

# Nova Scotia

## **Private Passenger Vehicles**

# Oliver Wyman Selected Loss Trend Rates Based on Industry Data Through June 30, 2015

#### **Selected Trend Rates - Summary**

The following table presents our selected past and future annual loss cost trend rates as of June 2015. We discuss and present our methodology and assumptions in selecting our trend rates in this report.

	Past	Future
Coverage	Loss Cost	Loss Cost
Bodily Injury	-6.0%/+0.5%	+0.5%
Property Damage	+2.0%	+2.0%
AB – Disability Income	-2.5%	-2.5%
AB – Medical/Rehab	+2.5%	+2.5%
AB – Funeral	-2.0%	-2.0%
AB – Death	0.0%	0.0%
AB-Total	0.0%	0.0%
Collision	+0.5%	+0.5%
Comprehensive	+3.5%	+3.5%
Specified Perils	+3.5%	+3.5%
All Perils	+0.0%	+0.0%
Underinsured Motorist	+3.0%	+3.0%
Uninsured Auto	+6.0%	+6.0%

In selecting loss trend rates we consider the Bill 52 reforms enacted on April 28, 2010 that changed the definition of a minor injury and the cap amount applied to such minor injuries for pain and suffering awards. We also consider the Fair Insurance Act effective April 1, 2012 that enhanced the Accident Benefit coverage limits; and the introduction of DCPD in April 2013. These reforms present additional challenges in selecting trend rates for the Bodily Injury and Accident Benefits coverages.

We discuss these considerations more fully in this report.

# Loss Trend Rates

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 must be adjusted to reflect changes in cost conditions that have taken place (i.e., "past trend"), and then the data must be further adjusted to reflect changes in cost conditions that are expected to take place between the present time and the time during which 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, which we have assumed to be the three to five years ending June 30, 2015. Future trend rates should reflect those same patterns that occurred during the experience period, as well as the likelihood that those patterns may change.

We select trend rates based on historical Industry Nova Scotia claim experience. The Industry data is organized by half-year, and in this report we refer to the first half of an accident half year as XXXX-1 or XXXX.1 and the second half of the accident year as XXXX-2 or XXXX.2. So, for example, the accident half-year spanning January 1, 2015 through June 30, 2015 is referred to as 2015-1 or 2015.1

We derive indicated annual loss trend rates based on an exponential regression model using Industry historical accident year loss and loss adjustment expense data that we project to ultimate cost level (when all claims are reported and settled) using the Industry loss development factors we select.

#### **Estimation of Industry Ultimate Loss and Claim Amounts**

The Industry Nova Scotia 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 June 30, 2015. We select development factors based on a review of the Industry Nova Scotia loss development patterns; we do this by coverage. 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; and (b) the volume weighted average of the last six observed development factors (for the development periods beyond 12 months). For the more minor coverages, such as Specified Perils, Uninsured Auto, Accident Benefits- Death Benefits and Funeral, we tend to select the volume weighted average of the last twenty observed development factors through 66 months of development and the allyear volume weighted average for development periods beyond 66 months. For Uninsured Auto and Underinsured Motorist, we tend to select the all-year volume weighted average for all development periods. The exceptions are as follows:

Bodily Injury	Claim Amount	6-12	Weighted average of last
			four semester values
Property Damage	Claim Count	6-12	Average of last two
			semester values
Property Damage	Claim Amount	6-12; 96-102,	Average of last two
		144-150	semester values; 1.00
Accident Benefits-	Claim Count	6-12	Weighted average of last
Medical			six semester values
Accident Benefits-	Claim Amount	6-12; 96-102,	Weighted average of
Medical		120-126	last six semester
			values; 1.00
Accident Benefits-	Claim Count	6-12	Weighted average of last
Disability Income			six semester values
Accident Benefits-	Claim Amount	6-12; 48-54 and	Weighted average of last
Disability Income		66-150; 150+	six semester values; all
			semesters wgt avg; 1.00
Uninsured	Claim Count	6-144 ;144+	All semester weighted
			average; 1.00
Uninsured	Claim Amount	6-144 ;144+	All semester weighted
			average; 1.00

Collision	Claim Count	6-12;	Weighted average of last
			six semester values; 1.00
Collision	Claim Amount	6-18; 60+	Weighted average of last
			six semester values; 1.00
Comprehensive	Claim Count	6-12	Average of last three
			seasonal semester values
Comprehensive	Claim Amount	6-12	Average of last three
			seasonal semester values
Specified Perils	Claim Count	6-12, 12+	All semester weighted
			average; 1.00
Specified Perils	Claim Amount	6-18, 36-48; 18-	All semester weighted
		30	average; 1.00
All Perils	Claim Amount	6-12; 66-72	Weighted average of last
			six semester values; 1.00

Exhibit 2, attached, presents our selected cumulative claim count and claim amount development factors.

We note that changes in our estimate of the ultimate claim counts and ultimate claim amounts from our prior estimates impact the resulting trend patterns and our selected trend rates.

### Consideration of Severity, Frequency, and Loss Cost Trend Patterns

We review and consider the frequency and severity trend rates separately. However, as we tend to select frequency and severity trend rates over the same time period and we find there to be correlation between frequency and severity, our selected trend rate will often be based on a review of loss cost trend patterns. But where we find it appropriate to do so, we select separate trend patterns for claim frequency and severity and then combine the selected severity and frequency trend rates to arrive at a selected loss cost trend rate.

#### **Selection of Trend Rates**

The Time Period We Considered

We present and consider the latest fifteen years of Industry Nova Scotia claim experience, but generally select past trend rates based on the trend patterns observed over the more recent years.

We note the following:

- For Bodily Injury, we give special consideration to the 2008-1 to 2010-1 period where challenges and changes to the Minor Injury Regulations (April 2010) may have had an impact on the claims experience.
- For Bodily Injury, we also give consideration to a possible change in reporting pattern that might have occurred beginning January 2008 as a result of challenges to the Minor Injury Regulations in particular, the Decision by the Supreme Court of Nova Scotia to uphold the Minor Injury Regulation released on December 15, 2009, and the Supreme Court of Canada's Decision on May 27, 2010 to refuse leave to appeal the Decision.
- We give consideration to Bill 52, an amendment to the Automobile Accident Minor Injury Regulations of the Insurance Act, enacted on April 28, 2010; and the Fair Act Insurance Reforms enacted on April 1, 2012, which introduced higher maximum benefit levels for Accident Benefits sub-coverages.
- Effective April 1, 2013, the DCPD coverage was introduced in Nova Scotia. We give consideration to this change in our selected trend rates for both Property Damage (which includes DCPD) and Collision.
- In selecting future trend rates, if appropriate, we adjust 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.

# Seasonality

In analyzing the trend patterns, we reflect the seasonality (difference between the frequency and/or severity during the first half of the year versus the second half of the year) of the data points for the Bodily Injury, DCPD/Property Damage, Disability

Income-frequency, Medical Expense-frequency, Funeral, Death Benefits, and Comprehensive coverages.

# The Data Points We Considered

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 model the data several<sup>1</sup> different ways in an attempt to identify the underlying trends during the experience period: with and without certain data points to improve our understand of the sensitivity of the calculated loss trend rate 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.

We note the following data points for which we give special consideration:

- For Bodily Injury and Accident Benefits-Medical, the average loss cost for 2008 is the lowest point over the latest ten year history, driven by a decline in the frequency rate from 2007 to 2008.
- There were large increases in frequency for the 2015-1 accident period as compared to 2014-1: Bodily Injury +9.3%, Property Damage/DCPD +21.2%, Collision +15.6% and Comprehensive +14.4%. We believe these increases to be at least in part (perhaps mostly) attributed to the relatively high amount of snow precipitation in the first quarter of 2015.

Summaries of the various loss trend patterns that we observe and consider for each coverage, including the associated statistical measures, are included in Exhibit 3. A discussion of our selected trend rates follows.

<sup>&</sup>lt;sup>1</sup> We do not present the findings for all the regression models that we review to deepen our understanding of the underlying trend patterns.

## Our Selected Trend Rates

# **Bodily Injury**

Based on our analysis as of December 31, 2014, we selected a past loss cost trend rate of -6.0% for the period up to and including December 31, 2008, and +0.5% for the period from January 1, 2009 and onward.

We estimate that during 2015-1 compared to the prior corresponding accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +9.3%, -1.8%, and +7.4%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 decreased by 5.8% over the loss cost for the accident year ending June 30, 2014.

As depicted by the attached graph (in Exhibit 1), the Bodily Injury loss cost declined following the 2003 reforms through to accident year 2008, when it declined very sharply by approximately 20% from 2007 to 2008. The 2008 loss cost represents the low point over the latest ten-year history.

As we discussed in prior reports, the cause of the sharp decline in 2008 is not clear; and based on IBC's investigation, there were no unusual insurer changes in reported experience that would have caused the decline – although IBC did note that there was a drop in the number of reported large claims. We note that in 2008 claim frequency also declined for Collision and Property Damage, but not to the same degree as Bodily Injury. So, the decline may be due to a change in other external factors and conditions that affected frequency. There may very well be other contributing factors such as the pending (at the time) court challenge (claimants waiting for the court decision before submitting claims), a continuation of the forces that caused Bodily Injury frequency to have been in decline for a number of years, or random variation. Given the unexplained sharp decline, we consider 2008 to be a low outlier year. The following table presents the trends during the 2004 to 2008 period, but excluding the 2008 year.

	Loss Cost	
	Trend	Adjusted R2
2004.1-2007.2	-6.3%	0.89
2004.2-2007.2	-6.0%	0.89
2005.1-2007.2	-5.0%	0.80

The loss cost trends over these periods range from -5.0% to -6.3%, with most of the negative (downward) trend attributable to the downward trend in the frequency rate. We select a loss cost trend rate for the **periods ending December 31, 2008 of -6.0%,** the same as our prior selection.

The change in loss cost trend that began in 2009 is in part attributed to severity. And, we believe, that the change in severity is, in turn, attributable to the increase in the minor injury cap effective on April 28, 2010. In our study prepared for the Nova Scotia Superintendent of Insurance, "Cost Implications of Changes to the Minor Injury Regulations," dated May 12, 2010, we estimated that the Bodily Injury loss cost would increase by approximately 17% as a result of the increase to the minor injury cap increase from \$2,500 to \$7,500 and that the increase would be due to severity. In our prior loss trend report, we updated our initial estimate of the impact of the increase in the minor injury from +17% to +23%. Following a similar analysis as in our prior report (and discussed more fully in the reform section), we continue to estimate the impact of the increase in the minor injury to be +23%.

In our prior study, after reflecting the change in severity resulting from the increase in the minor injury cap, we selected a past loss cost trend rate of +0.5% for the period starting January 1, 2009, which was in the range of the various three to five year trends ending December 31, 2014, with various exclusions, that we calculated.

We again consider the experience since 2009 (with an adjustment to reflect the estimated increase in severity due to the increase in the minor injury cap). The observed loss cost trends through 2015-1 and through 2014-2 (in consideration of the relatively higher degree of uncertainty surrounding the estimated loss cost for 2015-1 and the adverse first quarter 2015 weather conditions) are as follows:

Γ	Loss Cost	
	Trend	Adjusted R2
2009.1-2015.1	+2.1%	0.70
2009.2-2015.1	+2.0%	0.65
2010.1-2015.1	+2.9%	0.66
2010.2-2015.1	+3.3%	0.61
2011.1-2015.1	+1.1%	0.79
2011.2-2015.1	+0.3%	0.75
2012.1-2015.1	+0.8%	0.69
2012.2-2015.1	+2.2%	0.65

	Loss Cost	
	Trend	Adjusted R2
2009.1-2014.2	+1.7%	0.71
2009.2-2014.2	+1.5%	0.61
2010.1-2014.2	+2.6%	0.66
2010.2-2014.2	+2.9%	0.60
2011.1-2014.2	-0.6%	0.84
2011.2-2014.2	-1.7%	0.81
2012.1-2014.2	-2.2%	0.76

We make the following observations about these indicated trends:

The trends over the time periods ending 2014-2 are lower and have higher Adjusted R-2 values than those over the time periods ending 2015-1. These results are attributed to the 9.3% increase in frequency that occurred (estimated) in 2015-1.

The measured trends including 2010-2 appear out of line with the other measured trends. We note that the square error value for the 2010-2 data point is relatively high.

	Loss Cost	
	Trend	Adjusted R2
2009.1-2014.2	+0.7%	0.88
2009.2-2014.2	+0.2%	0.87
2010.1-2014.2	+0.2%	0.86
2011.1-2014.2	-0.6%	0.84
2011.2-2014.2	-1.7%	0.81
2012.1-2014.2	-2.2%	0.76

For these reasons, we focus on the measured trends over the following time periods, excluding the 2010-2 data point.

We note the much stronger Adjusted R2 values and generally more consistent trends. We also note that indexing of the \$7,500 minor injury cap is likely affecting the trend. We further note that although we expect the April 1, 2012 increase in the Accident Benefits sub coverage limits to reduce the Bodily Injury claim costs (all else being equal), at this early stage there is insufficient data to measure the actual change in the Bodily Injury claim costs due to those reforms. The effect on Bodily Injury as a result of the changes to the Accident Benefits sub coverage limit changes is discussed in our report prepared for the Board titled "2011 Automobile Insurance Review Options- Cost Impact," dated July 8, 2011.

We also note, as shown in Exhibit 3, the P-values for all of the loss cost trends shown above are much greater than 5% (the level of significance we have selected). However, the separate P-values for frequency and severity are generally significant.

Based on the separate frequency and severity results, we find the 2009-1 to 2014-2 and 2009-2 to 2014-2 time periods to exhibit the best fits based on both Adjusted R2 and P-values, and we select a loss cost trend rate of +0.5% for the period beginning January 1, 2009.

In summary:

#### Past trend rate

• Ending December 31, 2008: -6.0%, the same as our prior selection.

• Beginning January 1, 2009: +0.5%, the same as our prior selection of +0.5%.

## Future trend rate

• As we see no clear evidence of a recent change in trend pattern, we select a future loss cost trend of +0.5%.

# Property Damage (and DCPD)

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of +0.5%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +21.2%, +11.1%, and +34.7%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 increased by 21.7% over the loss cost for the accident year ending June 30, 2014. We assume that most of this increase is due to relatively high amount of snow precipitation during the first quarter of 2015.

DCPD was introduced April 1, 2013 in Nova Scotia, and the DCPD data is currently included with Property Damage.

Historical loss cost trends before the introduction of DCPD are as follows:

	Loss Cost	
	Trend	Adjusted R2
2004.1-2008.2	+3.5%	0.79
2005.1-2008.2	+3.4%	0.71
2008.1-2012.2	+2.5%	0.60
2009.1-2012.2	+0.3%	0.62
2010.1-2012.2	-0.3%	0.52

In the four to five year period prior to 2008, loss cost trend rates were in the range of +3.5%. Then, after 2008, loss cost trend rates declined, with the trends over the three and four years ending December 2012 at -0.3% and +0.3%, respectively.

We assume that the introduction of DCPD in April 2013 caused a shift in claims from Collision to DCPD. This would explain the relatively large increase in DCPD frequency and decrease in Collision frequency since 2013-1. We note that the average PD/DCPD frequency was 22/1,000 vehicles for accident year 2012 and increased to 25/1,000 (+14%) for accident year 2014. In contrast, the average Collision frequency was 36/1,000 vehicles (approximately) for the accident year 2012 and 27/1,000 vehicles (approximately) in accident year 2014.

Given these results, we tested for a change in level occurring in the first half of 2013 in our model.

In Exhibit 3, and as summarized in the following table, we present the observed trends over various time periods and the indicated level change value. However, we find that due to the noted sharp increase in the 2015-1 loss cost (particularly frequency) the regression results ending 2015-1 have relatively poor fits based on the Adjusted R2 and P-values. Therefore, we consider the observed trends over periods ending 2014-2:<sup>2</sup>

	Loss Cost		
	Trend	Adjusted R2	Level Change Value
2000.2-2014.2	+2.6%	0.86	1.14
2005.1-2014.2	+3.0%	0.89	1.12
2006.1-2014.2	+2.5%	0.88	1.13
2007.1-2014.2	+2.1%	0.85	1.15
2008.1-2014.2	+2.4%	0.84	1.14
2009.1-2014.2	+0.5%	0.85	1.20
2010.1-2014.2	+0.6%	0.82	1.20

Considering the statistical results presented in Exhibit 3, we find the trend rates over the periods beginning 2000-2 through 2008-1 present the best fits based on the Adjusted R2 and P-values with reasonably consistent loss cost trend rates. Given the recent timing of the introduction of DCPD and the uncertainty of its true impact, the

<sup>&</sup>lt;sup>2</sup> We do not consider the three or four year trends due to non-significant P-values.

unusually large increase in the 2015-1 data point which we believe is weather related, and our prior selection of +0.5%, we select a past and future trend rate of +2.0%, with a level change parameter at April 2013 of  $1.15^3$ .

#### Accident Benefits – Disability Income

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of -1.5%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +1.8%, -15.1%, and -13.6%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 decreased by 16.1% over the loss cost for the accident year ending June 30, 2014.

We find there to be considerable volatility in the year over year change of the loss cost. In particular, as confirmed by the square error values, there was a sharp decline in the Disability Income loss cost beginning in 2007 that bottomed out in 2008–2009, then a return in 2010 to pre-2007 levels, but with the loss cost still exhibiting a high degree of volatility. We take into consideration the unusually low loss costs in 2008 and 2009 in selecting our loss trend rate.

Effective April 1, 2012, the Disability Income weekly benefit was increased from \$140 to \$250, and for unpaid housekeepers from \$70 to \$100. Our initial estimate of the impact of this April 2012 benefit level reform change was +43%, and as discussed more fully in the reform section, we continue to select a reform factor of 1.43.

We also find that the seasonality parameter is significant for frequency, but not for severity. We therefore exclude seasonality from our regression model for severity.

In Exhibit 3, and as summarized in the following tables, we present the observed trends over various time periods with the pre April 2012 data adjusted by a factor of 1.43, excluding accident years 2008 and 2009 from the regression, and ending with 2015-1.

<sup>&</sup>lt;sup>3</sup> As presented in Exhibit 3, we find the P-value for the level change parameter of 1.15 is statistically significant at 0.01 for the time period 2007-1 to 2014-2.

	Frequency	Frequency
	Trend	Adjusted R2
2000.2-2015.1	-6.7%	0.92
2005.2-2015.1	-5.7%	0.84
2010.2-2015.1	-4.9%	0.69
2011.2-2015.1	-7.6%	0.82

Γ	Severity	Severity
	Trend	Adjusted R2
2000.2-2015.1	+4.8%	0.52
2005.2-2015.1	+3.2%	0.11
2010.2-2015.1	-0.9%	-0.12
2011.2-2015.1	+1.2%	-0.16

The results show a relatively consistent range of frequency trends with high Adjusted R2 values and significant P-values, but a wider range of severity trends with generally weak Adjusted R2 values and P-values.

We select a past loss cost trend rate of **-2.5%** which is in the range of the measured trends beginning 2000-2 and 2005-2, and which exhibit the best fits based on the Adjusted R2 and P-values.

As we see no clear evidence of a change in trend pattern, we select a future loss cost trend of **-2.5%**.

#### Accident Benefits – Medical/Rehab

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of +1.5%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +7.8%, +6.9%, and +15.2%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 decreased by 7.3% over the loss cost for the accident year ending June 30, 2014.

Following four years of a relatively level severity, Medical/Rehab severity increased 22% in 2010, and has continued to remain at this higher level with some modest increases since. The timing suggests that the 2010 increase may be attributed to the increase in the Bodily Injury minor injury cap.

Medical/Rehab frequency declined over the period 2000 to 2008 - sharply declining in 2008 – and then began to generally increase. Our discussion in the Bodily Injury section above regarding possible reasons for the decline in 2008 may also apply to Medical/Rehab. It is not clear if the reforms (April 2010 and April 2012) caused or contributed to the frequency rate increase as the pattern of increase began before the reforms were implemented.

Due to the possible different impact of the reforms on frequency versus severity, and that we find frequency, but not severity, to be subject to seasonality, we discuss the trends rates separately for frequency and severity.

As discussed more fully in the Reform Section, we continue to select a severity level change parameter of 1.15 to reflect the April 2012 reform, consistent with our July 2011 report prepared for the Board, and a severity level change parameter of 1.25 to reflect the impact of Bill 52 enacted in April 2010.

In Exhibit 3, and as summarized in the following tables, we present the observed trends over various time periods, with historical severities adjusted to reflect the reforms (by a factor of 1.25 for the April 2012 reform and a factor of 1.15 for the July 2012 reform), and applying the seasonality parameter to frequency.

	Frequency	
	Trend	Adjusted R2
2000.2-2015.1	-3.3%	0.56
2005.2-2015.1	+0.1%	0.21
2010.2-2015.1	+2.7%	0.57
2011.2-2015.1	+3.7%	0.51

Based on the above results and those presented in Exhibit 3 - particularly over the five-year time period from 2010-2 to 2015-1, for which the P-value is significant - we select a**past frequency trend rate of +2.5%**. This selection:

- reflects the time period since Bill 52
- excludes the periods prior to the noted sharp increase in loss cost
- excludes the period of frequency decline prior to 2008 that has not been evident over the last five years

	Severity		
	Trend	Adjusted R2	
2000.2-2015.1	-0.3%	-0.01	
2005.2-2015.1	+0.1%	-0.05	
2010.2-2015.1	-1.5%	-0.06	
2011.2-2015.1	-3.7%	0.04	

Based on the above results and those presented in Exhibit 3, we select a **past severity trend rate of +0.0%**. This selection recognizes the generally very weak Adjusted R2 values and P-values over all trend measurement periods.

Hence, our selected past loss cost trend rate is +2.5%.

As we see no clear evidence of a recent change in trend pattern, we select a future loss cost trend of +2.5%.

### Accident Benefits – Funeral

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of -6.0%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +87.8%, -0.1%, and +87.7%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 increased by 32.8% over the loss cost for the accident year ending June 30, 2014.

Effective April 1, 2012, the Funeral maximum benefit was increased from \$1,000 to \$2,500; we observe an increase in severity since this reform.

Due to the relatively recent enactment of the reform, and the extreme volatility of the Funeral claim experience, we consider the observed trends over periods prior to the reform.

The loss cost trend over the period 2000-2 to 2011-2 is  $-4.7\%^4$ , with relatively low Adjusted R2 value of 22% (which is further evidence of the volatility of the data).

We select a past and future loss cost trend of -5.0%.

### Accident Benefits – Death

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of 0.0%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +10.3%, +1.2%, and +11.7%, respectively. We estimate that the loss cost for the

<sup>&</sup>lt;sup>4</sup> Our findings are the same for the loss cost trend with or without seasonality.

accident year ending June 30, 2015 increased by 5.4% over the loss cost for the accident year ending June 30, 2014.

Effective April 1, 2012, the Death maximum benefit was increased from \$10,000 to \$25,000 for spouses and head-of-household, and from \$2,000 to \$5,000 for dependents. All else being equal, we would expect to see an increase in the 2012-1 severity; an increase in severity has been observed following the reform.

Due to the relatively recent enactment of the reform, and the volatility of the Death claim experience, we consider the observed trends over periods prior to the reform.

The loss cost trend over the period 2000-2 to 2011-2 is -0.2%, with a very low negative Adjusted R2 value (which is further evidence of the volatility of the data).

We continue to select a past and future loss cost trend of +0.0%

# Accident Benefits – Total

Based on our review of the trends for the Accident Benefits subcoverages described above, we select an approximate past loss cost trend of **0.0%** for this coverage.

As we see no clear evidence of a recent change in trend pattern, we select a future loss cost trend of **0.0%**.

### Collision

Based on data as of December 31, 2014, we selected a past and future loss cost trend rate of +0.0%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +15.6%, -0.3%, and +15.3%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 increased by 3.6% over the loss cost for the accident year ending June 30, 2014.

It is only over the fifteen year period ending 2015-1 we find that the seasonality parameter is statistically significant for severity<sup>5</sup>, and we find the seasonality parameter not to be significant for frequency over any time period. Therefore we do not include a seasonality parameter in our regression for Collision.

As discussed above, DCPD was introduced April 1, 2013 in Nova Scotia, and we suggest this change has also affected Collision.

The data since the introduction of DCPD shows that Collision frequency has declined (from approximately 36/1000 cars in 2012 to 27/1000 in 2014) and severity has increase (from approximately \$4,400 in 2012 to \$5,600 in 2014).

Given the changes in Collision, coincident with the introduction of DCPD, we, therefore, consider the measured trends before and after the introduction of DCPD. Historical loss cost trends before the introduction of DCPD are as follows:

	Loss Cost	Severity		Free	luency
	Trend	Trend	Adjusted R2	Trend	Adjusted R2
2004.1-2008.2	+4.9%	+4.3%	0.40	0.6%	-0.11
2005.1-2008.2	+6.0%	+6.9%	0.68	-0.9%	-0.14
2008.1-2012.2	-1.4%	+0.5%	-0.05	-1.9%	0.19
2009.1-2012.2	-1.5%	+2.0%	0.49	-3.5%	0.40
2010.1-2012.2	+1.3%	+1.7%	0.12	-0.4%	-0.24

As we observed for PD, there appears to have been a change in trend after 2008. Prior to 2008 the Collision loss cost trend rates were in the +5% to +6% range, mainly due to severity. Since 2008, but prior to the introduction of DCPD, the loss cost trend rates have been flatter, ranging from +1.3% to -1.5%.

In Exhibit 3, and as summarized in the following table, we present the observed trends over various time periods, the indicated level change values, and associated statistical results.

<sup>&</sup>lt;sup>5</sup> In our prior review we included seasonality as a parameter for severity.

	Loss Cost	Severity		st Severity F		Frequency	
	Trend	Trend	Adjusted R2	Level Change	Trend	Adjusted R2	Level Change
2005.2-2015.1	-0.2%	+2.3%	0.85	1.17	-2.4%	0.72	0.86
2009.2-2015.1	-0.3%	+1.5%	088	1.20	-1.8%	0.61	0.85
2010.2-2015.1	+0.2%	+0.5%	0.85	1.23	-0.3%	0.57	0.81
2011.2-2015.1	+1.2%	+1.8%	0.82	1.20	-0.6%	0.45	0.82
2012.2-2015.1	+5.4%	+3.3%	0.71	1.20	+2.0%	-0.02	0.80

The sharp increase in the frequency rate in 2015-1 (+15.3%) – which, as noted earlier, has been observed for other coverages - affects the trends presented above. Given the unusually high increase in the frequency rate for 2015-1, we consider the trend rates ending 2014-2.

	Loss Cost	Severity			Frequency		
	Trend	Trend	Adjusted R2	Level Change	Trend	Adjusted R2	Level Change
2005.1-2014.2	+0.5%	+2.7%	0.84	1.16	-2.2%	0.78	0.81
2009.1-2014.2	-1.8%	+2.1%	0.89	1.20	-3.8%	0.83	0.86
2010.1-2014.2	+0.3%	+2.3%	0.87	1.19	-1.9%	0.78	0.82
2011.1-2014.2	-3.9%	+4.1%	0.87	1.16	-7.7%	0.83	0.93
2012.1-2014.2	-7.4%	+10.3%	0.87	1.06	-16.1%	0.91	1.07

For frequency, we find the P-values most significant for the 2005-1 to 2014-2 time period and so select a frequency trend rate of -2.2%, with a level change parameter of 0.81.

As respects severity, the Adjusted R2 values are good over all the time periods presented. However, it is only over the ten year periods (2005-1 to 2014-2 and 2005-2 to 2015-1) that we find the P-value for both time and level change to be significant. We, therefore, select a severity trend rate of +2.7%, with a level change parameter factor of 1.16, based on the same time period as our selected frequency trend rate.

Based on these results we select a loss cost trend rate of +0.5%, and a level change parameter of 0.95 (rounded).

We assume the decrease in frequency and increase in severity from 2013 to 2014 is due to the introduction of DCPD in April 2013. And, we assume the increase in frequency in 2015-1 is weather related. For these reasons, and given the timing of the reform and the uncertainty of its true impact, we select a future trend rate of +0.5%, the same as our selected past trend rate.

#### Comprehensive

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

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +14.4%, +1.2%, and +15.7%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 increased by 11.1% over the loss cost for the accident year ending June 30, 2014.

In our prior study, we took into consideration that 2014-1 experience may be an outlier, as the 2014-1 accident year loss cost increased by 22% over comparable 2013-1 period based on the data as of December 31, 2014. In this study, based upon updated experience as of June 30, 2015, we find the 2014-1 accident year loss cost increased by 15% over the comparable 2013-1 period - attributed to a about an equal increase in both severity (+8%) and frequency (+6%). Although the increase in the 2015-1 loss cost over 2014-1 at +16% is similar to the increase for 2014-1 over 2013-1 at +15%, an important difference is that the 2015-1 loss cost increase is mainly attributable to an increase in frequency (+14%). However, we find the 2014-2 severity to be unusually high (as supported by the square error value), increasing by 14% over 2013-2.

In Exhibit 3, and as summarized in the following tables, we present the observed loss cost trends over various time periods and associated Adjusted R2 values for the time periods ending 2015-1 and, due to the sharp increase in frequency, ending 2014-2.

	Loss Cost		
	Trend	Adjusted R2	
2005.2-2015.1	+3.5%	0.82	
2006.2-2015.1	+3.2%	0.79	
2007.2-2015.1	+3.0%	0.77	
2008.2-2015.1	+3.6%	0.78	
2009.2-2015.1	+5.0%	0.83	
2010.2-2015.1	+5.8%	0.8	
2011.2-2015.1	+8.2%	0.84	
2012.1-2015.1	+10.8%	0.95	
2012.2-2015.1	+12.5%	0.95	

	Loss Cost		
	Trend	Adjusted R2	
2005.1-2014.2	+3.3%	0.87	
2006.1-2014.2	+2.7%	0.87	
2007.1-2014.2	+2.2%	0.87	
2008.1-2014.2	+2.1%	0.85	
2009.1-2014.2	+3.0%	0.87	
2010.1-2014.2	+4.2%	0.9	
2011.1-2014.2	+4.1%	0.86	
2012.1-2014.2	+9.0%	0.97	

The measured loss cost trend rates increase over the more recent time periods (latest three, four and five year trends), particularly when the 2015-1 data point is included – which we believe is largely due to the adverse weather conditions during the first

quarter of 2015. However, as we also find the 2014-2 severity to be unusually high (as noted above) we considered the loss cost trends excluding both the 2015-1 and 2014-2 data points. The summary shows a declining pattern in the trend rate with period 2008-1 to 2014-1 the lowest trend rate, then a general increase in the trend pattern thereafter.

	Loss Cost		
	Trend	Adjusted R2	
2005.1-2014.1	+3.1%	0.85	
2005.2-2014.1	+2.8%	0.82	
2006.1-2014.1	+2.4%	0.85	
2006.2-2014.1	+2.3%	0.82	
2007.1-2014.1	+1.7%	0.87	
2007.2-2014.1	+1.6%	0.84	
2008.1-2014.1	+1.5%	0.84	
2008.2-2014.1	+1.9%	0.84	
2009.1-2014.1	+2.4%	0.85	
2009.2-2014.1	+3.3%	0.87	
2010.1-2014.1	+3.6%	0.87	
2010.2-2014.1	+3.4%	0.82	
2011.1-2014.1	+3.1%	0.81	
2011.2-2014.1	+5.7%	0.85	

Based on our review of the Adjusted R2, P-values and confidence interval for each trend period, we find the measured trend rates over the periods beginning 2005-1 to 2007-1 in the table above to exhibit the best fits. However, the more recent time periods beginning 2009-2 and 2010-1 also have a very high Adjusted R2 and significant P-values, but with wider confidence intervals than the periods beginning 2005-1 to 2007-1. Given these more recent trends (beginning 2009-2 and 2010-1) are more reflective of the experience period upon which rate indications will be based, and have strong statistical fits, we, therefore, select a loss cost trend rate based on these time periods at +3.5% (rounded).

Based on our selected past frequency and severity trend rates, our selected loss cost trend rate is +3.5%.

Although there is an emergence of higher loss cost experience in the last year, as we believe this is weather related, we select a future loss cost trend rate of +3.5%, the same as our selected past trend rate.

# Specified Perils

Due to insufficient data, we select the same past and future loss cost trend rate as we do for Comprehensive, +3.5% for the past and the future.

# All Perils

Based on (Collision and Comprehensive) data as of December 31, 2014, we selected a past and future loss cost trend rate of +1.5%.

We estimate that during 2015-1 compared to the prior accident half year (2014-1) the frequency rate, the average severity, and the loss cost changed by approximately +15.1%, +0.9%, and +15.1%, respectively. We estimate that the loss cost for the accident year ending June 30, 2015 increased by 11.3% over the loss cost for the accident year ending June 30, 2014. We note the similarity to the Comprehensive findings.

In our prior studies we have selected the All Perils trend rate based on the selections made for Collision and Comprehensive. This approach ensured consistency in the trend rates amongst these overlapping coverages. Following a similar approach we would select a past and future loss cost trend rate of approximately +1.5% for the past and the future.

In this study, we consider the actual All Perils data to see if the data indicates a different pattern than that underlying Collision and Comprehensive experience.

In Exhibit 3, and as summarized in the following table, we present the observed trends over various time periods and associated Adjusted R2 values for the time periods ending 2014-2 and 2015-1.

	Loss Cost		
	Trend	Adjusted R2	
2005.2-2015.1	+1.20%	0.34	
2006.2-2015.1	+0.90%	0.23	
2007.2-2015.1	-0.10%	0.30	
2008.2-2015.1	+0.10%	0.23	
2009.2-2015.1	-0.30%	0.20	
2010.2-2015.1	-0.40%	0.04	
2011.2-2015.1	-0.40%	-0.22	
2012.2-2015.1	+2.30%	-0.45	

	Loss Cost		
	Trend	Adjusted R2	
2005.1-2014.2	+0.9%	0.37	
2006.1-2014.2	+0.7%	0.36	
2007.1-2014.2	-0.2%	0.53	
2008.1-2014.2	-0.7%	0.58	
2009.1-2014.2	-1.3%	0.67	
2010.1-2014.2	-1.6%	0.61	
2011.1-2014.2	-2.2%	0.52	
2012.1-2014.2	-2.5%	0.27	

The exclusion of the 2015-1 data point, which we think is appropriate given the adverse weather conditions, reduces the calculated loss cost trend rates, and improves the Adjusted R2 values.

The loss cost trends over the periods beginning 2009-1 (ending 2014-2) is -1.3% and has the highest Adjusted R2 values and most significant P-value (close to 0.05). Based on the All-Perils data we select a loss cost trend rate of -1.5% (rounded).

Selecting the trend rates based on the All Perils data, compared to our selection based on combining Collision and Comprehensive selections, results in a lower loss cost trend rate. Recognizing the generally more variable nature of All Perils claim experience and the smaller volume of claims for All Perils (that may not be fully credible), we select a past and future loss cost trend rate of +0.0% - between the trends indicated under our alternative approaches (+1.5% and -1.5%)

### Underinsured Motorist

Due to insufficient data, we select as the past loss cost trend rate, the severity trend rate of +3.0% that approximately underlies our selected Bodily Injury severity trend rate.

#### Uninsured Auto

There is considerable volatility in the loss cost over the last fifteen years, with no discernible trend that is indicated by the data over this period. However, we do observe that there is a general increase in the severity in the more recent years; and measure an approximate severity trend rate of +6.0% over the past ten years ending June 30, 2015. As we do not find there to be a measureable frequency trend rates over this same period, we, therefore, select a frequency trend rate of 0.0%.

We select a past and future loss cost trend rate of +6.0%.

### **Selected Trend Rates - Summary**

The following table presents our selected past and future annual loss cost trend rates as of June 2015.

Coverage	Past	Future
	Loss Cost	Loss Cost
Bodily Injury	-6.0%/+0.5%	+0.5%
Property Damage	+2.0%	+2.0%
AB – Disability Income	-2.5%	-2.5%
AB – Medical/Rehab	+2.5%	+2.5%
AB – Funeral	-2.0%	-2.0%
AB – Death	0.0%	0.0%
AB-Total	0.0%	0.0%
Collision	+0.5%	+0.5%
Comprehensive	+3.5%	+3.5%
Specified Perils	+3.5%	+3.5%
All Perils	+0.0%	+0.0%
Underinsured Motorist	+3.0%	+3.0%
Uninsured Auto	+6.0%	+6.0%

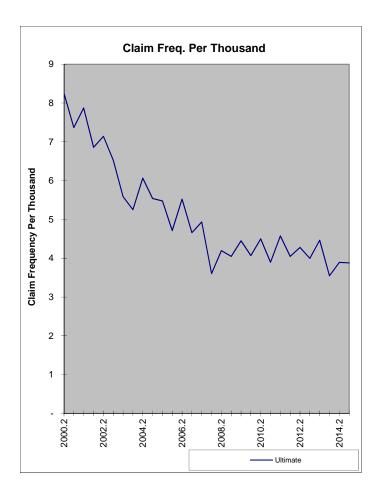
For comparison purposes, the following table presents our **prior** selected past and future annual loss cost trend rates **as of December 2014** presented in our prior report.

Coverage	Past	Future
	Loss Cost	Loss Cost
Bodily Injury	-6.0%/+0.5%	+0.5%
Property Damage	+0.5%	+0.5%
AB – Disability Income	-1.5%	-1.5%
AB – Medical/Rehab	+1.5%	+1.5%
AB – Funeral	-6.0%	-6.0%
AB – Death	0.0%	0.0%
AB-Total	-1.0%	-1.0%
Collision	0.0%	0.0%
Comprehensive	+4.5%	+4.5%
Specified Perils	+4.5%	+4.5%
All Perils	+1.5%	+1.5%
Underinsured Motorist	+2.5%	+2.5%
Uninsured Auto	+6.5%	+6.5%

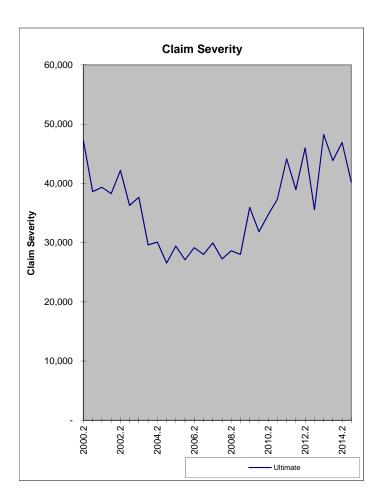
#### Reforms

In accordance with Bill 52, Bodily Injury claims that occur on or after April 28, 2010 are subject to a minor injury cap of \$7,500. Bill 52 changed both the amount of the cap and the definition of a minor injury. Following a Hearing on the matter, the Board accepted an initial reform adjustment factor of 1.17 for Bodily Injury, and ordered that the data be monitored as it emerges so as to measure the change, if any, in the loss trend rate and the actual change in loss costs due to Bill 52.

We have reviewed the Industry Bodily Injury experience that has emerged since the Bill 52 reforms were introduced to determine if the initial reform factor of 1.17 should be amended. The Bodily Injury frequency experience over the last fifteen years is presented in the graph below. As depicted in the graph, we do not observe there to have been a change in the frequency level as a result of the introduction of Bill 52 in the first half of 2010. And although we do notice the frequency trend rate to be a smaller negative trend rate since 2009, just before the reforms were introduced, it is not clear that this smaller negative trend rate is a result of the reforms or a leveling off of the decline in frequency that has been observed in other provinces.



The Bodily Injury severity experience over the last fifteen years is presented in the graph below. As depicted in the graph, we observe there to have been an increase in the severity level as a result of the introduction of Bill 52 in the first half of 2010. So as to avoid any distortion from the Bill 1 (2003-2) reforms, we calculate a reform factor for this change in the severity level based on the experience period 2004-1 to 2015-1 of 1.23, and find this parameter to be significant based on a T-test value of 3.00 and P-value of 0.007.



As noted earlier, the \$7,500 minor injury cap is indexed. The cap increased to \$7,596 on January 1, 2012; to \$8,100 on January 1, 2013; to \$8,213 on January 1, 2014 and \$8,352 on January 1, 2015.

In the case of Medical-Rehabilitation, based on our review of the experience to date, and integration of reform parameters within our loss trend models, we continue to find that there to have been an increase in Medical-Rehab severity following the April 2010 Bodily Injury reforms. Using our regression model we estimate a severity reform factor of 1.24, based on the period from 2005-1 to 2011-2 (before the April 2012 Bill 52 reforms), with an Adjusted R2 of 81%, and strong T-test and P-value results of 0.003. Similarly, over the time periods 2006-1 to 2011-2, we measure severity reform factors of 1.23, with an Adjusted R2 of 79% and a strong P-value of 0.017. (See Exhibit 3 for these statistical fit measures). We continue to select a reform factor of 1.25, the same as per our prior selection.

In addition to the possible impact of Bill 52 on the Med-Rehab costs, the Fair Insurance Reforms introduce higher Accident Benefit limits effective April 1, 2012 as presented in the following table:

Benefit Category	Previous Benefit	New Benefit (as of April 1, 2012)
Medical and Rehabilitation Expenses	\$25,000	\$50,000
Funeral Expenses	\$1,000	\$2,500
Death Benefits		
Head of Household	\$10,000	\$25,000
Spouse of Head of Household	\$10,000	\$25,000
Dependent	\$2,000	\$5,000
Loss of Income	\$140/week	\$250/week
Principal Unpaid Housekeeper	\$70/week	\$100/week

However, we do not find the data to show any statistically significant measures for the change in benefit level for the April 2012 reforms at this time for Medical-Rehabilitation. This may be because these two changes (April 2010 and April 2012) are so close together. For this reason, we continue to select an estimate of 1.15 for the April 2012 reform, consistent with our July 2011 report prepared for the Board.

In the case of Disability Income, while we considered updating our reform factor estimate, as the data is limited we are unable to observe statistical evidence that the loss cost was affected by the change in benefit level in (e.g., a statistically significant T-test or P-value for the change in level). Therefore, we continue to select our original April 2012 reform factor of 1.43.

Given the limited data, our reform factors for Funeral and Death Benefits remain unchanged at 2.0 and 2.5, respectively, at this time. In our report prepared for the Board dated July 2011, we estimated an approximate Accident Benefits loss cost reform factor of 1.30 and this increase to the Accident Benefits loss cost of approximately \$11 would be partially offset by a reduction to the Bodily Injury loss cost of \$7, for an overall increase of approximately \$4. As these changes were only introduced midway through the first half of 2012, the actual cost impact of these reform remains uncertain. Our reform impact estimates for these benefit level reforms remains unchanged.

As discussed in this report, there appears to have been a shift in claims from the Collision coverage to the PD/DCPD coverage beginning in 2013-1 due to the introduction of the DCPD coverage in April 2013. Commensurate adjustments between these two coverages should be made by insurers when calculating rate indications for this shift. We estimate a level change factor for PD/DCPD (combined experience) of 1.15 and for Collision of 0.95. (See Exhibit 3 for these statistical fit measures.)

#### Exhibits

In the Exhibit 1 we present the historical loss cost, severity and frequency data points by accident half year over the fifteen year period 2000-2 to 2015-1, as well as the data points for each coverage.

In Exhibit 2 we present our selected cumulative claim count and claim amount development factors.

In Exhibit 3 we present the summary of the loss trend rates we have calculated over various time periods along with the associated regression statistics.

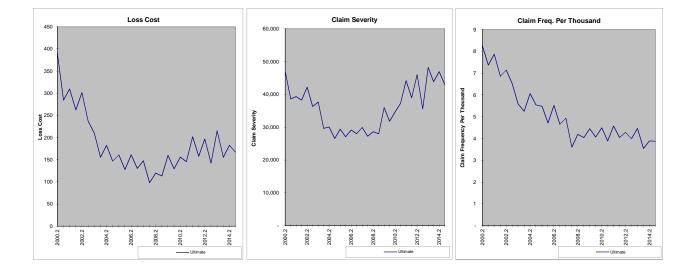


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#### Province of Nova Scotia Private Passenger Automobile (excl. Farmers)

Exhibit 1 Page 1

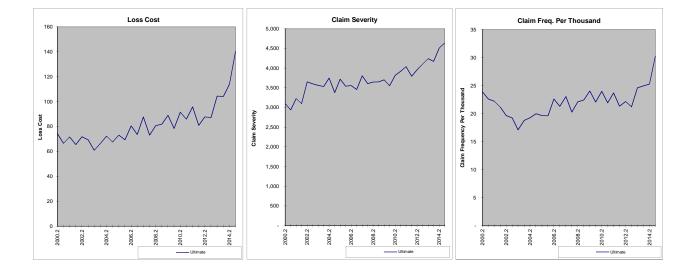
I	Third Party Liability - Bodily Injury														
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x		1	227,141	1,874	81,745	1.082	88,448	389.40		47,197		8.25			
x		2	234,169	1,726	62,559	1.065	66,626	284.52		38,601		7.37		336.16	
x		3	235,513	1,854	68,491	1.065	72,943	309.72	-20.5%	39,344	-16.6%	7.87	-4.6%		
x		4	227,605	1,561	55,478	1.077	59,750	262.52	-7.7%	38,277	-0.8%	6.86	-7.0%	286.52	-14.8%
x		5	233,675	1,669	65,415	1.077	70,452	301.50	-2.7%	42,212	7.3%	7.14	-9.3%		
x		6	225,987	1,475	49,666	1.078	53,540	236.91	-9.8%	36,298	-5.2%	6.53	-4.8%	269.75	-5.9%
x		7	231,167	1,292	45,140	1.078	48,661	210.50	-30.2%	37,663	-10.8%	5.59	-21.7%		
x		8	228,995	1,203	31,242	1.140	35,616	155.53	-34.4%	29,609	-18.4%	5.25	-19.5%	183.14	-32.1%
x		9	237,710	1,442	38,048	1.140	43,374	182.47	-13.3%	30,083	-20.1%	6.07	8.5%		
x		10	233,246	1,293	31,280	1.097	34,302	147.06	-5.4%	26,538	-10.4%	5.54	5.5%	164.93	-9.9%
x		11	242,670	1,329	35,635	1.097	39,078	161.03	-11.7%	29,399	-2.3%	5.48	-9.7%		
x		12	238,343	1,123	27,711	1.099	30,440	127.72	-13.2%	27,101	2.1%	4.71	-15.0%	144.52	-12.4%
x		13	247,025	1,364	36,199	1.099	39,765	160.97	0.0%	29,146	-0.9%	5.52	0.8%		
x		14	242,643	1,131	28,651	1.105	31,657	130.47	2.2%	28,000	3.3%	4.66	-1.1%	145.86	0.9%
x		15	251,028	1,239	33,567	1.105	37,088	147.75	-8.2%	29,938	2.7%	4.94	-10.6%		
x		16	248,355	895	22,292	1.095	24,399	98.24	-24.7%	27,255	-2.7%	3.60	-22.6%	123.13	-15.6%
x		17	256,856	1,078	28,176	1.095	30,838	120.06	-18.7%	28,615	-4.4%	4.20	-15.0%		
x		18	252,193	1,021	25,858	1.106	28,586	113.35	15.4%	28,009	2.8%	4.05	12.3%	116.74	-5.2%
x		19	261,934	1,166	37,902	1.106	41,900	159.97	33.2%	35,947	25.6%	4.45	6.1%		
x		20	258,209	1,050	30,187	1.108	33,437	129.49	14.2%	31,836	13.7%	4.07	0.5%	144.84	24.1%
x		21	270,156	1,215	38,089	1.108	42,189	156.16	-2.4%	34,716	-3.4%	4.50	1.1%		
x		22	265,300	1,034	34,922	1.105	38,596	145.48	12.3%	37,338	17.3%	3.90	-4.2%	150.87	4.2%
x		23	273,238	1,250	49,930	1.105	55,183	201.96	29.3%	44,142	27.2%	4.58	1.7%		
x		24	268,782	1,088	38,880	1.090	42,390	157.71	8.4%	38,972	4.4%	4.05	3.9%	180.02	19.3%
x		25	277,929	1,190	50,181	1.090	54,713	196.86	-2.5%	45,993	4.2%	4.28	-6.4%		
x		26	271,949	1,087	35,363	1.093	38,668	142.19	-9.8%	35,578	-8.7%	4.00	-1.2%	169.82	-5.7%
x		27	280,917	1,255	55,325	1.093	60,496	215.35	9.4%	48,222	4.8%	4.47	4.3%		
x		28	273,990	972	39,259	1.086	42,639	155.62	9.4%	43,866	23.3%	3.55	-11.2%	185.86	9.4%
x		29	283,971	1,106	47,780	1.086	51,894	182.74	-15.1%	46,918	-2.7%	3.89	-12.8%		
x	2015.1	30	277,705	1,077	42,722	1.086	46,400	167.08	7.4%	43,080	-1.8%	3.88	9.3%	175.00	-5.8%



#### Province of Nova Scotia Private Passenger Automobile (excl. Farmers)

Exhibit 1 Page 2

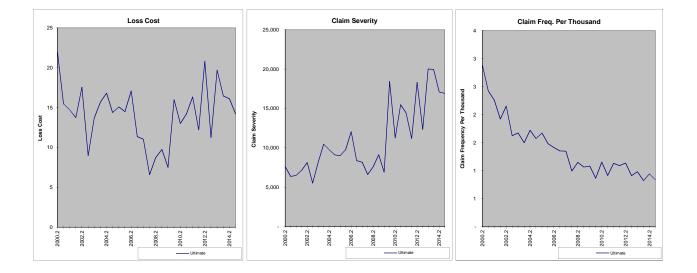
1	hird Party	/ Liabilit	y - Property	Damage											
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
×	2000.2	1	227,141	5,430	15,590	1.082	16,868	74.26		3,106		23.91			
x	2001.1	2	234,169	5,297	14,631	1.065	15,582	66.54		2,942		22.62		70.34	
x		3	235.513	5,230	15,856	1.065	16,887	71.70	-3.4%	3,229	3.9%	22.21	-7.1%		
x	2002.1	4	227,605	4,815	13,853	1.077	14,920	65.55	-1.5%	3,099	5.3%	21.16	-6.5%	68.68	-2.4%
x	2002.2	5	233,675	4,591	15,562	1.077	16,760	71.73	0.0%	3,651	13.1%	19.65	-11.5%		
x	2003.1	6	225,987	4,349	14,536	1.078	15,670	69.34	5.8%	3,603	16.3%	19.24	-9.0%	70.55	2.7%
x	2003.2	7	231,167	3,954	13,059	1.078	14,077	60.90	-15.1%	3,560	-2.5%	17.11	-12.9%		
x	2004.1	8	228,995	4,306	13,342	1.140	15,210	66.42	-4.2%	3,532	-2.0%	18.80	-2.3%	63.64	-9.8%
x	2004.2	9	237,710	4,582	15,062	1.140	17,171	72.23	18.6%	3,747	5.3%	19.28	12.7%		
x		10	233,246	4,663	14,368	1.097	15,756	67.55	1.7%	3,379	-4.3%	19.99	6.3%	69.92	9.9%
x	2005.2	11	242,670	4,771	16,183	1.097	17,746	73.13	1.2%	3,719	-0.7%	19.66	2.0%		
x	2006.1	12	238,343	4,673	15,059	1.099	16,542	69.41	2.7%	3,540	4.8%	19.61	-1.9%	71.28	2.0%
x		13	247,025	5,590	18,101	1.099	19,884	80.49	10.1%	3,557	-4.4%	22.63	15.1%		
x		14	242,643	5,167	16,160	1.105	17,855	73.59	6.0%	3,455	-2.4%	21.30	8.6%	77.07	8.1%
x		15	251,028	5,786	19,936	1.105	22,027	87.75	9.0%	3,807	7.0%	23.05	1.9%		
x		16	248,355	5,034	16,583	1.095	18,150	73.08	-0.7%	3,605	4.3%	20.27	-4.8%	80.45	4.4%
x		17	256,856	5,677	18,924	1.095	20,713	80.64	-8.1%	3,649	-4.2%	22.10	-4.1%		
x	2009.1	18	252,193	5,661	18,701	1.106	20,674	81.98	12.2%	3,652	1.3%	22.45	10.7%	81.30	1.1%
x		19	261,934	6,295	21,085	1.106	23,309	88.99	10.4%	3,703	1.5%	24.03	8.7%		
x		20	258,209	5,700	18,280	1.108	20,248	78.42	-4.3%	3,552	-2.7%	22.07	-1.7%	83.74	3.0%
x		21	270,156	6,477	22,334	1.108	24,738	91.57	2.9%	3,819	3.1%	23.97	-0.2%		
x		22	265,300	5,817	20,622	1.105	22,791	85.91	9.6%	3,918	10.3%	21.93	-0.7%	88.76	6.0%
x		23	273,238	6,477	23,669	1.105	26,159	95.74	4.6%	4,039	5.7%	23.70	-1.1%		
x		24	268,782	5,736	19,954	1.090	21,756	80.94	-5.8%	3,793	-3.2%	21.34	-2.7%	88.40	-0.4%
x		25	277,929	6,159	22,371	1.090	24,392	87.76	-8.3%	3,960	-1.9%	22.16	-6.5%		
x		26	271,949	5,772	21,684	1.093	23,711	87.19	7.7%	4,108	8.3%	21.22	-0.5%	87.48	-1.0%
x		27	280,917	6,918	26,832	1.093	29,340	104.45	19.0%	4,241	7.1%	24.63	11.1%		
x		28	273,990	6,839	26,268	1.086	28,530	104.13	19.4%	4,172	1.6%	24.96	17.6%	104.29	19.2%
x		29	283,971	7,177	29,784	1.086	32,349	113.92	9.1%	4,508	6.3%	25.27	2.6%		
x	2015.1	30	277,705	8,402	35,862	1.086	38,950	140.26	34.7%	4,636	11.1%	30.25	21.2%	126.94	21.7%



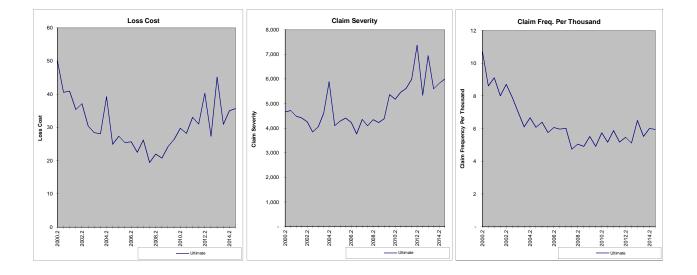
#### Province of Nova Scotia Private Passenger Automobile (excl. Farmers)

Exhibit 1 Page 3

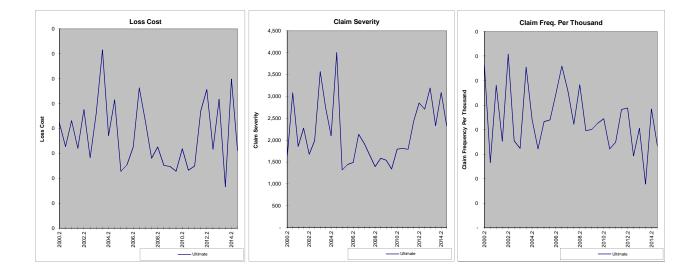
A	ccident B	enefits	- All Disabili	ty Income											
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x	2000.2	1	226,395	652	4,601	1.082	4,978	21.99		7,635		2.88			
x	2000.2	2	225,796	547	3,280	1.065	3,494	15.47		6,387		2.00		18.73	
x	2001.1	3	232,436	526	3,200	1.065	3,434	14.74	-33.0%	6,512	-14.7%	2.42	-21.4%	10.75	
x	2002.1	4	226,933	436	2,895	1.077	3,118	13.74	-11.2%	7,152	12.0%	1.92	-20.7%	14.24	-24.0%
x		5	233,043	502	3,800	1.077	4,093	17.56	19.2%	8,152	25.2%	2.15	-4.8%		2
x		6	225,430	366	1,877	1.078	2,023	8.98	-34.7%	5,525	-22.8%	1.62	-15.4%	13.34	-6.3%
x		7	231.721	388	2,943	1.078	3,172	13.69	-22.0%	8,176	0.3%	1.67	-22.3%		
x	2004.1	8	229,205	344	3,160	1.140	3,603	15.72	75.1%	10,473	89.6%	1.50	-7.6%	14.70	10.2%
x	2004.2	9	237,535	409	3,503	1.140	3,994	16.81	22.8%	9,765	19.4%	1.72	2.8%		
x	2005.1	10	232,976	367	3,054	1.097	3,348	14.37	-8.6%	9,124	-12.9%	1.58	5.0%	15.60	6.2%
x	2005.2	11	242,772	406	3,340	1.097	3,663	15.09	-10.3%	9,021	-7.6%	1.67	-2.9%		
x	2006.1	12	238,659	354	3,145	1.099	3,455	14.48	0.7%	9,760	7.0%	1.48	-5.8%	14.78	-5.3%
x	2006.2	13	247,234	350	3,846	1.099	4,225	17.09	13.3%	12,071	33.8%	1.42	-15.3%		
x		14	242,797	329	2,498	1.105	2,760	11.37	-21.5%	8,388	-14.1%	1.36	-8.6%	14.25	-3.6%
x		15	251,152	339	2,509	1.105	2,773	11.04	-35.4%	8,179	-32.2%	1.35	-4.7%		
x		16	248,490	247	1,495	1.095	1,637	6.59	-42.0%	6,626	-21.0%	0.99	-26.6%	8.82	-38.1%
x	2008.2	17	256,946	295	2,048	1.095	2,242	8.73	-21.0%	7,600	-7.1%	1.15	-14.9%		
x		18	252,308	269	2,225	1.106	2,459	9.75	48.0%	9,138	37.9%	1.07	7.3%	9.23	4.6%
x	2009.2	19	261,917	284	1,780	1.106	1,967	7.51	-13.9%	6,928	-8.8%	1.08	-5.6%		
x		20	258,170	224	3,726	1.108	4,128	15.99	64.0%	18,437	101.8%	0.87	-18.7%	11.72	26.9%
x	2010.2	21	270,110	312	3,170	1.108	3,512	13.00	73.1%	11,269	62.7%	1.15	6.4%		
x	2011.1	22	265,280	243	3,403	1.105	3,761	14.18	-11.3%	15,495	-16.0%	0.91	5.5%	13.58	15.9%
х		23	273,308	309	4,041	1.105	4,466	16.34	25.7%	14,432	28.1%	1.13	-1.9%		
x		24	268,288	293	3,004	1.090	3,275	12.21	-13.9%	11,192	-27.8%	1.09	19.2%	14.29	5.2%
x		25	277,206	315	5,297	1.090	5,776	20.83	27.5%	18,332	27.0%	1.14	0.4%		
x		26	272,350	249	2,802	1.093	3,064	11.25	-7.9%	12,327	10.1%	0.91	-16.3%	16.08	12.5%
x		27	281,788	277	5,078	1.093	5,553	19.71	-5.4%	20,030	9.3%	0.98	-13.4%		
x	2014.1	28	274,998	227	4,166	1.086	4,525	16.45	46.3%	19,963	62.0%	0.82	-9.7%	18.10	12.5%
x	2014.2	29	284,767	269	4,225	1.086	4,589	16.12	-18.2%	17,090	-14.7%	0.94	-4.1%	15.10	10.10
x	2015.1	30	278,095	233	3,641	1.086	3,954	14.22	-13.6%	16,943	-15.1%	0.84	1.8%	15.18	-16.1%



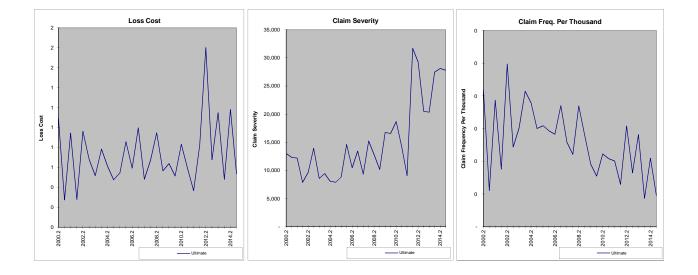
ļ	Accident B	enefits	- All Medical	Expenses	<u>.</u>										
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
×		1	226,395	2,432	10,473	1.082	11,332	50.05		4,660		10.74			
x		2	225,796	1,945	8,610	1.065	9,170	40.61		4,715		8.61		45.34	
x		3	232,436	2,119	8,930	1.065	9,510	40.92	-18.3%	4,488	-3.7%	9.12	-15.1%		
x		4	226,933	1,817	7,454	1.077	8,028	35.38	-12.9%	4,419	-6.3%	8.01	-7.0%	38.18	-15.8%
x		5	233,043	2,031	8,045	1.077	8,664	37.18	-9.1%	4,265	-5.0%	8.72	-4.4%	00.00	44.00/
x		6 7	225,430	1,788	6,378 6,112	1.078 1.078	6,876	30.50 28.44	-13.8%	3,846	-13.0% -5.0%	7.93 7.02	-1.0% -19.5%	33.90	-11.2%
x			231,721	1,626			6,589		-23.5% -7.8%	4,052		6.11		20.20	40 50/
x		8	229,205	1,400	5,657	1.140	6,448	28.13	-7.8% 38.0%	4,606	19.8%		-23.0%	28.29	-16.5%
x		9 10	237,535 232,976	1,584 1,417	8,178 5,301	1.140 1.097	9,323 5,814	39.25 24.95	38.0% -11.3%	5,886 4,103	45.2% -10.9%	6.67 6.08	-5.0% -0.4%	32.17	13.7%
x		10	232,976	1,417	6,066	1.097	6,652	24.95	-11.3%	4,103	-10.9%	6.39	-0.4%	32.17	13.7%
x		12	238,659	1,552	5,522	1.097	6,066	27.40	-30.2% 1.9%	4,280 4,415	-27.2%	5.76	-4.1%	26.42	-17.9%
x		12	238,639	1,502	5,522	1.099	6,361	25.42	-6.1%	4,415	-1.2%	6.08	-5.0%	20.42	-17.9%
x		13	247,234	1,302	4,949	1.105	5,468	23.73	-11.4%	4,235	-14.6%	5.97	-5.0%	24.14	-8.6%
x		14	251.152	1,450	4,949 5,969	1.105	6,595	26.26	2.1%	4,362	3.0%	6.02	-0.9%	24.14	-0.0%
x		16	248,490	1,177	4,413	1.095	4,830	19.44	-13.7%	4,302	8.8%	4.74	-20.7%	22.86	-5.3%
x		17	256,946	1,300	5,166	1.095	5.654	22.01	-16.2%	4,103	-0.3%	5.06	-16.0%	22.00	-0.078
x		18	252,308	1,300	4,744	1.106	5,244	20.78	6.9%	4,330	3.1%	4.91	3.7%	21.40	-6.4%
x		19	261,917	1,447	5,744	1.106	6,350	24.24	10.2%	4,389	0.9%	5.52	9.2%	21.40	0.470
x		20	258,170	1,447	6,154	1.108	6,816	26.40	27.0%	5,368	26.9%	4.92	0.1%	25.32	18.3%
â		21	270,110	1,553	7,259	1.108	8,041	29.77	22.8%	5,178	18.0%	5.75	4.1%	20.02	10.070
Ŷ		22	265,280	1,371	6,769	1.105	7,482	28.20	6.8%	5,458	1.7%	5.17	5.1%	28.99	14.5%
x		23	273,308	1,609	8,176	1.105	9,036	33.06	11.1%	5,615	8.4%	5.89	2.4%	20.00	11.070
x		24	268,288	1.391	7.642	1.090	8,332	31.06	10.1%	5,990	9.8%	5.18	0.3%	32.07	10.6%
x		25	277.206	1.516	10,250	1.090	11.175	40.31	21.9%	7,370	31.2%	5.47	-7.1%		
x		26	272,350	1,395	6,819	1.093	7,457	27.38	-11.8%	5,344	-10.8%	5.12	-1.2%	33.90	5.7%
x		27	281,788	1.832	11,642	1.093	12,730	45.18	12.1%	6,947	-5.7%	6.50	18.9%		
x		28	274,998	1,520	7,845	1.086	8,520	30.98	13.2%	5,604	4.9%	5.53	7.9%	38.17	12.6%
x		29	284,767	1,713	9,187	1.086	9,978	35.04	-22.4%	5,825	-16.1%	6.02	-7.5%		
x	2015.1	30	278,095	1,657	9,142	1.086	9,929	35.70	15.2%	5,991	6.9%	5.96	7.8%	35.37	-7.3%
			,												



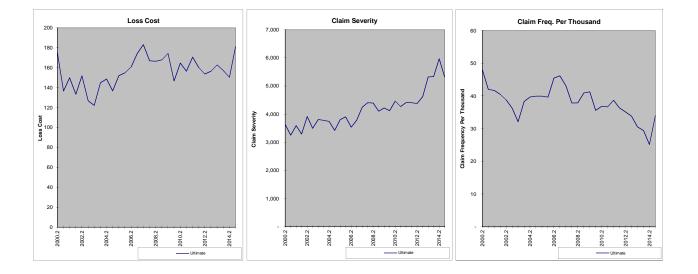
4	Accident B	enefits	- Funeral												
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x		1 2	226,395 225.796	30 12	44 35	1.082 1.065	48 37	0.21 0.16		1,590 3,081		0.13 0.05		0.19	
x		3	232,436	27	47	1.065	50	0.22	2.3%	1.857	16.7%	0.12	-12.3%	0.10	
x		4	226,933	16	34	1.077	36	0.16	-2.1%	2,274	-26.2%	0.07	32.7%	0.19	0.6%
x	2002.2	5	233,043	33	51	1.077	55	0.24	10.2%	1.679	-9.6%	0.14	21.9%		
x	2003.1	6	225,430	16	30	1.078	32	0.14	-11.9%	1,990	-12.5%	0.07	0.7%	0.19	1.0%
x	2003.2	7	231,721	15	50	1.078	54	0.23	-2.9%	3,568	112.5%	0.06	-54.3%		
x	2004.1	8	229,205	30	72	1.140	82	0.36	153.3%	2,733	37.3%	0.13	84.4%	0.29	54.5%
x	2004.2	9	237,535	21	39	1.140	44	0.19	-19.6%	2,101	-41.1%	0.09	36.6%		
x	2005.1	10	232,976	15	55	1.097	60	0.26	-28.0%	4,001	46.4%	0.06	-50.8%	0.22	-24.7%
x		11	242,772	21	25	1.097	28	0.11	-38.6%	1,318	-37.3%	0.09	-2.2%		
x		12	238,659	21	28	1.099	30	0.13	-50.7%	1,444	-63.9%	0.09	36.7%	0.12	-45.6%
x		13	247,234	27	37	1.099	40	0.16	42.8%	1,491	13.1%	0.11	26.3%		
x		14	242,797	32	62	1.105	68	0.28	121.5%	2,136	47.9%	0.13	49.8%	0.22	83.9%
x		15	251,152	28	49	1.105	54	0.21	31.9%	1,927	29.2%	0.11	2.1%		
x		16	248,490	21	32	1.095	35	0.14	-50.1%	1,661	-22.2%	0.08	-35.9%	0.18	-19.8%
x		17	256,946	30	38	1.095	42	0.16	-24.0%	1,398	-27.5%	0.12	4.7%		
x		18	252,308	20	29	1.106	32	0.13	-10.4%	1,586	-4.5%	0.08	-6.2%	0.14	-18.6%
x		19	261,917	21	29	1.106	32	0.12	-24.1%	1,544	10.5%	0.08	-31.3%		
x		20	258,170	22	27	1.108	30	0.11	-9.1%	1,342	-15.4%	0.09	7.5%	0.12	-17.7%
x		21	270,110	24	39	1.108	43	0.16	28.7%	1,794	16.2%	0.09	10.8%		
x		22	265,280	17	28	1.105	31	0.12	1.8%	1,811	35.0%	0.06	-24.6%	0.14	15.9%
x		23	273,308	19	31	1.105	34	0.12	-21.7%	1,791	-0.2%	0.07	-21.6%		
x		24	268,288	26	58	1.090	63	0.24	102.0%	2,436	34.5%	0.10	50.2%	0.18	29.9%
x		25	277,206	27	71	1.090	77	0.28	123.1%	2,852	59.2%	0.10	40.1%	0.00	00.40/
x		26	272,350	16	40	1.093	43	0.16	-32.5%	2,708	11.2%	0.06	-39.3%	0.22	22.1%
x		27	281,788	23	67	1.093	73	0.26	-7.1%	3,191	11.9%	0.08	-16.9%	0.47	04 50/
x		28	274,998	10	21	1.086	23	0.08	-47.6%	2,332	-13.9%	0.04	-39.2%	0.17	-21.5%
x		29	284,767	28	78	1.086	85	0.30	15.6%	3,089	-3.2%	0.10	19.5%	0.00	22.00/
x	2015.1	30	278,095	19	40	1.086	43	0.16	87.7%	2,331	-0.1%	0.07	87.8%	0.23	32.8%



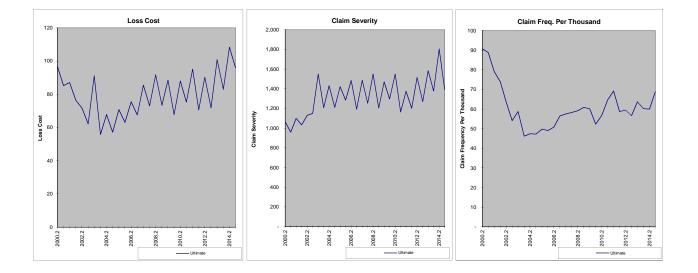
A	ccident B	enefits	- Death Ben	efits											
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x		1 2	226,395 225,796	19 5	229 58	1.082 1.065	248 62	1.09 0.27		13,029 12,310		0.08 0.02		0.68	
x x		3 4	232,436 226,933	18 8	206 59	1.065 1.077	219 63	0.94 0.28	-13.7% 2.0%	12,192 7,884	-6.4% -36.0%	0.08 0.04	-7.7% 59.2%	0.62	-10.0%
x x x	2003.1	5 6 7	233,043 225,430 231,721	23 11 14	208 142 111	1.077 1.078 1.078	224 153 120	0.96 0.68 0.52	1.8% 144.4% -46.3%	9,659 13,920 8,544	-20.8% 76.6% -11.5%	0.10 0.05 0.06	28.6% 38.4% -39.3%	0.82	33.8%
x	2004.1	8 9	229,205 237,535	19 18	158 127	1.140 1.140	180 145	0.78	15.3% 18.4%	9,450 8,062	-32.1% -5.6%	0.08	69.9% 25.4%	0.65	-21.1%
x x		10 11	232,976 242,772	14 15	101 121	1.097 1.097	111 132	0.48 0.54	-39.4% -10.9%	7,906 8,809	-16.3% 9.3%	0.06	-27.5% -18.5%	0.54	-16.2%
x x x	2006.2	12 13 14	238,659 247,234 242,797	14 14 18	186 133 219	1.099 1.099 1.105	205 146 242	0.86 0.59 1.00	80.6% 8.8% 16.1%	14,624 10,454 13,440	85.0% 18.7% -8.1%	0.06 0.06 0.07	-2.4% -8.4% 26.4%	0.70 0.79	28.7% 13.2%
x	2007.2 2008.1	15 16	251,152 248,490	13 11	110 153	1.105 1.095	121 168	0.48	-18.5% -32.3%	9,319 15,241	-10.9% 13.4%	0.05 0.04	-8.6% -40.3%	0.58	-27.1%
x	2008.2 2009.1 2009.2	17 18 19	256,946 252,308 261,917	19 14 10	222 129 151	1.095 1.106 1.106	243 143 167	0.95 0.57 0.64	96.3% -16.2% -32.5%	12,808 10,184 16,734	37.4% -33.2% 30.7%	0.07 0.06 0.04	42.9% 25.3% -48.4%	0.76	31.1%
x x x		20 21	258,170 270,110	8 12	120 203	1.108	133 225	0.51 0.83	-9.1% 30.2%	16,576 18,664	62.8% 11.5%	0.04 0.03 0.04	-46.4 % -44.2% 16.8%	0.58	-23.9%
x x	2011.2	22 23	265,280 273,308	11 11	143 91	1.105 1.105	158 100	0.59 0.37	15.7% -56.0%	14,279 9,106	-13.9% -51.2%	0.04	34.3% -9.7%	0.71	23.8%
x x x	2012.2	24 25 26	268,288 277,206 272,350	7 17 9	203 458 169	1.090 1.090 1.093	221 500 184	0.82 1.80 0.68	38.7% 391.9% -17.8%	31,701 29,291 20,494	122.0% 221.7% -35.4%	0.03 0.06 0.03	-37.5% 52.9% 27.1%	0.59 1.24	-16.9% 109.9%
x	2013.2	27 28	281,788 274,998	16 5	296 121	1.093	323 132	1.15 0.48	-36.4% -29.2%	20,454 20,361 27,454	-30.5% 34.0%	0.06	-8.4% -47.1%	0.82	-34.3%
x x		29 30	284,767 278,095	12 5	310 137	1.086 1.086	336 149	1.18 0.54	2.9% 11.7%	28,123 27,791	38.1% 1.2%	0.04 0.02	-25.5% 10.3%	0.86	5.4%



<u>c</u>	ollision														
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x x	2001.1	1 2	126,595 134,036	6,078 5,627	20,456 17,188	1.082 1.065	22,133 18,305	174.83 136.57		3,641 3,253		48.01 41.98		155.15	
x		3	135,297	5,644	19,052	1.065	20,290	149.97	-14.2%	3,595	-1.3%	41.72	-13.1%	444 70	0.00/
x		4 5	131,836 133,786	5,339	16,322	1.077 1.077	17,579	133.34 151.85	-2.4% 1.3%	3,293	1.2% 9.0%	40.50 38.76	-3.5% -7.1%	141.76	-8.6%
x		5 6	129,180	5,186 4.684	18,863 15,186	1.077	20,315 16,371	126.73	-5.0%	3,917 3,495	9.0% 6.1%	36.26	-7.1%	139.51	-1.6%
x		7	130,797	4,004	14,826	1.078	15,983	120.73	-19.5%	3,495	-2.8%	32.10	-17.2%	139.51	-1.0%
x		8	129,660	4,967	16,478	1.140	18,784	144.88	14.3%	3,782	8.2%	38.31	5.6%	133.48	-4.3%
Ŷ		9	134,400	5,335	17,519	1.140	19,971	148.60	21.6%	3,743	-1.7%	39.69	23.7%	100.10	1.070
x		10	133.013	5,314	16,579	1.097	18,180	136.68	-5.7%	3,421	-9.5%	39.95	4.3%	142.67	6.9%
x	2005.2	11	139,455	5,572	19,331	1.097	21,198	152.01	2.3%	3,804	1.6%	39.95	0.7%		
x	2006.1	12	140,195	5,558	19,769	1.099	21,716	154.90	13.3%	3,907	14.2%	39.64	-0.8%	153.46	7.6%
x	2006.2	13	147,633	6,713	21,608	1.099	23,736	160.78	5.8%	3,536	-7.1%	45.47	13.8%		
x	2007.1	14	147,705	6,816	23,309	1.105	25,755	174.37	12.6%	3,778	-3.3%	46.15	16.4%	167.57	9.2%
x	2007.2	15	155,568	6,708	25,785	1.105	28,490	183.13	13.9%	4,247	20.1%	43.12	-5.2%		
x	2008.1	16	156,888	5,939	23,927	1.095	26,188	166.92	-4.3%	4,409	16.7%	37.86	-18.0%	174.99	4.4%
x		17	163,563	6,197	24,882	1.095	27,233	166.50	-9.1%	4,394	3.5%	37.89	-12.1%		
x		18	161,853	6,625	24,591	1.106	27,185	167.96	0.6%	4,103	-6.9%	40.93	8.1%	167.23	-4.4%
x		19	167,924	6,932	26,470	1.106	29,263	174.26	4.7%	4,221	-3.9%	41.28	9.0%		
x		20	166,011	5,905	21,988	1.108	24,354	146.70	-12.7%	4,124	0.5%	35.57	-13.1%	160.56	-4.0%
x		21	172,320	6,355	25,608	1.108	28,365	164.61	-5.5%	4,464	5.7%	36.88	-10.7%		
x		22	169,705	6,224	24,035	1.105	26,564	156.53	6.7%	4,268	3.5%	36.68	3.1%	160.60	0.0%
x		23	175,173	6,773	27,041	1.105	29,886	170.61	3.6%	4,413	-1.1%	38.66	4.8%		
x		24	173,641	6,306	25,501	1.090	27,804	160.12	2.3%	4,409	3.3%	36.32	-1.0%	165.39	3.0%
x		25	179,105	6,284	25,235	1.090	27,514	153.62	-10.0%	4,379	-0.8%	35.08	-9.3%		
x		26	176,927	5,987	25,310	1.093	27,676	156.43	-2.3%	4,623	4.8%	33.84	-6.8%	155.01	-6.3%
x		27	183,887	5,623	27,359	1.093	29,917	162.69	5.9%	5,320	21.5%	30.58	-12.8%		
x		28	181,168	5,328	26,175	1.086	28,429	156.92	0.3%	5,336	15.4%	29.41	-13.1%	159.83	3.1%
x		29	187,826	4,732	26,018	1.086	28,258	150.45	-7.5%	5,972	12.2%	25.19	-17.6%	105 50	0.00/
x	2015.1	30	185,301	6,300	30,859	1.086	33,516	180.87	15.3%	5,320	-0.3%	34.00	15.6%	165.56	3.6%



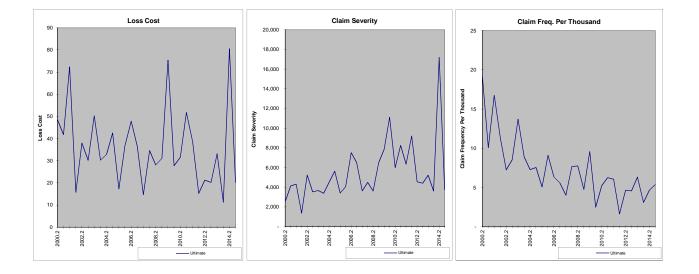
<u>c</u>	omprehei	nsive													
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x x	2001.1	1 2	158,210 159,711	14,345 14,174	14,133 12,782	1.082 1.065	15,292 13,612	96.65 85.23		1,066 960		90.67 88.75		90.92	
x		3	162,525	12,853	13,283	1.065	14,146	87.04	-9.9%	1,101	3.2%	79.08	-12.8%		
x		4	160,328	11,849	11,365	1.077	12,240	76.34	-10.4%	1,033	7.6%	73.90	-16.7%	81.73	-10.1%
х		5	162,605	10,325	10,836	1.077	11,670	71.77	-17.5%	1,130	2.7%	63.50	-19.7%		
x		6 7	157,402	8,514	9,085	1.078	9,794	62.22	-18.5%	1,150	11.4%	54.09	-26.8%	67.07	-17.9%
x		8	157,968	9,281	13,348	1.078 1.140	14,390	91.09	26.9% -10.3%	1,550 1,209	37.2%	58.75	-7.5%	70.50	0.70/
x		9	156,135 158.513	7,210 7,515	7,646 9,432	1.140	8,716 10,753	55.82 67.83	-10.3%	1,209	5.1% -7.7%	46.18 47.41	-14.6% -19.3%	73.56	9.7%
x		9 10	158,513	7,515	9,432 8,206	1.140	8,998	57.25	-25.5%	1,431	-7.7%	47.41	-19.3%	62.57	-14.9%
x		11	163.251	8,130	10,541	1.097	11,559	70.81	4.4%	1,422	-0.6%	49.80	5.0%	02.57	-14.376
x		12	163,075	8,000	9,360	1.099	10,281	63.05	10.1%	1,285	6.1%	49.00	3.8%	66.93	7.0%
Ŷ		13	169,763	8,634	11,666	1.099	12,815	75.49	6.6%	1,484	4.4%	50.86	2.1%	00.00	1.070
Ŷ		14	169,785	9,592	10,369	1.105	11,457	67.48	7.0%	1,404	-7.1%	56.50	15.2%	71.48	6.8%
x		15	177,021	10.187	13,708	1.105	15,146	85.56	13.3%	1.487	0.2%	57.55	13.1%	11110	0.070
x		16	178,754	10.414	11,933	1.095	13,061	73.07	8.3%	1.254	5.0%	58.26	3.1%	79.28	10.9%
x		17	184,996	10,948	15,497	1.095	16,962	91.69	7.2%	1.549	4.2%	59.18	2.8%		
x	2009.1	18	183,867	11,191	12,204	1.106	13,492	73.38	0.4%	1,206	-3.9%	60.87	4.5%	82.56	4.1%
x	2009.2	19	189,711	11,405	15,166	1.106	16,766	88.38	-3.6%	1,470	-5.1%	60.12	1.6%		
x	2010.1	20	188,634	9,861	11,541	1.108	12,784	67.77	-7.6%	1,296	7.5%	52.28	-14.1%	78.10	-5.4%
x	2010.2	21	195,030	11,074	15,496	1.108	17,164	88.01	-0.4%	1,550	5.4%	56.78	-5.6%		
x		22	193,137	12,497	13,163	1.105	14,547	75.32	11.1%	1,164	-10.2%	64.71	23.8%	81.70	4.6%
x		23	197,872	13,696	17,029	1.105	18,820	95.11	8.1%	1,374	-11.3%	69.22	21.9%		
x		24	196,969	11,568	12,751	1.090	13,903	70.58	-6.3%	1,202	3.2%	58.73	-9.2%	82.88	1.4%
x		25	201,955	12,013	16,707	1.090	18,216	90.20	-5.2%	1,516	10.4%	59.48	-14.1%		
x		26	200,403	11,341	13,182	1.093	14,415	71.93	1.9%	1,271	5.8%	56.59	-3.6%	81.10	-2.1%
x		27	206,569	13,156	19,053	1.093	20,833	100.85	11.8%	1,584	4.4%	63.69	7.1%		
x		28	204,405	12,308	15,616	1.086	16,960	82.97	15.4%	1,378	8.4%	60.21	6.4%	91.96	13.4%
x		29	210,204	12,615	20,960	1.086	22,765	108.30	7.4%	1,805	14.0%	60.01	-5.8%		
x	2015.1	30	208,209	14,340	18,408	1.086	19,993	96.02	15.7%	1,394	1.2%	68.88	14.4%	102.19	11.1%



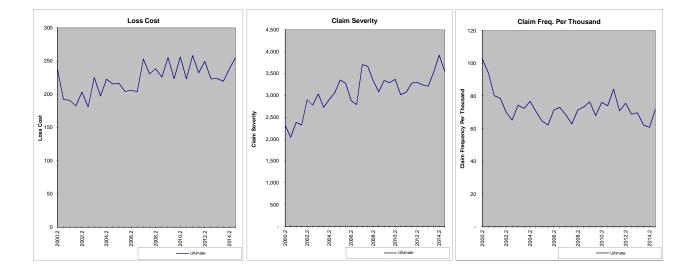
Oliver, Wyman Limited

## Specified Perils

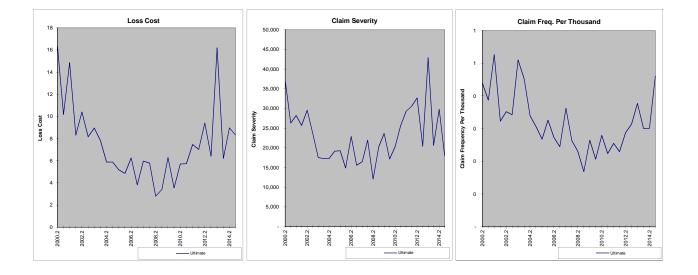
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x	2000.2	1	3,084	59	138	1.082	150	48.53		2,536		19.13			
x	2001.1	2	3.073	31	121	1.065	129	41.85		4,149		10.09		45.19	
x	2001.2	3	2,986	50	203	1.065	216	72.40	49.2%	4,323	70.4%	16.75	-12.5%		
x	2002.1	4	2,996	34	44	1.077	47	15.76	-62.3%	1,389	-66.5%	11.35	12.5%	44.03	-2.6%
x	2002.2	5	2,899	21	102	1.077	110	38.00	-47.5%	5,246	21.3%	7.24	-56.7%		
x	2003.1	6	2,812	24	79	1.078	85	30.19	91.5%	3,538	154.7%	8.53	-24.8%	34.16	-22.4%
x	2003.2	7	2,698	37	126	1.078	136	50.26	32.2%	3,664	-30.2%	13.72	89.3%		
x	2004.1	8	2,698	24	72	1.140	82	30.27	0.2%	3,403	-3.8%	8.90	4.2%	40.26	17.9%
x	2004.2	9	2,605	19	75	1.140	86	32.89	-34.5%	4,509	23.1%	7.29	-46.8%		
x	2005.1	10	2,650	20	103	1.097	113	42.54	40.5%	5,635	65.6%	7.55	-15.1%	37.76	-6.2%
x	2005.2	11	2,565	13	40	1.097	44	17.28	-47.5%	3,409	-24.4%	5.07	-30.5%		
x	2006.1	12	2,525	23	85	1.099	93	36.85	-13.4%	4,045	-28.2%	9.11	20.7%	26.99	-28.5%
x	2006.2	13	2,358	15	103	1.099	113	47.85	176.9%	7,521	120.6%	6.36	25.5%		
x	2007.1	14	2,319	13	77	1.105	85	36.48	-1.0%	6,507	60.9%	5.61	-38.5%	42.21	56.4%
x	2007.2	15	2,232	9	30	1.105	33	14.68	-69.3%	3,639	-51.6%	4.03	-36.6%		
x	2008.1	16	2,215	17	70	1.095	77	34.58	-5.2%	4,505	-30.8%	7.67	36.9%	24.59	-41.7%
x	2008.2	17	2,064	16	53	1.095	58	28.09	91.4%	3,623	-0.4%	7.75	92.2%		
x	2009.1	18	2,101	10	59	1.106	65	31.05	-10.2%	6,522	44.8%	4.76	-38.0%	29.58	20.3%
x	2009.2	19	1,980	19	135	1.106	149	75.42	168.5%	7,859	116.9%	9.60	23.8%		
x	2010.1	20	2,007	5	50	1.108	56	27.70	-10.8%	11,118	70.5%	2.49	-47.7%	51.40	73.8%
x	2010.2	21	1,901	10	54	1.108	60	31.55	-58.2%	5,998	-23.7%	5.26	-45.2%		
x	2011.1	22	1,913	12	90	1.105	99	51.80	87.0%	8,260	-25.7%	6.27	151.7%	41.71	-18.9%
x	2011.2	23	1,810	11	63	1.105	70	38.59	22.3%	6,351	5.9%	6.08	15.5%		
x	2012.1	24	1,817	3	25	1.090	28	15.22	-70.6%	9,219	11.6%	1.65	-73.7%	26.88	-35.5%
x	2012.2	25	1,720	8	33	1.090	36	21.21	-45.0%	4,559	-28.2%	4.65	-23.4%		
x	2013.1	26	1,744	8	32	1.093	35	20.25	33.0%	4,414	-52.1%	4.59	177.9%	20.72	-22.9%
x	2013.2	27	1,577	10	48	1.093	52	33.14	56.3%	5,227	14.6%	6.34	36.3%		
x	2014.1	28	1,604	5	17	1.086	18	11.30	-44.2%	3,624	-17.9%	3.12	-32.0%	22.13	6.8%
x	2014.2	29	1,495	7	111	1.086	120	80.51	142.9%	17,198	229.0%	4.68	-26.2%		
x	2015.1	30	1,511	8	28	1.086	31	20.22	79.0%	3,768	4.0%	5.37	72.1%	50.21	126.9%



A	II Perils								% Change		% Change		% Change		
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	Seasonal Accident Half Years	Ultimate Severity	Seasonal Accident Half Years	Ultimate Freq. per 1000	Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x	2000.2	1	18,427	1,888	4,052	1.082	4,384	237.92		2,322		102.46			
x		2	18,427	1,000	3,415	1.062	3,637	192.33		2,322		94.18		214.83	
x		2	19,797	1,587	3,415	1.065	3,781	192.33	-19.7%	2,042	2.6%	80.16	-21.8%	214.05	
x		4	19,535	1,533	3,309	1.077	3,563	182.41	-5.2%	2,302	13.8%	78.47	-16.7%	186.72	-13.1%
Ŷ		5	19,945	1,396	3,764	1.077	4,054	203.23	6.4%	2,904	21.9%	69.99	-12.7%	100.72	10.170
Ŷ		6	19,605	1,280	3,293	1.078	3,550	181.06	-0.7%	2,773	19.3%	65.29	-16.8%	192.24	3.0%
x		7	20,776	1,545	4,346	1.078	4,685	225.47	10.9%	3,032	4.4%	74.36	6.2%	102.21	0.070
x		8	21,434	1,551	3,712	1.140	4,232	197.44	9.0%	2,729	-1.6%	72.36	10.8%	211.24	9.9%
x	2004.2	9	23,003	1,765	4,491	1.140	5,120	222.59	-1.3%	2,901	-4.3%	76.73	3.2%		
x	2005.1	10	22,468	1,583	4,417	1.097	4,843	215.57	9.2%	3,060	12.1%	70.46	-2.6%	219.12	3.7%
x	2005.2	11	22,435	1,451	4,433	1.097	4,861	216.69	-2.7%	3,350	15.5%	64.68	-15.7%		
x	2006.1	12	21,492	1,338	3,993	1.099	4,387	204.10	-5.3%	3,278	7.1%	62.26	-11.6%	210.53	-3.9%
x	2006.2	13	21,304	1,523	3,996	1.099	4,389	206.04	-4.9%	2,882	-14.0%	71.49	10.5%		
x	2007.1	14	20,566	1,503	3,795	1.105	4,193	203.90	-0.1%	2,790	-14.9%	73.08	17.4%	204.99	-2.6%
x	2007.2	15	20,803	1,422	4,765	1.105	5,265	253.10	22.8%	3,703	28.5%	68.36	-4.4%		
x	2008.1	16	20,450	1,285	4,305	1.095	4,711	230.39	13.0%	3,666	31.4%	62.84	-14.0%	241.84	18.0%
x		17	20,787	1,484	4,529	1.095	4,957	238.48	-5.8%	3,341	-9.8%	71.39	4.4%		
x		18	20,289	1,487	4,145	1.106	4,582	225.82	-2.0%	3,081	-16.0%	73.29	16.6%	232.23	-4.0%
x		19	20,816	1,590	4,806	1.106	5,313	255.23	7.0%	3,342	0.0%	76.38	7.0%		
x		20	20,316	1,381	4,100	1.108	4,541	223.53	-1.0%	3,289	6.7%	67.96	-7.3%	239.57	3.2%
x		21	21,026	1,600	4,864	1.108	5,387	256.22	0.4%	3,368	0.8%	76.08	-0.4%		
x		22	20,677	1,531	4,176	1.105	4,616	223.23	-0.1%	3,015	-8.3%	74.04	8.9%	239.86	0.1%
x		23	20,928	1,759	4,888	1.105	5,403	258.16	0.8%	3,071	-8.8%	84.06	10.5%		
x		24	20,266	1,436	4,319	1.090	4,709	232.34	4.1%	3,278	8.7%	70.87	-4.3%	245.46	2.3%
x		25	20,559	1,554	4,704	1.090	5,129	249.48	-3.4%	3,300	7.5%	75.59	-10.1%		
x		26	19,976	1,376	4,075	1.093	4,456	223.08	-4.0%	3,239	-1.2%	68.87	-2.8%	236.47	-3.7%
x		27	20,477	1,427	4,188	1.093	4,579	223.62	-10.4%	3,209	-2.8%	69.69	-7.8%		
x		28	20,025	1,248	4,049	1.086	4,398	219.61	-1.6%	3,525	8.8%	62.30	-9.5%	221.64	-6.3%
x		29	20,666	1,257	4,540	1.086	4,931	238.59	6.7%	3,922	22.2%	60.83	-12.7%		
x	2015.1	30	20,281	1,455	4,762	1.086	5,172	255.01	16.1%	3,555	0.9%	71.72	15.1%	246.72	11.3%



<u>U</u>	Ininsured														
	Accident Period	Time x	Earned Exposures	Ultimate Counts	Ultimate Losses	ULAE Adjustment	Ultimate Losses & LAE	Ultimate Loss Cost	% Change Seasonal Accident Half Years	Ultimate Severity	% Change Seasonal Accident Half Years	Ultimate Freq. per 1000	% Change Seasonal Accident Half Years	Annual Loss Cost & LAE	% Change Accident Years
x x	2001.1	1 2	213,990 211,838	94 82	3,238 2,027	1.082 1.065	3,504 2,159	16.37 10.19		37,275 26,329		0.44 0.39		13.30	
x x x	2002.1	3 4 5	216,533 210,425 215,836	114 68 76	3,020 1,623 2,086	1.065 1.077 1.077	3,216 1,748 2,246	14.85 8.31 10.41	-9.3% -18.5% -29.9%	28,210 25,710 29,555	-24.3% -2.4% 4.8%	0.53 0.32 0.35	19.9% -16.5% -33.1%	11.63	-12.6%
x x	2003.1 2003.2	6 7	210,122 221,592	72 113	1,590 1,840	1.078 1.078	1,714 1,983	8.16 8.95	-1.8% -14.0%	23,809 17,552	-7.4% -40.6%	0.34 0.51	6.0% 44.8%	9.30	-20.0%
x x x	2004.2	8 9 10	223,404 232,781 228,417	101 79 70	1,531 1,202 1,224	1.140 1.140 1.097	1,746 1,370 1,342	7.81 5.89 5.87	-4.2% -34.2% -24.8%	17,286 17,346 19,168	-27.4% -1.2% 10.9%	0.45 0.34 0.31	31.9% -33.4% -32.2%	8.38 5.88	-9.9% -29.8%
x	2005.2 2006.1	11 12	239,101 236,073	64 77	1,127 1,045	1.097 1.099	1,236 1,147	5.17 4.86	-12.2% -17.3%	19,306 14,902	11.3% -22.3%	0.27 0.33	-21.1% 6.4%	5.02	-14.7%
x x x	2007.1	13 14 15	245,082 240,759 249,180	67 59 90	1,396 831 1,346	1.099 1.105 1.105	1,534 919 1,488	6.26 3.82 5.97	21.1% -21.5% -4.6%	22,894 15,583 16,477	18.6% 4.6% -28.0%	0.27 0.24 0.36	2.1% -24.9% 32.5%	5.05	0.7%
x	2008.1 2008.2	16 17	246,597 255,018	65 59	1,304 651	1.095 1.095	1,427 713	5.79 2.79	51.7% -53.2%	21,959 12,087	40.9% -26.6%	0.26 0.23	7.7% -36.2%	5.88	16.5%
x x x	2009.2	18 19 20	250,412 260,149 256,484	42 69 53	774 1,479 821	1.106 1.106 1.108	856 1,635 909	3.42 6.28 3.55	-41.0% 124.8% 3.8%	20,248 23,695 17,171	-7.8% 96.0% -15.2%	0.17 0.27 0.21	-36.0% 14.7% 22.4%	3.10 4.92	-47.2% 58.7%
x	2010.2 2011.1	21 22	268,484 263,596	75 59	1,382 1,368	1.108 1.105	1,531 1,512	5.70 5.74	-9.3% 61.8%	20,387 25,608	-14.0% 49.1%	0.28 0.22	5.5% 8.5%	5.72	16.1%
x x x	2012.1	23 24 25	271,604 267,627 277,057	69 61 80	1,837 1,724 2,391	1.105 1.090 1.090	2,030 1,880 2,607	7.47 7.02 9.41	31.1% 22.4% 25.9%	29,299 30,586 32,693	43.7% 19.4% 11.6%	0.26 0.23 0.29	-8.8% 2.5% 12.8%	7.25	26.8%
x x x	2013.1 2013.2	25 26 27	271,930 281,474	85 106	1,594 4,169	1.093	1,743 4,559	6.41 16.20	-8.8% 72.1%	20,411 42,939	-33.3% 31.3%	0.29 0.31 0.38	36.7% 31.0%	7.92	9.3%
x x	2014.2	28 29	274,692 284,585	83 86	1,572 2,350	1.086 1.086	1,707 2,552	6.21 8.97	-3.0% -44.6%	20,657 29,800	1.2% -30.6%	0.30	-4.2% -20.2%	11.27	42.2%
x	2015.1	30	277,805	128	2,132	1.086	2,315	8.33	34.1%	18,065	-12.5%	0.46	53.4%	8.65	-23.2%



## Oliver Wyman Selected Age-to-Ultimate Development Factors As of June 30, 2015 Nova Scotia Private Passenger Automobile (Excluding Farmers)

As of 2015-1 Age-to-Ultimate Factors Incurred Claim Amount

			AB -	AB -							
	Bodily	Property	Disability	Medical /	AB -			Compre-	Specified		Uninsured
	Injury	Damage	Income	Rehab	Funeral	AB - Death	Collision	hensive	Perils	All Perils	Motorist
180-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
168-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
156-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
144-Ult	1.000	1.000	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
138-Ult	0.997	1.000	0.985	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.990
132-Ult	0.997	1.000	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.997
126-Ult	0.996	1.001	0.993	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.012
120-Ult	1.000	1.001	0.991	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.004
114-Ult	1.002	1.001	0.995	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.010
108-Ult	1.003	1.001	1.006	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.010
102-Ult	0.997	1.002	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.009
96-Ult	0.994	1.002	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.008
90-Ult	0.996	1.002	1.011	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.003
84-Ult	0.998	1.002	1.010	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.007
78-Ult	1.002	1.002	1.010	0.996	1.000	1.000	1.000	1.000	1.000	1.000	0.989
72-Ult	1.010	1.001	1.016	0.995	1.000	1.000	1.000	1.000	1.000	1.000	0.986
66-Ult	1.002	1.002	1.021	0.992	1.000	1.000	1.000	1.000	1.000	1.000	0.945
60-Ult	1.018	1.003	1.037	0.991	0.991	1.003	1.000	1.000	1.000	1.000	0.940
54-Ult	1.027	1.000	1.053	0.985	1.000	1.004	0.999	1.000	1.000	1.000	0.949
48-Ult	1.066	1.003	1.071	0.968	1.000	1.000	0.999	1.000	1.000	0.999	0.954
42-Ult	1.101	1.002	1.133	0.972	0.974	0.997	0.998	1.000	1.002	0.998	1.040
36-Ult	1.162	1.004	1.208	0.971	0.961	0.998	0.997	1.000	1.000	0.996	1.076
30-Ult	1.231	1.004	1.276	0.996	0.952	1.000	0.995	1.000	1.000	0.994	1.138
24-Ult	1.324	1.007	1.571	1.009	1.000	0.993	0.992	1.000	1.000	0.988	1.210
18-Ult	1.413	1.013	1.901	1.034	0.886	0.971	0.983	1.000	1.000	0.974	1.362
12-Ult	1.494	1.017	2.228	0.960	0.894	0.943	0.952	1.003	1.011	0.952	1.624
6-Ult	1.773	0.988	2.153	0.751	0.913	0.994	0.830	1.086	1.059	0.843	2.233

## Oliver Wyman Selected Age-to-Ultimate Development Factors As of June 30, 2015 Nova Scotia Private Passenger Automobile (Excluding Farmers)

As of 2015-1 Age-to-Ultimate Factors Incurred Claim Count

			AB -	AB -							
	Bodily	Property	Disability	Medical /	AB -			Compre-	Specified		Uninsured
	Injury	Damage	Income	Rehab	Funeral	AB - Death	Collision	hensive	Perils	All Perils	Motorist
180-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
168-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
156-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
144-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
132-Ult	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000
120-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
114-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
108-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
102-Ult	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999
96-Ult	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.992
90-Ult	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.985
84-Ult	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.983
78-Ult	0.997	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.983
72-Ult	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.985
66-Ult	0.995	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.981
60-Ult	0.994	1.000	0.999	1.000	1.000	1.004	1.000	1.000	1.000	1.000	0.975
54-Ult	0.990	1.000	0.999	1.000	1.002	1.004	1.000	1.000	1.000	1.000	0.968
48-Ult	0.991	1.000	0.998	1.000	1.002	1.000	1.000	1.000	1.000	1.000	0.962
42-Ult	0.989	1.000	0.999	1.000	0.996	0.996	1.000	1.000	1.000	0.999	0.960
36-Ult	0.986	1.000	0.997	1.001	1.002	1.004	0.999	1.000	1.000	0.999	0.961
30-Ult	0.986	1.001	0.998	1.000	0.998	1.000	0.999	1.000	1.000	0.999	0.959
24-Ult	0.979	1.002	0.990	0.998	0.993	0.993	0.997	1.001	1.000	0.999	0.956
18-Ult	0.952	1.004	0.977	0.996	0.981	0.961	0.993	1.002	1.000	0.997	0.950
12-Ult	0.910	1.002	0.942	0.973	0.951	0.920	0.977	1.008	1.000	0.990	0.973
6-Ult	0.864	0.994	0.831	0.823	0.980	0.893	0.893	1.188	1.013	1.009	1.114

## Third Party Liability - Bodily Injury

## Data adjusted by 1.23 for Reforms

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2009.1-2015.1	2.1	+-2.8	0.7	0.1166	0.0004	3.8	+-2.7	0.6	0.0093	0.0114	-1.6	+-1.4	0.66	0.0276	0.0015
2009.2-2015.1	2	+-3.4	0.65	0.2063	0.0011	3.9	+-3.3	0.51	0.0231	0.0196	-1.8	+-1.7	0.66	0.039	0.004
2010.1-2015.1	2.9	+-3.8	0.66	0.1127	0.0026	5.1	+-3.5	0.63	0.0082	0.0338	-2.1	+-2	0.64	0.0455	0.0057
2010.2-2015.1	3.3	+-4.9	0.61	0.1551	0.0057	5.6	+-4.4	0.56	0.0169	0.0422	-2.2	+-2.6	0.63	0.08	0.0146
2011.1-2015.1	1.1	+-4.4	0.79	0.5776	0.0014	3.5	+-3.7	0.72	0.054	0.0062	-2.4	+-3.3	0.55	0.1308	0.0264
2011.2-2015.1	0.3	+-6	0.75	0.9133	0.0056	3.8	+-5.2	0.63	0.114	0.0158	-3.4	+-4.1	0.6	0.0941	0.0665
2012.1-2015.1	0.8	+-8.6	0.69	0.803	0.0176	4	+-7.5	0.61	0.2023	0.04	-3.1	+-5.9	0.38	0.2315	0.1277

## Data adjusted by 1.23 for Reforms

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2009.1-2014.2	1.7	+-3.3	0.71	0.2802	0.0007	3.8	+-3.3	0.58	0.0274	0.0199	-2	+-1.6	0.68	0.0201	0.0014
2009.2-2014.2	1.5	+-4	0.66	0.4076	0.0019	3.8	+-4	0.49	0.0548	0.0317	-2.2	+-1.9	0.68	0.0278	0.0037
2010.1-2014.2	2.6	+-4.9	0.66	0.2494	0.0056	5.5	+-4.4	0.62	0.0199	0.0682	-2.8	+-2.3	0.69	0.0256	0.0043
2010.2-2014.2	2.9	+-6.3	0.6	0.2967	0.0115	6.1	+-5.6	0.55	0.0339	0.0793	-3	+-2.9	0.68	0.0458	0.0112
2011.1-2014.2	-0.6	+-5.3	0.84	0.7972	0.0018	3.2	+-5.1	0.71	0.1668	0.0149	-3.6	+-3.9	0.64	0.0659	0.0183
2011.2-2014.2	-1.7	+-7	0.81	0.5432	0.0063	3.4	+-7.4	0.62	0.2633	0.0346	-4.9	+-4.5	0.74	0.0407	0.034
2012.1-2014.2	-2.2	+-12.1	0.76	0.6103	0.0248	3.5	+-12.9	0.57	0.4425	0.0943	-5.5	+-7.6	0.6	0.1104	0.0752

## Data adjusted by 1.23 for Reforms and Excluding 2010-2

	Loss Cost					Severity					Frequency	1			
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2009.1-2014.2	0.7	+-2.3	0.88	0.5131	0	2.7	+-2.2	0.83	0.0177	0.0005	-2	+-1.8	0.63	0.0348	0.004
2009.2-2014.2	0.2	+-2.7	0.87	0.8595	0.0001	2.5	+-2.7	0.78	0.0569	0.0014	-2.3	+-2.2	0.63	0.0478	0.0086
2010.1-2014.2	0.1	+-3.9	0.86	0.9296	0.0006	3.3	+-3.6	0.79	0.0634	0.0069	-3.1	+-2.9	0.63	0.0416	0.0095
2010.2-2014.2	-0.6	+-5.3	0.84	0.7972	0.0018	3.2	+-5.1	0.71	0.1668	0.0149	-3.6	+-3.9	0.64	0.0659	0.0183
2011.1-2014.2	-0.6	+-5.3	0.84	0.7972	0.0018	3.2	+-5.1	0.71	0.1668	0.0149	-3.6	+-3.9	0.64	0.0659	0.0183
2011.2-2014.2	-1.7	+-7	0.81	0.5432	0.0063	3.4	+-7.4	0.62	0.2633	0.0346	-4.9	+-4.5	0.74	0.0407	0.034
2012.1-2014.2	-2.2	+-12.1	0.76	0.6103	0.0248	3.5	+-12.9	0.57	0.4425	0.0943	-5.5	+-7.6	0.6	0.1104	0.0752

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2004.1-2007.2	-6.3	+-2.9	0.89	0.0029	0.0011	-0.8	+-3	0.4	0.4987	0.0497	-5.5	+-3.5	0.74	0.0117	0.0182
2004.2-2007.2	-6	+-4.1	0.89	0.0169	0.0042	0.6	+-2.3	0.81	0.5037	0.0066	-6.6	+-4.2	0.81	0.0137	0.0366
2005.1-2007.2	-5	+-6.7	0.8	0.1028	0.0192	1.8	+-2.2	0.92	0.0763	0.0084	-6.7	+-7.4	0.63	0.0683	0.0939

	Severity						
					T Pval		Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time		T Pval Level	Level
2004.1-2015-1	2.5	+-2.2	0.86	0.0238	0.0065	0.0072	1.2323

# Exhibit 3

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## Property Damage & DCPD

	Loss Cost							Severity							Frequency						
					T Pval		Lvl Ch Val:					T Pval		Lvl Ch Val:					T Pval		Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	I Pval Time	Seasonality	I Pval Level	Level	Trend	Conf. Int.	Adj. R2	I Pval Time	Seasonality	I Pval Level	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	I Pval Level	Level
2000.2-2015.1	2.6	+-0.9	0.82	0	0.0297	0.0007	1.2252	1.7	+-0.5	0.82	0	0.0313	0.0206	1.0772	0.9	+-1	0.4	0.0787	0.3755	0.0398	1.1375
2005.2-2015.1	3.1	+-2.1	0.77	0.0054	0.0683	0.02	1.1908	1.6	+-0.8	0.85	0.0007	0.0619	0.0048	1.0901	1.5	+-1.8	0.51	0.0871	0.1929	0.1489	1.0924
2006.2-2015.1	2.6	+-2.7	0.73	0.0577	0.1045	0.0234	1.2139	2	+-1	0.87	0.0004	0.0846	0.0234	1.0712	0.5	+-2.1	0.45	0.5957	0.1991	0.0594	1.1332
2007.2-2015.1	2.5	+-3.8	0.68	0.1683	0.1798	0.05	1.216	1.9	+-1.3	0.83	0.0081	0.1563	0.0406	1.0754	0.6	+-3	0.4	0.6712	0.2879	0.113	1.1307
2008.2-2015.1	2.9	+-5.4	0.65	0.2472	0.3719	0.1153	1.1982	2.8	+-1.7	0.87	0.0031	0.2056	0.2064	1.0448	0.1	+-4.2	0.33	0.9685	0.5356	0.1355	1.1468
2009.2-2015.1	3.3	+-8.7	0.59	0.4053	0.3796	0.239	1.1886	3.6	+-2.6	0.85	0.0105	0.2038	0.575	1.0235	-0.3	+-6.8	0.27	0.909	0.5322	0.2079	1.1613
2010.2-2015.1	4.9	+-15.8	0.49	0.4663	0.5838	0.4986	1.1427	3.1	+-4.4	0.75	0.1309	0.4727	0.5419	1.0345	1.8	+-12.3	0.22	0.7361	0.667	0.5272	1.1046
2011.2-2015.1	14.6	+-30	0.53	0.2173	0.553	0.91	0.9731	5.2	+-7.7	0.73	0.1251	0.3091	0.9897	0.9991	8.9	+-22.6	0.32	0.3143	0.7106	0.8907	0.9739
2012.2-2015.1	24	+-38.8	0.79	0.0955	0.7309	0.6522	0.9209	7.2	+-10.3	0.82	0.0881	0.5448	0.732	0.981	15.6	+-35.1	0.59	0.172	0.8761	0.7183	0.9387

	Loss Cost							Severity							Frequency						
Date	Trend	Conf. Int.	Adi. R2	T Pual Time	T Pval Seasonality	T Real Loval	Lvl Ch Val: Level	Trend	Conf. Int.	Adi. R2	T Rual Time	T Pval	T Pval Level	Lvl Ch Val: Level	Trend	Conf. Int.	Adi. R2	T Rual Time	T Pval	T Pval Level	Lvl Ch Val: Level
2000.2-2014.2	2.6	+-0.7	0.86	o	0.0009	0.0047	1.14	1.7	+-0.5	0.8	0	0.0151	0.0852	1.0576	0.8	+-0.9	0.31	0.0636	0.1705	0.1929	1.0814
	2.0			0							-										
2005.1-2014.2	3	+-1.1	0.89	0	0.0002	0.0127	1.12	1.6	+-0.6	0.87	0.0001	0.0078	0.0088	1.0703	1.4	+-1.1	0.61	0.0194	0.0107	0.3288	1.0424
2006.1-2014.2	2.5	+-1.3	0.88	0.001	0.0003	0.0081	1.13	1.8	+-0.7	0.87	0.0001	0.0272	0.0184	1.064	0.7	+-1.2	0.62	0.2231	0.0027	0.1186	1.0664
2007.1-2014.2	2.1	+-1.7	0.85	0.0217	0.0011	0.0096	1.15	1.9	+-1	0.86	0.0011	0.026	0.0465	1.0587	0.2	+-1.5	0.59	0.787	0.0074	0.06	1.087
2008.1-2014.2	2.4	+-2.4	0.84	0.0459	0.006	0.0295	1.14	2.3	+-1.2	0.87	0.0018	0.0859	0.1055	1.0476	0.2	+-2.2	0.54	0.8739	0.0228	0.1097	1.0883
2009.1-2014.2	0.5	+-3.1	0.85	0.7171	0.0052	0.0085	1.20	2.6	+-1.9	0.85	0.0113	0.099	0.2776	1.0374	-2.1	+-2.3	0.7	0.0731	0.008	0.0069	1.1572
2010.1-2014.2	0.6	+-5.7	0.82	0.8122	0.0206	0.0479	1.20	3.1	+-3.3	0.81	0.0568	0.1231	0.5739	1.0248	-2.5	+-4.2	0.66	0.2054	0.0335	0.0312	1.1685
2011.1-2014.2	-2	+-11.7	0.78	0.6612	0.0787	0.0896	1.26	0.4	+-5.9	0.74	0.8429	0.1658	0.2096	1.0799	-2.5	+-9.8	0.59	0.5278	0.1431	0.1472	1.17
2012.1-2014.2	8.8	+-18.7	0.95	0.1665	0.149	0.3566	1.09	5.4	+-13.3	0.86	0.2162	0.352	0.9015	1.0076	3.3	+-29.3	0.64	0.6698	0.4833	0.5767	1.0829

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2004.1-2008.2	3.5	+-2.2	0.79	0.0065	0.0057	0.2	+-1.4	0.47	0.7915	0.0191	3.3	+-2.5	0.58	0.0171	0.1569
2005.1-2008.2	3.4	+-3.8	0.73	0.0664	0.0217	0.9	+-2.3	0.45	0.3625	0.0685	2.5	+-4.2	0.39	0.1867	0.161

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2008.1-2012.2	2.5	+-2.8	0.6	0.0674	0.0256	2.1	+-1.4	0.62	0.0091	0.2042	0.4	+-2.3	0.34	0.7263	0.0438
2009.1-2012.2	0.3	+-3.4	0.62	0.8397	0.0174	2.4	+-2.5	0.52	0.0562	0.2495	-2	+-1.4	0.86	0.0125	0.0016
2010.1-2012.2	-0.3	+-8.2	0.52	0.9239	0.0786	2.6	+-6	0.34	0.2582	0.3323	-2.8	+-3	0.83	0.0603	0.0161

## Disability Income

## Data adjusted for Reforms

No Seasonality Ex 2008 and 2009

		Loss Cost				Severity				Frequency			
Date		Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time
2000.2-20	15.1	0.1	+-1.8	-0.04	0.8978	4.8	+-1.9	0.52	0	-6.8	+-1	0.89	0
2005.2-20	15.1	1.6	+-3.3	0	0.329	3.2	+-4.1	0.11	0.1125	-5.9	+-1.8	0.75	0
2010.2-20	15.1	3.1	+-10.7	-0.06	0.5104	-0.9	+-10	-0.12	0.8363	-5.6	+-4.7	0.41	0.028
2011.2-20	15.1	0.6	+-17.6	-0.17	0.9317	1.2	+-15.6	-0.16	0.8547	-8.5	+-5.1	0.67	0.0082

with Seasonality Excluding 2008 and 2009

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2000.2-2015.1	0.3	+-1.6	0.14	0.7554	0.0224	7.5	+-1.7	0.77	0	0.4494	-6.7	+-0.8	0.92	0	0.0044
2005.2-2015.1	1.9	+-3.1	0.15	0.211	0.0844	8	+-3.9	0.56	0.0005	0.7452	-5.7	+-1.5	0.84	0	0.0123
2010.2-2015.1	4.7	+-9	0.33	0.2453	0.0488	10.1	+-10.9	0.29	0.0553	0.3624	-4.9	+-3.6	0.69	0.0161	0.0231
2011.2-2015.1	3.8	+-13.2	0.47	0.4876	0.0362	12.3	+-15.4	0.4	0.0814	0.1265	-7.6	+-4	0.82	0.0055	0.0528

No Seasonality, no Exclusions

-	Loss Cost				Severity				Frequency			
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time
2000.2-2015.1	-0.3	+-2.5	-0.03	0.8097	4.5	+-2.1	0.41	0.0001	-6.9	+-1	0.86	0
2005.2-2015.1	3.8	+-5	0.08	0.1248	4.6	+-4.4	0.17	0.0379	-5.3	+-1.8	0.65	0
2010.2-2015.1	3.1	+-10.7	-0.06	0.5104	-0.9	+-10	-0.12	0.8363	-5.6	+-4.7	0.41	0.028
2011.2-2015.1	0.6	+-17.6	-0.17	0.9317	1.2	+-15.6	-0.16	0.8547	-8.5	+-5.1	0.67	0.0082

## AB- Medical

Frequency with seasonality

_		Loss Cost					Severity					Frequency				
						T Pval					T Pval					T Pval
Date	e	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2000.2-2	015.1	-0.6	+-2	0.07	0.5092	0.0753	2.7	+-1.2	0.44	0	0.2153	-3.3	+-1.1	0.56	0	0.0696
2005.2-2	015.1	5.6	+-2.4	0.61	0.0001	0.017	5.5	+-1.8	0.7	0	0.1859	0.1	+-1.3	0.21	0.8817	0.016
2010.2-2	015.1	5.7	+-6.3	0.49	0.0652	0.0286	2.9	+-5.9	0.07	0.2823	0.2288	2.7	+-2.8	0.57	0.0501	0.0134
2011.2-2	015.1	4.2	+-10.6	0.39	0.3397	0.0565	0.5	+-9.1	0	0.8931	0.2179	3.7	+-4.8	0.51	0.0988	0.0458

#### Data Adjusted for reforms, no seasonality for severity

	Loss Cost				Severity				Frequency			
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time
2000.2-2015.1	-0.7	+-2	-0.02	0.4621	-0.3	+-0.8	-0.01	0.4226	-3.3	+-1.2	0.52	0
2005.2-2015.1	5.3	+-2.7	0.48	0.0005	0.1	+-1.3	-0.05	0.8927	-0.1	+-1.5	-0.06	0.945
2010.2-2015.1	4.4	+-8.1	0.07	0.2348	-1.5	+-5	-0.06	0.5048	2.1	+-3.9	0.05	0.2573
2011.2-2015.1	2.1	+-13.1	-0.14	0.7111	-3.7	+-7.8	0.04	0.2953	2.6	+-6.3	0.01	0.3345

Reform Factor Estimate: April 2010

	Severity					
						Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level
2005.1-2011.2	1.2	+-2.6	0.81	0.3384	0.003	1.2417

Reform Factor Estimate: April 2010

	Severity					
						Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level
2006.1-2011.2	1.6	+-4	0.79	0.3763	0.0172	1.2268

## AB- Funeral

	Loss Cost				Severity				Frequency			
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time
2000.2-2011.2	-4.7	+-3.5	0.22	0.0131	-3.6	+-3.6	0.13	0.0511	-1.1	+-3.6	-0.03	0.5208

## AB- Death

	Loss Cost				Severity				Frequency			
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time	Trend	Conf. Int.	Adj. R2	T Pval Time
2000.2-2011.2	-0.2	+-5.1	-0.05	0.9282	3	+-3.4	0.1	0.0768	-3.1	+-4.5	0.04	0.1703

Collision

No seasonality

	Loss Cost						Severity						Frequency					
						Lvl Ch Val:						Lvl Ch Val:						Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	r Pval Level	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level
2005.2-2015.1	-0.2	+-1.6	-0.11	0.7486	0.9388	1.0042	2.3	+-1.3	0.85	0.0017	0.0022	1.1673	-2.4	+-1.9	0.72	0.0145	0.0338	0.86
2009.2-2015.1	-0.3	+-5.3	-0.21	0.8985	0.834	1.019	1.5	+-3.3	0.88	0.3174	0.0069	1.2034	-1.8	+-6.4	0.61	0.544	0.1563	0.85
2010.2-2015.1	0.2	+-7.5	-0.28	0.9517	0.9823	1.0022	0.5	+-5.5	0.85	0.8368	0.021	1.2311	-0.3	+-10.5	0.57	0.949	0.1712	0.81
2011.2-2015.1	1.2	+-13.9	-0.38	0.8384	0.8962	0.9821	1.8	+-9.9	0.82	0.6627	0.1076	1.2	-0.6	+-19.7	0.45	0.9404	0.338	0.82
2012.2-2015.1	5.4	+-20.4	-0.15	0.4474	0.7867	0.9608	3.3	+-17.1	0.71	0.571	0.2184	1.1971	2	+-35.8	-0.02	0.8655	0.4298	0.80

With Seasonality

	Loss Cost							Severity							Frequency						
						T Pval	Lvl Ch Val:						T Pval	Lvl Ch Val:						T Pval	Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Seasonality	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Seasonality	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Seasonality	Level
2005.2-2015.1	-0.2	+-1.6	-0.17	0.7702	0.9416	0.7553	1.0041	2.3	+-1.3	0.85	0.0015	0.0023	0.2775	1.167	-2.5	+-1.9	0.7	0.0164	0.0387	0.6565	0.8604
2009.2-2015.1	-0.1	+-5.7	-0.32	0.9563	0.8707	0.6331	1.0155	1.9	+-2.8	0.92	0.1527	0.0038	0.0524	1.1942	-2	+-6.9	0.57	0.5251	0.1883	0.6387	0.8503
2010.2-2015.1	0.1	+-8.5	-0.48	0.9881	0.9626	0.8281	1.0051	1.2	+-5	0.89	0.58	0.0189	0.1137	1.2142	-1.1	+-10.9	0.57	0.8108	0.2136	0.3541	0.8278
2011.2-2015.1	0.6	+-16.8	-0.65	0.9312	0.9579	0.6947	0.9919	3	+-9.9	0.86	0.4355	0.1258	0.2008	1.1756	-2.4	+-21.6	0.44	0.7736	0.4265	0.3794	0.8437
2012.2-2015.1	4.6	+-32.1	-0.48	0.5907	0.8371	0.6255	0.9647	4.9	+-17.3	0.85	0.3355	0.1759	0.1922	1.188	-0.4	+-48.2	0.01	0.977	0.4732	0.4027	0.812

No Seasonality

	Loss Cost						Severity						Frequency					
						Lvl Ch Val:						Lvl Ch Val:						Lvl Ch Val:
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level	Trend	Conf. Int.	Adj. R2	T Pval Time	T Pval Level	Level
2005.1-2014.2	0.5	+-1.6	-0.06	0.5413	0.3404	0.944	2.7	+-1.3	0.84	0.0002	0.0052	1.1591	-2.2	+-1.5	0.78	0.0064	0.0023	0.8144
2009.1-2014.2	-1.8	+-3.3	0.04	0.2484	0.6469	1.0288	2.1	+-2.7	0.89	0.1067	0.0037	1.197	-3.8	+-3.8	0.83	0.0524	0.0598	0.8595
2010.1-2014.2	0.3	+-5.3	-0.26	0.8831	0.7644	0.9782	2.3	+-4.7	0.87	0.2904	0.026	1.1927	-1.9	+-6.5	0.78	0.5162	0.0612	0.8202
2011.1-2014.2	-3.9	+-6.8	0.1	0.2058	0.3655	1.0698	4.1	+-9	0.87	0.2895	0.1403	1.1563	-7.7	+-10.4	0.83	0.1275	0.5034	0.9252
2012.1-2014.2	-7.4	+-2.3	0.95	0.0023	0.003	1.144	10.3	+-19.7	0.87	0.1772	0.5987	1.0644	-16.1	+-14	0.91	0.0434	0.5194	1.0748

	Loss Cost				Severity				Frequency			
Date	Trend	Conf. Int.	Adi. R2	T Pval Time	Trend	Conf. Int.	Adi. R2	T Pval Time	Trend	Conf. Int.	Adi. R2	T Pval Time
2004.1-2008.2	4.9	+-2.9	0.63	0.0039	4.3	+-3.3	0.48	0.016	0.6	+-3.9	-0.11	0.7172
2005.1-2008.2	6	+-4.8	0.55	0.0206	6.9	+-4.4	0.68	0.0074	-0.9	+-6.2	-0.14	0.7404

		Loss Cost				Severity				Frequency			
ľ	Date	Trend	Conf. Int.	Adi. R2	T Pval Time	Trend	Conf. Int.	Adi. R2	T Pval Time	Trend	Conf. Int.	Adi. R2	T Pval Time
	2008.1-2012.2	-1.4	+-2.6	0.05	0.2524	0.5	+-1.6	-0.05	0.4623	-1.9	+-2.4	0.19	0.1131
	2009.1-2012.2	-1.5	+-4.4	-0.04	0.4323	2	+-1.8	0.49	0.033	-3.5	+-3.5	0.4	0.0554
l	2010.1-2012.2	1.3	+-7.8	-0.18	0.6535	1.7	+-3.7	0.12	0.2678	-0.4	+-5	-0.24	0.8524

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## Comprehensive

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2000.2-2015.1	1.5	+-1.1	0.45	0.0085	0.0002	2.2	+-0.7	0.69	0	0	-0.6	+-1.5	-0.04	0.4006	0.6301
2005.2-2015.1	3.5	+-1.1	0.82	0	0	1.2	+-1	0.75	0.0136	0	2.2	+-1.2	0.41	0.0011	0.7118
2006.2-2015.1	3.2	+-1.3	0.79	0.0001	0	1.5	+-1.1	0.77	0.0122	0	1.7	+-1.4	0.21	0.0217	0.818
2007.2-2015.1	3	+-1.6	0.77	0.0016	0	1.7	+-1.5	0.75	0.0253	0	1.2	+-1.7	0.05	0.1284	0.6015
2008.2-2015.1	3.6	+-2.1	0.78	0.003	0.0001	2.2	+-1.9	0.75	0.0239	0.0001	1.3	+-2.3	-0.02	0.2293	0.5903
2009.2-2015.1	5	+-2.5	0.83	0.0011	0.0001	3.1	+-2.5	0.75	0.019	0.0004	1.9	+-3.2	0.01	0.2053	0.5035
2010.2-2015.1	5.8	+-3.7	0.8	0.0064	0.001	4.8	+-2.9	0.85	0.0053	0.0003	0.9	+-4.4	-0.24	0.6417	0.9295
2011.2-2015.1	8.2	+-5.4	0.84	0.0098	0.0025	7.2	+-2.8	0.94	0.001	0.0003	0.9	+-6.9	-0.29	0.75	0.5661
2012.2-2015.1	12.5	+-5.7	0.95	0.0052	0.0031	6.9	+-6	0.92	0.0324	0.005	5.3	+-10.8	0.11	0.2085	0.8014

															r
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2000.2-2014.2	1.2	+-1.1	0.48	0.0318	0.0001	2.2	+-0.8	0.69	0	0	-0.9	+-1.5	0	0.2349	0.4827
2005.1-2014.2	3.3	+-1	0.87	0	0	1	+-0.9	0.78	0.0336	0	2.3	+-1.2	0.44	0.001	0.4093
2006.1-2014.2	2.7	+-1.1	0.87	0.0001	0	1	+-1.2	0.76	0.0851	0	1.7	+-1.4	0.26	0.0208	0.4064
2007.1-2014.2	2.2	+-1.3	0.87	0.0022	0	1.4	+-1.4	0.78	0.0484	0	0.7	+-1.5	0.04	0.3028	0.3041
2008.1-2014.2	2.1	+-1.7	0.85	0.0182	0	1.6	+-1.9	0.75	0.0907	0.0001	0.5	+-2	-0.04	0.5984	0.3212
2009.1-2014.2	3	+-2.2	0.87	0.0101	0	2.6	+-2.5	0.77	0.038	0.0005	0.4	+-2.8	-0.08	0.7643	0.354
2010.1-2014.2	4.2	+-2.8	0.9	0.0078	0.0001	3.3	+-3.8	0.74	0.0742	0.0032	0.9	+-4.3	-0.07	0.6434	0.3609
2011.1-2014.2	4.1	+-5	0.86	0.0843	0.0021	7.4	+-2.5	0.96	0.0005	0.0003	-3	+-4.3	0.28	0.1354	0.1656
2012.1-2014.2	9	+-5.4	0.97	0.0118	0.0029	8.1	+-4.1	0.97	0.0074	0.0022	0.8	+-6.2	0.01	0.6898	0.3272

ex 2014-2

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2005.2-2015.1	3.3	+-1.2	0.78	0	0	0.8	+-0.9	0.76	0.0628	0	2.5	+-1.3	0.45	0.0008	0.5047
2006.2-2015.1	3	+-1.4	0.75	0.0005	0	1	+-1.1	0.77	0.0558	0	1.9	+-1.5	0.25	0.017	0.6274
2007.2-2015.1	2.7	+-1.8	0.72	0.0071	0.0001	1.1	+-1.4	0.73	0.1101	0	1.6	+-1.9	0.1	0.0913	0.4446
2008.2-2015.1	3.3	+-2.4	0.71	0.0121	0.0003	1.5	+-1.9	0.72	0.1016	0.0002	1.7	+-2.6	0.04	0.1595	0.4278
2009.2-2015.1	4.9	+-3	0.78	0.0049	0.0005	2.2	+-2.5	0.69	0.0814	0.0011	2.7	+-3.6	0.11	0.1238	0.3156
2010.2-2015.1	5.7	+-4.7	0.71	0.0233	0.0044	3.9	+-3.3	0.79	0.025	0.0014	1.7	+-5.4	-0.22	0.4816	0.7109
2011.2-2015.1	8.8	+-7.6	0.78	0.0286	0.0099	6	+-2.4	0.95	0.0022	0.0006	2.7	+-9.1	-0.14	0.4502	0.3509
2012.2-2015.1	14.8	+-4.6	0.99	0.0045	0.0035	4.7	+-5.7	0.95	0.0688	0.0139	9.7	+-7.4	0.89	0.0277	0.0822

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2003.2-2014.1	2.9	+-1.1	0.77	0	0	0.4	+-0.6	0.81	0.1766	0	2.4	+-1.1	0.49	0.0002	0.1708
2004.1-2014.1	3.5	+-0.9	0.86	0	0	0.6	+-0.7	0.82	0.0722	0	2.9	+-1.1	0.6	0	0.2981
2004.2-2014.1	3.4	+-1	0.84	0	0	0.6	+-0.7	0.81	0.0979	0	2.7	+-1.2	0.53	0.0002	0.3858
2005.1-2014.1	3.1	+-1.1	0.85	0	0	0.6	+-0.8	0.8	0.1552	0	2.5	+-1.3	0.47	0.0008	0.295
2005.2-2014.1	2.8	+-1.2	0.82	0.0001	0	0.6	+-0.9	0.79	0.2099	0	2.3	+-1.4	0.37	0.004	0.429
2006.1-2014.1	2.4	+-1.2	0.85	0.0004	0	0.5	+-1	0.79	0.3576	0	2	+-1.6	0.29	0.0161	0.3167
2006.2-2014.1	2.3	+-1.3	0.82	0.0023	0	0.7	+-1.1	0.8	0.1985	0	1.5	+-1.7	0.13	0.0673	0.5009
2007.1-2014.1	1.7	+-1.3	0.87	0.0107	0	0.8	+-1.3	0.79	0.2089	0	0.9	+-1.7	0.06	0.2431	0.2637
2007.2-2014.1	1.6	+-1.5	0.84	0.032	0	0.7	+-1.5	0.77	0.3352	0	0.9	+-2	0	0.3174	0.3049
2008.1-2014.1	1.5	+-1.7	0.84	0.0776	0	0.8	+-1.8	0.75	0.3569	0.0001	0.7	+-2.3	-0.02	0.49	0.2912
2008.2-2014.1	1.9	+-2	0.84	0.0579	0	1	+-2.2	0.74	0.3055	0.0003	0.9	+-2.8	-0.05	0.4913	0.3057
2009.1-2014.1	2.4	+-2.4	0.85	0.0447	0.0001	1.6	+-2.4	0.75	0.1576	0.0006	0.7	+-3.4	-0.07	0.6261	0.3271
2009.2-2014.1	3.3	+-2.6	0.87	0.0204	0.0001	1.7	+-3.1	0.7	0.2385	0.0019	1.6	+-4.2	0.01	0.4054	0.2469
2010.1-2014.1	3.6	+-3.4	0.87	0.0355	0.0004	2	+-4	0.68	0.2747	0.0056	1.6	+-5.4	-0.03	0.4831	0.3139
2010.2-2014.1	3.4	+-4.7	0.82	0.1185	0.0021	3.7	+-4.6	0.78	0.0909	0.0038	-0.3	+-6.5	-0.3	0.9096	0.5883
2011.1-2014.1	3.1	+-6.7	0.81	0.264	0.0073	6.2	+-2.1	0.97	0.001	0.0003	-3	+-6.2	0.21	0.2628	0.2357
2011.2-2014.1	5.7	+-9.6	0.85	0.1487	0.0119	7.2	+-2.4	0.98	0.0023	0.0006	-1.4	+-10.2	0.18	0.6834	0.2318

# 8 of 8

All	Perils

-	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2005.2-2015.1	1.2	+-1.1	0.34	0.0234	0.0216	1	+-1.4	0.04	0.1449	0.4588	0.3	+-1.4	-0.03	0.6941	0.255
2006.2-2015.1	0.9	+-1.3	0.23	0.1499	0.036	1.4	+-1.7	0.08	0.0942	0.4645	-0.5	+-1.5	-0.02	0.5313	0.2939
2007.2-2015.1	-0.1	+-1.2	0.3	0.8395	0.0129	0.3	+-1.8	-0.11	0.6919	0.5513	-0.5	+-2	-0.02	0.6334	0.2669
2008.2-2015.1	0.1	+-1.6	0.23	0.9252	0.0331	1.8	+-1.8	0.23	0.0425	0.3298	-1.7	+-2.2	0.15	0.1142	0.3725
2009.2-2015.1	-0.3	+-2.2	0.2	0.7675	0.0647	2.3	+-2.4	0.2	0.0623	0.5071	-2.5	+-2.9	0.24	0.0862	0.3353
2010.2-2015.1	-0.4	+-3.4	0.04	0.7969	0.1907	3.8	+-3.3	0.41	0.0254	0.4234	-4.1	+-3.9	0.35	0.0472	0.6012
2011.2-2015.1	-0.4	+-5.7	-0.22	0.8608	0.4679	5.3	+-4.6	0.51	0.0297	0.7153	-5.4	+-6.6	0.3	0.0955	0.7055
2012.2-2015.1	2.3	+-12.5	-0.45	0.6012	0.6554	6.9	+-10.4	0.35	0.1188	0.4926	-4.3	+-14.4	-0.28	0.4191	0.9224

	Loss Cost					Severity					Frequency				
<b>D</b> -1-1	Turnel	Confident		TDUITU	T Pval	Tour	Conference	4.41 0.2	<b>T</b> D	T Pval	Trend	Conference		T.D	T Pval
Date	Trend	Conf. Int.	Adj. R2		Seasonality	Trend	Conf. Int.	Adj. R2		Seasonality		Conf. Int.	Adj. R2		Seasonality
2005.2-2014.2	1	+-1.1	0.35	0.0808	0.0119	0.8	+-1.5	0.01	0.2563	0.4078	0.1	+-1.5	-0.03	0.8435	0.2412
2006.2-2014.2	0.5	+-1.3	0.27	0.4055	0.0172	1.2	+-1.9	0.04	0.1728	0.4333	-0.7	+-1.7	0.01	0.3975	0.2454
2007.2-2014.2	-0.8	+-0.9	0.63	0.107	0.0005	0	+-2	-0.11	0.9822	0.4473	-0.8	+-2.2	0.02	0.4659	0.221
2008.2-2014.2	-0.8	+-1.3	0.57	0.229	0.0024	1.6	+-2.1	0.16	0.1066	0.304	-2.3	+-2.4	0.26	0.0566	0.2391
2009.2-2014.2	-1.5	+-1.6	0.68	0.0571	0.0027	2.1	+-3	0.11	0.1359	0.5012	-3.6	+-3	0.43	0.0272	0.1593
2010.2-2014.2	-2.2	+-2.3	0.65	0.0641	0.014	3.9	+-4.2	0.33	0.0588	0.4974	-5.9	+-3.4	0.68	0.0062	0.1934
2011.2-2014.2	-3.2	+-3.8	0.62	0.0838	0.0636	6.3	+-6.3	0.5	0.0468	0.9206	-8.9	+-2.9	0.92	0.0013	0.0423
2012.2-2014.2	-2.1	+-13.5	0.14	0.5777	0.2758	9	+-19.7	0.37	0.1762	0.7236	-10.1	+-4	0.97	0.0091	0.0982

	Loss Cost					Severity					Frequency				
					T Pval					T Pval					T Pval
Date	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality	Trend	Conf. Int.	Adj. R2	T Pval Time	Seasonality
2005.1-2014.2	0.9	+-1	0.37	0.0734	0.01	0.9	+-1.3	0.05	0.1905	0.3662	0	+-1.4	-0.03	0.9553	0.2515
2006.1-2014.2	0.7	+-1.2	0.36	0.2099	0.009	1	+-1.7	0.02	0.2215	0.5113	-0.3	+-1.6	0.02	0.7472	0.149
2007.1-2014.2	-0.2	+-1.1	0.53	0.6851	0.0007	0.7	+-2	0.01	0.4532	0.2702	-0.9	+-1.9	0.03	0.3297	0.2194
2008.1-2014.2	-0.7	+-1.1	0.58	0.1662	0.0011	0.6	+-2.2	-0.12	0.5325	0.6987	-1.4	+-2.4	0.11	0.2434	0.1371
2009.1-2014.2	-1.3	+-1.4	0.67	0.0682	0.0011	2.1	+-2.4	0.21	0.0826	0.4675	-3.3	+-2.5	0.43	0.0176	0.1008
2010.1-2014.2	-1.6	+-2	0.61	0.1075	0.0066	2.8	+-3.6	0.18	0.1035	0.7333	-4.3	+-3.6	0.45	0.0281	0.1224
2011.1-2014.2	-2.2	+-3.3	0.52	0.1564	0.0344	6	+-4.4	0.63	0.0154	0.9691	-7.7	+-3	0.85	0.0015	0.0334
2012.1-2014.2	-2.5	+-6.5	0.27	0.3119	0.1659	6.3	+-11.1	0.28	0.1573	0.9475	-8.3	+-4.8	0.84	0.0137	0.1214