OLIVER WYMAN

ANNUAL REVIEW OF INDUSTRY EXPERIENCE

AS OF DECEMBER 31, 2015

COMMERCIAL VEHICLES

ALBERTA AUTO INSURANCE RATE BOARD

18 JULY 2016

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Introduction

This report was prepared by Oliver, Wyman Limited (Oliver Wyman), actuarial consultants to the Alberta Automobile Insurance Rate Board (the Board), as part of the Board's "2016 Annual Review" of Industry experience to determine benchmarks for commercial vehicle rate filings submitted between October 1, 2016 and March 31, 2017.

This report presents the results of our analysis of Alberta's Industry loss and expense experience for commercial vehicles reported as of December 31, 2015. The scope of our analysis includes all coverages:

Basic Coverage: Third Party Liability (TPL) and Accident Benefits (AB)

Additional Coverage: Collision, Comprehensive, All Perils, Specified Perils, and Underinsured Motorist

Data and Reliances

The data utilized in this study and presented in this report is based on information published by the General Insurance Statistical Agency (GISA) that has been compiled by the Insurance Bureau of Canada (IBC). Consistent with the reports published by GISA (and to increase the volume of data), fleet vehicles are included. We have not audited, verified, or reviewed this data for reasonableness, accuracy, or consistency, as it is outside the scope of our study. In the event material errors are found in this data, our findings may need to be revised.

Limitations

The assumptions and judgments we have made in selecting the factors, provisions, and methodologies that we present in this report for the Board's consideration in determining benchmarks that apply to commercial vehicle rate filings submitted between October 1, 2016 and March 31, 2017 are based on data and information made available to us at the time of this analysis. Our assumptions, judgments, and findings are subject to uncertainty as is inherent in any loss forecast.

Our analysis reflects the experience of the insurance industry as a whole, including the Facility Association (FA) and may not be appropriate for an individual insurance company whose portfolio of risks, rates, expenses, and operating characteristics may differ from the insurance industry averages that underlie our findings.

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Summary of Findings

In this report we present:

- assumptions, factors, and provisions we recommend[1] serve as benchmarks for rate filings submitted between October 1, 2016 and March 31, 2017

- other assumptions, factors, and provisions for the Board's consideration as it reviews rate filings submitted between October 1, 2016 and March 31, 2017

We note that our recommended assumptions, factors, and provisions that we present in this report are preliminary, subject to our consideration of feedback provided by stakeholders.

Analysis of Industry Claim Cost and Expense Experience

The analysis that we present in this report is of Industry claim cost and expense experience in Alberta over recent past years. We consider the Industry claim experience through December 31, 2015 as reported to GISA.

Other Comments

In this report we present assumptions, factors, and provisions for the Board's consideration in its review of individual rate filings. The projection of future rate needs is subject to considerable uncertainty. For this reason, we provide rationale for the assumptions, factors, and provisions we present, as well as information to help the Board evaluate their reasonableness.

[1] We refer to these as selections in this report.

We suggest that the Board also consider the reasonableness of additional information provided by stakeholders that may be more current or that may provide more insight into the Industry commercial vehicle claim experience (particularly as respects the Bodily Injury coverage and theft losses) that has emerged or is expected to emerge. However, in doing so the Board should also consider that the experience of one insurer may not be representative of the experience of the Industry.

We also suggest the Board recognize that while it may be that, alone, an alternative assumption, factor, or provision may be reasonable, it may not be reasonable to combine alternative assumptions, factors, or provisions.

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Analysis – General Discussion

Introduction

In the sections that follow we present:

- an analysis and discussion of Industry loss development factors and trend rates
- the Industry loss development factors and trend rates we recommend[2] the Board consider in reviewing Industry's overall performance, and to serve as benchmarks to apply to rate filings submitted between October 1, 2016 and March 31, 2017
- other assumptions, factors, and provisions for the Board to consider in reviewing Industry's overall performance, and to consider in reviewing rate filings submitted between October 1, 2016 and March 31, 2017

The projection of future rate needs is subject to uncertainty. Therefore, we provide rationale for the assumptions, factors, provisions, and calculations that we present, as well as information to help the Board evaluate their reasonableness and the reasonableness of the views that may be presented by other interested parties.

Claim Cost – Data

The source for the claim data that we analyze is the AUTO7002-AB-2015 Automobile Industry Exhibit (as of December 31, 2015) provided by GISA. We refer to this as the AIX report.

[2] See previous comments on recommendations.

The claim data that is available through the Industry AIX report is in two categories:

> Paid Claim Amounts – claim cost payments made by an insurance company; includes payments that were made on claims that are now closed, as well as payments made on claims that are still open (referred to as partial payments).
>
> Case Reserves – the insurance company's estimate of the amount of future claim cost payments to be made on individual claims; a case reserve is assigned to each individual open claim.

The total of the paid claim amounts made on each closed or open claim and the case reserve carried on each open claim is what is referred to as reported incurred claim amounts.

The case reserves (and hence the reported incurred claim amounts) reflect the views and opinions of the respective insurance company claim adjusters that handle the individual claims, and are based on the information available to the claim adjusters as of a particular point in time. Over time, the case reserves are revised by the claim adjusters to more accurately reflect the payments that are made or that are expected to be made based on additional information that becomes available to the claim adjusters.

It is important to note two points about case reserves:

1. How insurance companies determine case reserves varies from company to company. For example, it is typical for insurance companies to instruct their claim adjusters to post a pre-set amount (e.g., $10,000 for Bodily Injury claims) as the case reserve when a claim is first reported and before any investigation is performed. This is referred to as the "initial claim reserve." In a sense, the initial claim reserve serves as a placeholder until investigation is conducted and a more accurate estimate can be established by the claim adjusters. For those companies that follow this approach, the amount of the initial case reserve and the length of time the initial claim reserve remains posted varies by company and, for a particular company, could change over time.

2. The case reserves do not reflect the "actuarial reserve" (also referred to as the bulk reserve or the IBNR reserve) that insurance companies record in their financial statements. This actuarial reserve, which is estimated by the insurance company actuaries, is an aggregate amount that is intended to provide for (1) any overall inadequacies or redundancies in the case reserves that are established on individual claims, and (2) claims (accidents) that occurred but have not yet been reported to the insurance company as of the time of the financial statement. How insurance companies (their actuaries) determine the "actuarial reserve" varies from company to company.

Estimating Ultimate Claim Counts and Ultimate Claim Amounts by Accident Half-Year – General Approach

We estimate the final (ultimate) number of all claims and cost[3] of all claims that arise from events that occur in the first and second half of the year, separately, through to December 2015 (referred to as "accident half-years") and then use those estimates to measure and select loss trend rates.

We estimate the final/ultimate claim cost by accident half-year by performing our own estimate of the needed actuarial reserve for all insurance companies in aggregate (i.e., the Industry), and adding that amount to the reported incurred claim amounts that insurance companies report to GISA and which are published by GISA. In doing so we consider the Industry's reported claim amounts (the aggregate paid claim amounts and individual claim case reserves), but we do not consider the actuarial reserves established by each insurance company as they are not reported to GISA.

We estimate the Industry actuarial reserve by applying what are referred to as "loss development factors" to the reported incurred claim amounts. The selection of loss development factors that

[3] By "final" or "ultimate" cost we mean the amount paid by insurance companies at the time that all claims that occur in a particular year have been reported and settled.

we apply is based on an analysis that we perform to determine how accurate the individual claim case reserves established by insurance companies (in aggregate) have been historically. We refer to the historical accuracy of the individual claim case reserves as loss development patterns.

We select loss[4] development factors to estimate the actuarial reserve need, hence the final claim cost, for each accident half-year through December 2015 (we group claims by the accident half-year that the events that give rise to the claims occur), separately for each of the coverages.[5] 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 through December 2015, separately for each of the coverages.

Our selection of loss development factors and claim count development factors for each of the Basic coverages and Additional coverages is discussed in the next section.

[4] We use the terms "loss," "claim amount," and "claim cost" interchangeably in this report. In this report, all these terms include a provision for allocated loss adjustment expenses (ALAE).

[5] This actuarial technique is often referred to as the "Incurred Loss Development Method" or the "Reported Incurred Loss Development Method."

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Selection of Claim Count and Claim Amount Development Factors

The data we use to select loss development factors and claim count development factors is the 2015-2 AUTO7002 Industry Alberta accident half-year[6] reported incurred loss and allocated loss adjustment expense (ALAE) and claim count data.

Estimation of Industry Ultimate Claim Counts and Loss Amounts

The Industry Alberta experience upon which the loss trend rates are based must be adjusted to an ultimate claim count and loss amount level. We do so through the application of what are referred to as development factors to the reported claim counts and claim amounts as of December 31, 2015. We select development factors based on a review of the Industry Alberta loss development patterns; we do this by coverage[7]. Our selected development factors are generally based on: (a) the volume weighted average of the last four observed development factors for the half-years ending December for development period 6 months to 12 months if there is evidence of seasonality[8]; and (b) the volume weighted average of the last six observed development factors for the development periods beyond 12 months or beyond 6 months if no evidence of 6 to 12 month seasonality. The exceptions are as follows.

[6] Accident half-year refers to either the period January 1 through June 30, or July 1 through December 31 of the indicated year. We use the terms "accident half-year" and "semester" (i.e., first semester or second semester; or the June semester or December semester) interchangeably in this report. We also refer to accident half-years or semesters as XXXX-1 or XXXX-2, or XXXX.1 or XXXX.2 where "XXXX" refers to the indicated year.

[7] Our review of Third Party Liability is split between Bodily Injury and Property Damage.

[8] Evidence of seasonality was found to be present for Bodily Injury claim counts, Property Damage claim counts and amounts, Accident Benefits claim amounts, Collision claim amounts, Comprehensive claim counts, and All Perils claim amounts.

Coverage	**Count/Amount**	**Interval**	**Selected Factor**
Bodily Injury	Claim Count	6-12	Average of last three seasonal points
Bodily Injury	Claim Amount	6-ult.	4 point volume weighted average
Property Damage	Claim Count	36-ult.	1.00
Property Damage	Claim Amount	126-ult.	1.00
Accident Benefits	Claim Count	6-126; 126-ult.	10 point volume weighted average; 1.00
Accident Benefits	Claim Amount	12-126; 126-ult.	10 point volume weighted average; 1.00
Collision	Claim Count	42-ult.	1.00
Collision	Claim Amount	48-ult.	1.00
Comprehensive	Claim Count	18-ult.	1.00
Comprehensive	Claim Amount	36-ult.	1.00
All Perils	Claim Count	6-36; 36-ult.	10 point volume weighted average; 1.00
All Perils	Claim Amount	12-78; 78-ult.	10 point volume weighted average; 1.00
Specified Perils	Claim Count	6-24; 24-ult.	20 point volume weighted average; 1.00
Specified Perils	Claim Amount	6-24; 24-ult.	20 point volume weighted average; 1.00

As part of the analysis we perform we examine the claim count and claim amount development triangles for each of the top seven commercial automobile insurers in Alberta. During the course of our review we identified insurers that reported Bodily Injury claim counts or claim amounts over recent accident half-years that appeared to be inconsistent with their reported claim counts and claim amounts over prior accident half-years. We discussed the numbers with actuaries of each of the insurers, and learned the following.

- One insurer (which we will refer to as Insurer A) experienced a rather significant delay in claim reporting/recording that affected accident half-year 2015-2, with a "catch-up" occurring during the first five months of 2016.

- One insurer (which we will refer to as Insurer B) changed the way it recorded (and reported to GISA) its Bodily Injury claims – essentially not reporting claims for which it was believed that no loss (indemnity or ALAE) amounts would be paid. This change began during the first half of 2015.

- Another insurer for which its 2015-2 Bodily Injury reported claim counts were significantly lower than its 2014-2 Bodily Injury claim counts said that it had not changed it claim reporting practices. We, therefore, made no adjustments for this insurer.

As respects insurers A and B, without any adjustments to recognize the reported changes, the claim count and claim amount development factors that we select, and hence the ultimate claim counts (frequency) and claim amounts (severity) that we select, would not be appropriate for the accident half-years affected by the changes. Following discussions with the respective actuaries for each these two insurers, we decided on the following approach.

Claim Counts

- For accident years through 2014, we made no changes to our standard way of selecting development factors and ultimate claim counts as described in this report.

- For accident half-year 2015-1, we adjusted the Industry claim count triangle to remove Insurer B. We then selected claim count development factors and ultimate claim counts for this semester based on the Industry data excluding Insurer B, added in the ultimate claim counts we selected for Insurer B[9], combined the estimates of ultimate claim counts, and then backed into claim count development factor for this semester.

- For accident half-year 2015-2, we adjusted the Industry claim count triangle to remove Insurer A and Insurer B. We then selected claim count development factors and ultimate claim counts for this semester based on the Industry data excluding Insurer A and Insurer B, added in the ultimate claim counts we selected for Insurer A and Insurer B based on claim count development information through May 2016 provided by Insurer A's actuaries and information provided by Insurer B's actuaries[10], combined the estimates of ultimate claim counts, and then backed into claim count development factor for this semester.

Claim Amounts

- For accident years through 2014, we made no changes to our standard way of selecting development factors and ultimate claim amounts as described in this report.

- For accident half-year 2015-1, we adjusted the Industry claim amount triangle to remove Insurer B. We then selected claim amount development factors and ultimate claim

[9] Insurer B's actuaries were unable to provide us with an estimate of the number of claims that would have been reported had no changes been made to claim reporting/recording practices. We, therefore, assumed that Insurer B would have experienced the same change in claim frequency from 2014-1 to 2015-1 as the rest of the Industry.

[10] Insurer B's actuaries were unable to provide us with an estimate of the number of claims that would have been reported had no changes been made to claim reporting/recording practices. We, therefore, assumed that Insurer B would have experienced the same change in claim frequency from 2014-2 to 2015-2 as the rest of the Industry (excluding Insurer A).

amounts for this semester based on the Industry data excluding Insurer B, added in the ultimate claim amounts we selected for Insurer B[11], combined the estimates of ultimate claim amounts, and then backed into the claim amount development factor for this semester.

- For accident half-year 2015-2, we adjusted the Industry claim amount triangle to remove Insurer A and Insurer B. We then selected claim amount development factors and ultimate claim amounts for this semester based on the Industry data excluding Insurer A and Insurer B, added in the ultimate claim amounts we selected for Insurer A and Insurer B based on claim amount development information through May 2016 provided by Insurer A's actuaries and information provided by Insurer B's actuaries[12], combined the estimates of ultimate claim amounts, and then backed into the claim amount development factor for this semester.

The resulting claim count and claim amount development factors are as follows:

Claim Count

6-12:	1.259
12-18:	0.972
6-Ult.:	1.074
12-Ult.:	0.853

[11] Insurer B's actuaries were unable to provide us with an estimate of the dollars of losses that would have been reported had no changes been made to claim reporting/recording practices. We, therefore, assumed that Insurer B would have experienced the same change in claim severity from 2014-1 to 2015-1 as the rest of the Industry.

[12] Insurer B's actuaries were unable to provide us with an estimate of the dollars of losses that would have been reported had no changes been made to claim reporting/recording practices. We, therefore, assumed that Insurer B would have experienced the same change in claim severity from 2014-2 to 2015-2 as the rest of the Industry (excluding Insurer A).

Claim Amount

6-12:	1.315
12-18:	1.151
6-Ult.:	2.655
12-Ult.:	2.019

Exhibit 2, Page 1 and Exhibit 2, Page 2, attached, present our selected cumulative claim amount and claim count development factors, respectively.

We note that as a result of these selected development factors and the actual experience that has emerged, our estimated ultimate claim counts and amounts have changed from our last study, and these changes contribute to the changes in our selected trend rates.

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Selection of Loss Trend Rates

Introduction

Loss trend rates are factors that are used to determine rate level indications. They are applied to the experience period incurred losses to adjust for the cost levels that are anticipated during the policy period covered under the proposed rate program.

The application of trend rates is, essentially, a two-step process. The data in the experience period under consideration is adjusted to reflect changes in cost conditions that have taken place (i.e., "past trend"), and then the data is further adjusted to reflect future changes in cost conditions that are expected to occur during the period the new premiums will be in effect (i.e., "future trend").

Therefore, past trend rates should reflect the underlying trend patterns that occurred during the experience period. Future trend rates should reflect those same patterns that occurred during the experience period, as well as the likelihood that those patterns may change.

To derive estimates of appropriate loss trend rates, we performed a regression analysis using a model we developed, on our estimates of the Industry Alberta ultimate claim frequency, claim severity and loss cost[13] by accident half-year that we derived through the application of loss development factors and claim count development factors that we select (as we discuss in Section 4).

We performed our regression analysis by coverage. In doing so, we reflect parameters that could have an impact on the trends, such as time and seasonality.

[13] Our severity and loss cost estimates include allocated loss adjustment expenses and a provision for the unallocated loss adjustment expenses.

The identification of the underlying trend patterns over the experience period is challenging because factors such as statistical fluctuation in the data points, changes in the underlying exposure, or abnormal weather conditions, etc., can make the underlying trend patterns difficult to discern. For this reason, we modeled the data several different ways in an attempt to identify the underlying trends during the experience period: with and without certain data points to improve our understanding of the sensitivity of the calculated loss trend rates to the inclusion or exclusion of those points, and over time periods that are longer than the experience period as a means of increasing the stability/reliability of the data being analyzed. In selecting future trend rates, if appropriate, we adjusted our selected past trend rates after giving consideration to the changes that have occurred over the recent past if there is evidence of new patterns emerging.

Selection of Loss Trend Rates[14]

Time Period

We present the experience by accident half-year, spanning the period 2001-1 to 2015-2, but in selecting past trend rates we give greater consideration to the experience over the more recent time periods.

Seasonality

Some coverages exhibit what is referred to as "seasonality" – where claim costs (number of claims or claim amounts) incurred during the first half of a year are generally higher/lower than claim costs incurred during the second half of a year. In the coverage-by-coverage discussion that follows, we state whether or not seasonality is applied.

[14] The past frequency rates, severities, and loss costs discussed in this section, including those presented in the graphs, represent our estimates of what the frequency rates, severities, and loss costs have been. Our estimates are based on our ultimate claim count and claim amount estimates discussed in the previous section; and include the allocated loss adjustment expenses and a provision for the unallocated loss adjustment expenses. Other actuaries may very well have different ultimate claim count and claim amount estimates, and hence different estimates of past frequency rates, severities, and loss costs.

Weather

As we discussed in our 2016 Annual Review Report on Private Passenger Vehicles, we were advised of relatively mild weather (low snow precipitation) during the second half of 2015 and that this may have contributed to a decline in frequency during that period – particularly for Property Damage and Collision. And as we did for Private Passenger Vehicles, we did not explicitly reflect snow precipitation in the measurement of trends; however, we examined trends with and without the inclusion of the 2015-2 accident half-year and generally gave greater consideration to the measured trends excluding the 2015-2 accident half-year.[15]

Reforms

The purpose of a reform parameter is to isolate and, in a sense, remove the impact that reforms had on the level of claim costs so that the underlying claim cost trend can be identified. We did not apply any reform parameters in our analyses.

Other Considerations

In selecting loss trend rates, we also consider:

- statistical significance of each parameter
- variance in results based on different historical time periods selected
- relationship between frequency and severity trend patterns
- uncertainty in the estimated values

[15] We suggest that insurers should consider the effect that weather conditions may have had on their 2015-2 claim experience in determining their rate level needs.

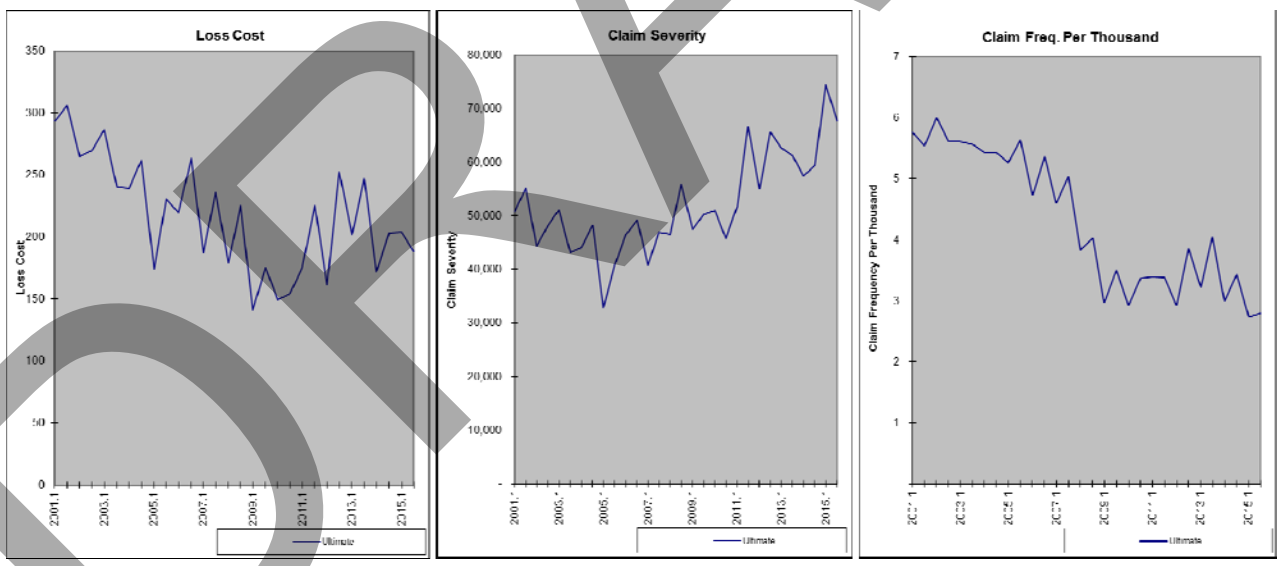
Our Selected Past Trend Rates

Bodily Injury

Based on data as of December 31, 2014, we selected a past loss cost trend rate of +4.0%.

We estimate that during 2015, as compared to 2014, claim frequency decreased by 14%, severity increased by 21%, and loss cost increased by 4%.[16] As discussed earlier, the rather large decline in frequency may be, in part, attributed to weather conditions.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2.



The historical data points (as depicted in the above graphs) indicate a considerable amount of variability. Severity has generally exhibited an upward trend including a sharp increase in 2015.

[16] These estimates reflect the aforementioned adjustments for Insurer A and Insurer B.

The severity increase in 2015-1 (+30%) is largely attributed to one insurer, and this may be due to one or two very large claims; the severity increase in 2015-2 may be related to the noted weather conditions (fewer smaller claims than usual). Frequency has exhibited a downward trend until 2009 when it began to flatten and moderately increase until 2015 when it declined rather significantly, which we believe is at least in part due to the favorable weather conditions in 2015-2. Loss cost has risen since 2009, but the upward movement has varied from year-to-year.

The measured loss cost, severity, and frequency trends, associated Adjusted R-square values, p-values, and confidence intervals over various trend measurement periods, with seasonality for loss cost and frequency are presented in Exhibit 3.

The measured severity trends over the periods beginning 2005 through 2010 and ending either 2015-2, 2015-1, or 2014-2[17] generally fall within the range of +4% to +6%[18] with moderate Adjusted R-square values and for the most part significant p-values [19]. We select a severity trend of +5.0% based on the measured trend over the period 2009-1 through 2014-2.[20]

The measured frequency trends over the periods beginning 2005 through 2010 and ending either 2015-1 or 2014-2[21] are negative; however, the frequency trend flattens as the starting point is advanced to where it is about 0% beginning in 2009. This is consistent with our earlier observation that the frequency trend began to flatten in 2009. We also note that the measured frequency trends beginning 2009-1 and 2009-2 have non-significant p-values and wide confidence intervals. We select a frequency trend of 0.0%.

[17] In consideration of the added uncertainty of the 2015 estimates due to the adjustments discussed earlier and the sharp decline in frequency in 2015-2 that could very well have affected severity.

[18] The higher trends are over the more recent periods where the impact of the relatively high severities in 2015-1and 2015-2 is greatest.

[19] For this study we consider a p-value of 5% or less to be significant.

[20] The measured severity trend is also+5% over the period 2009-1 to 2015-2, excluding 2015-1.

[21] In consideration of the added uncertainty of the 2015-2 estimate due to the adjustments discussed earlier and the sharp decline in frequency in 2015-2.

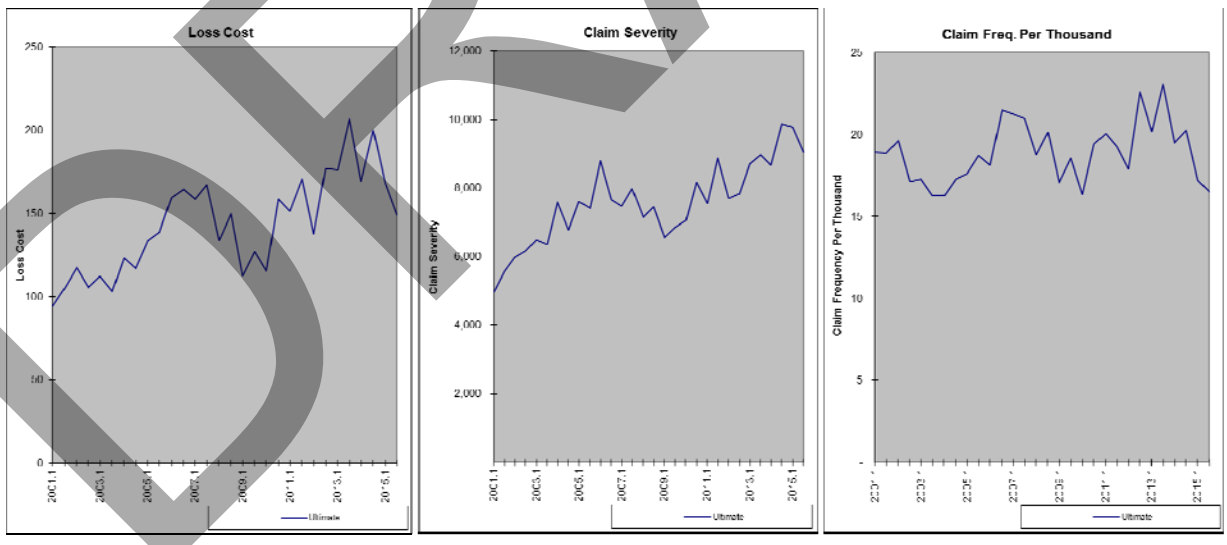
We, therefore, select a past and future loss cost trend rate of +5.0% - one percentage point higher than our prior selection.

Property Damage

Based on data as of December 31, 2014, we selected a past loss cost trend rate of +5.5%.

We estimate that during 2015, as compared to 2014, claim frequency decreased by 15.2%, severity increased by 1.2%, and loss cost decreased by 14.2%. Most of the decline occurred during the second half of 2015 (an 18% decline), and as discussed earlier, this large decline in frequency may be, in part, attributed to weather conditions; however, there was also a rather large (12%) decline during the first half of 2015.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2.



The historical data points (as depicted in the above graphs) indicate a considerable amount of variability – particularly for frequency - with severity generally exhibiting an upward trend (including a decline from 2007 to 2009) and frequency exhibiting more of a flat trend with the noted sharp decline in 2015.

The measured loss cost, severity, and frequency trends, associated Adjusted R-square values, p-values, and confidence intervals over various trend measurement periods, with seasonality for loss cost and frequency are presented in Exhibit 3.

The measured severity trends over the periods beginning 2001 through 2006 and ending 2015-2 and 2015-1 fall within the range of approximately +2.0% to +3.0%, with generally moderate Adjusted R-square values and significant p-values. However, due to noted decline in severity that began in 2007 followed by the noted increase in severity that began in 2010, the measured severity trends over the periods beginning 2009 tend to be more in the +5% to +5.5% range with higher Adjusted R-square values and significant p-values. We select a severity trend of +5.5% based largely on the post 2009 measured trends.

The measured frequency trends over the time periods beginning 2001 through 2007 and ending 2015-1 (to exclude the sharp drop in frequency that occurred in 2015-2) are generally around +1%, but with very low Adjusted R-square values, non-significant p-values except over the longer time periods, and wide confidence intervals. Given the weak regression statistics (due to the variation in the frequency data points) we select a frequency trend of +0.0%.

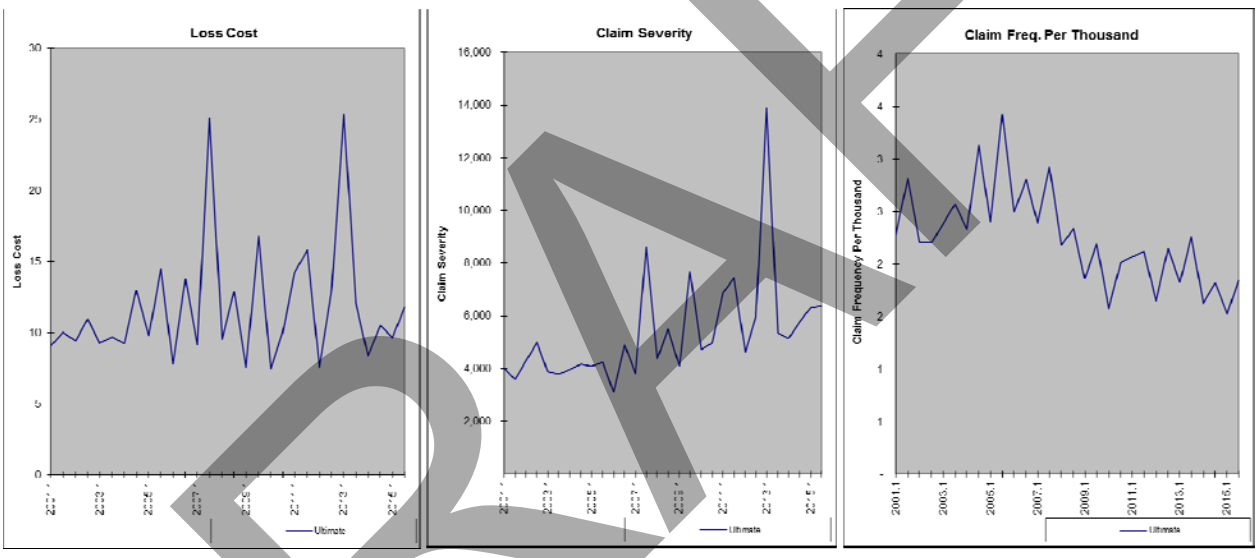
We, therefore, select a past and future loss cost trend rate of +5.5% (rounded) – the same as our prior selection.

Accident Benefits

Based on data as of December 31, 2014, we selected a past loss cost trend rate of +5.0%.

We estimate that during 2015, as compared to 2014, claim frequency decreased by 2.2%, severity increased by 15.8%, and loss cost increased by 13.3%.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2.



The historical data points (as depicted in the above graphs) indicate a considerable amount of variability, with severity generally exhibiting an upward trend with relatively high data points in 2007-2 and 2013-1, frequency exhibiting a downward trend, and loss cost exhibiting a somewhat flat trend, also with relatively high 2007-2 and 2013-1 data points.

The measured loss cost, severity, and frequency trends, associated Adjusted R-square values, p-values, and confidence intervals over various trend measurement periods, excluding 2007-2 and 2013-1, with seasonality are presented in Exhibit 3.

The measured severity trends over the periods beginning 2001 through 2006 and ending 2015-2 and 2015-1 generally fall within the range of approximately +3.0% to +4.5%, with moderate

Adjusted R-square values and significant p-values. The severity trends are flatter over the periods beginning 2007, but have weak regression statistics.

The measured frequency trends over the time periods beginning 2001 through 2006 and ending 2015-2 and 2015-1 generally fall within the range of approximately -3.5% to -5.0%, with moderately high Adjusted R-square values and significant p-values. The frequency trends are somewhat flatter (less negative) over the periods beginning 2007, but with weaker regression statistics.

The measured loss cost trend over the period 2001-1 to 2015-2 is +0.3%, with an Adjusted R-square value of 44% and a non-significant p-value. The measured trends over other time periods ending 2015-2 generally fall within the range of 0% to -1.5%, but all with weak regression statistics.

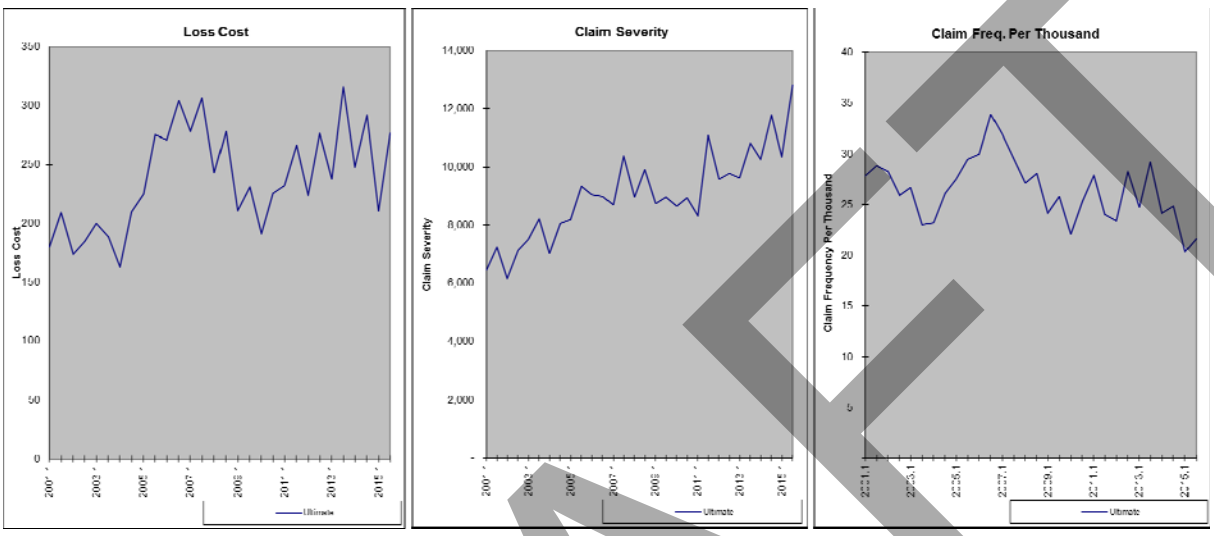
We select a past loss cost trend rate of +0.0%, five percentage points lower than our prior selected trend. The lower trend rate is largely due to the reflection of a declining (as opposed to flat) frequency rate.

Collision

Based on data as of December 31, 2014, we selected a past loss cost trend rate of +4.5%.

We estimate that during 2015, as compared to 2014, claim frequency decreased by 14.5%, severity increased by 5.2%, and loss cost decreased by 10%. As discussed earlier, the rather large decline in frequency may be, in part, attributed to weather conditions; however, there was also a rather large (but not unprecedented) decline in frequency (-15.9%) in 2015-1.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2.



The historical data points (as depicted in the above graphs) indicate a considerable amount of variability. Severity has exhibited an upward trend, including a flat to declining trend from 2008 to 2010. Frequency has exhibited a somewhat flat trend – particularly beginning in 2009 - but with a sharp decrease in 2015 (the largest one year decline), and loss cost exhibiting an increasing trend – particularly beginning 2009, which coincides with the flattening of the frequency trend - although a decline in 2015.

The measured loss cost, severity, and frequency trends, associated Adjusted R-square values, p-values, and confidence intervals over various trend measurement periods, with seasonality for loss cost and severity are presented in Exhibit 3.

The measured severity trends over the periods beginning 2001 through 2007 and ending 2015-2 and 2015-1 generally fall within the range of +2.0% to +3.5%, with moderate Adjusted R-square values and significant p-values. However, due to the decline in severity that began in 2008 and the increase in severity that began in 2011, the measured severity trends over the periods beginning in 2009 are more in the range of +5% with moderately high Adjusted R-square values and significant p-values. The measured trends over the periods beginning 2011 and 2012 and

ending 2015-2 and 2015-1 are in the range of approximately +3% to +7.5% - a reflection of the inherent variability. Based on these more recent measured trends, and considering their variability, we select a severity trend of +5.0%.

The measured frequency trends over the time periods beginning 2001 through 2011 and ending 2015-1 (to exclude the sharp drop in frequency that occurred in 2015-2) generally fall in the range of -1% to -3%, but with very low Adjusted R-square values and, except for the periods beginning 2004-2006, non-significant p-values. Given the weak regression statistics (due to the variation in the frequency data points) we select a frequency trend of +0.0%.

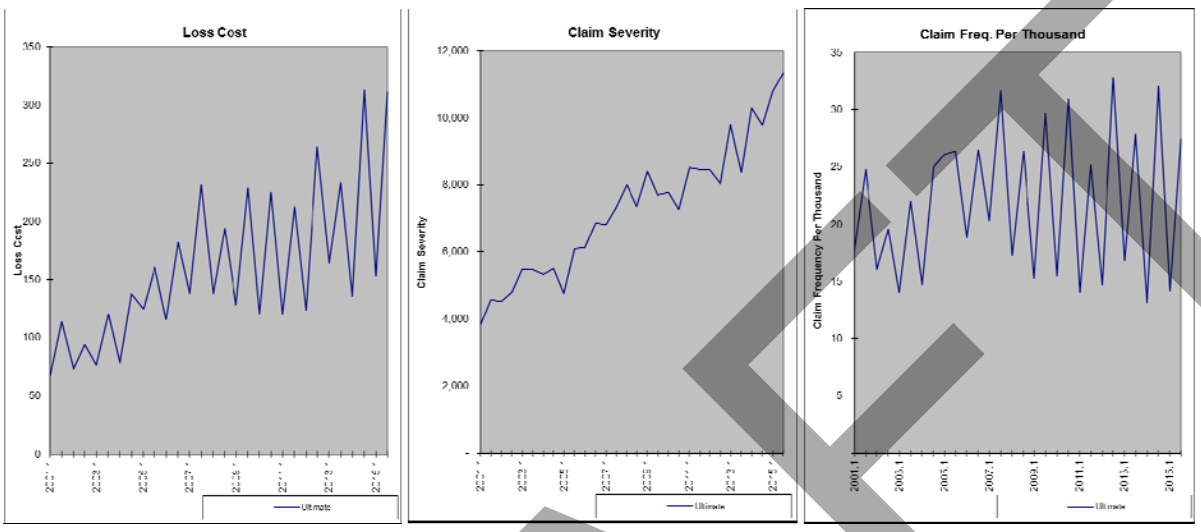
We, therefore, select a past and future loss cost trend rate of +5.0% (rounded) – one-half point higher than our prior selection.

Comprehensive

Based on data as of December 31, 2014, we selected a past loss cost trend rate of +5.0% (with no consideration given to catastrophe related losses).

We estimate that during 2015, as compared to 2014, claim frequency decreased by 8.9%, severity increased by 12.4%, and loss cost increased by 2.4%. As discussed earlier, the rather large decline in frequency may be, in part, attributed to weather conditions.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2.



The historical data points (as depicted in the above graphs) indicate a considerable amount of variability, with severity generally exhibiting an upward trend, frequency exhibiting a somewhat flat trend but with a sharp, but not unprecedented, decrease in 2015-2, and loss cost exhibiting an increasing trend.

This high degree of variability (particularly for frequency) is largely due to the exposure to catastrophes. (See discussion of catastrophe losses later in this report.) For this reason, we remove catastrophe losses from the historical experience for purposes of analyzing and selecting trend rates for this coverage. Since the GISA 2015 Automobile Catastrophe Report has not yet been released for now we rely on information in the GISA 2014 Automobile Catastrophe Report to remove catastrophe losses. [22]

[22] The source of the reported catastrophe losses for commercial vehicles is the data file supporting the 2014 Automobile Catastrophe Report. We assume that catastrophe and non-catastrophe claim counts and claim amounts develop similarly.

The measured loss cost, severity, and frequency trends, associated Adjusted R-square values, p-values, and confidence intervals over various trend measurement periods, with seasonality for loss cost and frequency, including and excluding losses attributed to catastrophes are presented in Exhibit 3.

Excluding losses attributed to catastrophes, the measured severity trends over the periods beginning 2002 through 2009 and ending 2014-2 generally fall within the range of +5% and +6% with moderate to high Adjusted R-square values and significant p-values. However, these trends, as well as the higher trends beginning 2010 are quite affected by the unprecedented 31% increase in severity in 2014-2 over 2013-2[23]. The measured trends through 2014-1 are about half to one and one-half points lower. Prior to consideration of the increase in theft losses in 2015 (discussed below), we select a severity trend of +4.5% based on the measured trends beginning 2009 and 2010 through 2014-1.

The measured frequency trends over the time periods beginning 2005 through 2010 and ending 2014-2 are around -3.5%, with moderately high Adjusted R-square values and significant p-values. However, these trends are also affected by the 2014-2 semester in which frequency declined by 23% over 2013-2. The measured frequency trends through 2014-1 are about half to one and one-half points higher. Prior to the consideration of the increase in theft losses in 2015 (discussed below), we select a frequency trend of -2.5%

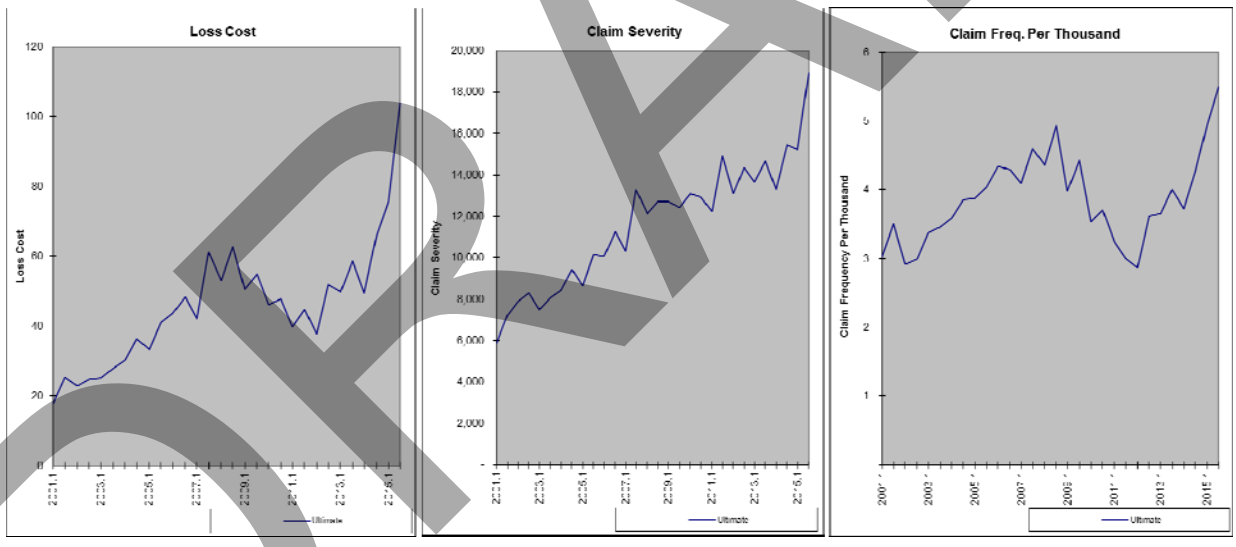
The selected +4.5% severity trend and -2.5% frequency trend approximately equate to a +2.0% loss cost trend. However, there has been a noticeable movement to higher deductibles (e.g., from a $250 deductible to a $500 deductible) which we estimate dampens the measured loss cost trend by about one-half percentage point. Therefore, prior to the consideration of the increase in theft losses in 2015 (discussed below), we select a loss cost trend of +2.5%.

[23] Although our tests do not show seasonality to be significant for severity, it is nonetheless a significant semester over semester increase.

Comprehensive - Theft

As is the case for private passenger automobiles[24] theft losses rose sharply in 2015. We estimate that during 2015 theft claim frequency increased by 30%, severity increased by 19%, and loss cost increased by 55%. These results are very similar to those observed for private passenger vehicles.

The following graphs display our estimate of the actual loss cost (average claim cost per vehicle), average severity (average claim cost per claim), and frequency rate (average claim incidence rate) over the period 2001-1 through 2015-2 for Comprehensive-Theft.



Prior to 2015, theft losses represented approximately 40% of the Comprehensive non-catastrophic losses, so an increase in theft losses has a material effect on the total Comprehensive loss experience and trend.

[24] As discussed in our reported dated June 27, 2016.

Pending feedback we receive on how to best address the increase in private passenger automobile theft experience, and the receipt of the GISA 2015 Catastrophe Report, we select a past and future loss cost trend rate of +2.5%.

Specified Perils

Due to insufficient data, we select the same past loss cost trend rate we select for Comprehensive, +2.5**%.**

All Perils

Due to insufficient data, we select a past loss cost trend rate that is in line with our selected rates for Collision and Comprehensive, +4.0%.

Underinsured Motorist

Due to insufficient data, we select the same past loss cost trend rate we select for Bodily Injury-severity, +5.0%

Selected Trend Rates - Summary

The following table presents our selected past and future loss cost trend rates based on industry data through to December 31, 2015.[25]

Coverage	Past Loss Cost	Future Loss Cost
Bodily Injury	+5.0%	+5.0%
Property Damage	+5.5%	+5.5%
TPL - Subtotal	+5.25%	+5.25%
Accident Benefits	+0.0%	+0.0%
Collision	+5.0%	+5.0%
Comprehensive	+2.5%	+2.5%
Specified Perils	+2.5%	+2.5%
All Perils	+4.0%	+4.0%
Underinsured Motorist	+5.0%	+5.0%

Exhibit 1, Pages 1 through 7 attached present the claim count and claim amount estimates that serve as the basis for our trend rate analysis by coverage.

[25] The selected Comprehensive and Specified Perils trends are based on the exclusion of catastrophe losses as of December 31, 2014.

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Loss Adjustment Expenses

In determining their rate level needs, insurers should include provisions in their claim costs for allocated loss adjustment expenses (such as the legal expenses associated with claim settlement) and for unallocated loss adjustment expenses (the claim and settlement related expense that cannot be associated directly with individual claims) that are based on their experience.

For the analysis we perform of loss development factors, allocated loss adjustment expenses are included with the reported Industry loss data. For the analysis we perform of trends, we provide for unallocated loss adjustment expenses (ULAE) through the application of factors that are published and applied by GISA in the AIX reports to the accident year experience.

As points of reference for the Board as it reviews individual insurer rate filings, we provide the Board with the Industry average ULAE expense provisions published by GISA that are applied to the loss and allocated loss adjustment estimates.

ULAE Provision - Total Auto
Province of Alberta

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ULAE	9.7%	8.7%	8.9%	8.4%	10.5%	10.2%	9.5%	9.1%	9.9%	9.3%	10.3%

We include these provisions in our analysis.

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Catastrophe Provision

Comprehensive coverage (in particular) claim costs are affected by the occurrence (or non-occurrence) of catastrophes. GISA defines catastrophes as "weather-related events such as windstorms, hail, and flooding that caused multiple losses to the insurance industry." Since catastrophic losses cannot be predicted, in determining rate level indications insurers should remove actual Comprehensive coverage claim costs attributed to catastrophes that occurred in the experience period and include a provision for the amount of catastrophe losses that would be expected on average in any given year.

The table below provides information on the catastrophe losses that have occurred in Alberta over the years 2002 – 2014 for commercial vehicle Comprehensive coverage as reported in GISA's 2014 Catastrophe Report for Alberta. The table shows, among other things, the relationship (presented as factors) between the dollars of catastrophic losses to non-catastrophic losses. For example, over the last ten years approximately $65 million of catastrophic losses have been reported as compared to approximately $310 million of non-catastrophic losses – a ratio of about 20%. Over the last five years approximately $45 million of catastrophic losses have been reported as compared to approximately $170 million of non-catastrophic losses – a ratio of about 25%.

Pending the release of GISA's 2015 Catastrophe Report, we select a catastrophe factor of 1.25.

COMMERCIAL VEHICLES - COMPREHENSIVE COVERAGE									
Accident Year	Reported Total Incurred Losses ($ 000'S)	Reported Total # Claims	Reported Catastrophe Losses ($ 000'S)	Reported Catastrophe # Claims	Reported Ex Catastrophe Losses ($ 000'S)	Reported Ex Catastrophe # Claims		Catastrophe Claim %	Indicated Catastrophe Factor
2002	13,156	3,062	408	113	12,748	2,949		3.7%	1.03
2003	15,682	3,128	1,435	347	14,247	2,781		11.1%	1.10
2004	17,456	3,531	773	214	16,683	3,317		6.1%	1.05
2005	23,897	4,816	3,525	1,070	20,372	3,746		22.2%	1.17
2006	26,997	4,462	1,457	367	25,540	4,095		8.2%	1.06
2007	37,474	5,721	6,647	1,203	30,827	4,518		21.0%	1.22
2008	35,867	5,111	2,901	603	32,966	4,508		11.8%	1.09
2009	37,607	5,233	6,833	993	30,774	4,240		19.0%	1.22
2010	35,906	5,318	5,345	1,135	30,561	4,183		21.3%	1.17
2011	34,930	4,511	5,698	879	29,232	3,632		19.5%	1.19
2012	42,240	5,645	10,363	1,718	31,877	3,927		30.4%	1.33
2013	44,882	5,542	8,301	1,130	36,581	4,412		20.4%	1.23
2014	54,687	5,931	14,872	2,142	39,815	3,789		36.1%	1.37
Totals									
All Year	420,781	62,011	68,558	11,914	352,223	50,097		19.2%	1.19
Last 10	374,486	52,290	65,942	11,240	308,544	41,050		21.5%	1.21
Last 5	212,644	26,947	44,579	7,004	168,065	19,943		26.0%	1.27
All Year ex H/L	352,938	53,018	53,278	9,659	299,660	43,359		18.2%	1.18
Last 10 ex H/L	292,802	41,897	49,613	8,731	243,189	33,166		20.8%	1.20
Last 5 ex H/L	122,052	15,698	24,362	3,727	97,690	11,971		23.7%	1.25
Selected									**1.25**

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Investment Income on Cash Flow

The selected provision for claim cost should be adjusted (reduced) to reflect the investment income earned on the cash flows arising from the insurance operations (i.e., the premium collected before it is used to pay claim costs and other expenses). It has been the Board's position that the selected investment rate can be a risk-free rate based on Government of Canada bond yields.

We recommend the same 0.65% investment rate that we recommend for private passenger vehicles serve as the benchmark for commercial vehicles.[26]

[26] While the payout pattern is somewhat different for commercial vehicles, due to the narrow spread in investment rates the impact is not material.

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Health Cost Recovery

The Ministry of Health and Wellness has not yet announced the 2017 Health Cost Recovery assessment factor (percentage). The 2016 assessment factor (percentage) is 5.90% (of TPL written premium), and we recommend this continue to serve as the Board benchmark until the 2017 assessment is announced.

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Operating Expenses

In determining their rate level needs, insurers should include a provision for operating expenses that is based on their experience and expected future expense costs. To put the expense provisions of individual insurers in some perspective, we provide the Board with the Industry average expense provisions.

We recommend the same 25.4% operating expense provision that we recommend for private passenger vehicles serve as the benchmark for commercial vehicles.

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Profit

The Board's current position is to allow a profit provision of 7% of premium.

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Definition of Key Terms

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

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 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)
There are two parts to this Basic Coverage:

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.

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

Accident Benefits (AB)
This Basic 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 Additional 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 Additional Coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a collision.

Comprehensive

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

All Perils

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

Specified Perils

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

Other Terms

Accident Year

Accident year is the year in which an incident that gives rise to a claim occurred, regardless of when the claim is actually reported to an insurance company. For example, a claim reported on January 15, 2015 for injuries suffered in an automobile accident that occurred on December 15, 2014, is considered to be an accident year 2014 claim.

Allocated Loss Adjustment Expense (ALAE)

ALAE is the claim and settlement expense that can be associated directly with individual claims (e.g., legal expenses). (See ULAE)

Base Rate and Rate Differentials

Insurers generally determine the premium for a particular insured by multiplying a base rate by a series of rate differentials (or rate factors, or rate relativities) that reflect the particular characteristics of the insured. The terms rate differentials, rate factors and rate relativities are used interchangeably. Typically, there is one base rate for each combination of coverage and rating territory. For example, assume a base rate for the TPL coverage of $200 in Territory #1 and a base rate for the TPL coverage of $300 in Territory #2. Also assume the rate differential for a married male driver, age 40, is 1.25. The TPL premium for this driver would be $250 in Territory #1 ($200 times 1.25) and $375 in Territory #2 ($300 times 1.25).

Case Reserve

The Case Reserve is the provision established by insurance companies for the payment of future losses and claim related expenses associated with a particular claim.

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 2015 and 5 TPL claims occurred during 2015, the company's TPL claim frequency for 2015 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 reported claims for a particular accident year over time. (See Loss Development)

CLEAR

CLEAR refers to Canadian Loss Experience Automobile Rating, a system of categorizing Private Passenger vehicles, by make and model-year, for physical damage coverage rating purposes. CLEAR was developed by the Vehicle Information Centre of Canada (VICC), a part of the Insurance Bureau of Canada. CLEAR considers such elements as the reparability and damageability of the make and model-year. (See MSRP)

Combined Ratio

Combined Ratio is a common measure of premium adequacy. This is the sum of the loss ratio plus the expense ratio (operating expenses divided by written premium). A combined ratio in excess of 100 percent is an indication of premium inadequacy, before consideration of profit and investment income.

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 commercial 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 Cost (Pure Premium)

Loss Cost is the average incurred loss and ALAE per insured vehicle. The loss 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 loss cost of $1,000.

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, i.e., 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, can not fully and accurately reflect the amount the claim will ultimately settle at. This pattern of under-reserving and over-reserving is common within the insurance Industry (although the degree to which reported incurred losses and ALAE are under-reserved or over-reserved varies by company, jurisdiction, line of business, etc.). We further note that, 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 (i.e., 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. But the ultimate incurred losses and ALAE may also include provisions for ULAE and the Health Cost Recovery assessment. A loss ratio that exceeds a company's break-even loss ratio (100 percent less budgeted expenses) would suggest premium inadequacy.

Loss Reserving Methods: Incurred Loss Development Method and Paid Loss Development Method

Loss reserving methods are often based on historical data grouped into a triangle format. A common approach is to have the rows represent the accident years, and the columns representing the value of the loss at specific dates, such as 12 months, 24 months, 36 months etc., from the beginning of the accident year. The historical changes in the loss data from period to period is reviewed to estimate a pattern to predict how current accident years losses will change over time as claims are settled and closed. The Incurred Loss Development Method refers to the triangle method of analysis, based on reported incurred losses. The Paid Loss Development Method refers to the triangle method of analysis, based on paid losses.

MSRP

MSRP refers to the Manufacturer's Suggested Retail Price, and is a system of categorizing Private Passenger vehicles, by make and model-year, for rating purposes for physical damage coverages, according to the original price of the vehicle. (See CLEAR)

Operating Expenses

Insurance company expenses, other than ALAE and ULAE, are typically categorized as Commissions, Other Acquisition, General, Taxes, Licenses, and Fees.

Paid Losses

The total aggregate dollar amount of losses paid on all reported claims as of a certain date.

Premium Drift

Premium Drift is a more general term, and refers to the changes in the amount of premium collected by insurance companies that are attributed to the purchase of newer and more expensive cars (i.e., rate group drift) as well as to changes in the amount of insurance coverage that is purchased (e.g., the purchase of higher limits of liability coverage would increase the amount of premium collected by insurance companies, while the purchase of higher physical damage deductibles would reduce the amount of premium collected by insurance companies). (See Rate Group Drift)

Rate Group Drift

Rate Group Drift refers to the amount of additional premium collected by insurance companies that is attributed to the purchase of newer and more expensive cars by insureds. The premiums charged by insurance companies are higher for newer and more expensive cars. Therefore, as insureds purchase newer and more expensive cars, the amount of premium collected by insurance companies increases. (See Premium Drift)

Ratemaking Methods: Pure Premium Method and Loss Ratio Method

The Pure Premium Method of ratemaking develops indicated rates that are expected to provide for the expected losses and expenses, and provide for the expected profit. The Loss Ratio Method of ratemaking develops indicated rate changes rather than indicated rates.

Rating Territory

Automobile premiums vary by the principal garaging location of the vehicle. Based on Insurance Bureau of Canada's automobile statistical plan, Alberta is currently divided into three areas, or rating territories, of principal garaging location; and, therefore, has three separate sets of rates depending upon which of the three territories the vehicle is principally garaged. (see Statistical Territory)

Reported Incurred Loss

The sum of:

(a) the total aggregate dollar amount of losses paid on all reported claims as of a certain date (referred to as the valuation date), and

(b) the total aggregate dollar amount of losses set in reserve by the claim adjusters on each open claim (referred to as "case reserves") as of a certain date (the same evaluation date as for the paid loss amounts).

For example, if two claims were filed against an insurance company, one that settled for $50,000 and the other that was open with a paid amount of $25,000 and a "case reserve" (i.e., the claim adjuster's estimate of the dollars still to be paid on the claim) of $30,000, then the total reported incurred loss on the two claims would be $105,000 (the sum of $50,000, plus $25,000, plus $30,000).

Reserve

A Reserve is the aggregate provision identified by an insurance company for the payment of future losses and claim related expenses associated with claims that have been incurred.

Surplus

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

Statistical Territory

Automobile premiums vary by the principal garaging location of the vehicle. Alberta is divided into four statistical territories, of principal garaging location. Specific statistical territories are grouped together to represent a specific rating territory. In some cases there is one statistical

territory in a rating territory, in other cases the rating territory is comprised of two or more statistical territories. (See Rating Territory.)

Total Return on Equity

Total Return on Equity (ROE) refers to an insurer's profit as a percentage of its surplus, where profit is the sum of (a) underwriting profit, and (b) investment income earned on both the underwriting operations of the company and on the surplus carried by the company.

Unallocated Loss Adjustment Expense (ULAE)

ULAE is the claim and settlement related expense that cannot be associated directly with individual claims (e.g., claim adjuster salaries). (See ALAE)

Underwriting Profit

Underwriting Profit is defined as earned premium, less reported incurred losses and ALAE, less ULAE, less operational expenses.

Underwriting Profit Margin

Underwriting Profit Margin is the provision that is included in the insurance premium for underwriting profit to be earned by the company.

Ultimate Incurred Loss

An estimate of the total amount of loss dollars that will ultimately be paid to settle all claims that occur during a particular accident year.

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 measured over a one-year period.

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Closing

This report was prepared by Paula Elliott, FCAS, FCIA and Ted Zubulake, FCAS, FCIA, MAAA of Oliver Wyman.

We are available to answer any questions the Board may have on our report.

Sincerely,

Paula Elliott, FCIA, FCAS
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Ted J. Zubulake, FCIA, FCAS
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Appendix

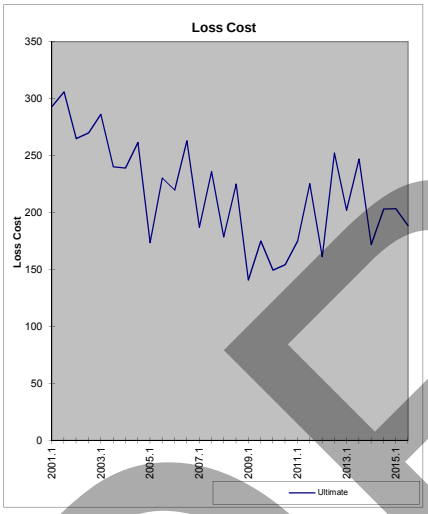
Exhibit 1: Exposures, estimated claim counts, estimated claim amounts, and corresponding loss cost, severity, frequency estimates by accident half-year.

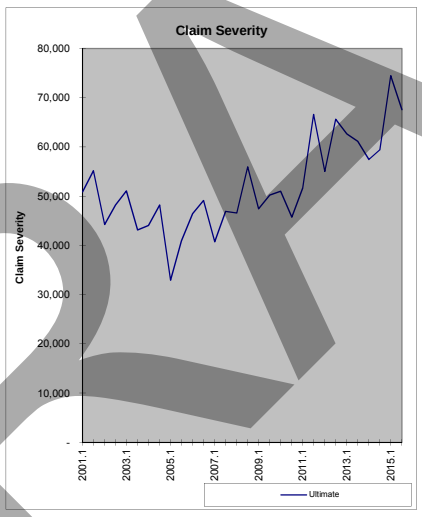
Exhibit 2: Selected age-to-ultimate claim count and claim amount development factors.

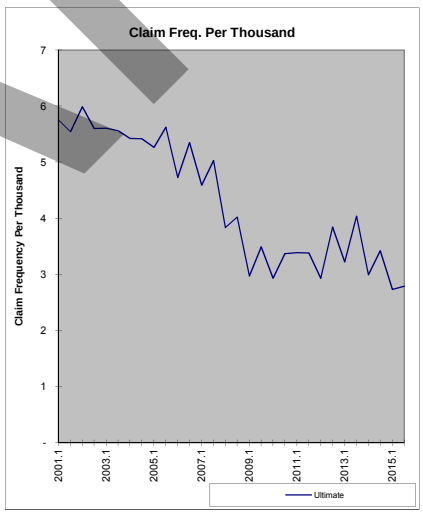
Exhibit 3: Measured trend results for various time periods.

Third Party Liability - Bodily Injury

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	144,190	830	39,252	1.076	42,235	292.91	50,885	5.76
x	2001.2	2	148,807	825	42,299	1.076	45,514	305.86	55,168	5.54
x	2002.1	3	140,574	842	34,208	1.089	37,253	265.01	44,243	5.99
x	2002.2	4	145,898	817	36,160	1.089	39,378	269.90	48,198	5.60
x	2003.1	5	138,623	777	36,305	1.093	39,682	286.26	51,071	5.61
x	2003.2	6	142,184	791	31,246	1.093	34,152	240.20	43,176	5.56
x	2004.1	7	140,265	761	30,408	1.103	33,540	239.12	44,073	5.43
x	2004.2	8	147,225	798	34,895	1.103	38,490	261.43	48,243	5.42
x	2005.1	9	146,210	770	23,121	1.097	25,373	173.54	32,948	5.27
x	2005.2	10	148,145	833	31,076	1.097	34,103	230.20	40,933	5.62
x	2006.1	11	149,744	708	30,264	1.087	32,882	219.59	46,447	4.73
x	2006.2	12	158,240	847	38,308	1.087	41,621	263.03	49,144	5.35
x	2007.1	13	165,703	761	28,463	1.089	30,991	187.02	40,712	4.59
x	2007.2	14	177,340	892	38,450	1.089	41,864	236.07	46,928	5.03
x	2008.1	15	177,768	682	29,315	1.084	31,766	178.69	46,593	3.84
x	2008.2	16	179,379	721	37,240	1.084	40,354	224.96	55,931	4.02
x	2009.1	17	170,411	506	21,721	1.105	24,004	140.86	47,434	2.97
x	2009.2	18	173,009	604	27,417	1.105	30,299	175.13	50,199	3.49
x	2010.1	19	167,345	490	22,700	1.102	25,009	149.45	51,017	2.93
x	2010.2	20	174,023	587	24,378	1.102	26,857	154.33	45,767	3.37
x	2011.1	21	168,715	571	26,978	1.095	29,528	175.02	51,692	3.39
x	2011.2	22	174,156	589	35,840	1.095	39,227	225.24	66,575	3.38
x	2012.1	23	171,296	502	25,291	1.091	27,598	161.11	55,009	2.93
x	2012.2	24	175,078	673	40,482	1.091	44,174	252.31	65,652	3.84
x	2013.1	25	177,472	572	32,609	1.099	35,853	202.02	62,647	3.22
x	2013.2	26	189,339	764	42,507	1.099	46,735	246.83	61,141	4.04
x	2014.1	27	191,380	573	30,112	1.093	32,912	171.97	57,429	2.99
x	2014.2	28	209,576	717	38,943	1.093	42,568	203.12	59,364	3.42
x	2015.1	29	212,579	581	39,217	1.103	43,252	203.46	74,482	2.73
x	2015.2	30	221,195	617	37,804	1.103	41,694	188.49	67,602	2.79

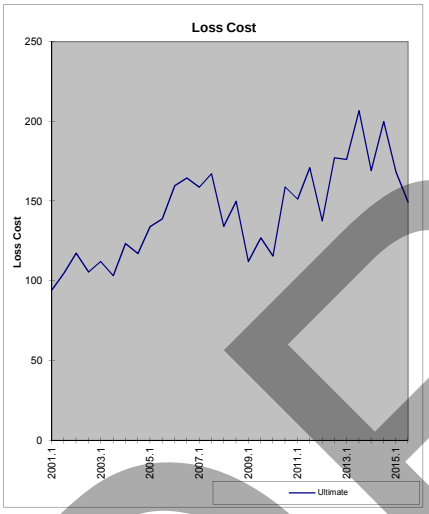


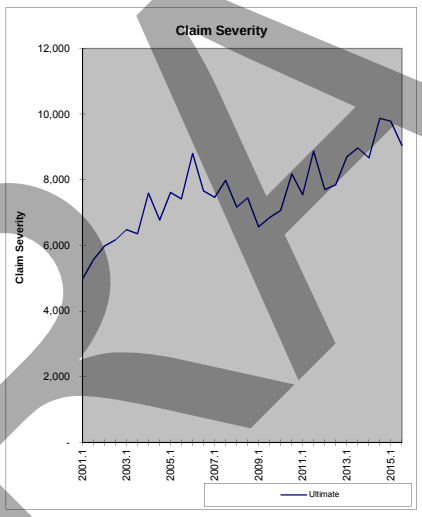


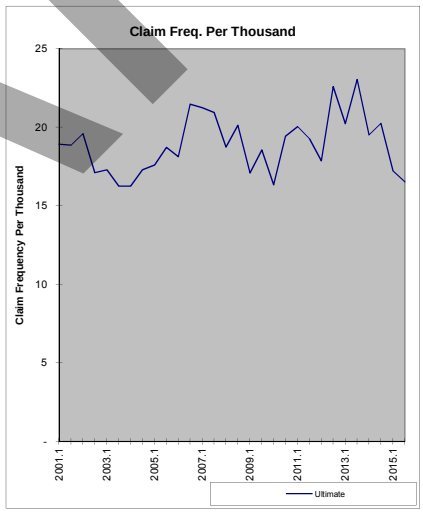


Third Party Liability - Property Damage

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	144,190	2,729	12,641	1.076	13,602	94.33	4,984	18.93
x	2001.2	2	148,807	2,806	14,502	1.076	15,605	104.86	5,561	18.86
x	2002.1	3	140,574	2,756	15,148	1.089	16,496	117.35	5,985	19.61
x	2002.2	4	145,898	2,497	14,151	1.089	15,411	105.63	6,172	17.11
x	2003.1	5	138,623	2,399	14,238	1.093	15,562	112.26	6,487	17.31
x	2003.2	6	142,184	2,312	13,435	1.093	14,684	103.27	6,351	16.26
x	2004.1	7	140,265	2,279	15,698	1.103	17,315	123.45	7,598	16.25
x	2004.2	8	147,225	2,547	15,650	1.103	17,262	117.25	6,778	17.30
x	2005.1	9	146,210	2,573	17,847	1.097	19,585	133.95	7,612	17.60
x	2005.2	10	148,145	2,774	18,749	1.097	20,575	138.89	7,417	18.72
x	2006.1	11	149,744	2,715	22,002	1.087	23,905	159.64	8,805	18.13
x	2006.2	12	158,240	3,397	23,954	1.087	26,026	164.47	7,662	21.47
x	2007.1	13	165,703	3,520	24,143	1.089	26,287	158.64	7,467	21.24
x	2007.2	14	177,340	3,715	27,233	1.089	29,651	167.20	7,981	20.95
x	2008.1	15	177,768	3,330	22,009	1.084	23,849	134.16	7,161	18.73
x	2008.2	16	179,379	3,610	24,823	1.084	26,898	149.95	7,451	20.13
x	2009.1	17	170,411	2,912	17,306	1.105	19,125	112.23	6,568	17.09
x	2009.2	18	173,009	3,210	19,896	1.105	21,987	127.08	6,849	18.55
x	2010.1	19	167,345	2,735	17,543	1.102	19,327	115.49	7,067	16.34
x	2010.2	20	174,023	3,381	25,094	1.102	27,646	158.86	8,177	19.43
x	2011.1	21	168,715	3,382	23,319	1.095	25,523	151.28	7,547	20.05
x	2011.2	22	174,156	3,356	27,205	1.095	29,776	170.97	8,872	19.27
x	2012.1	23	171,296	3,060	21,600	1.091	23,570	137.60	7,703	17.86
x	2012.2	24	175,078	3,955	28,427	1.091	31,019	177.17	7,843	22.59
x	2013.1	25	177,472	3,591	28,428	1.099	31,255	176.11	8,705	20.23
x	2013.2	26	189,339	4,364	35,585	1.099	39,124	206.64	8,966	23.05
x	2014.1	27	191,380	3,734	29,603	1.093	32,359	169.08	8,667	19.51
x	2014.2	28	209,576	4,243	38,323	1.093	41,891	199.89	9,873	20.25
x	2015.1	29	212,579	3,660	32,492	1.103	35,836	168.58	9,790	17.22
x	2015.2	30	221,195	3,655	29,988	1.103	33,074	149.52	9,049	16.52

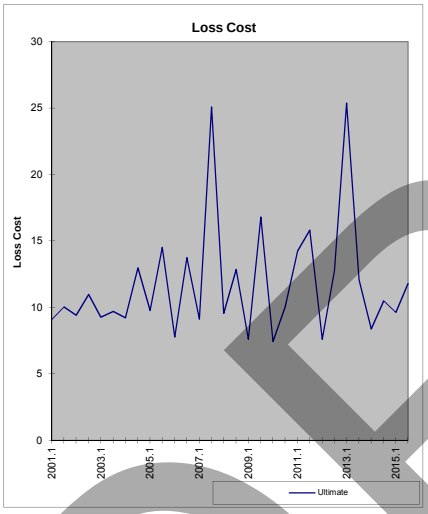


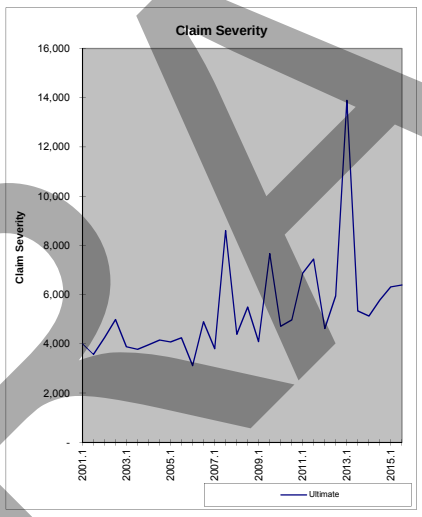


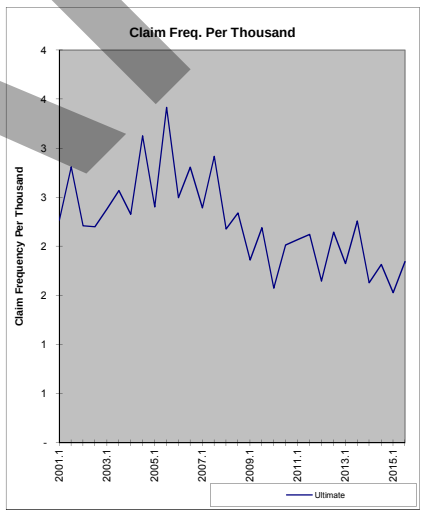


Accident Benefits - Total

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	137,022	311	1,158	1.076	1,246	9.09	4,006	2.27
x	2001.2	2	143,152	402	1,335	1.076	1,437	10.04	3,574	2.81
x	2002.1	3	136,659	302	1,181	1.089	1,286	9.41	4,257	2.21
x	2002.2	4	142,701	314	1,438	1.089	1,566	10.97	4,986	2.20
x	2003.1	5	135,229	322	1,146	1.093	1,253	9.26	3,890	2.38
x	2003.2	6	137,862	354	1,225	1.093	1,339	9.71	3,782	2.57
x	2004.1	7	137,017	319	1,147	1.103	1,265	9.23	3,964	2.33
x	2004.2	8	143,594	449	1,691	1.103	1,865	12.99	4,154	3.13
x	2005.1	9	141,632	340	1,263	1.097	1,386	9.78	4,076	2.40
x	2005.2	10	144,624	494	1,914	1.097	2,100	14.52	4,251	3.42
x	2006.1	11	146,252	365	1,046	1.087	1,137	7.77	3,114	2.50
x	2006.2	12	154,371	433	1,954	1.087	2,123	13.75	4,903	2.80
x	2007.1	13	160,518	384	1,345	1.089	1,465	9.12	3,814	2.39
x	2007.2	14	170,334	497	3,924	1.089	4,273	25.09	8,597	2.92
x	2008.1	15	169,079	368	1,493	1.084	1,618	9.57	4,397	2.18
x	2008.2	16	170,976	400	2,030	1.084	2,199	12.86	5,500	2.34
x	2009.1	17	162,707	303	1,121	1.105	1,239	7.61	4,092	1.86
x	2009.2	18	166,512	365	2,531	1.105	2,797	16.80	7,674	2.19
x	2010.1	19	160,351	253	1,083	1.102	1,193	7.44	4,722	1.58
x	2010.2	20	167,433	337	1,526	1.102	1,682	10.04	4,984	2.02
x	2011.1	21	164,479	341	2,141	1.095	2,343	14.25	6,881	2.07
x	2011.2	22	170,770	362	2,467	1.095	2,700	15.81	7,452	2.12
x	2012.1	23	170,308	280	1,188	1.091	1,296	7.61	4,621	1.65
x	2012.2	24	175,205	376	2,048	1.091	2,235	12.76	5,947	2.14
x	2013.1	25	175,458	320	4,050	1.099	4,453	25.38	13,898	1.83
x	2013.2	26	187,221	423	2,056	1.099	2,260	12.07	5,342	2.26
x	2014.1	27	189,674	309	1,454	1.093	1,589	8.38	5,139	1.63
x	2014.2	28	204,961	372	1,968	1.093	2,151	10.49	5,780	1.82
x	2015.1	29	205,880	314	1,800	1.103	1,985	9.64	6,314	1.53
x	2015.2	30	214,984	396	2,298	1.103	2,534	11.79	6,395	1.84

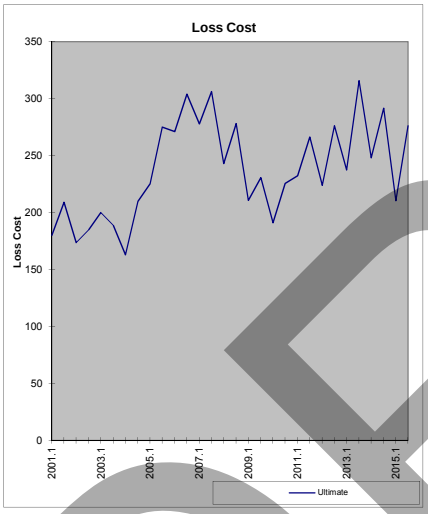


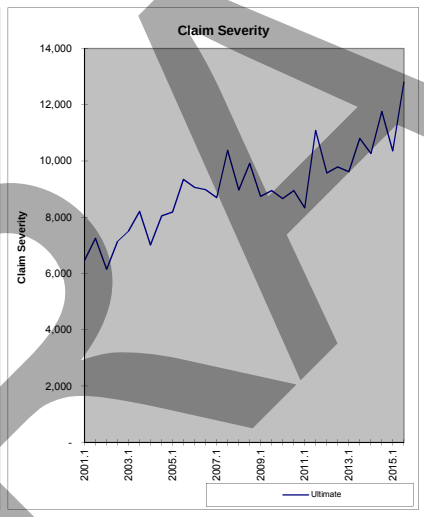


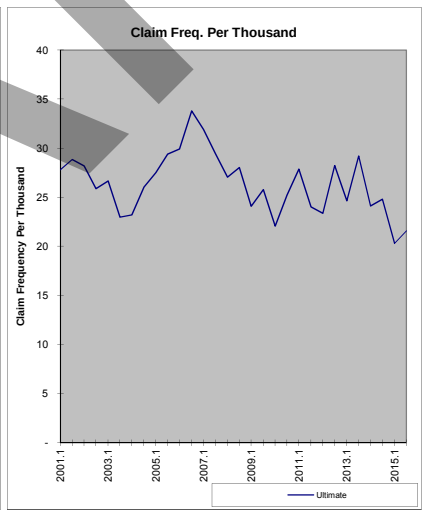


Collision

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	64,270	1,788	10,760	1.076	11,577	180.14	6,475	27.82
x	2001.2	2	64,232	1,852	12,481	1.076	13,429	209.08	7,251	28.83
x	2002.1	3	63,286	1,785	10,083	1.089	10,981	173.51	6,152	28.21
x	2002.2	4	65,765	1,703	11,165	1.089	12,158	184.88	7,139	25.90
x	2003.1	5	64,166	1,710	11,746	1.093	12,838	200.08	7,508	26.65
x	2003.2	6	65,683	1,509	11,338	1.093	12,392	188.66	8,212	22.97
x	2004.1	7	64,284	1,491	9,492	1.103	10,470	162.87	7,022	23.19
x	2004.2	8	66,212	1,725	12,595	1.103	13,892	209.81	8,053	26.05
x	2005.1	9	65,604	1,804	13,466	1.097	14,777	225.25	8,191	27.50
x	2005.2	10	68,684	2,020	17,205	1.097	18,881	274.90	9,347	29.41
x	2006.1	11	70,100	2,097	17,485	1.087	18,997	271.00	9,060	29.91
x	2006.2	12	74,814	2,530	20,920	1.087	22,730	303.81	8,986	33.81
x	2007.1	13	79,056	2,522	20,164	1.089	21,954	277.71	8,705	31.90
x	2007.2	14	84,739	2,498	23,829	1.089	25,946	306.18	10,385	29.48
x	2008.1	15	86,340	2,337	19,356	1.084	20,974	242.93	8,974	27.07
x	2008.2	16	90,097	2,526	23,115	1.084	25,048	278.01	9,914	28.04
x	2009.1	17	87,506	2,109	16,688	1.105	18,442	210.75	8,746	24.10
x	2009.2	18	87,056	2,244	18,176	1.105	20,087	230.73	8,953	25.77
x	2010.1	19	83,793	1,848	14,526	1.102	16,004	190.99	8,662	22.05
x	2010.2	20	85,591	2,160	17,533	1.102	19,316	225.68	8,944	25.23
x	2011.1	21	83,474	2,325	17,707	1.095	19,380	232.17	8,334	27.86
x	2011.2	22	86,409	2,076	21,016	1.095	23,002	266.20	11,083	24.02
x	2012.1	23	86,614	2,025	17,761	1.091	19,381	223.76	9,573	23.37
x	2012.2	24	90,577	2,555	22,927	1.091	25,017	276.20	9,790	28.21
x	2013.1	25	91,152	2,248	19,672	1.099	21,629	237.28	9,623	24.66
x	2013.2	26	95,696	2,795	27,477	1.099	30,210	315.69	10,808	29.21
x	2014.1	27	96,069	2,319	21,788	1.093	23,817	247.91	10,272	24.14
x	2014.2	28	104,067	2,580	27,759	1.093	30,343	291.57	11,761	24.79
x	2015.1	29	105,502	2,142	20,120	1.103	22,190	210.33	10,361	20.30
x	2015.2	30	107,371	2,315	26,890	1.103	29,657	276.21	12,810	21.56

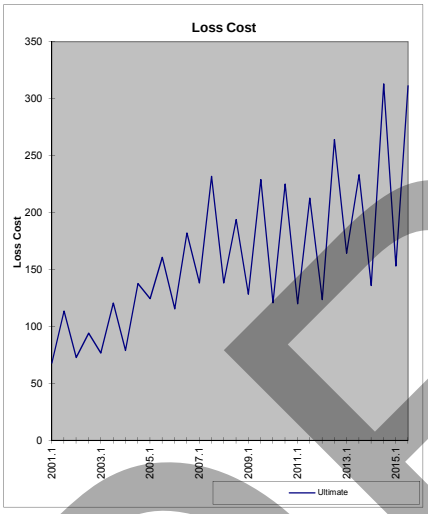


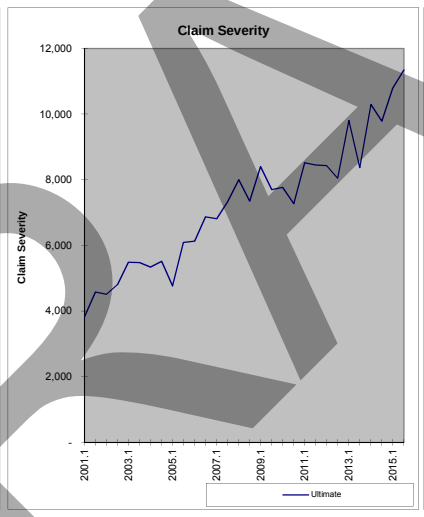


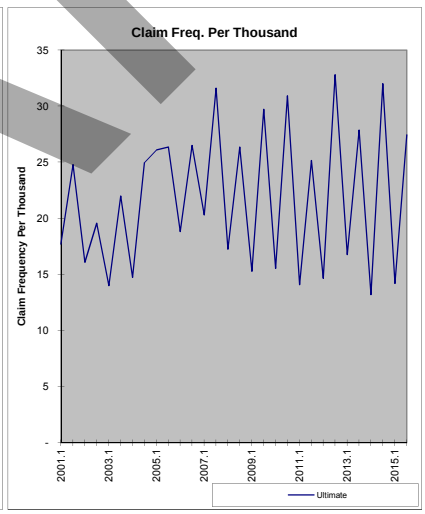


Comprehensive

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	81,803	1,448	5,160	1.076	5,552	67.87	3,835	17.70
x	2001.2	2	84,373	2,090	8,903	1.076	9,580	113.54	4,584	24.77
x	2002.1	3	84,158	1,353	5,612	1.089	6,112	72.62	4,517	16.08
x	2002.2	4	87,376	1,709	7,544	1.089	8,215	94.02	4,807	19.56
x	2003.1	5	85,800	1,201	6,028	1.093	6,589	76.79	5,486	14.00
x	2003.2	6	87,604	1,927	9,654	1.093	10,552	120.45	5,476	22.00
x	2004.1	7	87,037	1,284	6,221	1.103	6,862	78.84	5,344	14.75
x	2004.2	8	90,035	2,247	11,236	1.103	12,393	137.65	5,515	24.96
x	2005.1	9	89,976	2,348	10,199	1.097	11,192	124.39	4,767	26.10
x	2005.2	10	93,650	2,468	13,700	1.097	15,034	160.54	6,092	26.35
x	2006.1	11	95,456	1,797	10,139	1.087	11,016	115.41	6,130	18.83
x	2006.2	12	100,626	2,665	16,862	1.087	18,320	182.06	6,874	26.48
x	2007.1	13	106,282	2,158	13,502	1.089	14,701	138.32	6,812	20.30
x	2007.2	14	112,714	3,563	23,976	1.089	26,105	231.60	7,327	31.61
x	2008.1	15	114,678	1,978	14,617	1.084	15,839	138.11	8,007	17.25
x	2008.2	16	118,914	3,133	21,260	1.084	23,037	193.73	7,353	26.35
x	2009.1	17	116,566	1,780	13,539	1.105	14,962	128.36	8,406	15.27
x	2009.2	18	116,224	3,453	24,069	1.105	26,598	228.85	7,703	29.71
x	2010.1	19	113,074	1,756	12,384	1.102	13,643	120.66	7,770	15.53
x	2010.2	20	115,178	3,562	23,517	1.102	25,909	224.95	7,275	30.92
x	2011.1	21	113,144	1,595	12,408	1.095	13,581	120.03	8,516	14.09
x	2011.2	22	115,920	2,915	22,517	1.095	24,645	212.60	8,455	25.15
x	2012.1	23	116,237	1,704	13,173	1.091	14,374	123.66	8,433	14.66
x	2012.2	24	120,112	3,940	29,062	1.091	31,712	264.02	8,048	32.80
x	2013.1	25	120,992	2,029	18,095	1.099	19,895	164.44	9,804	16.77
x	2013.2	26	125,972	3,511	26,725	1.099	29,383	233.25	8,369	27.87
x	2014.1	27	126,568	1,670	15,736	1.093	17,201	135.91	10,297	13.20
x	2014.2	28	135,103	4,323	38,691	1.093	42,293	313.04	9,784	32.00
x	2015.1	29	137,270	1,948	19,064	1.103	21,026	153.17	10,791	14.19
x	2015.2	30	139,521	3,828	39,387	1.103	43,440	311.35	11,347	27.44

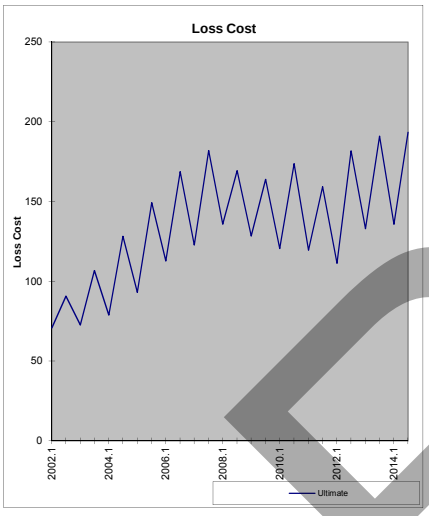


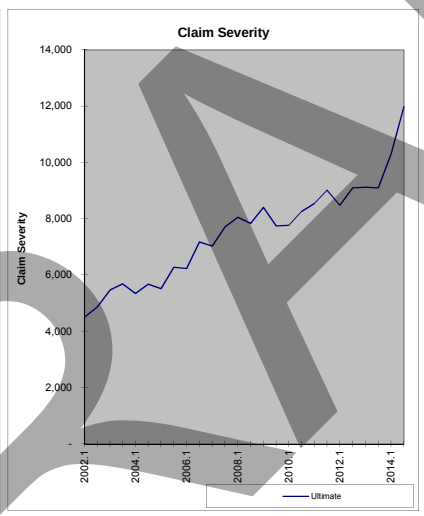


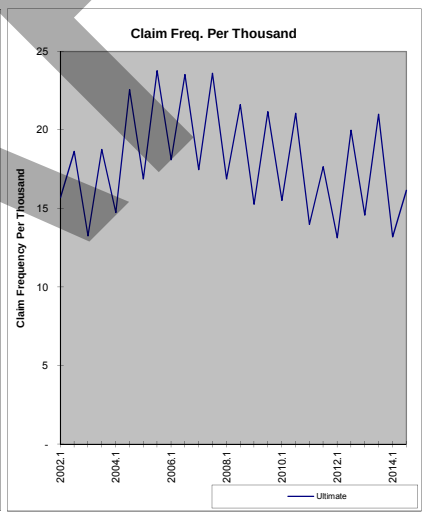


Comprehensive Excluding Catastrophe

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2002.1	3	84,158	1,321	5,469	1.089	5,956	70.77	4,509	15.70
x	2002.2	4	87,376	1,628	7,279	1.089	7,927	90.72	4,869	18.63
x	2003.1	5	85,800	1,137	5,694	1.093	6,224	72.54	5,474	13.25
x	2003.2	6	87,604	1,644	8,553	1.093	9,348	106.71	5,686	18.77
x	2004.1	7	87,037	1,284	6,221	1.103	6,862	78.84	5,344	14.75
x	2004.2	8	90,035	2,033	10,463	1.103	11,540	128.18	5,676	22.58
x	2005.1	9	89,976	1,520	7,637	1.097	8,381	93.14	5,514	16.89
x	2005.2	10	93,650	2,226	12,737	1.097	13,977	149.25	6,279	23.77
x	2006.1	11	95,456	1,728	9,909	1.087	10,766	112.79	6,231	18.10
x	2006.2	12	100,626	2,367	15,634	1.087	16,987	168.81	7,176	23.52
x	2007.1	13	106,282	1,857	11,983	1.089	13,047	122.76	7,026	17.47
x	2007.2	14	112,714	2,661	18,847	1.089	20,521	182.06	7,712	23.61
x	2008.1	15	114,678	1,937	14,382	1.084	15,585	135.90	8,046	16.89
x	2008.2	16	118,914	2,571	18,592	1.084	20,147	169.42	7,836	21.62
x	2009.1	17	116,566	1,780	13,539	1.105	14,962	128.36	8,406	15.27
x	2009.2	18	116,224	2,460	17,236	1.105	19,048	163.89	7,743	21.17
x	2010.1	19	113,074	1,756	12,384	1.102	13,643	120.66	7,770	15.53
x	2010.2	20	115,178	2,427	18,173	1.102	20,021	173.83	8,250	21.07
x	2011.1	21	113,144	1,584	12,358	1.095	13,526	119.55	8,541	14.00
x	2011.2	22	115,920	2,047	16,870	1.095	18,464	159.28	9,019	17.66
x	2012.1	23	116,237	1,527	11,867	1.091	12,949	111.40	8,483	13.13
x	2012.2	24	120,112	2,401	20,006	1.091	21,830	181.75	9,094	19.99
x	2013.1	25	120,992	1,764	14,642	1.099	16,098	133.05	9,124	14.58
x	2013.2	26	125,972	2,646	21,889	1.099	24,066	191.04	9,095	21.01
x	2014.1	27	126,568	1,670	15,736	1.093	17,201	135.91	10,297	13.20
x	2014.2	28	135,103	2,181	23,897	1.093	26,122	193.35	11,975	16.15

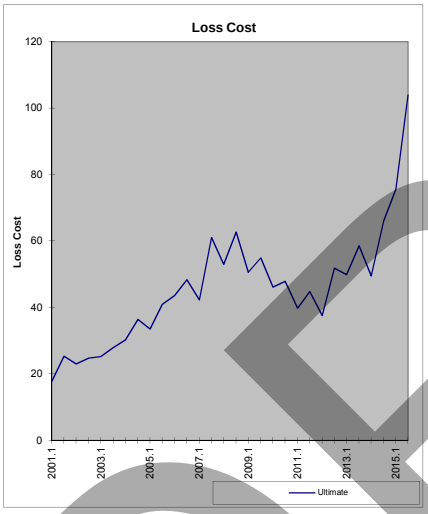


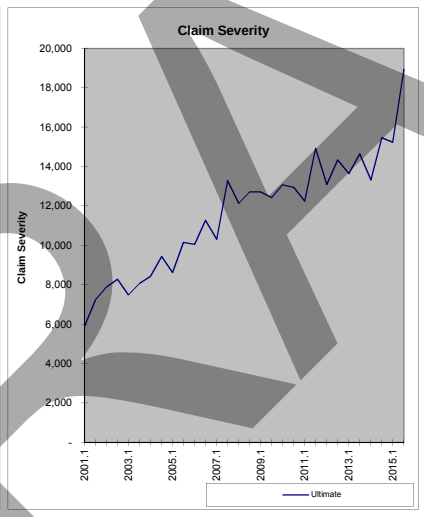


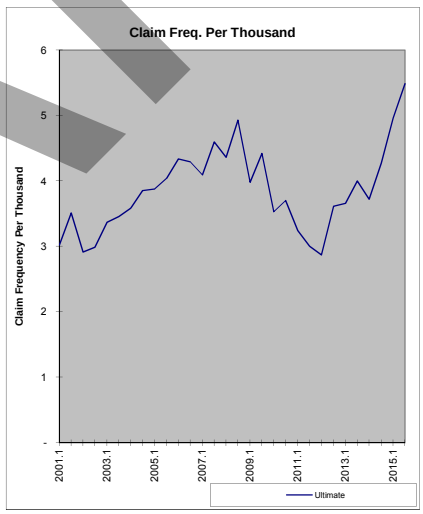


Comprehensive Theft

	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Ultimate Severity	Ultimate Freq. per 1000
x	2001.1	1	81,803	247	1,352	1.076	1,455	17.78	5,890	3.02
x	2001.2	2	84,373	296	1,990	1.076	2,141	25.38	7,233	3.51
x	2002.1	3	84,158	245	1,777	1.089	1,935	22.99	7,897	2.91
x	2002.2	4	87,376	261	1,986	1.089	2,163	24.75	8,286	2.99
x	2003.1	5	85,800	289	1,982	1.093	2,166	25.24	7,495	3.37
x	2003.2	6	87,604	303	2,237	1.093	2,445	27.91	8,070	3.46
x	2004.1	7	87,037	312	2,384	1.103	2,630	30.22	8,429	3.58
x	2004.2	8	90,035	347	2,971	1.103	3,277	36.39	9,442	3.85
x	2005.1	9	89,976	349	2,745	1.097	3,012	33.48	8,631	3.88
x	2005.2	10	93,650	378	3,496	1.097	3,836	40.97	10,149	4.04
x	2006.1	11	95,456	414	3,830	1.087	4,161	43.59	10,051	4.34
x	2006.2	12	100,626	432	4,481	1.087	4,869	48.38	11,270	4.29
x	2007.1	13	106,282	435	4,124	1.089	4,491	42.25	10,323	4.09
x	2007.2	14	112,714	518	6,322	1.089	6,884	61.07	13,289	4.60
x	2008.1	15	114,678	500	5,602	1.084	6,070	52.93	12,141	4.36
x	2008.2	16	118,914	586	6,880	1.084	7,455	62.69	12,722	4.93
x	2009.1	17	116,566	464	5,338	1.105	5,898	50.60	12,712	3.98
x	2009.2	18	116,224	514	5,778	1.105	6,385	54.94	12,423	4.42
x	2010.1	19	113,074	399	4,736	1.102	5,218	46.15	13,078	3.53
x	2010.2	20	115,178	426	5,005	1.102	5,514	47.87	12,943	3.70
x	2011.1	21	113,144	367	4,107	1.095	4,496	39.73	12,254	3.24
x	2011.2	22	115,920	348	4,744	1.095	5,192	44.79	14,931	3.00
x	2012.1	23	116,237	334	4,006	1.091	4,371	37.60	13,096	2.87
x	2012.2	24	120,112	434	5,704	1.091	6,224	51.82	14,339	3.61
x	2013.1	25	120,992	443	5,494	1.099	6,041	49.93	13,646	3.66
x	2013.2	26	125,972	504	6,713	1.099	7,381	58.59	14,655	4.00
x	2014.1	27	126,568	471	5,734	1.093	6,268	49.52	13,317	3.72
x	2014.2	28	135,103	578	8,168	1.093	8,928	66.09	15,459	4.28
x	2015.1	29	137,270	681	9,404	1.103	10,372	75.56	15,239	4.96
x	2015.2	30	139,521	765	13,144	1.103	14,496	103.90	18,939	5.49







Oliver Wyman Selected Age-to-Ultimate Development Factors
As of December 31, 2015
Alberta
Commercial Automobile

As of 2015-2
Age-to-Ultimate Factors
Incurred Claim Amount

	Bodily Injury	Property Damage	Accident Benefits	Collision	Comprehensive	Specified Perils	All Perils
180-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
174-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
168-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
162-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
156-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
150-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
144-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
138-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
132-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
126-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120-Ult	1.000	1.000	0.999	1.000	1.000	1.000	1.000
114-Ult	1.004	1.000	0.998	1.000	1.000	1.000	1.000
108-Ult	1.015	1.000	0.998	1.000	1.000	1.000	1.000
102-Ult	1.008	1.000	1.000	1.000	1.000	1.000	1.000
96-Ult	1.016	1.001	0.998	1.000	1.000	1.000	1.000
90-Ult	1.031	0.997	0.998	1.000	1.000	1.000	1.000
84-Ult	1.041	0.997	0.997	1.000	1.000	1.000	1.000
78-Ult	1.053	0.997	0.996	1.000	1.000	1.000	1.000
72-Ult	1.061	0.996	1.008	1.000	1.000	1.000	0.998
66-Ult	1.036	0.998	1.025	1.000	1.000	1.000	0.997
60-Ult	1.043	0.998	1.018	1.000	1.000	1.000	0.996
54-Ult	1.083	0.994	1.037	1.000	1.000	1.000	0.996
48-Ult	1.126	0.996	1.069	1.000	1.000	1.000	0.994
42-Ult	1.190	0.991	1.066	0.997	1.000	1.000	0.994
36-Ult	1.245	0.994	1.066	0.996	1.000	1.000	0.993
30-Ult	1.370	0.989	1.045	0.993	0.998	1.000	0.988
24-Ult	1.560	0.983	1.064	0.981	0.997	1.000	0.978
18-Ult	1.754	1.007	1.085	0.954	0.995	0.997	0.959
12-Ult	2.019	1.068	1.094	0.861	0.985	0.991	0.913
6-Ult	2.655	1.528	1.009	0.786	1.076	0.992	1.090

Oliver Wyman Selected Age-to-Ultimate Development Factors
As of December 31, 2015
Alberta
Commercial Automobile

As of 2015-2
Age-to-Ultimate Factors
Incurred Claim Count

	Bodily Injury	Property Damage	Accident Benefits	Collision	Comprehensive	Specified Perils	All Perils
180-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
174-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
168-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
162-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
156-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
150-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
144-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
138-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
132-Ult	1.000	1.000	1.000	1.000	1.000	1.000	1.000
126-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000
120-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000
114-Ult	0.998	1.000	1.000	1.000	1.000	1.000	1.000
108-Ult	0.998	1.000	1.000	1.000	1.000	1.000	1.000
102-Ult	0.997	1.000	1.000	1.000	1.000	1.000	1.000
96-Ult	0.996	1.000	1.000	1.000	1.000	1.000	1.000
90-Ult	0.992	1.000	1.000	1.000	1.000	1.000	1.000
84-Ult	0.990	1.000	0.999	1.000	1.000	1.000	1.000
78-Ult	0.988	1.000	0.999	1.000	1.000	1.000	1.000
72-Ult	0.984	1.000	0.999	1.000	1.000	1.000	1.000
66-Ult	0.980	1.000	0.998	1.000	1.000	1.000	1.000
60-Ult	0.976	1.000	0.999	1.000	1.000	1.000	1.000
54-Ult	0.969	1.000	0.998	1.000	1.000	1.000	1.000
48-Ult	0.963	1.000	0.998	1.000	1.000	1.000	1.000
42-Ult	0.954	1.000	0.997	1.000	1.000	1.000	1.000
36-Ult	0.948	1.000	0.995	1.000	1.000	1.000	1.000
30-Ult	0.928	0.998	0.989	0.998	1.000	1.000	0.997
24-Ult	0.900	0.996	0.982	0.992	1.000	1.000	0.991
18-Ult	0.878	1.007	0.974	0.974	1.000	0.995	0.969
12-Ult	0.853	1.010	0.947	0.903	0.990	0.978	0.928
6-Ult	1.074	1.150	0.801	0.714	0.935	0.957	0.834

Province of Alberta
Commercial Vehicles

Third Party Liability - Bodily Injury

With Seasonality except Severity; No Level Change

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2015.2	-2.8	-1.4	0.42	0.0%	1.4%	2.7	-1.2	0.43	0.0%	NA	-5.4	-0.9	0.83	0.0%	1.5%
2002.1-2015.2	-2.4	-1.5	0.34	0.4%	1.4%	3.5	-1.2	0.58	0.0%	NA	-5.6	-1	0.82	0.0%	1.1%
2003.1-2015.2	-2	-1.7	0.28	2.8%	1.5%	3.9	-1.3	0.62	0.0%	NA	-5.7	-1.2	0.8	0.0%	0.9%
2004.1-2015.2	-1.4	-1.9	0.28	13.8%	0.6%	4.6	-1.4	0.69	0.0%	NA	-5.7	-1.4	0.77	0.0%	1.0%
2005.1-2015.2	-0.6	-2.1	0.26	55.6%	0.7%	5.3	-1.5	0.74	0.0%	NA	-5.6	-1.6	0.72	0.0%	1.1%
2006.1-2015.2	-0.7	-2.6	0.21	60.0%	1.7%	4.6	-1.6	0.67	0.0%	NA	-5	-1.9	0.63	0.0%	1.6%
2007.1-2015.2	0.8	-3	0.24	55.8%	2.1%	5.3	-1.9	0.68	0.0%	NA	-4.1	-2.2	0.51	0.2%	2.5%
2008.1-2015.2	2.3	-3.6	0.29	19.0%	3.7%	4.9	-2.3	0.58	0.0%	NA	-2.5	-2.3	0.38	4.0%	1.8%
2009.1-2015.2	4.4	-4.3	0.41	4.3%	6.3%	5.8	-2.8	0.61	0.1%	NA	-1.3	-2.8	0.31	34.1%	2.0%
2010.1-2015.2	3.5	-6	0.24	21.6%	11.7%	5.7	-4	0.48	0.8%	NA	-2.1	-3.9	0.28	25.5%	4.3%
2011.1-2015.2	-1	-6.4	0.35	71.5%	3.5%	3.9	-5.1	0.2	11.0%	NA	-4.4	-5	0.42	7.9%	4.8%
2012.1-2015.2	-2.6	-11	0.21	57.2%	10.6%	4.5	-6.9	0.19	15.2%	NA	-6.8	-7.2	0.57	6.7%	3.5%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.2-2015.1	-2.5	-1.5	0.4	0.3%	1.0%	2.9	-1.3	0.43	0.0%	NA	-5.3	-1	0.81	0.0%	2.0%
2002.2-2015.1	-2	-1.7	0.33	2.6%	1.2%	3.5	-1.3	0.54	0.0%	NA	-5.4	-1.2	0.79	0.0%	1.1%
2003.2-2015.1	-1.3	-1.9	0.32	18.4%	0.5%	4.4	-1.4	0.66	0.0%	NA	-5.5	-1.4	0.77	0.0%	1.0%
2004.2-2015.1	-0.7	-2.2	0.33	51.5%	0.3%	4.9	-1.6	0.66	0.0%	NA	-5.4	-1.6	0.73	0.0%	0.9%
2005.2-2015.1	-0.4	-2.6	0.26	72.5%	1.0%	4.8	-1.6	0.68	0.0%	NA	-5	-1.9	0.68	0.0%	0.8%
2006.2-2015.1	0.5	-3.1	0.3	73.4%	0.8%	4.9	-1.9	0.63	0.0%	NA	-4.3	-2.3	0.59	0.1%	1.0%
2007.2-2015.1	2.2	-3.6	0.34	21.1%	1.1%	4.9	-2.3	0.58	0.0%	NA	-2.7	-2.5	0.53	3.7%	0.5%
2008.2-2015.1	4.4	-4.3	0.45	4.2%	1.2%	4.8	-3.1	0.46	0.4%	NA	-0.6	-2.3	0.58	60.1%	0.1%
2009.2-2015.1	5.9	-5.3	0.45	3.0%	3.7%	5.8	-4	0.49	0.7%	NA	-0.1	-3.1	0.51	95.8%	0.6%
2010.2-2015.1	5.2	-8.2	0.26	17.0%	9.4%	6.1	-6	0.35	4.3%	NA	-1	-4.6	0.45	62.5%	2.4%
2011.2-2015.1	1	-9.7	0.45	79.2%	4.0%	1.8	-7.7	-0.11	59.0%	NA	-1	-6.8	0.6	72.4%	2.0%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2014.2	-3.2	-1.5	0.46	0.0%	0.8%	2.3	-1.3	0.32	0.1%	NA	-5.3	-1	0.8	0.0%	1.9%
2002.1-2014.2	-2.7	-1.7	0.38	0.3%	0.9%	3.1	-1.3	0.49	0.0%	NA	-5.6	-1.2	0.79	0.0%	1.4%
2003.1-2014.2	-2.4	-2	0.33	2.3%	1.0%	3.5	-1.5	0.52	0.0%	NA	-5.6	-1.4	0.76	0.0%	1.1%
2004.1-2014.2	-1.7	-2.2	0.34	11.2%	0.4%	4.3	-1.6	0.61	0.0%	NA	-5.7	-1.6	0.72	0.0%	1.3%
2005.1-2014.2	-0.8	-2.5	0.33	49.1%	0.4%	5.1	-1.7	0.67	0.0%	NA	-5.5	-2	0.65	0.0%	1.5%
2006.1-2014.2	-1	-3.1	0.28	52.7%	1.1%	4.1	-1.8	0.57	0.0%	NA	-4.8	-2.4	0.55	0.1%	2.0%
2007.1-2014.2	0.9	-3.6	0.31	60.7%	1.4%	4.8	-2.3	0.58	0.0%	NA	-3.6	-2.8	0.4	1.8%	3.1%
2008.1-2014.2	2.8	-4.5	0.37	18.9%	2.5%	4.2	-2.9	0.42	0.7%	NA	-1.1	-2.7	0.35	37.5%	1.4%
2009.1-2014.2	6	-5.3	0.55	2.7%	3.4%	5	-3.7	0.45	1.1%	NA	1.1	-2.7	0.56	38.0%	0.5%
2010.1-2014.2	5.5	-8.3	0.41	15.1%	8.1%	4.7	-5.6	0.25	8.1%	NA	1	-4.2	0.47	58.4%	2.1%
2011.1-2014.2	-0.8	-8.5	0.61	82.3%	1.7%	1.2	-7.1	-0.13	69.1%	NA	-0.9	-6.8	0.42	73.6%	4.5%

Province of Alberta
Commercial Vehicles

Third Party Liability - Property Damage

With Seasonality except Severity; No Level Change

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2015.2	3.6	±1.2	0.57	0.0%	26.2%	3.1	±0.8	0.67	0.0%	NA	0.6	±0.8	0.06	17.3%	19.3%
2002.1-2015.2	3.3	±1.4	0.49	0.0%	29.1%	2.6	±0.8	0.6	0.0%	NA	0.7	±0.9	0.08	13.4%	19.2%
2003.1-2015.2	3.1	±1.6	0.42	0.0%	21.1%	2.3	±1	0.5	0.0%	NA	0.8	±1	0.12	13.6%	10.8%
2004.1-2015.2	2.5	±1.7	0.32	0.5%	13.1%	2.1	±1.1	0.39	0.1%	NA	0.5	±1.2	0.11	42.2%	6.6%
2005.1-2015.2	2	±2	0.24	4.1%	9.2%	2.2	±1.3	0.36	0.2%	NA	-0.1	±1.3	0.09	88.3%	5.7%
2006.1-2015.2	1.9	±2.4	0.19	10.9%	9.9%	2.5	±1.5	0.36	0.3%	NA	-0.5	±1.5	0.11	49.3%	6.3%
2007.1-2015.2	3	±2.8	0.29	3.9%	10.0%	3.6	±1.5	0.6	0.0%	NA	-0.5	±1.9	0.04	55.8%	13.4%
2008.1-2015.2	4.8	±3.1	0.49	0.5%	8.5%	4.7	±1.6	0.74	0.0%	NA	0.2	±2.3	0.05	85.9%	12.6%
2009.1-2015.2	6	±4.1	0.51	0.6%	12.2%	5.6	±1.9	0.77	0.0%	NA	0.5	±3.1	0.02	71.0%	18.7%
2010.1-2015.2	4.1	±5.2	0.32	10.4%	12.1%	4.8	±2.5	0.62	0.1%	NA	-0.5	±4.2	-0.03	80.4%	22.5%
2011.1-2015.2	1.4	±6.6	0.06	63.0%	20.5%	4.8	±3.4	0.53	1.0%	NA	-3.1	±5.2	0.09	20.9%	26.3%
2012.1-2015.2	0.1	±11.6	-0.11	97.8%	31.8%	6.3	±4.3	0.64	1.0%	NA	-5.9	±7.6	0.32	11.2%	15.6%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.2-2015.1	3.8	±1.3	0.58	0.0%	19.5%	2.8	±0.9	0.62	0.0%	NA	1	±0.8	0.22	2.1%	5.1%
2002.2-2015.1	3.8	±1.5	0.53	0.0%	15.2%	2.5	±1	0.52	0.0%	NA	1.3	±0.9	0.31	0.7%	3.0%
2003.2-2015.1	3.5	±1.7	0.44	0.0%	13.7%	2.2	±1.1	0.42	0.0%	NA	1.2	±1.1	0.27	2.4%	3.0%
2004.2-2015.1	3.1	±2	0.36	0.4%	7.8%	2.3	±1.3	0.37	0.2%	NA	0.8	±1.2	0.2	19.0%	2.4%
2005.2-2015.1	2.8	±2.3	0.3	1.9%	4.9%	2.3	±1.6	0.33	0.5%	NA	0.4	±1.3	0.2	59.0%	2.0%
2006.2-2015.1	3.4	±2.6	0.4	1.2%	2.0%	3.3	±1.6	0.53	0.0%	NA	0	±1.6	0.2	97.5%	2.5%
2007.2-2015.1	5.3	±2.7	0.63	0.1%	0.6%	4.2	±1.9	0.61	0.0%	NA	1	±1.8	0.33	27.4%	1.1%
2008.2-2015.1	7.6	±2.7	0.79	0.0%	0.2%	5.5	±1.9	0.75	0.0%	NA	1.8	±2.3	0.38	11.8%	1.6%
2009.2-2015.1	8.3	±3.5	0.77	0.0%	0.9%	5.9	±2.4	0.74	0.0%	NA	2	±3.3	0.28	19.3%	5.0%
2010.2-2015.1	5.5	±3.7	0.69	0.9%	0.9%	4.9	±3.4	0.55	0.9%	NA	0.2	±4.5	0.13	90.7%	11.3%
2011.2-2015.1	6.1	±6.3	0.65	5.0%	2.0%	5.5	±5.2	0.46	3.8%	NA	0.1	±7.2	0.24	97.1%	10.0%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2014.2	4.1	±1.3	0.62	0.0%	18.1%	3	±1	0.61	0.0%	NA	1	±0.8	0.23	1.4%	12.9%
2002.1-2014.2	3.8	±1.5	0.53	0.0%	20.7%	2.5	±1	0.52	0.0%	NA	1.3	±0.9	0.28	0.8%	12.2%
2003.1-2014.2	3.6	±1.7	0.48	0.0%	14.3%	2.1	±1.1	0.41	0.1%	NA	1.5	±1	0.36	0.5%	5.1%
2004.1-2014.2	3	±2	0.39	0.4%	8.2%	1.8	±1.3	0.27	0.8%	NA	1.3	±1.1	0.33	3.1%	2.6%
2005.1-2014.2	2.5	±2.3	0.32	3.0%	5.5%	1.8	±1.5	0.23	2.0%	NA	0.8	±1.3	0.25	23.3%	2.4%
2006.1-2014.2	2.5	±2.8	0.27	8.0%	6.1%	2.1	±1.9	0.22	2.8%	NA	0.4	±1.6	0.2	55.8%	3.1%
2007.1-2014.2	4	±3.3	0.43	1.9%	5.3%	3.5	±1.9	0.5	0.1%	NA	0.7	±2	0.14	47.5%	8.1%
2008.1-2014.2	6.9	±3.1	0.73	0.0%	1.8%	4.9	±2	0.69	0.0%	NA	2.1	±2.2	0.41	5.6%	4.4%
2009.1-2014.2	9.4	±3.1	0.86	0.0%	0.9%	6.2	±2.4	0.75	0.0%	NA	3.3	±2.7	0.54	2.0%	5.9%
2010.1-2014.2	8.1	±4.4	0.8	0.3%	1.2%	5.3	±3.5	0.57	0.7%	NA	3.2	±4.2	0.4	11.5%	10.9%
2011.1-2014.2	6.2	±6.3	0.7	4.7%	4.0%	5.7	±5.3	0.48	3.5%	NA	1.1	±6.5	0.11	68.8%	19.4%

Province of Alberta
Commercial Vehicles

AB Total

With Seasonality; No Level Change

Exclusions: 2007.2, 2013.1

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2015.2	0.3	±1.5	0.44	70.8%	0.0%	3.5	±1.5	0.53	0.0%	3.9%	-3.1	±1	0.63	0.0%	0.1%
2002.1-2015.2	0	±1.7	0.45	99.8%	0.0%	3.5	±1.6	0.51	0.0%	2.5%	-3.4	±1.2	0.62	0.0%	0.1%
2003.1-2015.2	-0.2	±2	0.46	84.2%	0.0%	4.1	±1.8	0.56	0.0%	3.6%	-4.2	±1.1	0.76	0.0%	0.0%
2004.1-2015.2	-0.8	±2.2	0.52	43.6%	0.0%	4.1	±2.1	0.53	0.1%	3.0%	-4.7	±1.1	0.81	0.0%	0.0%
2005.1-2015.2	-1	±2.7	0.5	43.6%	0.0%	4.1	±2.6	0.48	0.4%	3.4%	-4.9	±1.3	0.78	0.0%	0.0%
2006.1-2015.2	-0.6	±3.4	0.45	69.8%	0.1%	4	±3.3	0.44	1.9%	3.7%	-4.4	±1.5	0.71	0.0%	0.1%
2007.1-2015.2	-1.2	±4.4	0.39	58.0%	0.5%	2.7	±3.9	0.3	14.7%	6.6%	-3.8	±1.9	0.6	0.1%	0.3%
2008.1-2015.2	-1.3	±5	0.37	58.1%	0.8%	1.9	±4.3	0.17	33.8%	9.6%	-3.2	±2	0.62	0.6%	0.1%
2009.1-2015.2	-1.4	±6.8	0.32	66.1%	2.0%	1.1	±5.7	0.06	66.8%	15.9%	-2.5	±2.6	0.58	5.8%	0.2%
2010.1-2015.2	-0.8	±8.8	0.16	83.0%	8.3%	1.6	±6.6	-0.11	58.0%	49.4%	-2.4	±3.7	0.51	17.2%	0.9%
2011.1-2015.2	-7.1	±9.6	0.39	13.1%	6.3%	-2	±8.7	-0.17	59.9%	44.0%	-5.2	±3.9	0.71	2.0%	0.8%
2012.1-2015.2	1.7	±9.8	0.7	65.8%	1.8%	6.4	±8.2	0.46	8.9%	31.5%	-4.5	±5.9	0.77	11.0%	1.1%

Exclusions: 2007.2, 2013.1

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.2-2015.1	0.4	±1.8	0.42	62.0%	0.0%	3.8	±1.7	0.51	0.0%	3.4%	-3.2	±1.2	0.63	0.0%	0.2%
2002.2-2015.1	0.2	±2	0.45	84.5%	0.0%	3.9	±1.9	0.51	0.0%	1.9%	-3.6	±1.3	0.63	0.0%	0.3%
2003.2-2015.1	0	±2.4	0.45	98.7%	0.0%	4.5	±2.1	0.53	0.0%	3.3%	-4.3	±1.3	0.76	0.0%	0.0%
2004.2-2015.1	-0.8	±2.7	0.51	56.2%	0.0%	4.5	±2.6	0.48	0.2%	3.0%	-5	±1.3	0.81	0.0%	0.0%
2005.2-2015.1	-0.7	±3.3	0.49	64.6%	0.1%	4.6	±3.2	0.44	0.7%	3.5%	-5.1	±1.6	0.77	0.0%	0.1%
2006.2-2015.1	-1.1	±4.2	0.42	58.0%	0.3%	3.2	±3.8	0.28	8.4%	6.3%	-4.2	±1.9	0.7	0.0%	0.2%
2007.2-2015.1	-1.2	±5.8	0.36	66.7%	1.2%	2	±4.9	0.13	38.2%	11.5%	-3.1	±2.4	0.61	1.5%	0.3%
2008.2-2015.1	-1	±6.8	0.34	75.0%	1.9%	1.5	±5.7	0.02	57.9%	18.0%	-2.4	±2.5	0.65	6.2%	0.2%
2009.2-2015.1	-3	±9.2	0.26	47.9%	6.4%	-1	±7.2	-0.1	76.2%	36.7%	-2	±3.7	0.57	24.0%	0.7%
2010.2-2015.1	-4.2	±12.1	0.09	43.4%	25.0%	-0.5	±9.8	-0.32	90.3%	82.5%	-3.8	±4.9	0.58	11.4%	3.4%
2011.2-2015.1	-3	±14.2	0.59	59.2%	4.4%	0.2	±15	-0.17	97.6%	36.1%	-3.2	±6.1	0.8	23.0%	1.3%

Exclusions: 2007.2, 2013.1

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2014.2	0.3	±1.8	0.43	72.6%	0.0%	3.4	±1.7	0.48	0.0%	3.7%	-3	±1.2	0.56	0.0%	0.2%
2002.1-2014.2	0	±2	0.45	97.7%	0.0%	3.3	±1.9	0.46	0.2%	2.4%	-3.2	±1.4	0.55	0.0%	0.3%
2003.1-2014.2	-0.3	±2.4	0.46	81.7%	0.0%	4.1	±2.2	0.51	0.1%	3.5%	-4.2	±1.3	0.71	0.0%	0.0%
2004.1-2014.2	-1.1	±2.7	0.53	40.4%	0.0%	4	±2.6	0.48	0.5%	2.9%	-4.9	±1.4	0.77	0.0%	0.0%
2005.1-2014.2	-1.4	±3.3	0.5	39.2%	0.1%	3.9	±3.2	0.44	1.9%	3.3%	-5.1	±1.7	0.73	0.0%	0.1%
2006.1-2014.2	-1	±4.4	0.45	63.0%	0.2%	3.7	±4.1	0.41	7.2%	3.6%	-4.5	±2	0.64	0.0%	0.4%
2007.1-2014.2	-1.9	±5.9	0.39	50.3%	0.9%	1.9	±5.1	0.27	42.2%	5.8%	-3.7	±2.7	0.48	1.2%	1.2%
2008.1-2014.2	-2.1	±6.9	0.36	51.2%	1.4%	0.8	±5.7	0.16	75.9%	8.1%	-2.9	±2.9	0.5	5.0%	0.7%
2009.1-2014.2	-2.6	±9.9	0.31	57.3%	3.4%	-0.8	±7.9	0.08	82.2%	12.8%	-1.8	±3.8	0.47	31.3%	1.2%
2010.1-2014.2	-2.1	±14.4	0.1	73.6%	14.3%	-0.7	±10.1	-0.18	86.9%	41.5%	-1.4	±6.1	0.37	59.7%	4.2%
2011.1-2014.2	-12.7	±14.4	0.54	8.3%	7.1%	-7.8	±11.8	0.26	15.1%	22.9%	-5.3	±7.8	0.52	14.0%	5.6%

Province of Alberta
Commercial Vehicles

Collision

With Seasonality except Frequency; No Level Change

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2015.2	2.1	±1.3	0.39	0.2%	1.1%	3.3	±0.7	0.81	0.0%	0.1%	-1.1	±0.9	0.15	2.1%	NA
2002.1-2015.2	2	±1.5	0.34	0.8%	1.7%	3.2	±0.8	0.78	0.0%	0.2%	-1.1	±1.1	0.12	4.2%	NA
2003.1-2015.2	1.4	±1.6	0.27	7.4%	1.3%	2.8	±0.8	0.74	0.0%	0.1%	-1.3	±1.2	0.12	4.8%	NA
2004.1-2015.2	0.8	±1.7	0.28	33.9%	0.6%	2.7	±0.9	0.7	0.0%	0.3%	-1.8	±1.3	0.23	1.1%	NA
2005.1-2015.2	-0.5	±1.5	0.36	48.8%	0.2%	2.3	±1	0.63	0.0%	0.3%	-2.7	±1.3	0.44	0.1%	NA
2006.1-2015.2	-0.8	±1.9	0.33	37.8%	0.4%	2.4	±1.2	0.59	0.1%	0.8%	-3.1	±1.6	0.45	0.1%	NA
2007.1-2015.2	-0.1	±2.2	0.32	94.1%	0.6%	2.7	±1.4	0.62	0.1%	0.6%	-2.6	±1.9	0.31	1.0%	NA
2008.1-2015.2	1.6	±2.3	0.48	17.2%	0.4%	3.6	±1.6	0.69	0.0%	1.2%	-1.8	±2.2	0.11	11.7%	NA
2009.1-2015.2	3.2	±2.6	0.64	1.8%	0.3%	4.7	±1.8	0.79	0.0%	1.1%	-1.2	±2.9	-0.01	38.3%	NA
2010.1-2015.2	3.1	±3.6	0.62	7.5%	0.6%	5.3	±2.3	0.8	0.1%	1.0%	-1.7	±4.1	-0.01	37.6%	NA
2011.1-2015.2	0.2	±3.6	0.71	91.8%	0.2%	5	±3.1	0.78	0.6%	0.9%	-4.1	±5	0.22	9.9%	NA
2012.1-2015.2	-1.1	±5.8	0.73	64.9%	0.6%	6.1	±3.7	0.82	0.7%	3.3%	-5.5	±7.8	0.21	14.2%	NA

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.2-2015.1	2.2	±1.5	0.33	0.5%	1.7%	3.1	±0.7	0.76	0.0%	0.4%	-1	±1.1	0.09	7.0%	NA
2002.2-2015.1	1.9	±1.7	0.25	2.6%	3.0%	2.8	±0.8	0.71	0.0%	0.7%	-0.9	±1.2	0.05	14.0%	NA
2003.2-2015.1	1.4	±1.9	0.21	12.4%	2.2%	2.5	±0.9	0.66	0.0%	0.4%	-1.1	±1.4	0.07	11.2%	NA
2004.2-2015.1	0.1	±1.8	0.2	92.2%	1.5%	2.2	±1	0.57	0.0%	1.0%	-2.2	±1.4	0.31	0.5%	NA
2005.2-2015.1	-0.8	±1.9	0.33	37.6%	0.6%	1.9	±1.1	0.5	0.2%	0.9%	-2.8	±1.6	0.4	0.2%	NA
2006.2-2015.1	-0.5	±2.3	0.35	65.0%	0.5%	2.3	±1.3	0.54	0.2%	0.9%	-2.9	±2	0.34	0.7%	NA
2007.2-2015.1	0.8	±2.6	0.43	48.9%	0.3%	2.4	±1.7	0.49	0.8%	1.3%	-1.8	±2.2	0.11	11.4%	NA
2008.2-2015.1	2.7	±2.8	0.57	5.2%	0.2%	3.6	±1.9	0.63	0.1%	1.2%	-1.1	±2.9	-0.02	41.3%	NA
2009.2-2015.1	4.3	±3.5	0.63	1.9%	0.4%	4.9	±2.2	0.74	0.1%	1.3%	-1	±4	-0.07	60.2%	NA
2010.2-2015.1	3	±5.1	0.49	20.1%	1.6%	5.3	±3.3	0.67	0.6%	2.5%	-2.6	±5.1	0.04	27.5%	NA
2011.2-2015.1	1.3	±6.4	0.68	61.2%	0.9%	2.9	±4.5	0.46	14.8%	5.0%	-2.8	±8.5	-0.06	46.1%	NA

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2014.2	2.5	±1.4	0.42	0.1%	2.2%	3.2	±0.7	0.78	0.0%	0.3%	-0.6	±1	0.03	19.2%	NA
2002.1-2014.2	2.5	±1.6	0.36	0.5%	3.4%	3.1	±0.9	0.73	0.0%	0.6%	-0.6	±1.1	0	31.3%	NA
2003.1-2014.2	1.8	±1.8	0.27	4.8%	2.9%	2.5	±0.9	0.69	0.0%	0.4%	-0.6	±1.3	0	33.8%	NA
2004.1-2014.2	1.2	±2	0.25	24.0%	1.5%	2.5	±1	0.63	0.0%	0.7%	-1.2	±1.5	0.08	11.6%	NA
2005.1-2014.2	-0.4	±1.9	0.29	67.7%	0.6%	1.9	±1.1	0.55	0.2%	0.6%	-2.1	±1.5	0.28	1.0%	NA
2006.1-2014.2	-0.7	±2.3	0.26	53.6%	1.4%	1.9	±1.4	0.48	0.9%	1.7%	-2.4	±1.8	0.28	1.4%	NA
2007.1-2014.2	0.3	±2.9	0.25	83.9%	2.2%	2.1	±1.7	0.51	1.7%	1.4%	-1.7	±2.2	0.1	12.6%	NA
2008.1-2014.2	2.6	±2.9	0.5	7.3%	1.2%	3	±2	0.57	0.6%	3.4%	-0.2	±2.5	-0.08	84.6%	NA
2009.1-2014.2	5.3	±2.5	0.8	0.1%	0.3%	4.5	±2.3	0.71	0.2%	4.3%	1.1	±3.2	-0.04	45.0%	NA
2010.1-2014.2	6.3	±3.5	0.82	0.3%	0.5%	5.2	±3.3	0.71	0.7%	4.6%	1.5	±4.8	-0.05	47.9%	NA
2011.1-2014.2	3.4	±3.9	0.85	7.6%	0.3%	4.7	±5.4	0.65	7.2%	5.1%	-0.6	±7	-0.16	83.7%	NA

Province of Alberta
Commercial Vehicles

Comprehensive Total

With Seasonality except Severity; No Level Change

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2015.2	6.7	±1.4	0.87	0.0%	0.0%	6.4	±0.8	0.92	0.0%	NA	0.3	±1.4	0.7	66.6%	0.0%
2002.1-2015.2	6.5	±1.6	0.85	0.0%	0.0%	6.1	±0.8	0.91	0.0%	NA	0.4	±1.6	0.7	64.6%	0.0%
2003.1-2015.2	5.7	±1.6	0.85	0.0%	0.0%	5.9	±0.9	0.88	0.0%	NA	-0.2	±1.7	0.74	82.4%	0.0%
2004.1-2015.2	4.9	±1.7	0.85	0.0%	0.0%	6	±1.1	0.86	0.0%	NA	-1.1	±1.8	0.77	22.6%	0.0%
2005.1-2015.2	3.7	±1.7	0.87	0.0%	0.0%	5.8	±1.3	0.82	0.0%	NA	-2.1	±2	0.8	4.2%	0.0%
2006.1-2015.2	3.5	±1.9	0.89	0.1%	0.0%	5.1	±1.2	0.81	0.0%	NA	-1.5	±1.8	0.89	8.8%	0.0%
2007.1-2015.2	3.1	±2.3	0.88	1.0%	0.0%	4.9	±1.5	0.75	0.0%	NA	-1.8	±2	0.9	8.3%	0.0%
2008.1-2015.2	4.4	±2.7	0.9	0.3%	0.0%	4.9	±1.9	0.68	0.0%	NA	-0.7	±2.2	0.93	49.7%	0.0%
2009.1-2015.2	5.1	±3	0.92	0.3%	0.0%	5.6	±2.3	0.68	0.0%	NA	-0.8	±2.6	0.94	52.3%	0.0%
2010.1-2015.2	6.7	±3.9	0.93	0.3%	0.0%	7.1	±2.7	0.77	0.0%	NA	-0.8	±3.7	0.93	64.7%	0.0%
2011.1-2015.2	7.9	±6	0.92	1.4%	0.0%	7	±3.9	0.67	0.2%	NA	0.3	±5.7	0.92	90.7%	0.0%
2012.1-2015.2	6.4	±10.2	0.9	15.8%	0.1%	9.3	±5.9	0.69	0.7%	NA	-3.6	±7.2	0.95	26.2%	0.0%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.2-2015.1	6.6	±1.6	0.83	0.0%	0.0%	6.1	±0.8	0.91	0.0%	NA	0.5	±1.6	0.7	55.3%	0.0%
2002.2-2015.1	6.3	±1.9	0.8	0.0%	0.0%	5.9	±0.9	0.88	0.0%	NA	0.4	±1.9	0.68	65.5%	0.0%
2003.2-2015.1	5.2	±1.9	0.81	0.0%	0.0%	5.8	±1.1	0.86	0.0%	NA	-0.5	±2	0.72	57.6%	0.0%
2004.2-2015.1	4	±1.9	0.82	0.0%	0.0%	5.8	±1.3	0.82	0.0%	NA	-1.6	±2.1	0.77	12.3%	0.0%
2005.2-2015.1	3.7	±1.9	0.86	0.1%	0.0%	4.9	±1.2	0.81	0.0%	NA	-1.1	±1.9	0.87	23.2%	0.0%
2006.2-2015.1	3.1	±2.2	0.86	1.0%	0.0%	4.5	±1.4	0.74	0.0%	NA	-1.2	±2.2	0.89	26.2%	0.0%
2007.2-2015.1	3.3	±2.6	0.88	1.8%	0.0%	4.3	±1.8	0.65	0.0%	NA	-0.8	±2.2	0.93	44.8%	0.0%
2008.2-2015.1	5	±3	0.91	0.3%	0.0%	5	±2.2	0.65	0.0%	NA	0.3	±2.8	0.93	84.2%	0.0%
2009.2-2015.1	5.5	±4	0.91	1.1%	0.0%	6.1	±2.7	0.71	0.0%	NA	-0.3	±3.7	0.93	87.3%	0.0%
2010.2-2015.1	6.9	±6	0.9	2.6%	0.0%	7.1	±3.9	0.67	0.2%	NA	0.4	±5.7	0.92	87.2%	0.0%
2011.2-2015.1	7.7	±10.9	0.86	11.6%	0.1%	7.5	±6	0.56	2.0%	NA	1.1	±10.1	0.9	78.6%	0.1%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2001.1-2014.2	6.9	±1.6	0.86	0.0%	0.0%	6.3	±0.9	0.9	0.0%	NA	0.6	±1.6	0.69	47.0%	0.0%
2002.1-2014.2	6.7	±1.8	0.83	0.0%	0.0%	6	±0.9	0.88	0.0%	NA	0.7	±1.9	0.69	44.9%	0.0%
2003.1-2014.2	5.8	±1.9	0.84	0.0%	0.0%	5.6	±1.1	0.85	0.0%	NA	0.1	±2	0.72	92.4%	0.0%
2004.1-2014.2	4.8	±2	0.83	0.0%	0.0%	5.8	±1.3	0.82	0.0%	NA	-0.9	±2.2	0.75	37.8%	0.0%
2005.1-2014.2	3.4	±2	0.86	0.2%	0.0%	5.5	±1.5	0.76	0.0%	NA	-2.1	±2.4	0.78	8.6%	0.0%
2006.1-2014.2	3.1	±2.2	0.87	1.0%	0.0%	4.5	±1.4	0.74	0.0%	NA	-1.4	±2.2	0.87	19.3%	0.0%
2007.1-2014.2	2.4	±2.8	0.87	7.8%	0.0%	4	±1.7	0.65	0.0%	NA	-1.7	±2.6	0.89	18.4%	0.0%
2008.1-2014.2	3.8	±3.4	0.88	2.9%	0.0%	3.8	±2.2	0.52	0.2%	NA	-0.3	±3	0.92	83.8%	0.0%
2009.1-2014.2	4.6	±4.2	0.91	3.4%	0.0%	4.4	±2.9	0.49	0.7%	NA	-0.2	±3.7	0.93	90.9%	0.0%
2010.1-2014.2	6.8	±6	0.91	2.9%	0.0%	6	±3.8	0.59	0.6%	NA	0.1	±5.7	0.92	96.9%	0.0%
2011.1-2014.2	8.8	±10.7	0.89	7.7%	0.1%	5.2	±6	0.35	7.1%	NA	2.5	±9.9	0.9	53.9%	0.1%

Province of Alberta
Commercial Vehicles

Comprehensive Excluding Catastrophe
With Seasonality except Severity; No Level Change

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2002.1-2014.2	5.1	±1.5	0.8	0.0%	0.0%	6.3	±0.8	0.92	0.0%	NA	-1.1	±1.2	0.68	6.3%	0.0%
2003.1-2014.2	4.3	±1.6	0.79	0.0%	0.0%	6	±0.8	0.91	0.0%	NA	-1.6	±1.3	0.72	2.0%	0.0%
2004.1-2014.2	3.2	±1.5	0.81	0.0%	0.0%	6.1	±1	0.89	0.0%	NA	-2.6	±1.1	0.84	0.0%	0.0%
2005.1-2014.2	2	±1.4	0.85	0.5%	0.0%	5.7	±1.2	0.85	0.0%	NA	-3.4	±1	0.9	0.0%	0.0%
2006.1-2014.2	1.1	±1.3	0.88	9.2%	0.0%	5.1	±1.3	0.81	0.0%	NA	-3.8	±1.2	0.89	0.0%	0.0%
2007.1-2014.2	0.8	±1.7	0.86	28.9%	0.0%	4.8	±1.5	0.75	0.0%	NA	-3.7	±1.5	0.87	0.0%	0.0%
2008.1-2014.2	1.3	±2.2	0.85	20.1%	0.0%	4.9	±2	0.69	0.0%	NA	-3.4	±2	0.85	0.4%	0.0%
2009.1-2014.2	2.5	±2.5	0.89	4.8%	0.0%	5.9	±2.6	0.7	0.0%	NA	-3.1	±2.9	0.82	3.9%	0.0%
2010.1-2014.2	3.8	±3.2	0.92	2.7%	0.0%	7.4	±3.3	0.75	0.1%	NA	-3.2	±4.5	0.77	14.7%	0.1%
2011.1-2014.2	6.1	±4.6	0.94	1.6%	0.0%	8	±5.7	0.63	1.1%	NA	-1.4	±7.9	0.71	65.9%	0.7%

No Exclusions

	Loss Cost					Severity					Frequency				
Time Period	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Seasonality
2002.1-2014.1	5.3	-1.6	0.78	0.0%	0.0%	6.1	-0.8	0.92	0.0%	NA	-0.8	-1.2	0.72	19.9%	0.0%
2003.1-2014.1	4.4	-1.7	0.78	0.0%	0.0%	5.7	-0.8	0.91	0.0%	NA	-1.2	-1.3	0.75	7.6%	0.0%
2004.1-2014.1	3.3	-1.7	0.79	0.1%	0.0%	5.7	-1	0.88	0.0%	NA	-2.3	-1.1	0.87	0.0%	0.0%
2005.1-2014.1	2	-1.5	0.83	1.3%	0.0%	5.2	-1.1	0.85	0.0%	NA	-3.1	-1	0.91	0.0%	0.0%
2006.1-2014.1	0.9	-1.4	0.87	21.5%	0.0%	4.4	-1.1	0.83	0.0%	NA	-3.4	-1.2	0.91	0.0%	0.0%
2007.1-2014.1	0.5	-1.8	0.85	56.8%	0.0%	3.9	-1.2	0.79	0.0%	NA	-3.3	-1.6	0.89	0.1%	0.0%
2008.1-2014.1	0.9	-2.4	0.83	43.2%	0.0%	3.7	-1.5	0.71	0.0%	NA	-2.7	-2.1	0.88	1.9%	0.0%
2009.1-2014.1	2.2	-3	0.87	12.7%	0.0%	4.3	-2	0.7	0.1%	NA	-2	-3	0.87	16.0%	0.0%
2010.1-2014.1	3.8	-4.2	0.9	6.7%	0.0%	5.3	-2.4	0.77	0.1%	NA	-1.5	-4.9	0.84	48.3%	0.1%
2011.1-2014.1	6.8	-6.4	0.92	3.8%	0.1%	4.8	-4.4	0.55	3.5%	NA	2	-7.7	0.87	51.0%	0.3%

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