

**Public Utilities Board (PUB)**

**2021 GRA Information Requests  
Intervener Evidence (Taxi Coalition)  
September 29, 2020**

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**PUB (TC) 1-1**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman 2.3 Taxi VFH Relativities Indicates Unusually High Risk, Table 3</b>	<b>Page No.:</b>	<b>7</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts; 12. Claims experience to date for the VFH class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

The Taxi Coalition observes that Taxi VFH represent an unusually high risk relative to the public major class, and this high risk is most severe with Territory 1 Taxi VFH. Table 3 shows the combined relativity multiplied by the major class average rate to illustrate the risk on a dollar basis.

**Question:**

Please provide an expanded Table 3 with 4 additional columns, and adding Passenger VFH for comparison purposes:

- a) The Balanced Indicated Rate (column 9) from Part VI – RM Appendix 9 Table 16.
- b) A column for the Raw Pure Premiums without Hail and with 10-Year Average Expected Serious Losses (Adjusted for Basic Product Changes) from Part VI – RM Appendix 9 Table 14.
- c) A column dividing the above Pure Premiums by the Balanced Indicated Rate column.

- d) A column showing the 5 year earned units from Part VI – RM Appendix 9 Table 13.

**Rationale for Question:**

To understand the stability of the relationship between the Raw Pure Premiums and the indicated rate level for the 20 uses with the highest relativities, and whether the number of earned units tends to influence the consistency of the relationship.

**RESPONSE:**

- a) to d)

Please see Table 1 below.

Table 1 – Top 20 Combined Relativity – All Major Classes

Source: RM App 9, Tables 13, 14 and 16

Rank	Major Class	Description	Territory	Combined Relativity	Major Class Average Rate	Relativity x Major Class Average	(a) Balanced Indicated Rate (RM App 9 Table 16)	(b) Raw Pure Premiums (RM App 9 Table 14)	(c) Pure Premium/ Indicated Rates	(d) Earned Units (RM App 9 Table 13)
1	3	<b>Taxicab Vehicle-for-Hire</b>	1	<b>4.6197</b>	<b>\$2,038.52</b>	<b>\$9,417.38</b>	<b>\$8,790.63</b>	<b>\$7,227.83</b>	<b>0.82</b>	<b>2,397</b>
2	2	Common Carrier Passenger Vehicle Over 161K in MB	1	4.6059	\$ 827.38	\$ 3,810.80	\$ 3,321.38	\$ 770.84	0.23	20
3	2	Common Carrier Truck Over 161K in MB	1	3.7668	\$ 827.38	\$ 3,116.61	\$ 2,734.45	\$ 945.59	0.35	2,030
4	4	All Purpose Motorcycle (Sport Body Style)	1	3.3662	\$ 867.46	\$ 2,920.04	\$ 2,693.49	\$ 581.82	0.22	566
5	2	Common Carrier Truck Over 161K in MB	1	3.3062	\$ 827.38	\$ 2,735.48	\$ 2,412.21	\$ 945.59	0.39	2,030
6	2	Common Carrier Truck Over 161K in MB with GVW > 16330kg	1	3.2866	\$ 827.38	\$ 2,719.29	\$ 2,398.52	\$ 945.59	0.39	2,030
7	2	Common Carrier Passenger Vehicle Over 161K in MB	2	3.1082	\$ 827.38	\$ 2,571.70	\$ 2,273.73	\$ 778.68	0.34	32
8	2	Common Carrier Passenger Vehicle Over 161K in MB	3	2.9615	\$ 827.38	\$ 2,450.27	\$ 2,171.07	\$ 1,807.78	0.83	3
9	2	Common Carrier Local Passenger Vehicle*	1	2.8976	\$ 827.38	\$ 2,397.45	\$ 2,126.40	\$ 1,505.29	0.71	4,157
10	2	Common Carrier Passenger Vehicle Over 161K in MB	4	2.8930	\$ 827.38	\$ 2,393.65	\$ 2,123.19	\$ -	-	2
11	4	All Purpose Motorcycle (Sport Body Style)	2	2.8609	\$ 867.46	\$ 2,481.71	\$ 2,304.71	\$ 1,545.64	0.67	196
12	3	<b>Taxicab Vehicle-for-Hire</b>	3	<b>2.7549</b>	<b>\$2,038.52</b>	<b>\$5,615.83</b>	<b>\$5,282.46</b>	<b>\$2,419.93</b>	<b>0.46</b>	<b>251</b>
13	4	All Purpose Motorcycle (Sport Body Style)	1	2.7356	\$ 867.46	\$ 2,373.06	\$ 2,208.34	\$ 581.82	0.26	566
14	3	<b>Taxicab Vehicle-for-Hire</b>	4	<b>2.7190</b>	<b>\$2,038.52</b>	<b>\$5,542.72</b>	<b>\$5,214.99</b>	<b>\$1,019.53</b>	<b>0.20</b>	<b>101</b>
15	3	<b>Taxicab Vehicle-for-Hire</b>	2	<b>2.5512</b>	<b>\$2,038.52</b>	<b>\$5,200.72</b>	<b>\$4,899.39</b>	<b>\$2,165.05</b>	<b>0.44</b>	<b>694</b>
16	2	Common Carrier Passenger Vehicle Within 161K in MB	1	2.5444	\$ 827.38	\$ 2,105.19	\$ 1,879.31	\$ 1,354.40	0.72	158
17	2	Common Carrier Truck Over 161K in MB	2	2.5420	\$ 827.38	\$ 2,103.23	\$ 1,877.64	\$ 886.58	0.47	2,300
18	3	U Drive Moped	1	2.5376	\$ 2,038.52	\$ 5,172.87	\$ -	\$ 19,493.55	N/A	3
19	4	All Purpose Motorcycle (Sport Body Style)	5	2.4521	\$ 867.46	\$ 2,127.07	\$ -	\$ 311.19	N/A	61
20	2	Common Carrier Truck Over 161K in MB	3	2.4220	\$ 827.38	\$ 2,003.92	\$ -	\$ 647.55	N/A	53

\* For RM App 9 Tables 13 and 14 "Common Carrier Vehicle Local" is understood to be the matching description/use

**PUB (TC) 1-2**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman , 2.3 Taxi VFH Relatives Indicates Unusually High Risk , Appendix 1 TC (MPI)1-9; TC (MPI)2-7 (g)</b>	<b>Page No.:</b>	<b>8</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts 12. Claims experience to date of VFH Class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

MPI has indicated it is undertaking a study of the current VFH framework.

MPI is currently reviewing its VFH products in order to address known issues with their existing design, including:

- Significant differences between Taxi VFH and Passenger VFH rates;
- Significant differences in exposure (i.e. kilometres driven) and driver risk, not properly captured by the current system;
- Feedback from Transportation Network Companies that the current product offering does not meet their needs (i.e. no per kilometre rate available, blanket coverage, etc.); and
- Lack of incentives to improve driving behaviour (i.e. flat-rated Taxi VFH).

MPI has set out guiding principles that it will be used in assessing a new VFH framework:

- The rating model is actuarially-based and uses experience-based adjustments to reflect the risk;
- The model and/or pricing does not have to apply identically and/or consistently between VFH sub-categories;
- No cross-subsidization outside of the VFH class or between VFH classes.

Mr. Crozier recommends *“The PUB should find that MPI must collect data relevant to better assessing and understanding the risk presented by Taxi VFH and VFH generally. This should include distance driven and time on road, and any other variables identified by MPI that would contribute to understanding the risks presented by Taxi VFH and VFH generally.”*

**Question:**

- a) Please comment on whether Mr. Crozier and Mr. Bowman agree with the principles to be used by MPI in establishing VFH framework.
- b) Please indicate what relevant data MPI should be gathering to better understand the risk presented by the VFH cohort.
- c) Please provide Mr. Bowman’s views on the merits of a per kilometre-based VFH rating scheme with respect to regulatory principles.

**Rationale for Question:**

To understand the information required to develop changes to the VFH framework.

**RESPONSE:**

- a) Mr Crozier and Mr Bowman generally agree with these principles, but would add that for the second principle, where decisions are made to vary the rating model between VFH sub-categories, those differences should be grounded in appropriate and principled reasons. For example, a different rating or pricing

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approach may be warranted to accommodate varying business models among the VFH sub-categories.

Note also, that for the third principle, essentially a carry-over from the current VFH framework, there is some evidence already that this principle is not being adhered to, as Passenger VFH are known to be paying less than the indicated break even rate, with the balance of costs being collected from the Private Passenger Major class.

- b) MPI has indicated in response to TC(MPI) 1-8 c) and d) that relevant data would include: Driver of the Vehicle, Distance Driven, and Time on Road. This is a reasonable selection of additional relevant data. MPI may wish to distinguish between driver level data and vehicle level data in terms of distance driven, and time on road.
  
- c) The concept of “a per kilometre-based VFH rating scheme” is not clear. A per kilometre-based pricing scheme could help achieve multiple regulatory and rate design principles, and has apparent precedent as referenced in TC(MPI)1-16. Analysis would be needed to determine if per-km pricing in fact matches a vehicles risk profile better than time bands (which the Saskatchewan model, as described by MPI, does not appear to use). But in general, this form of rate would be clear and understandable, bear a relation to cost/risk, likely improve fairness between drivers, encourage economic vehicle use and discourage uneconomic use, and thereby send a clear price signal. These are all valid and important rate objectives.

**PUB (TC) 1-3**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman</b> <b>2.4 Taxi VFH face the principal driver risk problem, Table 5</b>	<b>Page No.:</b>	<b>10</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts;</b> <b>12. Claims experience to date for the VFH class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

In Table 5, TC has provided the Taxi VFH Balanced Raw Relativities for GRA from 2016 to 2021 and shown the year over year change in relativity. TC stated that as DSR incentives became available to Taxi VFH in calendar Q1 of 2018, it might be expected that relativities would decline after the introduction of the DSR incentive, if the DSR incentive is effective. There was no reduction in raw relativity in the 2020 GRA. The reduction in raw relativity in the 2021 GRA may be attributable to the DSR incentives, however, decreases of similar magnitude are present in the 2017 and 2019 GRA’s raw relativities. Thus there is no obvious pattern or break-point in the data to suggest that Taxi VFH have responded to the DSR incentives.

**Question:**

- a) Please provide an expanded Table 5 with several additional columns:
  - i. The Raw Pure Premiums without Hail and with 10-Year Average Expected Serious Losses (Adjusted for Basic Product Changes) for Taxi VFH from Part VI – RM Appendix 9 Table 14 (Total for all years and territories) from 2016 to 2021 GRA;



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- ii. The Raw Pure Premiums without Hail and with 10-Year Average Expected Serious Losses (Adjusted for Basic Product Changes) for Public Major Class Total from Part VI – RM Appendix 9 Table 14 (Total for all years and territories) from 2016 to 2021 GRA;
  - iii. The Raw Pure Premiums without Hail and with 10-Year Average Expected Serious Losses (Adjusted for Basic Product Changes) for U - Drive Passenger Vehicle (the largest exposure group within Public) from Part VI – RM Appendix 9 Table 14 (Total for all years and territories) from 2016 to 2021 GRA.
- b) With the additional columns in the expanded Table 5, are you be able to draw any conclusions about whether or not Taxi loss costs have moved over time, or whether it has been movement in the overall Public Major Class that is driving the improved relativities for Taxi, and whether that movement has been driven by movement in the loss cost for U-Drive Passenger Vehicle?
  - c) With the implementation of DSR incentives for Taxi VFH in calendar Q1 of 2018, how much of the 5 accident years of experience incorporated in the calculation of the relativities in each of the GRA could have been affected by this incentive? Should the incentive have changed behaviors within a coverage period, or at the beginning of the following coverage period?
  - d) Please comment on the movement in average DSR discount from 20.7% to 21.02% in Table 4. Do you consider it to represent an improvement in driving behaviour?
  - e) Given the additional information in the expanded Table 5, does your Observation 3 in 2.4.2 remain unchanged?

**Rationale for Question:**

To take a deeper look at the relativities and causes of the observed trend in relativities.

**RESPONSE:**

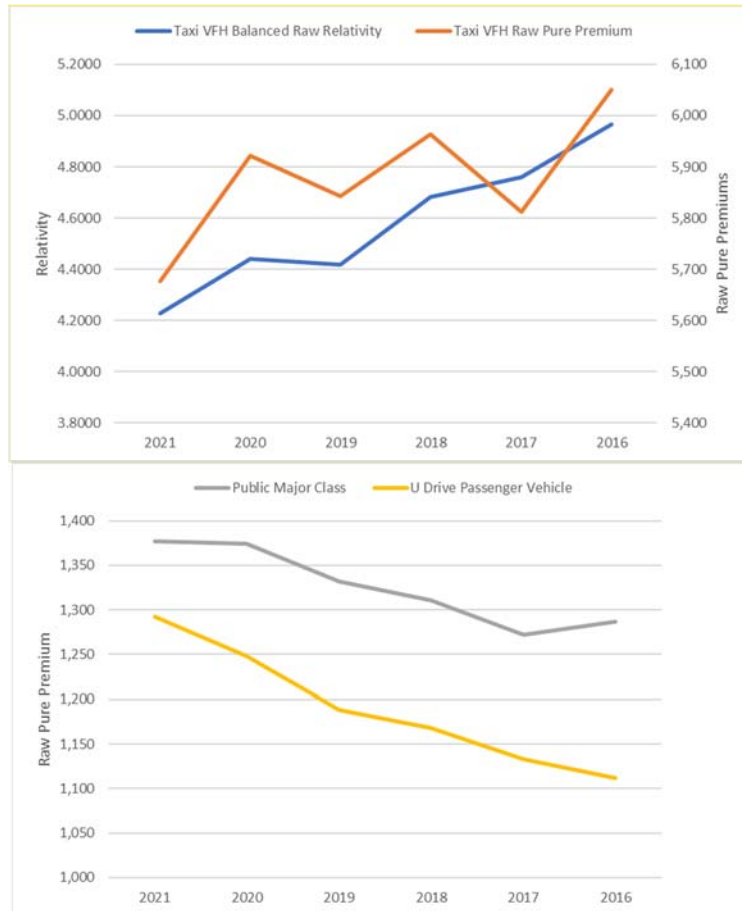
a) Please see Table 1:

**Table 1**  
**Raw Pure Premiums**  
**(RM Appendix 9 Table 14)**

<b>GRA</b>	<b>Insurance Use</b>	<b>Most Recent Loss Year</b>	<b>Balanced Raw Relativity</b>	<b>Y-o-Y change</b>	<b>Taxi VFH</b>	<b>Public Major Class</b>	<b>U Drive Passenger Vehicle</b>	<b>Source (Loss Year and Territory Total)</b>
2021	Taxicab Vehicle-for-Hire*	2019	4.2280	-0.2139	5,676	1,377	1,292	Part VI - RM Appendix 9, Table 14, PDF pages 1170 & 1171
2020	Taxicab Vehicle-for-Hire	2018	4.4419	0.0244	5,922	1,374	1,248	Part V(ii), RM Appendix 9, Table 14, PDF pages 1436 & 1437
2019	Taxi/Livery Passenger Vehicle	2017	4.4175	-0.2634	5,842	1,332	1,188	Part V - RM Appendix 9, Table 14, PDF pages 1264 & 1265
2018	Taxi/Livery Passenger Vehicle	2016	4.6809	-0.0795	5,963	1,311	1,168	Volume II, RM Appendix 9, Table 14, PDF pages 1844 & 1845
2017	Taxi/Livery Passenger Vehicle	2015	4.7604	-0.2057	5,812	1,272	1,133	Volume II, Ratemaking Exhibit - RM-XI, PDF pages 1364 & 1365
2016	Taxi/Livery Passenger Vehicle	2014	4.9661		6,051	1,287	1,112	Volume II, Ratemaking Exhibit XI, PDF pages 1436 & 1437

\* Before Product Changes

b) The following two charts plot the additional data presented in part a) above. The data were divided between two charts in order to magnify the y axis scales to highlight trends/movements.



The trend in Taxi VFH raw pure premium is substantially similar to that of relativities, but directional moves are exaggerated. Public Major Class and U Drive Passenger Vehicle raw pure premiums have increased consistently (U Drive having increased monotonically).

Please note that the particulars of the Minimum Bias Procedure, used to calculate the raw relativities (presented in Table 5), are outside the scope of this evidence. These relativity data were taken as given in current and past GRAs.

That said, to the extent that U Drive Passenger Vehicles may be driving overall increases in the Public Major Class raw pure premiums, which may cause the Taxi VFH relativity to decline, Taxi VFH raw pure premiums have similarly declined through time, and followed a similar pattern of movement.

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- c) As stated above, the particulars of the Minimum Bias Procedure is outside the scope of this evidence.

That said, it would only appear possible for 2018 and 2019 to have been impacted by the DSR incentive, and these years are only present in RM Appendix 9 Table 14 in the 2020 and 2021 GRAs

Response to incentives would be influenced by at least two factors, first that an individual is aware of the incentive, and second that the incentive is sufficiently strong to induce a response (change in behavior). It seems likely that at least the registered owners of Taxi VFH would have become aware of the DSR incentive on renewal of their insurance in 2018, if not before. If and how Taxi VFH drivers became aware, remains unknown.

As to the effectiveness (or strength) of the incentive, the impact is unclear. Registered owners enjoy the vehicle premium discount associated with their DSR rating, which is unaffected by the actions of their drivers (whether good or bad). The analogy to the principal driver risk problem facing households is illustrative.

- d) It may. The extent of the DSR discount is determined by the DSR rating of the registered owners. Improvements in the registered owners DSR would be reflected in the aggregate discount. No conclusions can be drawn about the behavior of the Taxi VFH drivers, who are not registered owners.
- e) Please note that observation 3 was specific to the trend in raw relativities over the past 6 years. The analysis was performed at the level of relativities, as these are used by MPI in rate setting. The trend in raw pure premiums for Taxi VFH largely mimics that of Taxi VFH Relativities (see part b), where large declines are present before and after the introduction of DSR incentives.

The issue may be one of signal to noise – if there is a signal that DSR incentives are effective, it may only be a weak signal (see part c), or it is not obviously distinguishable from the pattern prior to the introduction of the DSR incentives (see again part b). The observation was that the impact of DSR incentives on Taxi VFH relativities was inconclusive. The additional perspectives provided by this analysis have not changed that observation.

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Finally, note that in response to TC(MPI) 1-19, MPI was asked to comment on the reduction in risk exposure to formerly x-plated vehicles, as a result of Passenger VFH entering the marketplace. MPI provided the following comments:

*Given that the Passenger VFH insurance use has only been around for two years, MPI cannot provide any conclusive evidence that this group has impacted the risk exposure for Taxi VFH (or other VFH groups).*

*Per Ratemaking Appendix 9, page 84, the "Reported Loss and ALAE with Hail and Actual Serious Losses" for Taxicab VFH indicate lower losses in 2018 and 2019 (averaging \$3.7 million) compared to 2016 and 2017 (averaging \$4.1 million). However, these losses are less developed given that these two years are more current years. Further, this may also be driven by less Taxicab VFH in 2018 and 2019 per Ratemaking Appendix 9, page 129.*

The introduction of Passenger VFH coincided with the availability of DSR incentives in 2018.

**PUB (TC) 1-4**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman 2.5 MPI’s fleet program offers prompt and effective incentives to avoid at fault collisions</b>	<b>Page No.:</b>	<b>11-13</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts; 12. Claims experience to date for the VFH class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

Mr. Crozier has noted:

*“One notable gap in the incentive structure provided by MPI, is that corporately owned VFH, and corporate customers with small fleets (less than 10 vehicles) generally, are not eligible for any form of vehicle premium discount, either through the Fleet Program, or the DSR Program.”*

Small corporate customers (fewer than 10 vehicles) are unduly discriminated against, as incentives through either the DSR Program or the Fleet Program are unavailable to them.

Mr. Crozier has recommended that the PUB should also find that MPI’s proposed solution must address the gap in incentives available to small corporate customers (with fewer than 10 vehicles).

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**Question:**

- a) Please indicate the number of taxi companies that currently qualify for fleet rating and the reasons why other fleets in the TC do not qualify. Please elaborate on the perceived discrimination.
- b) Would Mr. Crozer agree that smaller fleets experience would be more random relative to larger fleets and that they could be subject to more volatility of year to year claims experience, due to the lower exposure inherent from fewer units in the fleet?
- c) Does the Taxi Coalition have any evidence that small corporate customers (with fewer than 10 vehicles) are being overcharged relative to their loss experience?
- d) Can the Taxi Coalition suggest a solution that would provide an appropriate incentive to small corporate customers, reflecting the smaller number of vehicles, and hence more volatile loss ratios of these customers (due to the law of large numbers)?
- e) What size of fleets should be used to qualify for the fleet rate program and why?

**Rationale for Question:**

To determine if the Taxi Coalition has a proposed solution for small corporate customers.

**RESPONSE:**

- a) Mr. Crozier has been advised that the largest owner-operator within the Taxi Coalition has 7 vehicles. Accordingly, no owner-operator 'fleets' within the Taxi Coalition qualify for MPI's Fleet Program.

The discrimination exists in that (multi-owner) corporate customers with fewer than 10 vehicles are not eligible for the MPI's Fleet Program (owing to the fact that they do not meet the 10 vehicle threshold), nor are they eligible for the DSR Program (owing to the fact that ownership is structured as a multi-owner corporation). MPI has highlighted an option for single owner corporations to participate in the DSR Program.

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There is a gap in incentive program availability, which could be corrected through program design.

- b) There is no known data on the record to conclude that smaller fleet experience would be more random than larger fleet experience. The experience of larger versus smaller fleets would presumably be impacted by the drivers operating those fleets, and other 'deterministic' characteristics such as distance travelled or time on road (those factors MPI identified in response to TC(MPI) 1-8 (c&d)). There may also be an element of pure randomness, that could increase with fleet size (more vehicles on the road, having a greater chance of random collision).

Mr. Crozier notes that in response to TC(MPI)1-15(d), MPI stated that:

*“volatility of year-to-year rates would likely also increase for customers with less than 10 vehicles (i.e. MPI expects fleets with a small number of vehicles to have more volatile rates than larger fleets). As the fleet size decreases, the financial impact of a single claim would be more significant to those customers with fewer vehicles in their fleet”*

and can agree with MPI's observation about volatility, and financial impact. Mr. Crozier notes that the strength of the incentive should increase with financial impact.

- c) No. The concern is about incentives that are unavailable to a small sub-set of customers, as a result of program design.
- d) Small multi-owner corporate customers are likely excluded from DSR Program incentives because there is no single DSR rating on which to base a vehicle premium discount (that issue is addressed for single owner corporations through additional administration). Options to correct this might include determining a DSR discount based on drivers of the small fleets, or decreasing the minimum fleet size to allow small corporate customers to participate in the existing Fleet Program (although this approach would likely increase volatility at some point). A pilot program may allow MPI to study the effects on volatility, gauge interest and effectiveness, while limiting the administrative impact to the Fleet Program. If not limited to small multi-owner corporate fleets, such a pilot could be open to small



VFH fleets. These are conceptual proposals, and MPI is best positioned to propose a detailed and feasible solution.

Please also note that modifications to the Fleet or DSR Programs, may require changes to regulations under the MPIC Act.

- e) Unknown. There is no data known to be on the record that could be used to investigate this issue.

Based on the response to TC(MPI) 1-15(a), the current threshold appears to have been judgmentally selected, and has not changed since 1974. If the fleet size threshold was based on an analysis prior to 1974, it seems plausible that analysis might lead to a different conclusion today.

**PUB (TC) 1-5**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman</b> <b>3.1 Summary</b>	<b>Page No.:</b>	<b>13</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts</b> <b>12. Claims experience to date for the VFH class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

Mr. Crozier states:

*“Modest increases in credibility weighting above the minimum can move Passenger VFH rates toward actuarially indicated breakeven rates in three to four years without exceeding existing experience adjustment rules. Increasing the credibility weighting for Passenger VFH would not negatively impact the other insurance uses in the Private Passenger Major Class.”*

**Question:**

- a) Please explain why Mr. Crozier believes the use of a 40% minimum credibility weighting is appropriate in establishing the rate indication for VFH.
- b) Does the proposed credibility weighting recommended by Mr. Crozier change if the rate indication for Passenger Vehicles major class changes from the initial indication? Explain.
- c) Does Mr. Crozier recommend that the VFH classes have rates established at a minimum of 15% increase in 2020/21 as part of a multi-period plan to increase rates for the insurance use for the VFH Private Passenger Major class?

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- d) Please indicate how much revenue would be raised from this cohort and the proposed impact directionally from rebalancing on the remaining Private Passenger Major Class.

**Rationale for Question:**

To understand the rationale for recommended Passenger VFH.

**RESPONSE:**

- a) Please note that Mr. Crozier has not proposed that a 40% minimum credibility weighting is appropriate. The analysis presented a sensitivity test of credibility weightings from 0.1 to 1.0. The 15% experience adjustment rule was then used as a target to 'goal seek' (back calculate) the maximum credibility weighting that could be applied while still keeping the experience-related adjustment to 15%, if that were the rate-design objective.
- b) It may. Any changes that impact the Private Passenger Major Class average rate, would require changes to the Combined Relativity, and in turn the credibility weighting, in order to stay at the 15% experience adjustment limit. Please note that the sensitivity test was focused on one narrow aspect of MPI's ratemaking methodology, and does not represent the full breadth of variables, or impacts. The purpose of the sensitivity test was to illustrate the mathematical relationship between credibility weighting and Passenger VFH rates, and the approximate impact at various levels of adjustment. Any changes to credibility weighting must be evaluated through MPI's full ratemaking methodology (and rate model).
- c) Please see PUB (TC) 1-7.
- d) Based on the unit count by territory for 2019, per RM Appendix 9 ,Table 13, and the dollar increase in Column L , from Table 9, the total additional revenue collected would be approximately \$239,000, with just over \$200,000 coming from Territory 1 Passenger VFH (Passenger Vehicles). Please note that it is preferred that MPI complete precise calculations to ensure consistent results are presented to the Board.

**PUB (TC) 1-6**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman</b>  <b>3.2.2 Initial pricing of Passenger VFH may not fully reflect the potential loss costs; and Appendix 1 Principle for Pricing Passenger VFH</b>	<b>Page No.:</b>	<b>15-22</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts</b> <b>12. Claims experience to date for the VFH class;</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

In TC (MPI) 2-2 (a) MPI stated *“Based on the actual claims experience as of February 29, 2020 (per PUB (MPI) 1-88), Passenger VFH did not have an appropriate starting rate. However, this experience has very low credibility given the size of the Passenger VFH pool.”*

MPI identified in TC (MPI) 2-2(b) that while Passenger VFH rates *“are not fully reflective of the potential loss costs”*, and in PUB (MPI) 1-88 that these rates will *“eventually move toward the indicated break-even actuarial-required rate, as a result of the ratemaking methodology”*

Mr. Crozier's observation 7 states that the pricing of Passenger VFH rates does not reflect the potential loss costs and is not consistent with break-even actuarially indicated rates.

Mr. Bowman in Appendix 1 has indicated that the original rate setting inputs should not be heavily weighted in the credibility calculation as they were of extremely limited value and were based on no data whatsoever.

Mr. Bowman has stated "on the basis of experience to date [since 2018], the Passenger VFH that was set is dramatically too low."

**Question:**

- a) Given the perspective that the original rate setting inputs were of extremely limited value, why does Mr. Crozier recommend a 60% credibility weight be applied to them, and 40% to the observed experience?
- b) With the advantage of hindsight, what do Mr. Bowman and Mr. Crozier consider would have been the most appropriate basis for estimating the starting rates for Passenger VFH? What sources of information would they use in determining this starting point?
- c) Please indicate how establishing the new starting point rate in (b) will take into consideration the statistical validity of the current claims experience for making a change.
- d) Based on the answer to (b & c), please indicate what Mr. Crozier and Mr. Bowman consider should be the indicated relativity in the 2021 GRA for Passenger VFH. Please include any calculations.

**Rationale for Question:**

To gain further insight into appropriate relativities for Passenger VFH.

**RESPONSE:**

- a) Please see PUB (TC) 1-5(a). Mr. Crozier has not made a recommendation with respect to the credibility weighting of the original rate setting inputs.
- b) and c) Messrs. Crozier and Bowman have not assessed the case with the intention of hindsight recommendations. It is encouraging that the attempt to set starting rates for Passenger VFH was aimed at a full cost-recovery for the use (i.e., the original rate was not an attempt to subsidize the TNC drivers, nor to protect them from increases compared to their previous Private

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Passenger non-commercial use). Unfortunately, the inputs and assumptions have proven to be incorrect.

The same rate design objectives should be set today – that is, in this use category that is still in its infancy, all attempts should be made to get as accurate and reliable a rate indication as possible. Had the current data been available as of 2018 – i.e., with perfect foresight to this 2020 data – it is expected that MPI and the PUB would have sought to use this data as the starting point. Knowing today that the best available data indicates an average rate of \$3,112 for 2021 (\$1,995 plus \$1,117 per TC(MPI)-2-3(e)), this would have been the appropriate proposal, with foresight.

The intention today should be to correct for the incorrect assumptions used in the original rate setting, as quickly as feasible.

- d) The concept of a recommendation based on credibility-weighted relativity is generally meaningless when one is seeking to weight two variables, one of which has some credibility (known data) and one of which has effectively none (the original rate setting inputs). While Mr. Crozier has set out the mathematical calculations regarding the relationship regarding weightings, and what occurs when different credibility weightings are used, there is no principled way to balance a value with some credibility with one with effectively no credibility (except by giving 100% relative-credibility to the actual data). For this reason, recommendations in this proceeding are not based on a mathematical balancing of the two values. For recommendations, please see IR#7.

**PUB (TC) 1-7**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman</b> <b>3.2.4 Sensitivity Test on Passenger VFH Credibility, Table 10 and; Appendix 1</b>	<b>Page No.:</b>	<b>21-22, Appendix 1, 4</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts</b> <b>12. Claims experience to date of VFH Class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

Mr. Crozier states in commenting on Table 10;

*“The results of this sensitivity analysis show that a modest credibility weighting adjustment, from 0.1000 to 0.4052, can adjust Passenger VFH rates in a manner consistent with established experience adjustment rules. More or less aggressive adjustments can be made to credibility weightings to expedite or delay the achievement of break-even indicated rates for Passenger VFH.”*

Mr. Crozier makes the observation that:

*“Credibility weighting assumptions for Passenger VFH can be modified to accelerate the attainment actuarially indicate break-even rates. Increasing the credibility weighting to approximately 40%, would achieve the effective maximum experience adjustment permitted under current ratemaking rules.”*

Mr. Bowman states that:

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*"Based on an appropriate application of the principles underlying monopoly service provision in a regulated environment, MPI should be directed to implement a far more notable price increase to Passenger VFH customers. A move to fully reflect the best available cost data (a 56% increase) should not be rejected. Alternatively, a minimum move on the order of 40% for 2021, which would permit MPI to then reach full cost recovery in one additional year with an increase on the order of approximately 15%, may also merit consideration, if some measure of gradualism is preferred."*

**Question:**

Please indicate what Mr. Crozier and Mr. Bowman recommend for the proposed rate adjustment to be made for the Passenger VFH to attain an adequate rate over what time frame, and why.

**Rationale for Question:**

To understand the recommended indicated rate for Passenger VFH.

**RESPONSE:**

As indicated in the response to PUB(TC)1-6(d), for Passenger VFH in this proceeding, the concept of credibility weighting is not meaningful. The rate design objective should be to get the Passenger VFH rates to full recovery as quickly as feasible, in the interests of sending appropriate insurance cost signals to drivers, and avoiding inappropriate market distortions between Passenger VFH and Taxi VFH rates.

The only data-supported outcome is an average cost to Passenger VFH drivers of \$3,112 in 2021 (\$1,995 plus \$1,117 per TC(MPI)-2-3(e)). One alternative the Board may consider that allows a small acknowledgement of existing rates, and the potential limits of the existing data, is to move to an average rate that is short of \$3,112, but which can reach this level in 2022 (assuming the current loss data holds) without a rate impact exceeding 15%. This would be an increase of at least \$711 in 2021 beyond that currently proposed by MPI.

An overall concern, however, with delaying the needed increases in any way is that the existing data is from a relatively small sample set and in fact is equally likely to be low compared to the proper long-term cost level as it is to be high. In fact, if TNCs grow as is



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expected and more professional TNC drivers join the fleet as is understood to be happening (as opposed to occasional ride-share drivers), it may be reasonably expected that losses will increase. Failing to impose a large enough increase today, while loss values remain at the current levels or increase, means that TNC drivers will fall further and further behind the full insurance cost recovery, and face compounding increases over time. This would exacerbate the market distorting signal and not be fair to Passenger VFH drivers nor Taxi drivers alike.

**PUB (TC) 1-8**

<b>Volume and Chapter:</b>	<b>Pre-Filed Testimony of Jeff Crozier and Patrick Bowman</b>  <b>Appendix 1</b>	<b>Page No.:</b>	<b>3</b>
<b>PUB Approved Issue No:</b>	<b>1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts</b> <b>12. Claims experience to date of VFH Class</b>		
<b>Topic:</b>			
<b>Sub Topic:</b>			

**Preamble to IR (If Any):**

Mr. Bowman has observed:

*“MPI has relied upon the fact that the Passenger VFH data set has limited experience and credibility to suggest that rate movements should be limited. The unstated complement to MPI’s recommendation is that the original rate setting inputs should be more heavily weighted. This is not appropriate. The original inputs were from 2018 and were of extremely limited value and based on no data whatsoever. The concept that the original inputs are of more importance than actual observed data is erroneous. Further, the observed data, despite its limited quantity, does exhibit a relatively tight range of outcomes (120% and 130% of premiums for the 2 years in question) which suggests MPI is being overly cautious in assigning this data such a low weighting.”*

*“To avoid the unfair and improper price signal of temporarily subsidized services at the very time many individuals may be making decisions about participating in the TNC market, and to ensure MPI is not distorting a vibrant commercial market, the normal MPI rate design principles regarding stability should be suspended.”*

**Question:**

- a) Please describe what aspects of the current ratemaking principles should be suspended. Explain.
- b) Does Mr. Bowman believe that the credibility weighting for the current experience should be higher? If so, please explain how the credibility weighting should be set for Passenger VFH. Should other cohorts of policies also be adjusted?
- c) Alternatively, does Mr. Bowman propose adjusting the initial rate applied to the Passenger VFH, and not revise the credibility weighting utilized?

**Rationale for Question:**

To understand how the Taxi Coalition proposes that the ratemaking methodology should be changed.

**RESPONSE:**

- a) The rate design principles related to rate stability (i.e., not more than 15% experienced-based adjustment) should not be a limiting factor in 2021 for Passenger VFH.
- b) Please see the response to IR #7. Mr. Bowman did not review other cohorts of policies, but is not aware that any other major class or use is in the same position as Passenger VFH with respect to the current credibilities.
- c) Please see the response to IR #7.