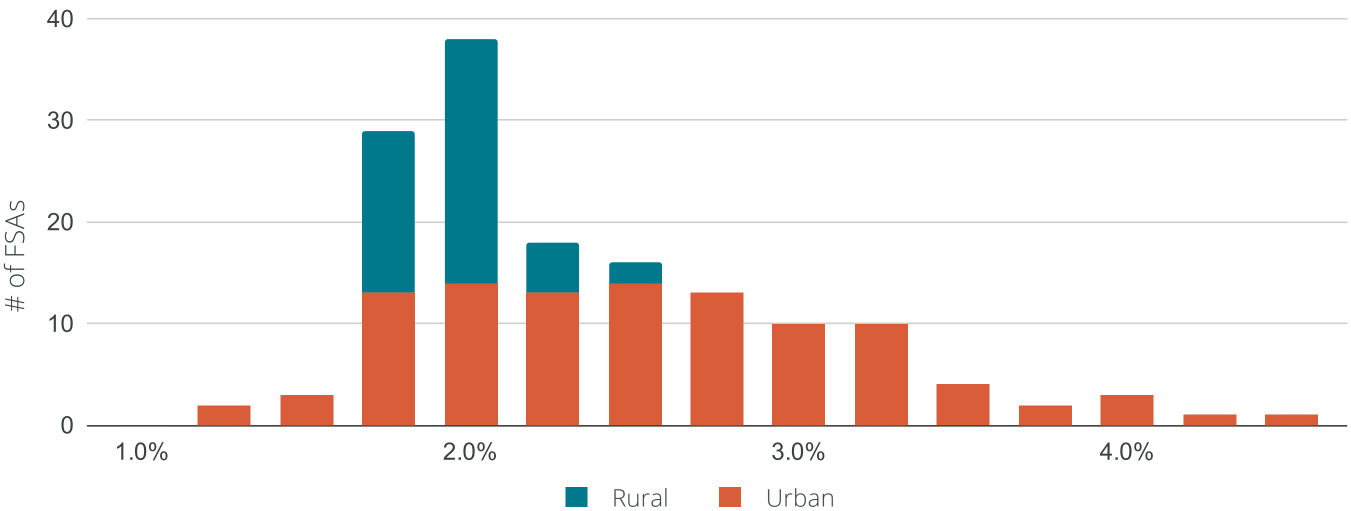
[5] Source: General Insurance Statistical Agency Auto 1085 & 2021 Canadian Census.

Understanding the Distribution of Affordability in 2020

The figure below provides a distribution of the share of income spent on premiums, colored by urban/rural status. Urban designation is given to communities with more than one FSA, and then adjustments are made where necessary. For instance, St. Albert has one FSA, but we designate it an urban area due to proximity with the city of Edmonton.

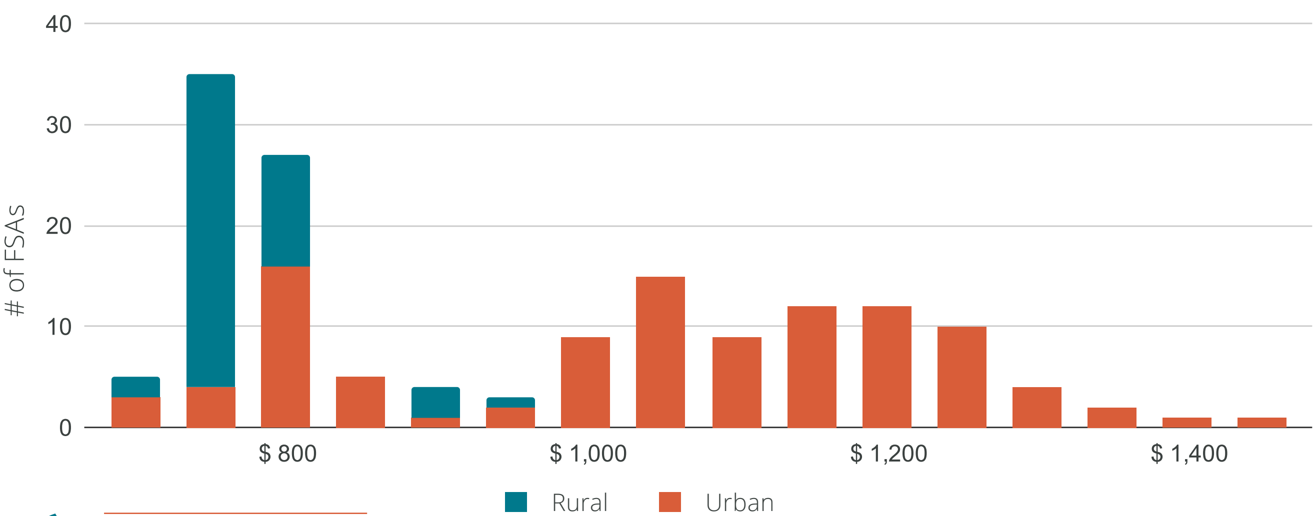
The mode, or most common response, is around 2%, and the distribution is right skewed with a maximum of 4.7%. We see there is no rural FSA with an affordability ratio above 2.5%, contained entirely between 1.75% to 2.5%. Overall, the urban distribution is much more distributed, without a clear peak. They range from 1.2% to 4.6% due to a variety of reasons, which we will discuss below when we plot the distributions of premiums and income separately.

Affordability Ratio Distribution[6]



Looking at the distribution of premiums for the mandatory coverages, we see it is a factor causing the urban/rural split in the affordability ratio. Rural premiums are much lower, with a most common value around $750, compared to the very broad distribution of urban premiums. Some of the urban communities with very low premiums are Medicine Hat and some parts of Sherwood Park. Urban areas have higher premiums, however their income levels are not all high enough to offset the increased costs.

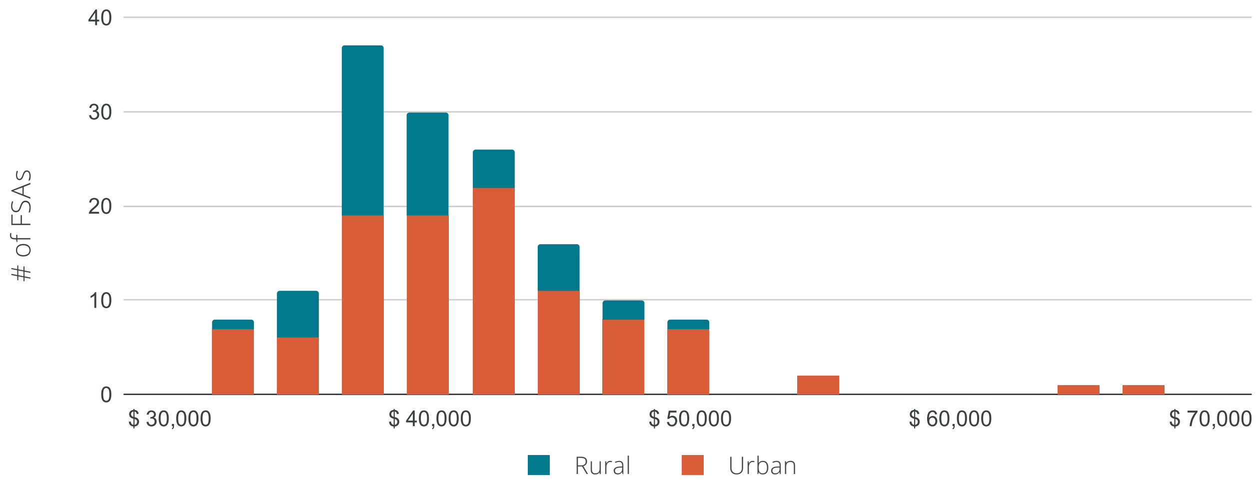
Basic Premiums Distribution[6]



[6] Source: General Insurance Statistical Agency Auto 1085 & 2021 Canadian Census.

Finally, we plot the distribution of median after-tax incomes by FSA. We can see the affordability issue is driven by both income level and premiums. The highest premiums come from dense downtown areas, and some of these same FSAs have incredibly low-income levels. For instance, the ten least affordable FSAs all have income levels below the provincial average, and premiums far above. However, it's not as simple as reducing premiums, as most of those FSAs were operated at a loss (loss cost above premiums), in an otherwise very profitable year (2020).

Median After-Tax Income Distribution[7]



Relationship Between Unaffordability & Demographics

Now to expand our view of affordability we merge in demographic information from the census for the 2020 accident year. Previously, in the report our analysis only considered the median after-tax income for 2020. We present the same 10 least affordable FSAs, but we now add in information on the population for each FSA or location.

FSA can be a proxy for characteristics of the residents in an area such as age, income and ethnicity. While these are generalization, and not a representation of the entire population in an FSA a common theme is every FSA in the top 10 has higher proportions of immigrants and visible minorities than the Alberta average. Racial characteristics are banned as rating variables for auto insurance in Alberta as they are protected under the Canadian charter of rights and freedoms. Insurers are not permitted to include this type of data at any stage, in their pricing algorithms.

Generally, the FSAs seem to be on par with the age demographics in the province, having both similar median ages and senior population (65+), except for Calgary's Martindale. Most of these FSAs seem to be below the provincial marriage rate and had unemployment rates above the average.

It is important to recognize the 2021 census presents data from 2020, during the COVID-19 pandemic, this caused remarkably high unemployment rates, which will lower income levels, and therefore worsen the affordability ratio. Since premiums did not drop enough to offset the decreased income, it was one of the worst year-over-year changes for affordability.

[7] Source: General Insurance Statistical Agency Auto 1085 & 2021 Canadian Census.

Relationship Between Unaffordability & Demographics (2020)[8]

FSA	City	Neighborhood	Share of Income on Premiums	Immigrants	Visible Minority	Median Age	Seniors	Married	Unemployment Rate
T5H	Edmonton	North Downtown	4.6%	36.0%	45.0%	37.6	13.5%	35.0%	18.8%
T3J	Calgary	Martindale	4.2%	56.5%	84.9%	33.6	8.9%	60.5%	14.4%
T5G	Edmonton	Queen Mary Park/ Blatchford	4.1%	30.4%	36.5%	38.8	13.4%	40.4%	17.9%
T5B	Edmonton	East North Central	3.9%	27.6%	31.1%	41.2	15.0%	40.0%	18.2%
T2A	Calgary	Penbrooke Meadows	3.9%	40.4%	54.4%	39.2	13.5%	48.9%	17.3%
T1Y	Calgary	Rundle	3.8%	45.7%	67.5%	38.4	15.6%	54.5%	15.8%
T5P	Edmonton	North Jasper Place	3.8%	30.0%	34.1%	41.6	17.4%	43.8%	15.1%
T5C	Edmonton	Central Londonderry	3.6%	27.5%	35.4%	39.6	17.9%	48.5%	16.4%
T2B	Calgary	Forest Lawn/ Dover	3.6%	28.2%	37.3%	41.6	15.2%	46.9%	17.1%
T5E	Edmonton	West Londonderry	3.5%	30.5%	38.8%	38.4	17.0%	49.4%	15.7%
		Alberta Average[9]	2.4%	21.7%	25.5%	39.1	15.1%	59.5%	11.4%

Auto Insurance & Related Goods Price Indices

We plot various price indices related to PPV premiums. Unlike the previous analysis focused on mandatory coverage, this analysis includes all coverages. Vehicle parts, maintenance, and healthcare are direct contributors to the underlying cost of insurance, while all-items is useful as a benchmark.

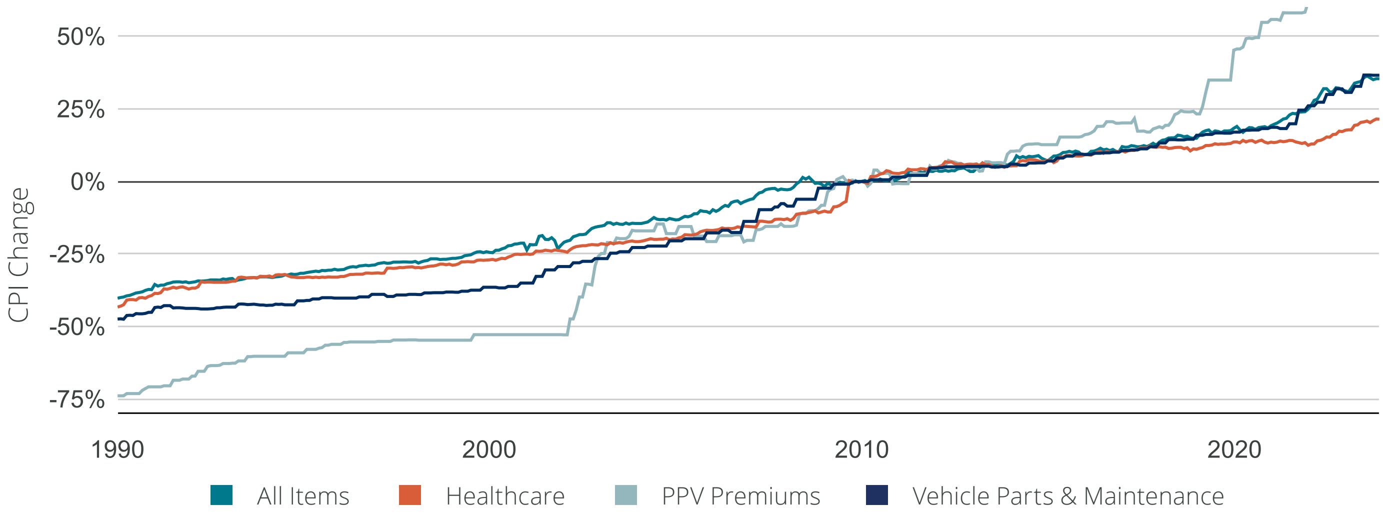
Statistics Canada has data allowing us to take a longer view of the trends. In 1990, PPV premiums were 80% lower than they were in January of 2010, compared to just 40% lower for the other three indices. As you can see, this is due to massive inflation in PPV premiums in 2004, which allow it to catch up to the other series by 2010.

As of December 2023, PPV premiums have increased 66%, all-items has increased 35%, healthcare has increased 21%, and vehicle parts and maintenance has increased 37% relative to their January 2010 values. This indicates, here in Alberta, there seems to have been an increase in premiums above the increase in underlying costs. Premiums begin climbing aggressively around 2018/2019, while the underlying costs did not begin climbing until 2021 as we entered a highly inflationary period. The underlying indices may increase less than premiums, however if claim frequency is also increasing then an increase in premiums can be justified.

[8] Source: General Insurance Statistical Agency Auto 1085 & 2021 Canadian Census.
[9] Weighted average by number of Third party liability vehicles in a given FSA.

From this figure alone, it appears margins were improving for industry, and this matches financial data. In GISA's 9552 exhibit, the industry's return on equity bottomed out in 2016, before improving in 2018-2019, and reporting extraordinary profits in the COVID-19 years between 2021 and 2022.

Insurance Related Prince Indices (Change Since January 2010)



We also considered the price of auto premiums between Alberta and the other three largest provinces - Ontario, British Columbia, and Quebec. There are differences in the auto product between the three provinces. Primarily:

1. Ontario also has a private, publicly competitive marketplace, but their accident benefits coverage is significantly expanded and offers greater benefits, leading to higher prices.
2. All PPV mandatory coverage and the majority of additional coverage in British Columbia is provided by Insurance Corporation of British Columbia (ICBC), a public government run insurer.
3. In Quebec, mandatory coverage is provided publicly, while additional coverage is provided privately.

The price index only measures the change in price and does not consider the magnitude. From the figure, Alberta PPV premium Canadian Price Index (CPI) is above Ontario's, but the average premiums in Ontario remain higher than Alberta.

Overall, Alberta PPV premiums have grown the most since 2010. Between 1990 and 2004, there was slow and moderate price increases in all provinces. Around 2004-2005, Alberta spikes severely, but all other provinces except British Columbia saw similar spikes. All four provinces travelled together with similar price changes between 2006 to 2018. Alberta and Quebec spiked post 2018, but while Quebec saw deflation in prices round 2020, Alberta's continued to increase.

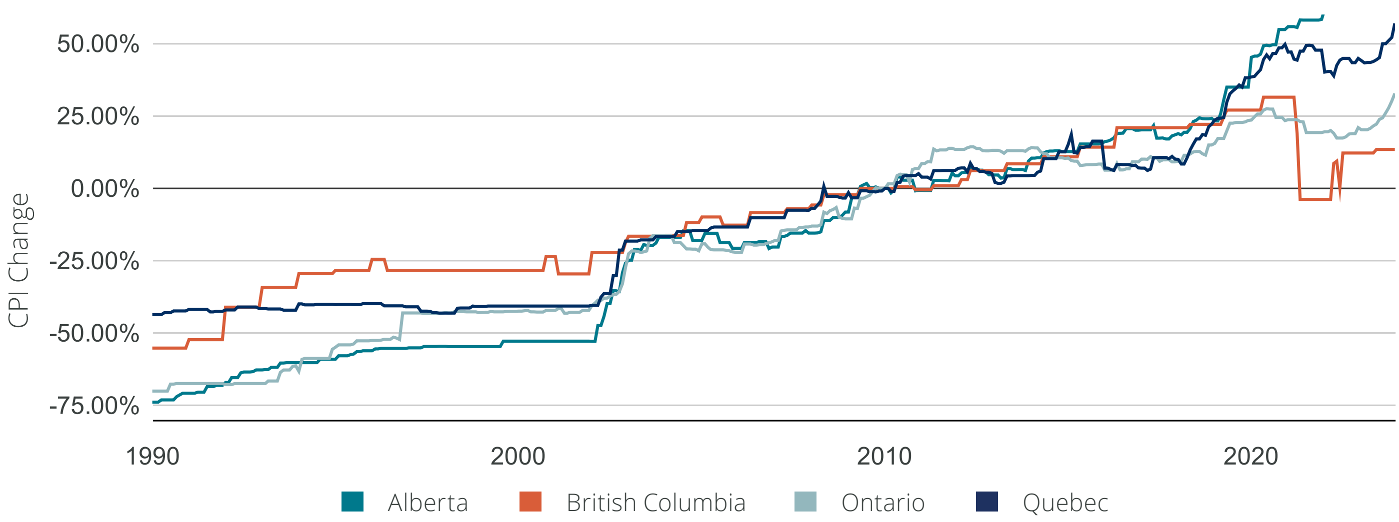
Both Ontario and Quebec are currently seeing premiums increase dramatically as of December 2023, while Alberta appears to be levelling off or decreasing.

Since British Columbia is a publicly run insurance market with the majority sold through one insurer, the line is much smoother, as variation in Alberta for instance comes from multiple insurers changing pricing each period. Likewise, since they are publicly run, they were able to mandate rate relief on mandatory coverages in 2020 leading to the significant deflation.

It is also noted British Columbia introduced product changes effective May 1, 2021 which lowered premiums for drivers, this is reflected by the dip in premiums during this period.

[10] Source: Statistics Canada v41692404, v41692327, v41692412, and v41692402.

PPV Price Index by Province (Change Since January 2010)[11]



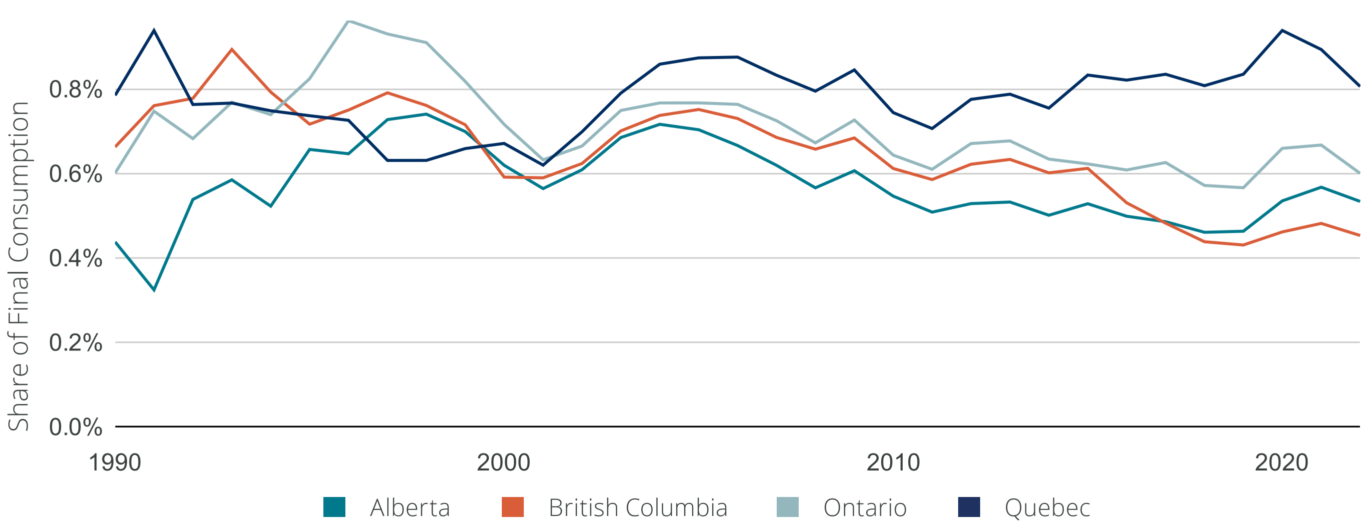
Household Expenditure

In this section we utilize data on household expenditures. Statistics Canada provides total household expenses for "insurance related to transportation." Therefore, it's likely to include insurance premiums for other vehicle classes such as motorcycles, motorhomes, etc. As well, since consumption must match income, it contains all income sources, whereas census data reports on income related to employment. Therefore, business profits, investment income etc. are included here.

Overall, we see Alberta currently has the second lowest expenditure on transportation insurance relative to our household expenditures. We were the lowest between 2000 and 2017, but British Columbia has pulled ahead since then.

While Quebec auto insurance is less expensive than Alberta and Ontario, their relatively lower income levels make it a larger portion of their expense. Similarly, Ontario's insurance is both more expensive and their income levels are moderately lower than Alberta's. While British Columbia's income levels are generally below Alberta's, they make up for it with their lower premiums.

Household Expenses: Transportation Insurance[12]



[11] Source: Statistics Canada v41691861, v41691997, v41692404, and v41692540.

[12] Source: Statistics Canada v62785001, v62785225, v62785897, v62786121, v627485091, v62785315, v62785987, and v62786211.

Shopping the Market

Since 2009 the AIRB has provided Alberta drivers and insurers with data on premiums by insurer for homogeneous profiles, referred to as the Rate Comparison Tool. In 2023, we published an rating profile dashboard on our website updating the presentation of data to increase ease of access and illustrate premiums from least to most expensive to assist Alberta drivers to shop the market. This data is published with a primary goal of demonstrating to consumers for the exact same risk, insurers may price it completely differently – and illustrate the benefits of shopping for the best price.

The dashboard has current prices for each insurer's pricing for specific profiles. For PPV, we have ten rating profiles, which are used to get a pulse on current premiums, given the continued complexity in insurers rating algorithms.

The table[13] presents information on three rating profiles, including those who can be potentially at risk- new drivers and younger parents. In Alberta the Grid rating system caps the premium an insurer can charge. Insurers must compare their premium (noted under the Mandatory and Full coverage ranges below) and the Grid Premium and charge the lower of the two. Where the male age 19 profile may generate a premium as high as $7,022 for mandatory coverage, it would be capped by the Grid, ensuring the driver had access to more affordable insurance coverage.

Rating Profile	Description	Mandatory Coverage Range	Full Coverage Range	Grid Premium (Mandatory Only)
4	Male Age 40; Female Age 39; 2016 Dodge Caravan	$493 - $3,225	$1,058 - $4,474	$731 - $1,077
5	Male Age 19; 2013 Hyundai Elantra	$1,817 - $7,022	$2,500 - $10,068	$1,553 - $2,288
10	Female Age 35; 2017 Honda Civic	$676 - $2,470	$1,326 - $4,983	$731 - $1,077

While the AIRB still encourages drivers to shop the market each year at renewal, the introduction of the Good Driver rate cap **may** hinder a drivers ability to switch insurers for a lower price. The Good Driver rate cap caps drivers with no at fault accidents or traffic convictions at the rate of inflation, or 3.7% for 2024. One exclusion is new business - which is what an insurer categorizes a new customer. Some drivers **may** see a reduced premium when changing insurers even though they will not be capped at 3.7%, so its always recommended to check before renewing to make an informed decision.

[13] Values are simple averages for all territories (Calgary, Edmonton, Lethbridge, Canmore, Grande Prairie, Vegreville). Grid premium is a range between Northern territory and Edmonton/Calgary. Grid steps are assumed to be -15, -3 and -15 for profiles 4, 5, and 10 respectively.

Conclusion

In every year between 2015 and 2021, the affordability ratio has increased. While we have not determined a specific threshold for "affordable", this is a concerning trend. At the AIRB we must balance affordability with the availability of insurance. If we were to make the industry unprofitable, insurers may exit the market, leading to consolidation and a less competitive marketplace which typically yields larger mark-ups, less choice, and less innovation. Likewise, a very profitable industry would attract entrants at the expense of consumer affordability.

Unfortunately, there is no easy solution to solving the affordability problem. For many years before the COVID-19 pandemic (while affordability was worsening) the industry made no profit, even after considering investment income. In 2021, due to COVID-19, the industry made an 8.3% return on premium, and similarly, 6.5% in 2022. With claim costs continuing to increase and frequency returning to normal, it's likely 2023 will come in below 6.5%. Therefore, industry may have returned to our acceptable profit range, and is no longer excessively profitable.

Since consumers are spending more while insurers are not making excessive profit, this suggests the underlying costs are increasing at the rate of premiums, suggesting there is little to be done to remedy the problem with the current product in today's marketplace. This is why the AIRB supports the government's commitment to broad reforms to alter the product to return affordability to Albertans.

In the face of rising unaffordability, we encourage drivers to exhibit safe driving behavior to control their premiums and keep them low, and highly encourage shopping the market, as it can save hundreds or thousands of dollars each year on premiums. As our rating profiles show, even the same risk can be priced differently. Individual insurers may choose to target specific demographics.

Key Take Aways

- There is no universally accepted metric to determine affordability for auto insurance.
- Affordability is subjective and varies from person to person depending on individual income levels and the premiums paid.
- Based on share of after tax income spent on premiums, auto insurance in Alberta is more affordable than in Ontario. However, affordability improved in Ontario between 2015 and 2021 while it worsened in Alberta.
- The least affordable FSAs are in north and central Edmonton and north east and central Calgary. We expected the least affordable areas to be in Alberta's two largest cities given the traffic density and volume of drivers.
- Urban areas have higher premiums and their income levels are not all high enough to offset the increased costs drivers face.
- Auto insurance is more affordable and consistent in rural FSAs. Urban areas face considerable variation in premiums as they are highly segmented compared to rural FSAs.
- While there is a lag in the availability of census data, the trends we see are relevant today, with respect to challenges with affordability.
- This study supports the need for broad auto insurance reforms to address auto insurance affordability and stabilization of premiums for Alberta drivers.

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