

**Actuarial Report for the Campaign to Protect Accident Victims**

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## **Executive Summary**

### **A. Drivers of Automobile Insurance Premium Increases in Newfoundland and Labrador**

1. Since 2001, the frequency of BI claims in Newfoundland and Labrador has been in decline. This occurred even as the overall accident rate in Newfoundland and Labrador increased between 2006 and 2013.
2. Between 2006 and 2017, the average of total private passenger automobile insurance premium paid by motorists in Newfoundland and Labrador has increased at an average annual rate of 2.3%. The 2017 average of \$1,123 is up only slightly from a previous peak of \$1,035 in 2003.
3. Between 2006 and 2017, the average premium for private passenger third party liability coverage paid by motorists in Newfoundland and Labrador has increased at an average annual rate of 1.3%. The 2017 average of \$654 is down from a previous peak of \$673 in 2003.
4. Between 2006 and 2017, the average premium for private passenger third party liability coverage in Newfoundland and Labrador has increased at a lower rate than the increase in CPI.
5. Between 2006 and 2015, trend in the frequency of private passenger third party liability property damage (PD) claims has tracked been greater than the trend in the frequency of third party liability bodily injury (BI) claims.
6. The trend for the severity of PD claims is similar to the trend in severity for BI claims.
7. The percentage of vehicles in Newfoundland and Labrador carrying collision and comprehensive coverage has increased since 2001, and has increased at a greater rate than seen in other Atlantic provinces. This growth in the number of vehicles carrying collision and comprehensive coverage explains that the rate of growth in total average premium exceeds the rate of growth in third party liability premium.
8. The share of third party liability cost per vehicle accounted for by PD claims has increased over the period 2006-2017, increasing from 18.7% to 22.2%.
9. Increases in bodily injury claims settlement costs bear little relation to the increases seen in average total premiums charged in Newfoundland and Labrador since 2006. These costs have increased at a lower rate than amount paid for optional physical damage coverages such as collision and comprehensive, and have increased at a lower rate than third party liability property damage settlement costs. Increases in third party liability premiums are lower than the rate of CPI increase.

## **B. Anticipated Costs Savings and Premium Reductions with Proposed Cap Levels**

1. The Minor Injury Regulation appears not to have appreciably reduced the frequency of BI claims in other Atlantic provinces, above and beyond the trends that were already in place.
2. It is reasonable to assume a 0% reduction in frequency where the Minor Injury Regulation has been implemented.
3. Oliver Wyman finds a greater proportion of claims would be subject to a cap (between 66% and 76%) than does Intact Insurance (55%). The Oliver Wyman study has the benefit of drawing from a larger population of claims (1,741 claimants, compared to 388 claims in the Intact study). However, the Intact study has the advantage of being drawn from a single organization, with its consistency in claims handling philosophy. Oliver Wyman's study is drawn from a closed claims study conducted by the Insurance Bureau of Canada without independent audit, independent consultants, or other resources for review of the data.
4. The caps introduced in New Brunswick and Nova Scotia have not brought about reductions in ALAE costs, beyond those from trends already in place.
5. The introduction of Minor Injury Regulations in New Brunswick and Nova Scotia has not led to a sustainable level of profitability for the third party liability coverage, based on recent financial results.

## **Biographical Information**

I, Craig A. Allen, am an actuary based in Somerville, Massachusetts. My experience includes 31 years of practice as an actuary in Canada and the U.S.

I obtained the fellowship designation in 1996 from both the Casualty Actuarial Society and the Canadian Institute of Actuaries, and I hold a bachelor's degree in mathematics from the University of British Columbia.

Since 2015, I have served as the chair of the Actuarial Evidence Committee of the Canadian Institute of Actuaries, and from 2014 through 2017, I served as Eastern Vice President of the National Association of Forensic Economics.

My previous experience pertaining to Newfoundland and Labrador was as Vice President and Actuary of Lawyers' Professional Indemnity Company (LAWPRO). I performed pricing and loss reserve analysis on the Law Society of Newfoundland and Labrador's Errors and Omissions insurance program from 1995 through 2004, while LAWPRO was the insurer of program.

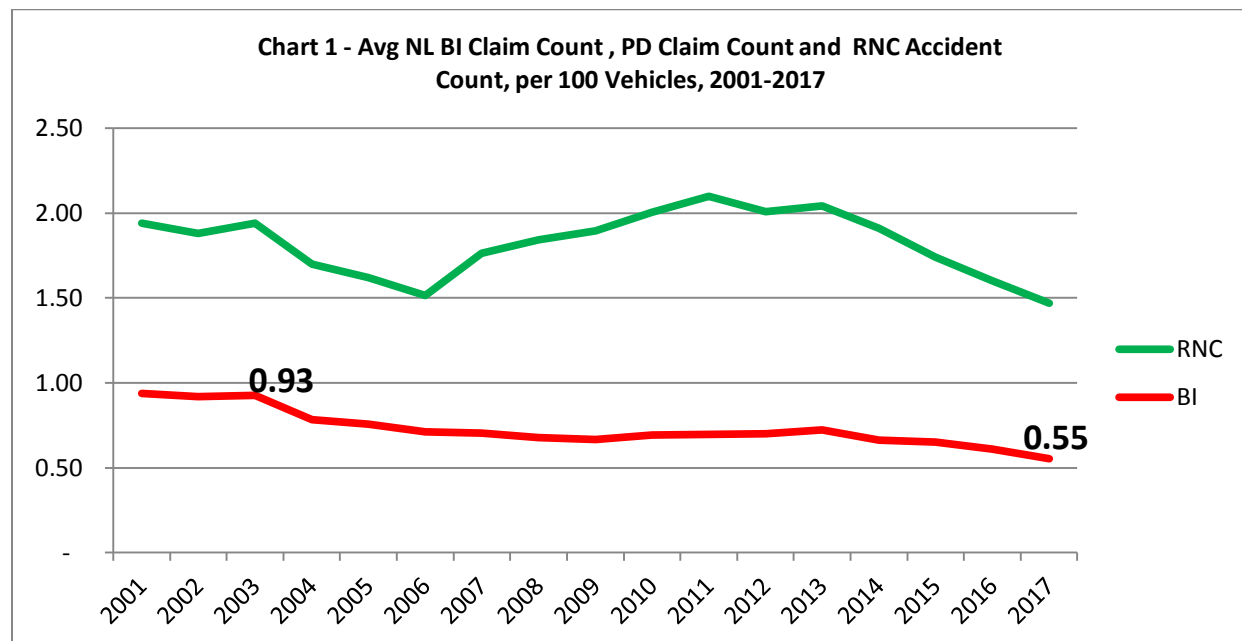
## Section 1: Drivers of Automobile Insurance Premium Increases in Newfoundland and Labrador

### Question 1

**What is the trend for frequency of bodily injury claims in Newfoundland and Labrador? Has there been a trend in number of motor vehicle accidents as recorded by the Royal Newfoundland Constabulary?**

### Response

Since 2003, the frequency of third-party liability bodily injury (BI) claims in Newfoundland and Labrador has been generally declining, from a rate of 0.93 claims per 100 vehicles in 2003 to a rate of 0.55 claims per 100 vehicles in 2017. This trend is visible in Chart 1 below.



Source:

General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712  
Annual Reports on Policy Service Activities, Royal Newfoundland Constabulary

Also seen on Chart 1 is that between approximately 2006 and 2013, the BI frequency remained approximately level at a rate reduced from 2003. This occurred even as the overall accident rate was increasing during that period, as indicated by the frequency of accidents as recorded by the Royal Newfoundland Constabulary.

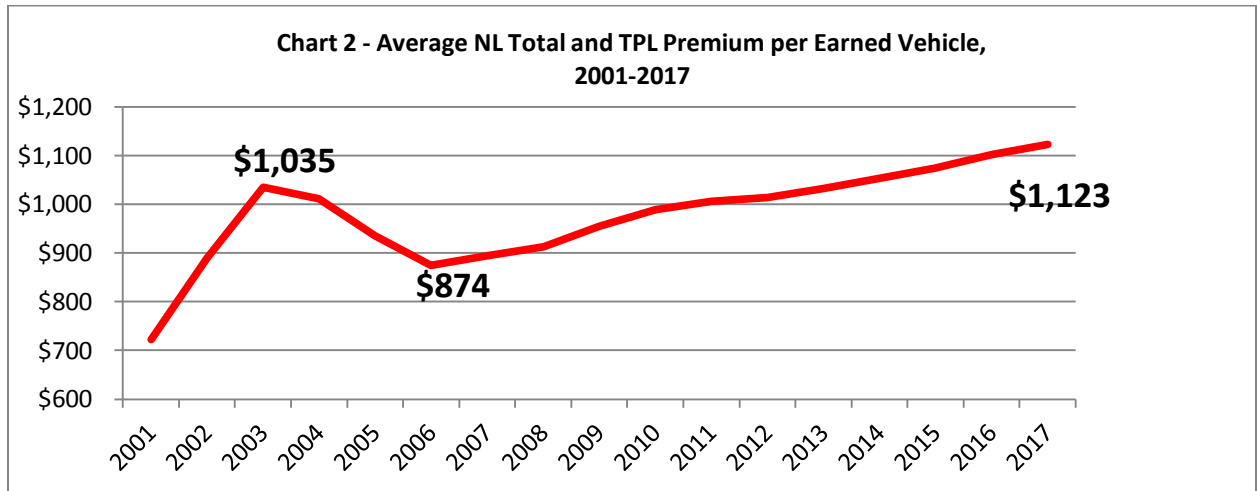
Since 2013, as the overall accident rate has declined, the BI frequency rate has resumed its decline, to a level just over half the 2003 rate.

**Question 2**

**What is the trend in Newfoundland and Labrador with respect to average total premium for private passenger automobile insurance coverage?**

**Response**

The average total premium from all coverages per insured vehicle is \$1,123 in 2017. This reflects a steady yearly increase from \$874 in 2006, averaging 2.3% per year. However, this is only a minor increase from a previous peak of \$1,035 in 2003. Chart 2 shows the progression in average premium from year to year.



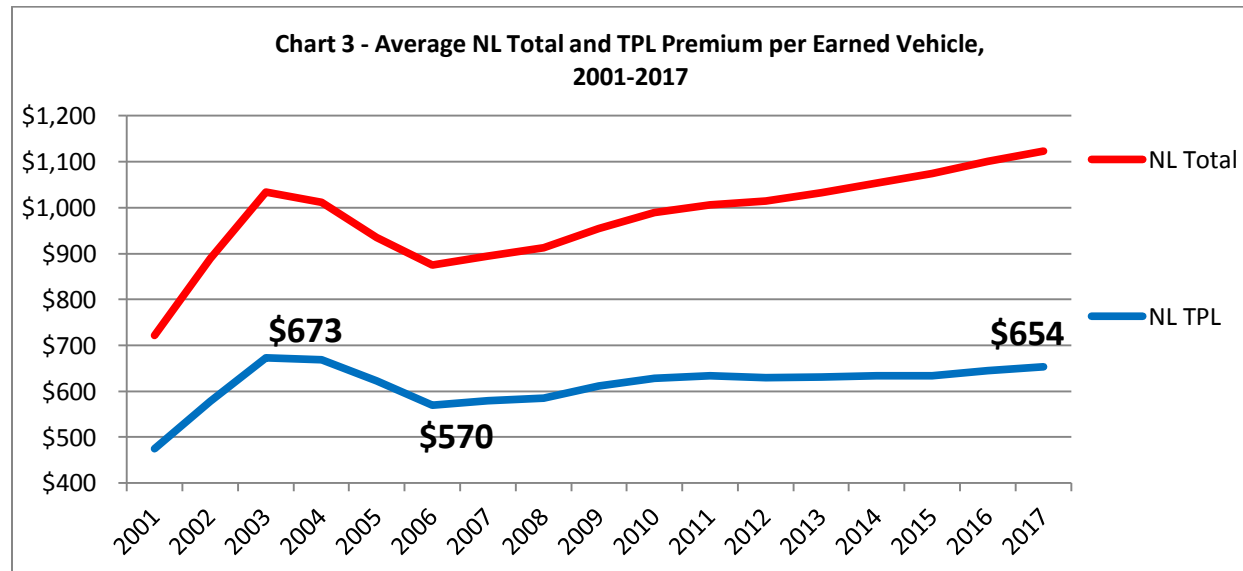
Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

**Question 3**

**What is the trend in Newfoundland and Labrador with respect to premiums for third party liability coverage?**

**Response**

The average premium for third party liability coverage per insured vehicle is \$654 in 2017. This reflects an average annual increase of 1.3% per year from \$570 in 2006. Further, this is less than the previous peak of \$673 in 2003. Chart 3 shows the progression in average third party liability premium from year to year, superimposed on the total average premium seen in Chart 2.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

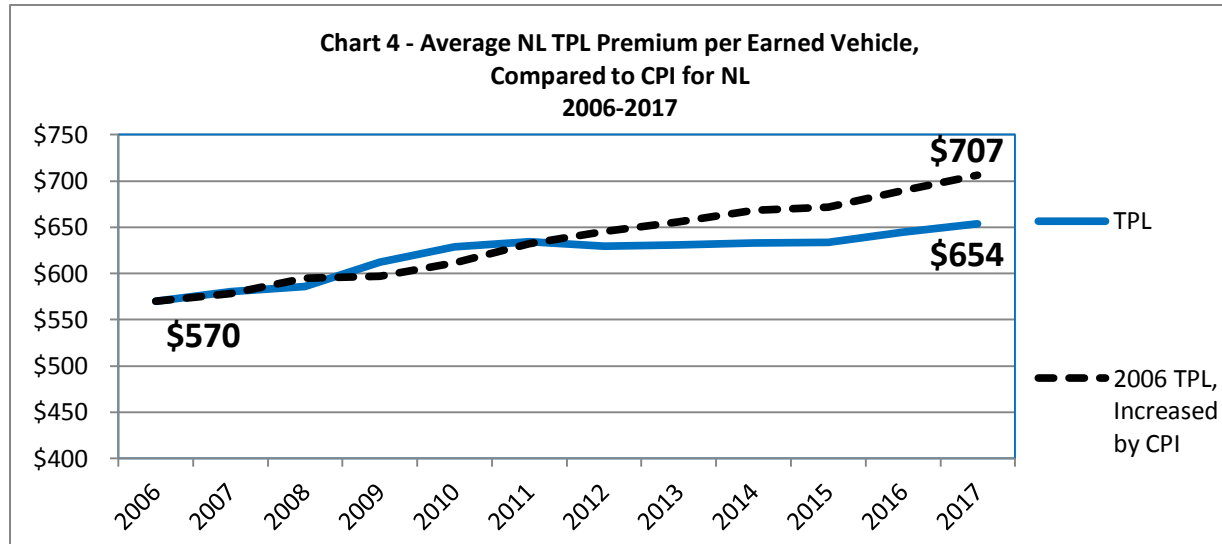


**Question 4**

**Provide an analysis of the change in third party liability premium in NL over time as compared to the increase in CPI during that same period.**

**Response**

As seen in Chart 3 above, there was a significant drop in average third party liability premium between 2003 and 2006, from \$673 to \$570. Such a decline in average premium is clearly below the increase in CPI. Then, between 2006 and 2017, the average premium for third party liability coverage increased from \$570 to \$654 per insured vehicle. Chart 4 shows that such a rate of increase is below the CPI for Newfoundland and Labrador for the same period. Had the 2006 average premium increased at the rate of CPI, it would be \$707. Thus, over both the 2003-2006 and 2006-2017 periods, the average third party liability premium has increased at less than the rate of inflation.



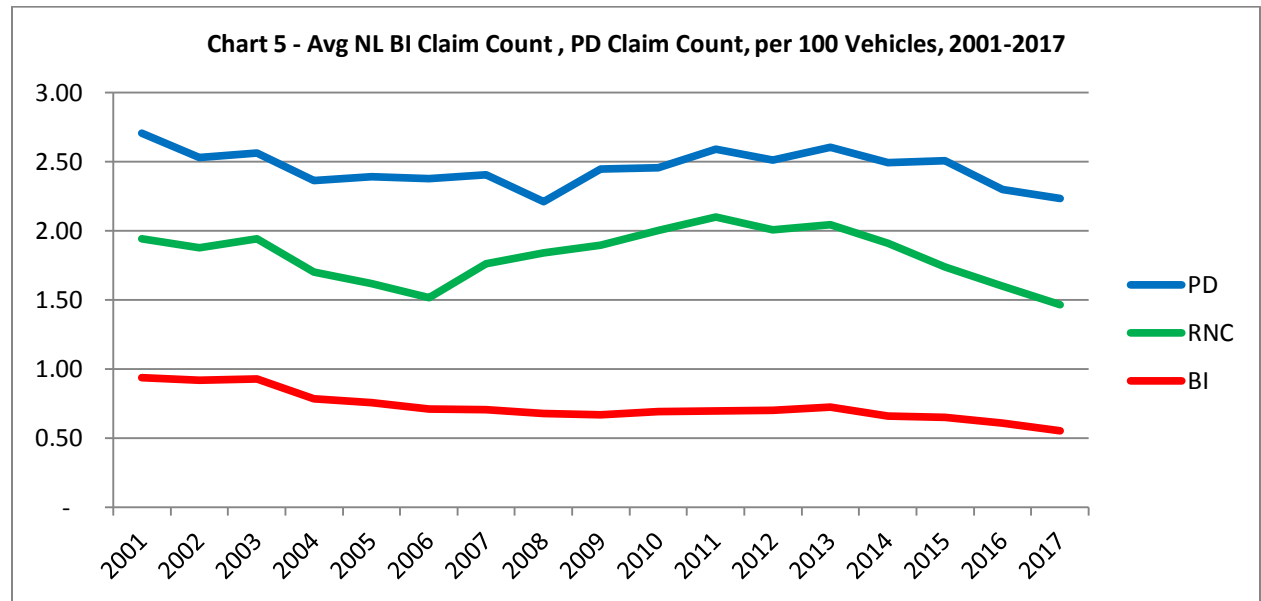
Source:  
Average Premium from General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712  
CPI for Newfoundland and Labrador from Statistics Canada

**Question 5**

**What is the trend for frequency of third party liability property damage (PD) claims in Newfoundland and Labrador? How does that compare to BI frequency?**

**Response**

As seen in Chart 5 below, the frequency of PD claims has generally tracked the number of accidents reported by the Royal Newfoundland Constabulary, including decreases between 2003 and 2006, a general increase between 2006 and 2013, and a subsequent decline. The BI frequency generally did not increase after 2006, unlike the PD frequency.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

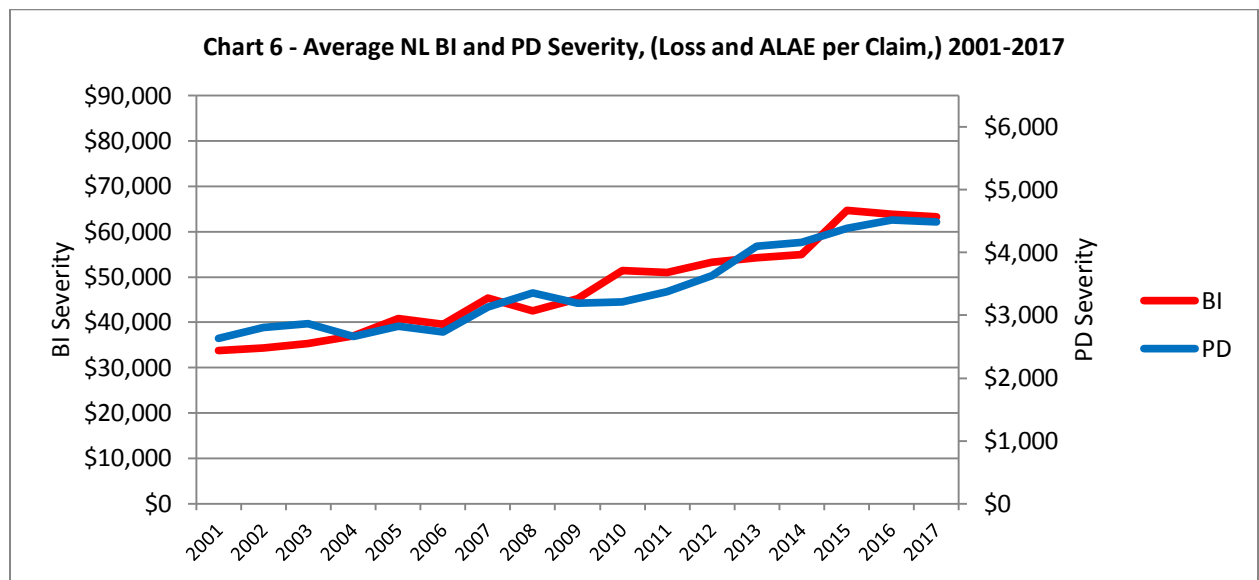
**Question 6**

**What is the trend for severity of third party liability property damage (PD) claims in Newfoundland and Labrador? How does that compare to BI severity?**

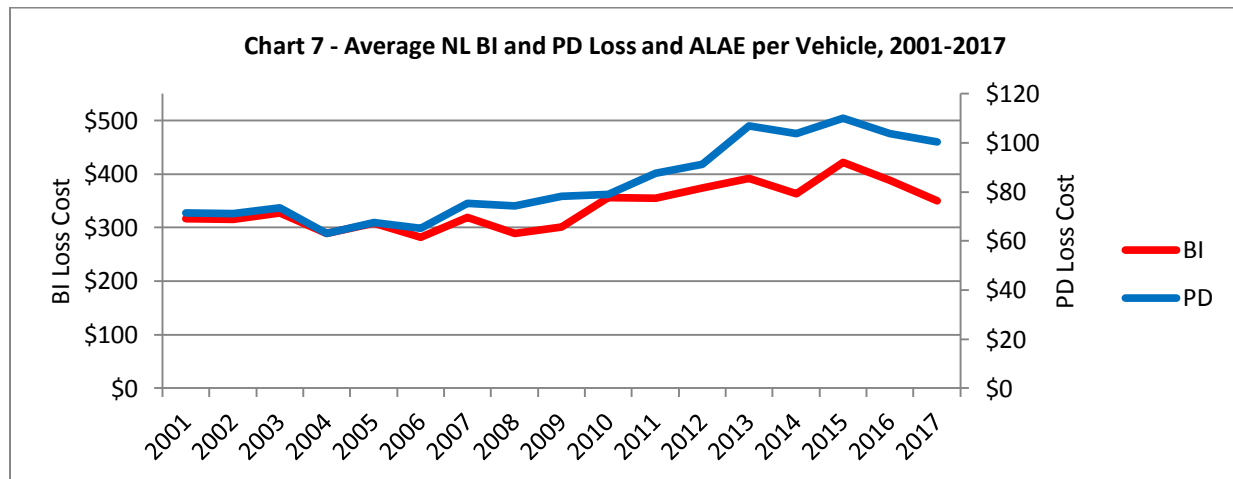
**Response**

As seen in Chart 6 below, the percentage rate of increase in PD severity is close to that of BI severity, as shown by the closeness of the PD line to the BI line, where the two lines are at different scales.

However, Chart 7 shows that the increases in PD frequency in the period 2008 through 2013, seen in Chart 5, caused the percentage rate of increase of PD loss and ALAE per vehicle to surpass that of BI.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712



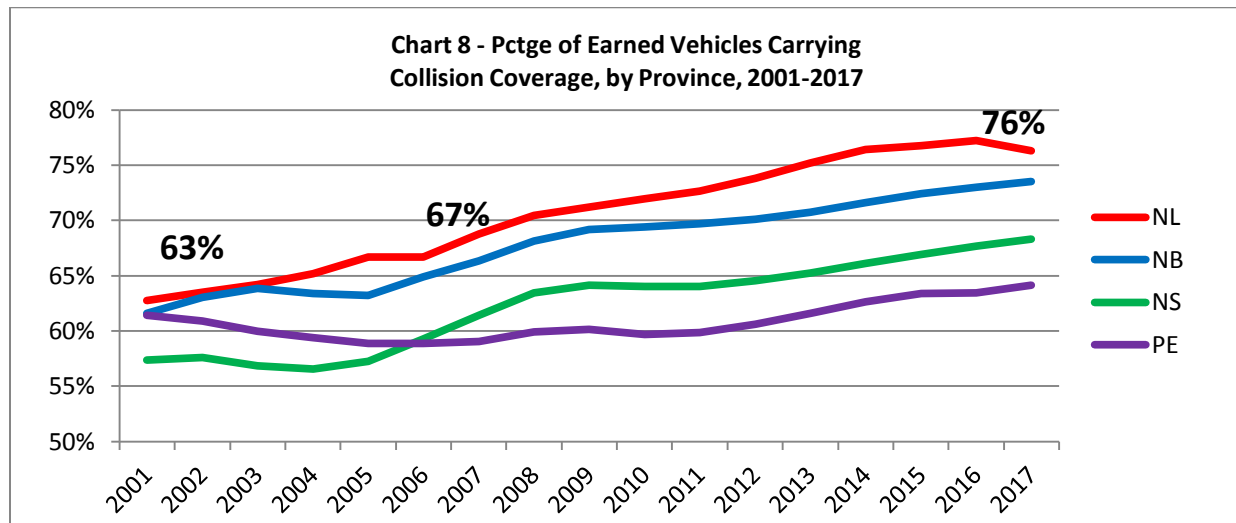
Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

**Question 7**

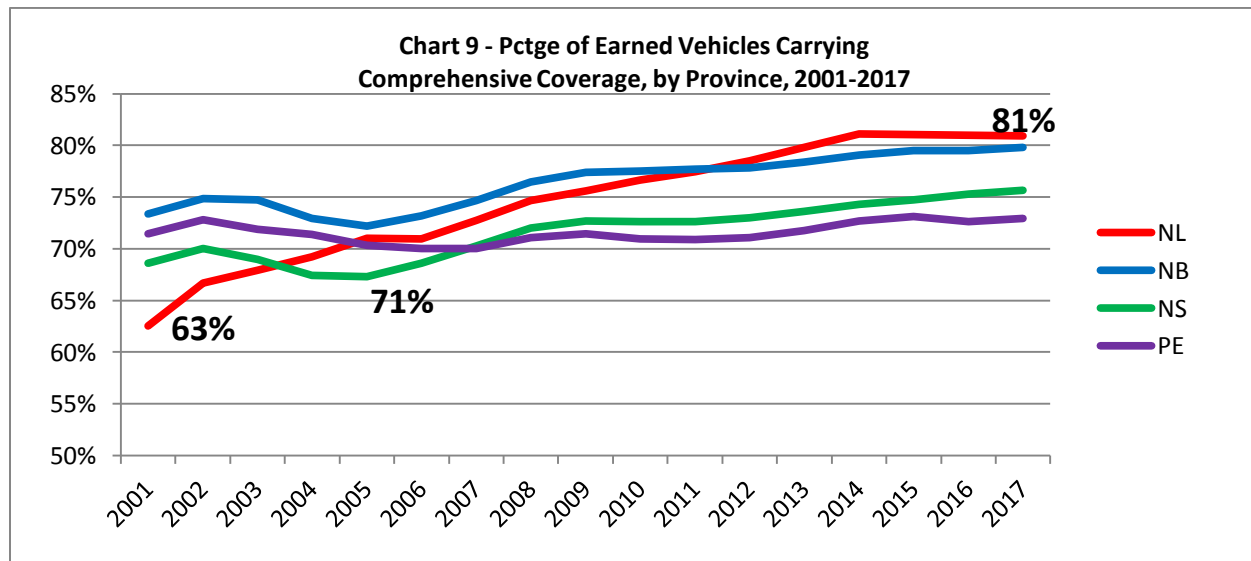
What has been the trend in Newfoundland and Labrador in terms of the percentage of vehicles carrying collision and comprehensive coverage, and how does that compare to the other Atlantic provinces? What is the relationship to total premiums charged?

**Response**

The percentage of vehicles carrying collision coverage in Newfoundland and Labrador increased from 63% in 2001 to 76% in 2017, as seen on Chart 8. This is the highest percentage in Atlantic Canada, both at the beginning and the end of the period. Second-place New Brunswick increased from 61% to 74% over the same period.



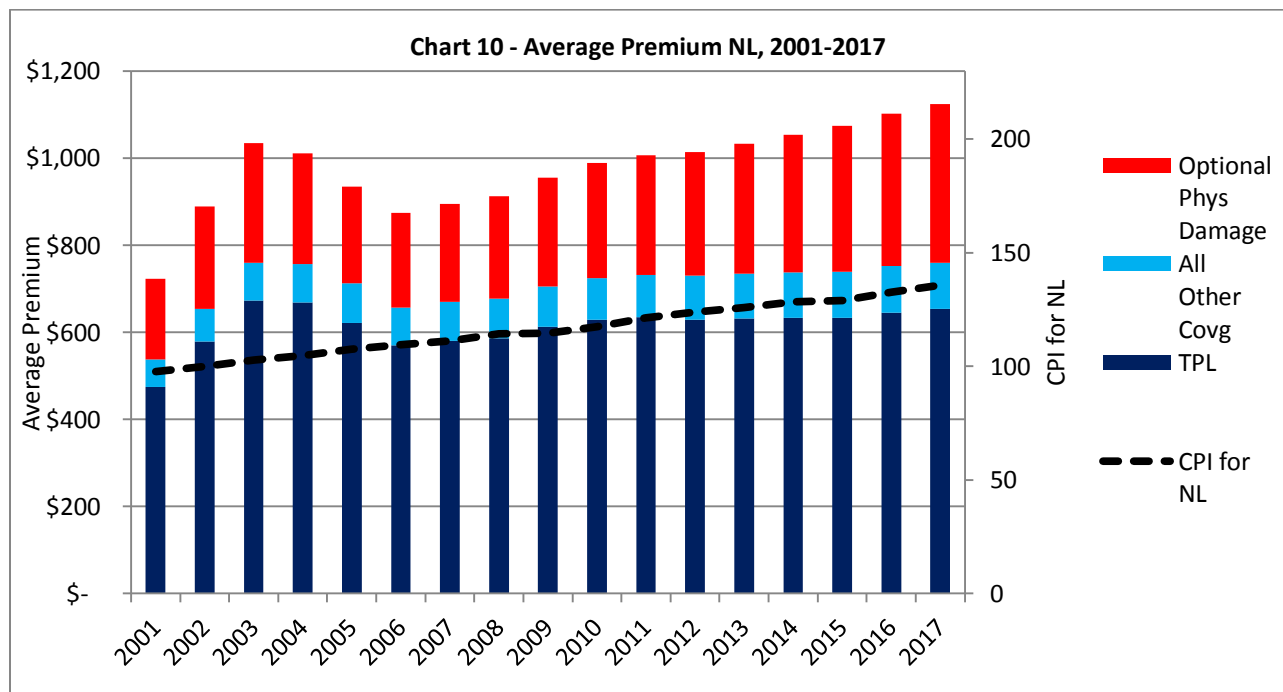
Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

Chart 9 shows that the percentage of vehicles carrying comprehensive coverage increased from 63% in 2001 to 81% in 2017, moving from the lowest in the Atlantic provinces in 2001 to the highest in 2017.

The increased number of vehicles carrying collision and comprehensive coverage explains the greater rate of growth in average total premium than growth in average third party liability premium. Chart 10 below illustrates the components of average total premium, with the red bars, growing more rapidly than the darker blue bars. The red bars represent average premium per vehicle for optional physical damage coverages, including collision and comprehensive. The darker blue bars represent average third party liability premium. The CPI for NL, the dashed black line, is set to match the 2006 third party liability premium. Note that the dashed black line is growing more quickly than the darker blue bars.



Source:  
 Average Premium from General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712  
 CPI for Newfoundland and Labrador from Statistics Canada

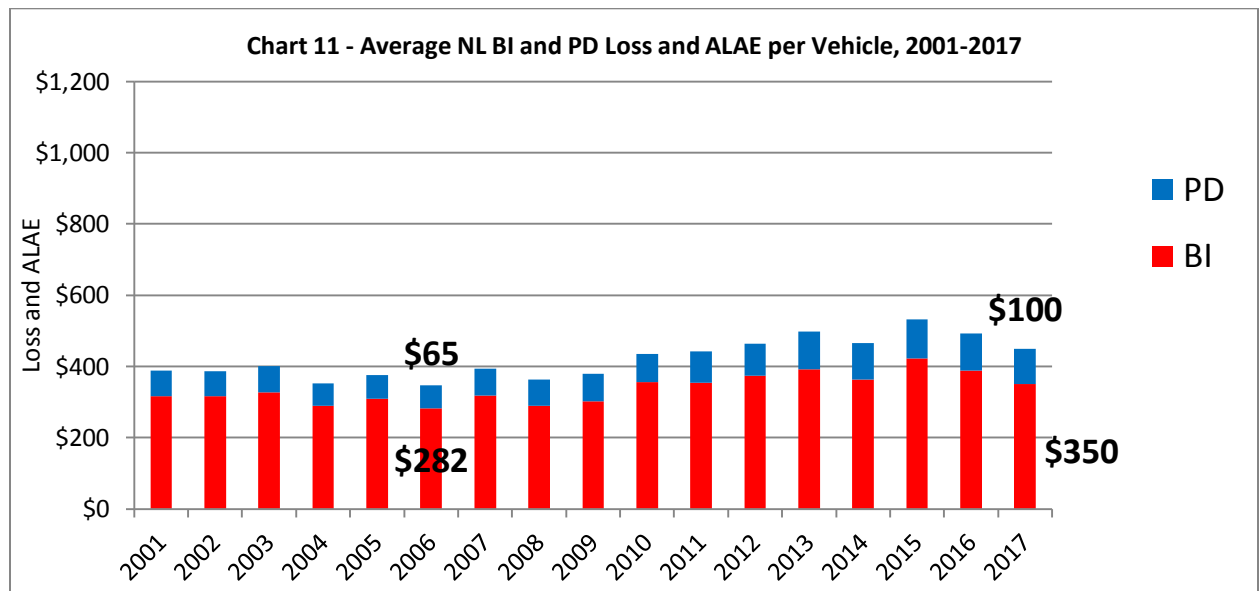
**Question 8**

What is the breakdown of the proportion of premiums charged in Newfoundland and Labrador by insurers for bodily injury claims and for third party property damage claims? If that data is not available, please describe the proportionate breakdown in terms of claims costs.

**Response**

In 2006, PD costs per vehicle represented 18.7% of the total third party liability cost per vehicle. By 2017, the PD share of third party liability costs increased to 22.2%.

Chart 11 shows the proportions of third party liability costs by PD and BI by year.



Source:  
Average Premium from General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

### Question 9

**What appear to be the drivers of increases in average total premiums charged in Newfoundland and Labrador since 2006? How do bodily injury claims settlement costs figure into those increases, if at all?**

### Response

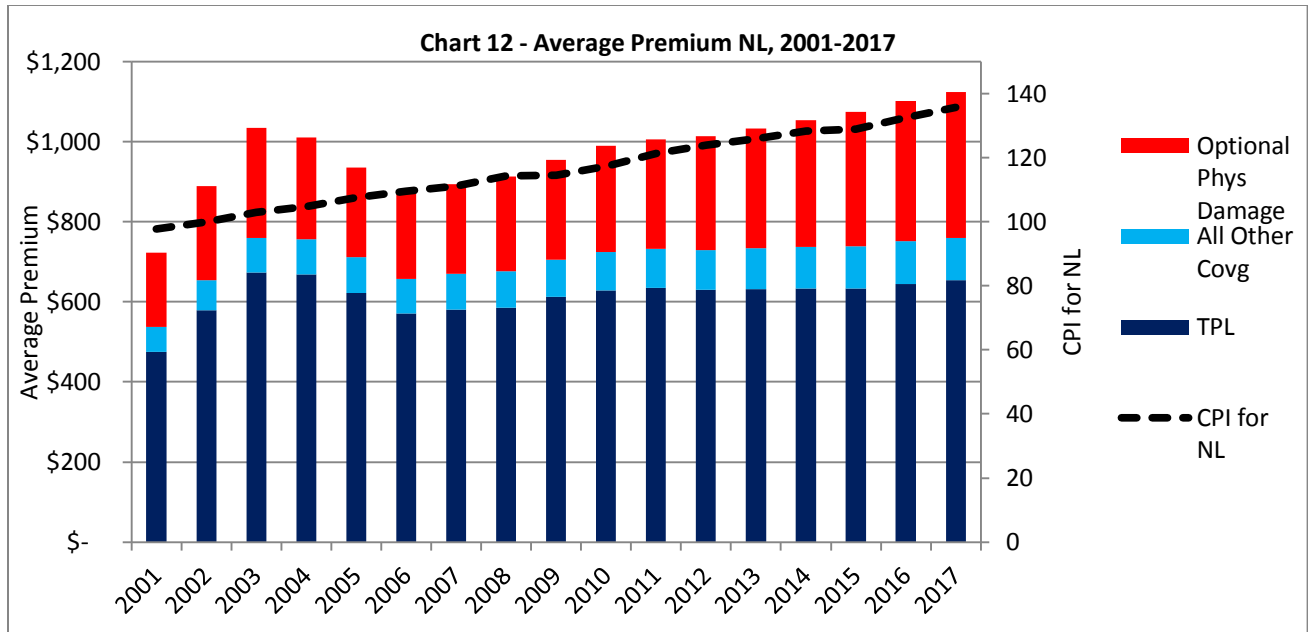
As noted above, the increased number of individuals purchasing optional physical damage coverage (collision, comprehensive, all perils, and specified perils), appears to be driving the increase in average total premiums above the growth in the CPI.

As previously seen, average total premium per vehicle charged in Newfoundland and Labrador has increased between 2006 and 2017 at an average rate of 2.3% per year. This is higher than the rate of growth in the CPI for NL, which has averaged 2.0% per year over the same period (from 109.5 to 135.7). This is illustrated below on Chart 12.

However, as is illustrated on Charts 4 and 10, the average premium per vehicle for third party liability coverage has grown at an average of only 1.3% per year over the same period, significantly below the rate of growth in the CPI.

The increase in average total premium was driven above CPI by growth in optional physical damage premium, which has increased at an average annual rate of 4.8% (from \$217 to \$363). The annual growth rate of 4.8% is composed of an average annual increase in price for the coverage of 3.6% per year, and an average annual increase in the number of insureds carrying the coverage of 1.2% per year. Charts 8 and 9 illustrate the growth in the number of vehicles carrying optional physical damage coverage.

Bodily injury claims settlement costs appear to have a minor role, if any, in increases in average premiums in Newfoundland and Labrador since 2006. Bodily injury claims costs per vehicle have increased from \$282 to \$350. The average annual rate of increase of 2.0% matches the average annual increase in CPI over that period, yet TPL premiums have increased at less than the rate of CPI growth.



Source:

Average Premium from General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

CPI for Newfoundland and Labrador from Statistics Canada



## **Section 2: Anticipated Costs Savings and Premium Reductions with Proposed Cap Levels**

### **Question 1**

Examine the assumptions made by Oliver Wyman (“OW”) concerning percentage change in frequency. The assumptions are that the proportion of minor injury claimants would reduce by 5%, 10% or 15%. OW notes it is difficult to determine the degree to which the Minor Injury Regulations contributed to decline in frequency of BI claims in other provinces.<sup>1</sup> What does the corresponding decline in frequency in BI claims in Newfoundland and Labrador over the same historic time period examined mean for the reasonableness of this assumption?

- a. What is your opinion concerning whether the Minor Injury Regulation can be said to have contributed to reduction in frequency of BI claims in other Atlantic Provinces?
- b. Is it reasonable to assume a percent reduction in frequency? If so, at what percent level is an assumption reasonable?

### **Response**

a. The Minor Injury Regulation appears not to have appreciably reduced the frequency of BI claims in other Atlantic provinces, above and beyond the trends that were already in place.

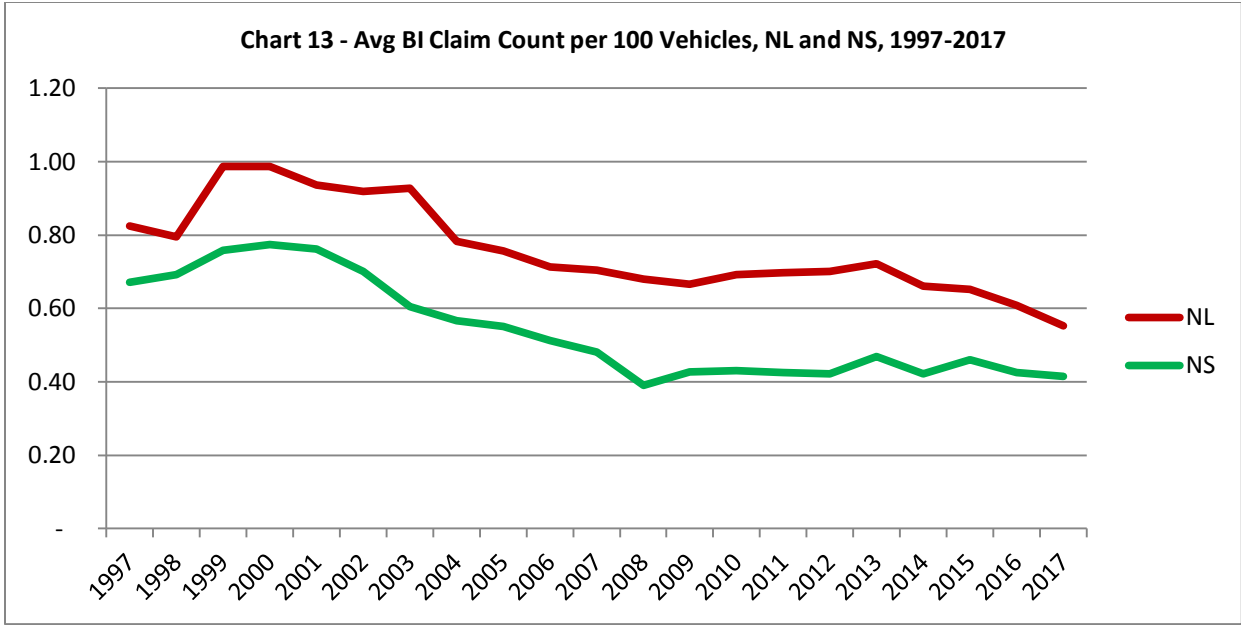
In Nova Scotia, a cap of \$2,500 on non-pecuniary damages for minor injuries was put into place in 2003, and then was increased to an indexed cap of \$7,500 in 2010.

In the context of the adjoining years, the 2003 cap had no discernible additional impact on BI frequency beyond the trends that were in place at that time. While the NS frequency is lower than the NL frequency, such was the case both prior to and following the implementation of the cap. And the magnitude of the difference in frequency between NS and NL did not significantly widen after the introduction of the cap. As seen on Chart 13, changes in frequency prior to and following the 2003 cap were approximately parallel between the two provinces.

After the increase in the cap in 2010, between 2012 and 2017, the gap in frequency between NS and NL narrowed, as the frequency for NL declined steadily, while that of NS stayed roughly stable. However, this narrowing of the gap was not restoring the state of affairs prior to the 2003 cap. Rather, it narrowed the gap to less than it had been prior to 2003.

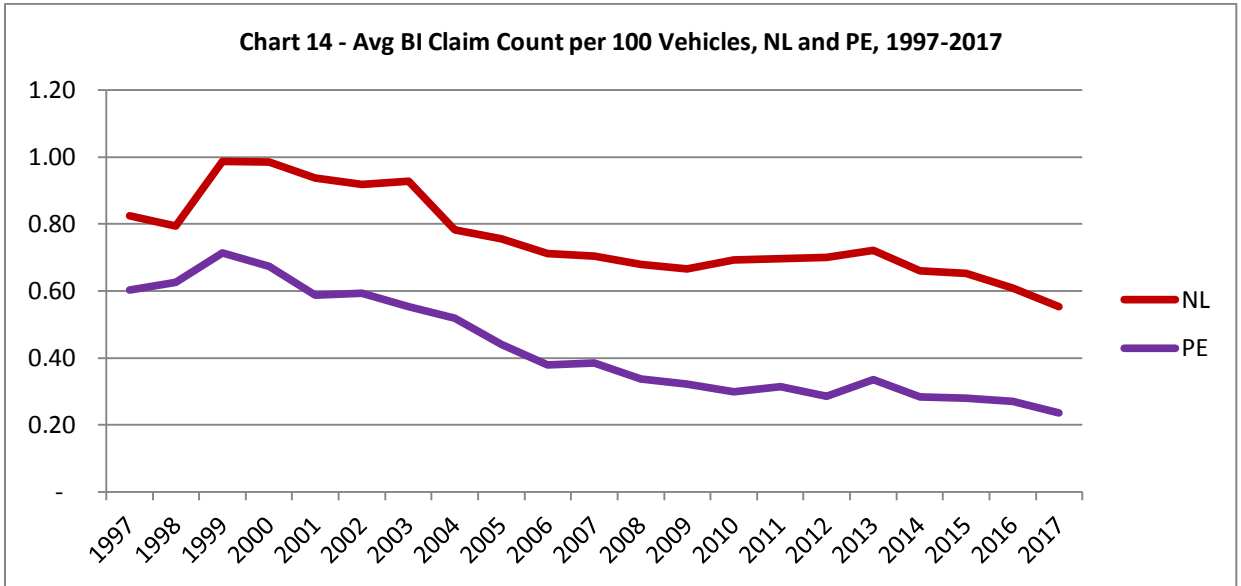
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<sup>1</sup> Oliver Wyman, Minor Injury Cost Estimates – Private Passenger Automobiles - Amended, May 17, 2018, p. 23



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

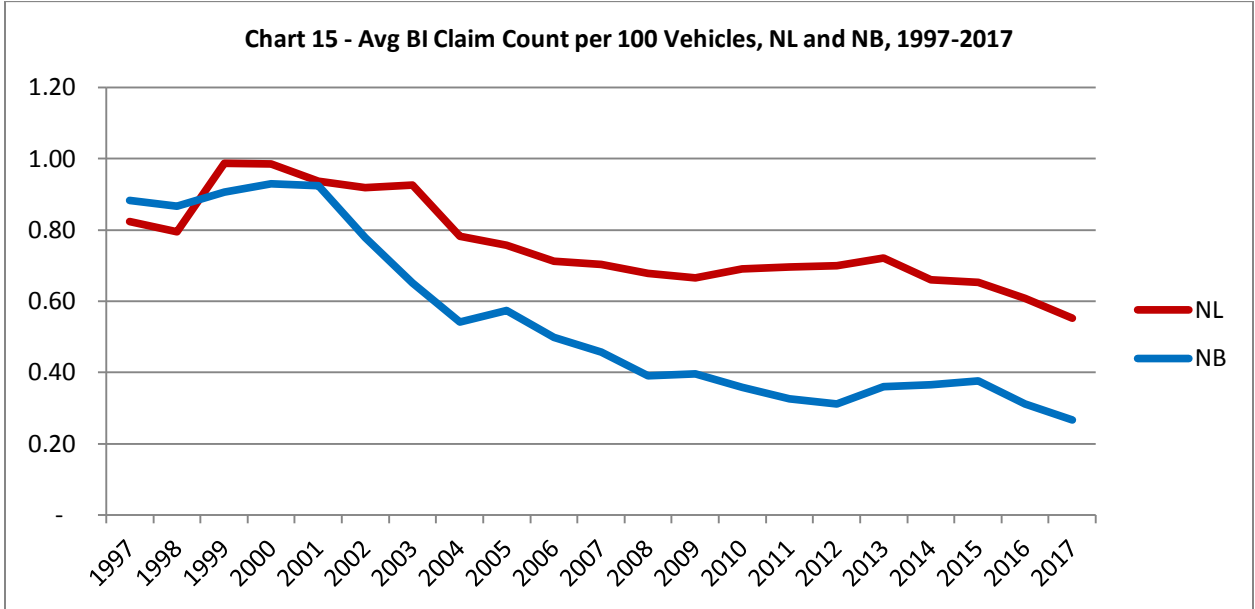
Chart 14 shows a similar lack of impact of the PEI cap of \$2,500 put into place in 2004 and replaced by an indexed cap of \$7,500 in 2014. The only difference with NS is that the gap in frequency did widen between NL and PEI between 2009 and 2012. However, the gap has since narrowed to approximately its level before the introduction of the 2004 cap.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

In New Brunswick, a cap of \$2,500 was introduced in 2003, and was increased to an indexed cap of \$7,500 in 2013. Chart 15 shows that the frequency of NL and NB was similar through 2001, after which the NB frequency declined to a level below that of NL. The gap in frequency generally increased in size until the increase in the cap in 2013, after which the gap narrowed. This may suggest that the cap had a hand in reducing the frequency for NB below that of NL.

That said, the divergence in frequency between NL and NB began in 2002, prior to the implementation of the 2003 cap. That suggests that forces other than the cap had a role in the decline in frequency in NB.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

b. The BI frequency has generally declined since 2000, both for NL and for the three provinces that adopted caps in 2003-2003. In the latter three provinces, the decline in frequency after the implementation of the caps has been consistent with that before the caps. Further, while the frequency for NL has been higher than that of the other provinces, this gap in frequency has been generally of constant width, with the gap widening only inconsistently. In light of these findings, it is reasonable to assume that the Minor Injury Regulations bring about a 0% reduction in frequency.

## Question 2

**Examine and comment on the assumptions made by OW concerning the proportion of claims that will be subject to a cap if implemented. Note the discrepancy between this feature reported by OW and Intact Insurance. In the event that Intact’s assessment is accurate, what are the impacts on cost reductions and premiums savings? Are there concerns arising from the validity/reliability of the CCS that may be a factor in this measurement?**

## Response

The proportion of claims estimated to be subject to a cap in the Intact study is 55%, compared to between 66% and 76% in the OW study. Both studies are subject to the uncertainties that arise when drawing conclusions about a population of prospective claims based on a limited-size sample of past claims.

In one respect, the OW study has a feature that would increase its reliability. It draws from a larger sample than does the Intact study (1,741 claimants, compared to 388 claims in the Intact study). Thus, the Intact study would be subject to greater sampling uncertainty.

On the other hand, the OW study is based on the Newfoundland and Labrador 2018 Closed Claim Study (CCS), that uses data drawn from eighteen insurers within six insurer groups. It can be expected that differing claims handling practices will lead to differences in the judgments by which claims are classified, at least between the six insurer groups. Thus, it can be expected that the source data for the OW study has a lesser degree of consistency in claim classification than the Intact study, drawn from a single insurer, has. Further, the OW study notes that each insurer operates with its own set of underwriting rules. As noted by OW, these rules may lead to conclusions not applicable to any particular insurer.

As noted by OW in its April 19, 2018 report “Closed Claim Study Summary – Private Passenger Automobiles, Newfoundland and Labrador Insurance Industry,” OW relied on data and information available from the Insurance Bureau of Canada (IBC) without independent audit. IBC managed the collection of data for the CCS. IBC then compiled and validated the data submitted by the insurers, and provided a master file to OW in March 2018.

In a previous closed claim study, conducted in 2004, the Board engaged independent consultants for review of the study data. According to OW’s January 18, 2005 report “Private Passenger Automobile Closed Claim Study – 2004,” the survey data was reviewed for accuracy and compliance by the independent insurance consultant, Bern Fitzpatrick. A sub-sample of files was then reviewed by the accounting firm NKHK Chartered Accountants. Further, a medical consultant Dr. Sue Rideout-Vivian was retained by the Board to assist in the development and understanding of various injury definitions. These measures could be expected to increase consistency in the survey responses between insurer groups.

Specific detail about IBC’s validation process in the NL 2018 CCS is not provided. However, no reference has been made to the use of independent resources, as in the 2004 study, for review of the data.

Both the Intact study and the OW study estimate the impact of a putative cap of \$5,000, allowing for ready comparison. Intact estimates that such a cap would reduce claims costs by 19.9%. It appears that the Intact estimate assumes no change in minor injury frequency. On p. 2 of its report, OW estimates savings of between 21% and 27%, assuming no change in minor injury frequency.

**Question 3**

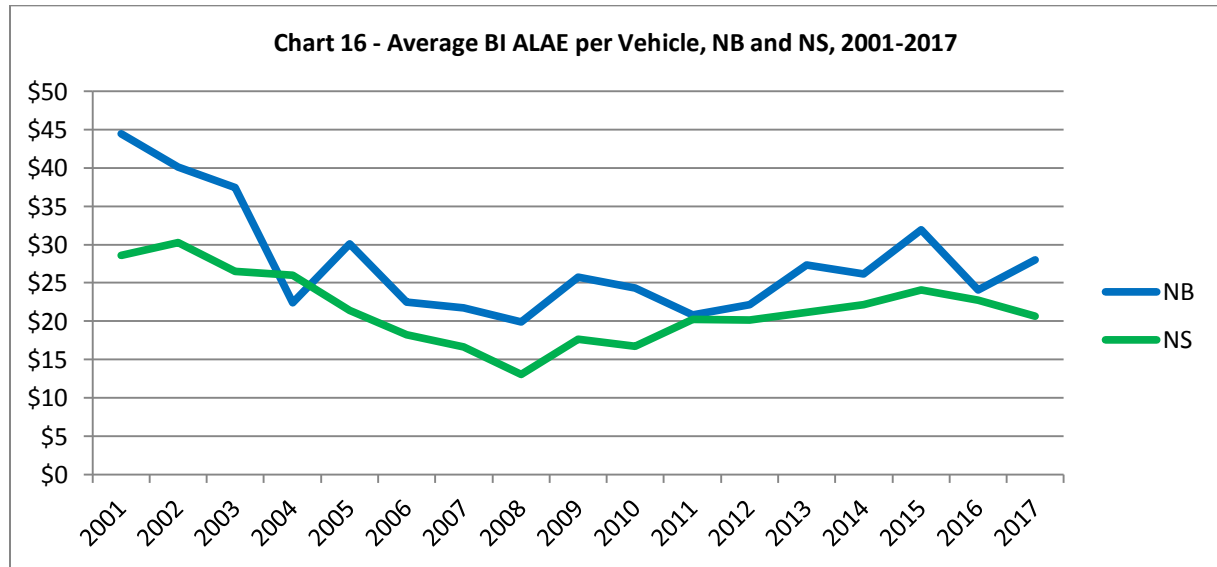
**OW makes the assumption that ALAE will decrease with a cap. Have ALAE costs decreased post-cap in other jurisdictions? If there is no substantial decrease in ALAE costs, what are the impacts on cost reductions and related premiums savings?**

**Response**

Chart 16 below shows the average BI ALAE per vehicle for New Brunswick and Nova Scotia.

For both jurisdictions, the downward trend in ALAE per vehicle began before the introduction of caps in 2003. This suggests that there is no significant impact of caps on ALAE per vehicle.

Thus, the caps have not brought about savings in ALAE and hence cost reductions and premium savings, beyond those from trends already in place.



Source: General Insurance Statistical Agency (GISA), AUTO7001-ATL-201712

**Question 4**

**Assuming all other OW assumptions and applicable factors remain as postulated, what are the impacts on costs savings and reductions for a cap equal to the present-day Nova Scotia cap value of \$8,579 versus the \$7,500 examined by OW?**

**Response**

At a cap of \$8,579, and at a frequency change of 0%, and taking a straight-line interpolation between the savings at a cap of \$7,500 and a cap of \$10,000, the savings are as follows:

Cap	Definition 1	Definition 2	Definition 3
<b>\$8,579</b>	<b>20.6%</b>	<b>22.4%</b>	<b>17.4%</b>
\$7,500	21.7%	23.6%	18.6%
\$10,000	19.1%	20.8%	15.9%

### Question 5

**What is the current profitability of private passenger TPL insurance in Newfoundland and Labrador? How does that compare to the results for New Brunswick and Nova Scotia?**

### Response

According to the Industry Profit and Loss report published by GISA in September 2017, after-tax income for the industry in Newfoundland and Labrador for TPL in 2016 is a loss of \$4.6 million. This compares to an after-tax loss of \$30.9 million in New Brunswick and an after-tax loss of \$27.2 million in Nova Scotia.

The table below shows industry profit (loss) for TPL coverage for 2012 through 2016 for the three provinces.

Year	Newfoundland & Labrador	New Brunswick	Nova Scotia
2012	\$4,285,000	\$46,186,000	\$17,316,000
2013	\$6,838,000	\$11,524,000	\$9,436,000
2014	(\$20,311,000)	\$12,404,000	(\$20,346,000)
2015	(\$24,396,000)	(\$21,252,000)	(\$27,940,000)
2016	(\$4,620,000)	(\$30,949,000)	(\$27,195,000)

Source: General Insurance Statistical Agency (GISA), AUTO9501-NL-2016, AUTO9501-NB-2016, and AUTO9501-NS-2016

The reported results indicate that the implementation of Minor Injury Regulations in New Brunswick and Nova Scotia has not brought financial sustainability to the TPL coverage.