



ICBC Filing re: 2018 Basic Insurance Rate Design Application

INSURANCE CORPORATION OF BRITISH COLUMBIA UNDERTAKING

STREAMLINED REVIEW PROCESS DATE

September 4, 2018

TRANSCRIPT REFERENCE

Volume 1, page 187, line 1 to line 19

REQUESTOR: British Columbia Utilities Commission

QUESTION

Why is the threshold for the Multiple Chargeable Claim Payment Factor (MCF) table selected to be 2 whole years?

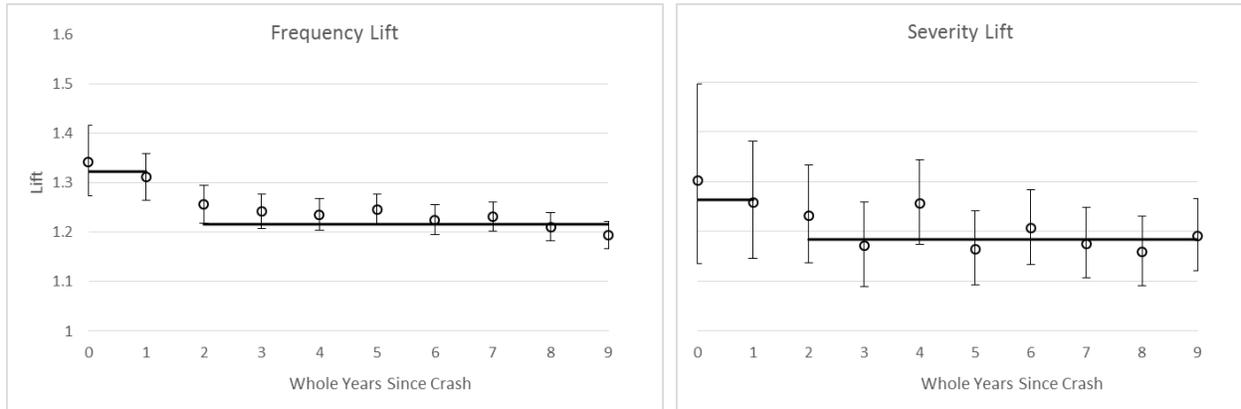
RESPONSE

The MCF table threshold was selected to be 2 whole years because it was the optimal point based on the data.

Figure 1, Lift by Whole Years Since Crash for Frequency and Severity, below shows the increase in risk (known as lift) associated with the frequency and severity of crashes that would be counted for the purpose of the MCF table. These charts were used by the actuaries to select the threshold to be used in the MCF table. In both charts, the first two years have greater lift as compared to the subsequent years. This is especially evident in the frequency chart. While the signal is not as strong in the severity chart, 2 years is still the optimal threshold considering that the first two points are the highest and there is inherently more volatility in severity than frequency. From a practical standpoint, it is also important that the threshold be the same for frequency and severity to avoid undue complexity in the rate design. Considering all of this, the actuaries selected the threshold of 2 whole years.

The superimposed lines show the resulting lift from grouping crashes between number of crashes aged less than 2 whole years and numbers of crashes aged 2 or more whole years.

Figure 1 – Lift by Whole Years Since Crash for Frequency and Severity



The lift values (circles) come from the output of Generalized Linear Models (GLMs) developed as part of the actuarial analysis supporting the new rate design. The chart also includes 95% confidence intervals (vertical bars) for these individual lift values. The data used for this analysis is described in Section F.2 of Chapter 3 of the Application. Specifically, the actuarial statistical models used calendar policy years 2012 to 2015.

As indicated in the "Errata & Clarification to ICBC's 2018 Basic Insurance Rate Design Application" dated August 31, 2018, it is necessary to change the column headings in the Table 2 on page 11 of Schedule D of the Basic Insurance Tariff provided in Appendix B of the Application because they do not accurately represent the values in the table nor the analysis that was undertaken to develop the table. If the change is not made, the rate for a crash aged less than 2 years would be that which is charged to a crash of 2 years or more and less than 3 years. The resulting rates would be excessive and not reflective of accepted actuarial practice.