Manitoba Public Insurance
2021 General Rate Application

Evidence of Jeff Crozier & Patrick Bowman
On Behalf of
The Taxi Coalition

Taxi VFH Topics

1) Taxi VFH are Unusually Risky

2) Data to Understand the Risk is Absent

3) The Issue of Principal Driver Risk and the DSR

4) MPI's Fleet Program

5) VFH Framework Review - Poised to Address the Issues

6) Recommendations

Passenger VFH Topics

1) Passenger VFH Operations Initially Misunderstood

2) Passenger VFH Rates and Credibility Weighting

3) Principles for Setting Passenger VFH Rates

4) Recommendations

Taxi Vehicle for Hire

- Territory 1 Taxi VFH represent 76% of the Taxi VFH in Manitoba

  [RM Appendix 9, Table 16]

- Relativities defined:

  Briefly, the relativity approach compares the risk of each vehicle group to all other vehicle groups within the major classification. This relative risk is then used to determine the required rate for the vehicle group. (…) For example, a group, which on average costs twice as much to insure when compared to the population, will have a relativity of 2.

  [RM P.19, L.7-9 & RM P.46 L. 13-18]

- Relativities are a key element in the ratemaking procedures, and are used to establish indicated rates, for each insurance use relative to the Major Class average
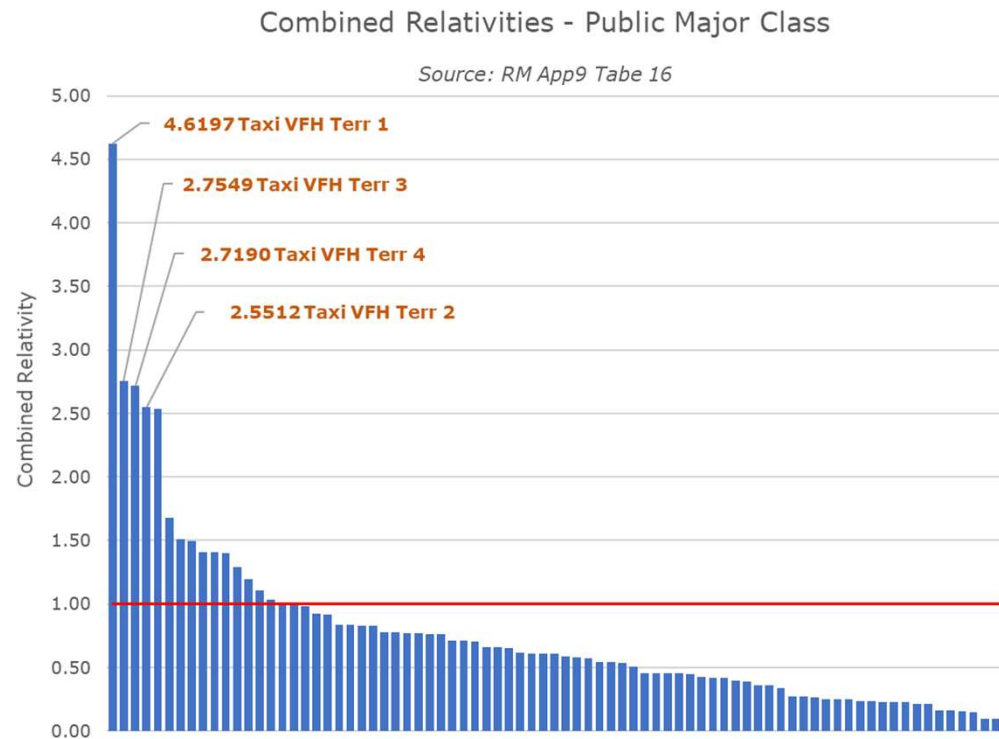
  [RM page 19]

Examination of relativities indicates that Territory 1 Taxi VFH are unusually risky

Combined Relativities - Public Major Class

Source: RM App9 Tabe 16

4.6197 Taxi VFH Terr 1

2.7549 Taxi VFH Terr 3

2.7190 Taxi VFH Terr 4

2.5512 Taxi VFH Terr 2

These results generalize (roughly) across all major classes

- Taxi VFH are generally known to operate on a 24x7 basis

- Does that alone drive the significant difference in loss experience?

  o How does Taxi VFH loss experience compare on a per kilometer, or time-on road basis?

  o What is known about Taxi drivers (as distinct from registered owners)

  [TC(MPI) 1-8]

- Deeper insight into the reasons for unusually high loss experience should inform programming and/or rate incentives.

- Similarly to households – the drivers of the Taxi VFH are not necessarily the registered owners

  o The DSR Vehicle Premium Discount is not necessarily impacted by the loss experience of those driving

  o The incentive structure does not 'reach' those driving

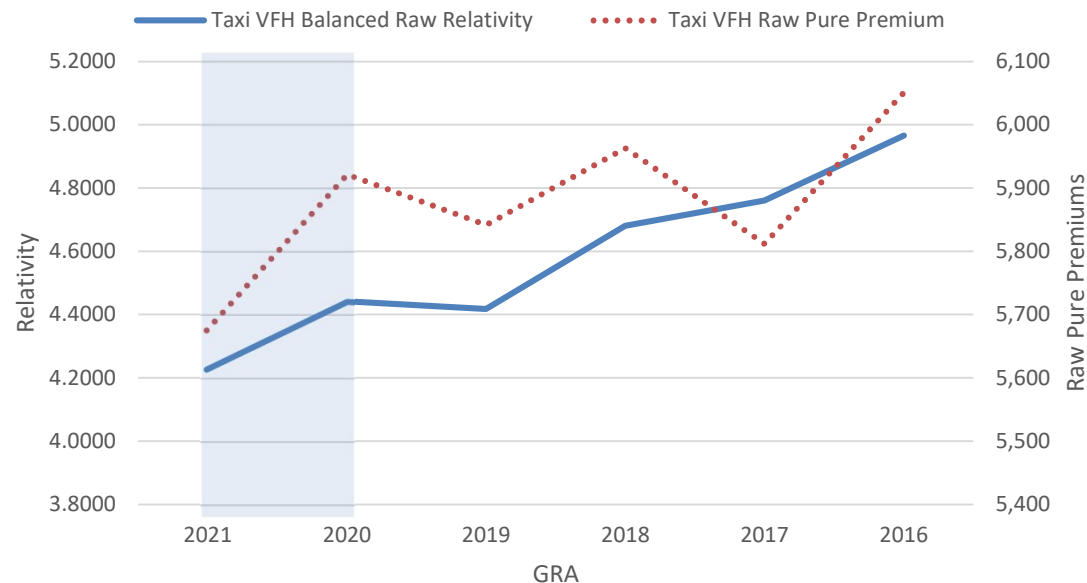- Taxi VFH have enjoyed the vehicle premium discounts since VFH Framework inception (2018)

  [TC(MPI)1-11]

  o But the availability of DSR Vehicle Premium discounts has not clearly translated into better experience

7

- Decreasing trend in raw relativities

  o Similar decreases before and after DSR availability (2019 GRA)

- Possibly a signal-to-noise issue:

  o Two years experience under DSR incentive

  o Incentive is weakened at the Taxi driver level

  o Impact of competition from Passenger VFH

  o DSR impact may be indistinguishable from factors prior to 2018

- MPI's Fleet Program is currently the only alternative to the DSR Program

  - Immediate incentives based on the year's actual loss experience
  - Experience of fleet drivers directly impacts rebate/surcharge
  - Program rebates exceeding surcharges evidence effectiveness

    [TC(MPI)1-15 & TC(MPI)2-13]

- Gap in Programming

  - Fleet Program and DSR Program are not available to small corporate customers (multi-owner)

    [TC(MPI) 1-11 & TC(MPI)2-13]

1. Taxi VFH are unusually risky

2. Exact cause(s) of the heightened risk are not well understood

3. Taxi VFH face the principal driver incentive problem

    o   Taxi driver experience (good or bad) has no impact on DSR Vehicle Premium Discount (but does impact Taxi VFH experience overall)

4. By contrast, the Fleet Program provides effective and immediate incentives that reach the fleet drivers

- MPI's VFH Framework Review appears poised to address these issues:

  - *significant differences between Taxi VFH and Passenger VFH rates*

  - *significant differences in exposure (i.e. kilometers driven) and driver risk, not properly captured by the current system*

  - *lack of incentives to improve driving behaviour (i.e. flat-rated Taxi VFH).*

    [TC(MPI) 1-9]

- Commitment by MPI to engage with Taxi VFH and early efforts to collaborate with the Taxi Coalition on data collection

    [TC(MPI) 2-7]

VFH Framework redesign should:

1. Provide effective incentives for controlling risk, and better address the principal driver risk issue

2. Be based on data gathered from VFH operators in Manitoba, to understand operations and nature of risks

3. Addresses incentive programing gap facing small corporate customers (less than 10 vehicles ineligible for the Fleet Program, or the DSR Program)

Passenger Vehicle for Hire

- Operating characteristics of Passenger VFH are not as initially understood

  o "Pure ride-share" model (offering rides as part of the day-to-day driving) does not appear to be prevalent

  o MPI believes Passenger VFH on the road significantly less than Taxi VFH

  [TC(MPI)2-11]

- Data to determine the specific nature of Passenger VFH operating characteristics is not currently being collected.

  [TC(MPI) 1-8]

- Expected operating characteristics were an important factor in setting initial rates

  [TC(MPI) 1-13]

14

- Passenger VFH Loss Ratios in excess of 120%

  [PUB(MPI)1-88]

- Based on current experience, Passenger VFH Rates need to incorporate the 2021 proposed changes, PLUS increase a further 56% or $1,117 to achieve break-even actuarial required rate

  [TC(MPI)2-3]

- Currently applied-for rates continue to be heavily influenced by the initial rating assumptions

  - Due to application of standard ratemaking procedures

- Actual experience ("Raw Relativity") is weighted against the cumulative history of experience ("Current Relativity")

  o Today, Passenger VFH 'Current Relativity' largely reflects initial assumptions

  [RM page 48]

- Weighting based on 5 year earned units against judgmentally selected constant (60,000)

  o Insurance uses with very low weightings are judgmentally assigned 10% weighting to the Current experience

  [RM page 48]

- Initial assumptions about Passenger VFH risk and rates heavily influence the currently applied-for rates

- Weighted Relativities were calculated for the range of weights between 0.1 and 1.0, to test the impact on indicated rates

- 'Goal Seek' exercise to identify the credibility weighting to reach 15% experience adjustment for Passenger VFH

  o Credibility weighting of approximately 0.4 yields experience adjustment at 15% for Passenger VFH

  o Would result in an increase of approximately $335 for Territory 1 Passenger VFH

- Other Insurance Uses in Private Passenger Major Class not adversely affected

  o Balancing Procedure in the Private Passenger Major Class ensures that as Passenger VFH Credibility Weighting increases, Balanced New Relativities for all other Private Passenger insurance uses declines very slightly

Appendix 1 – Principles for Pricing Passenger VFH

- Passenger VFH use covers operation for "ride-sharing" under a Transportation Network Company (TNC).

- Passenger VFH is a new insurance use - started in 2018.

- At the time, nothing was known of risk for this use in Manitoba. Also there was no experience from Canadian Crown-owned insurers.

- Rates were intended to <u>avoid cross-subsidization</u> between Passenger VFH and the rest of Basic.
  [PUB/MPI-1 from VFH proceeding]

- Passenger VFH initial rates established based on inference of risk from pricing applied by private insurers in less-relevant jurisdictions (e.g., Ontario).

    - Rates in these places were up to a 25% premium over All-Purpose.

- MPI selected 5-20% as the TNC premium over All-Purpose, which was "judgmentally set". [2018 VFH application, page 14]

- MPI was explicit about potential issues with having no data:

  "MPI proposes to follow the approved Basic ratemaking methodology for adjusting vehicle group relativities, which would give at least 10% weight to the Passenger VFH experience in each rate application. However, if experience based rates are observed to be significantly different from the initial rates, MPI may come forward with a special rating adjustment that falls outside the approved ratemaking methodology."

  [2018 VFH Application, PUB(MPI)-5(a)]

- MPI was not clear about the threshold for measuring: "significantly different from the initial rates"

- At this time, no such special rating adjustment has been pursued.

- Rate setting principles for regulated companies are intended to reflect cost (avoid cross-subsidization).

- Can also prioritize other rate design objectives, e.g.,:

  - Simplicity, understandability, freedom from controversies as to proper interpretation
  - Revenue stability to regulated company
  - Encourage economic uses of product, discourage wasteful use.
  - Rate stability to customers (Bonbright – "The best tax is an old tax")

- In this case, proper weighting may be different than in other situations:

  - There is no "old tax" – rate is very new
  - Significant potential for cross-subsidization
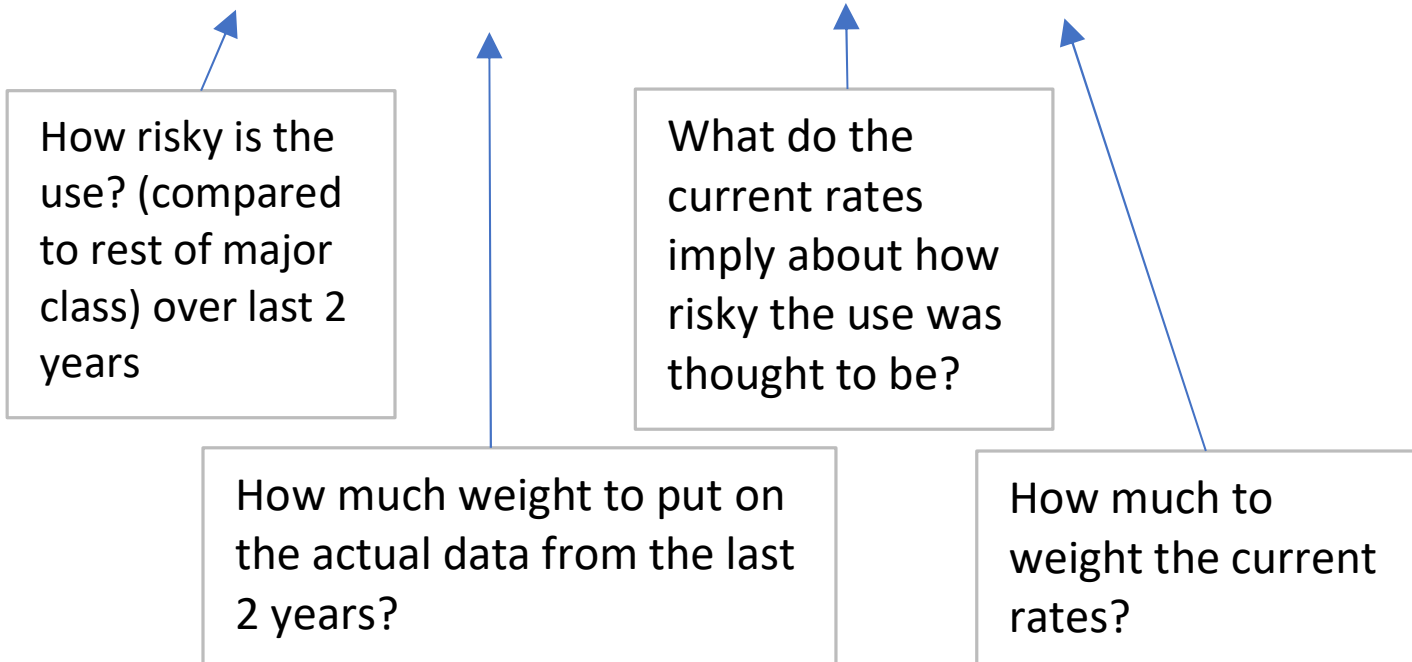 - Issues of "wasteful use" prominent

Before product change

| Balanced Raw Relativity | Credibility | Current Relativity | (1 - Credibility) | **Credibility Weighted Relativity** |

$$(2.993 \times 10\%) + (1.8083 \times 90\%) = \mathbf{1.9267}$$

How risky is the use? (compared to rest of major class) over last 2 years

What do the current rates imply about how risky the use was thought to be?

How much weight to put on the actual data from the last 2 years?

How much to weight the current rates?

- Why only 10% weighting to actual experience?

  - MPI asserts too few units in the historical record – only 1,199

  - MPI considers 60,000 as a fixed value for credibility assessment – 1,199 / (1,199 + 60,000) = 1.95%. This is taken to the minimum value of 10%.

  - To get higher than 10%, would need 6,667 units – almost 6 times what is there now. This is unlikely anytime soon (if ever), so 10% will be the weighting into the future under MPI's approach.

  - Both the 10% and the 60,000 are judgmentally derived values

- Credibility weighting serves two purposes:

  - Prevents small amount of new data from overwhelming large amount of old data (analytical reason)

  - Yields rate stability (customer reason)

- Why is the 10% weighting a problem?

  1) The "old data" is effectively non-existent. So new data has some credibility, while old has effectively none. Despite this, old data is given 90% weight.

  2) Actual data has been quite stable – 3.1160 in 2020, 2.9930 in 2021 [balanced]. This suggests a better ability to rely on data than if not as consistent.

  3) At 10% weighting every year, if the actual data remains at a raw relativity of about 3, the rates will never reach the full measured relativity (due to diminishing impact).

  4) Anecdotes suggests Passenger VFH is changing – more "professional" drivers – would increase raw relativities.

  con't...

- ## Why is the 10% weighting a problem? (con't)

  > 5) Passenger VFH Raw Relativities do not yet include any Serious Losses (only 2 years experience).

  > 6) Rate stability is not a high priority.

- Expectation is that if the data from today were available in 2018 to set initial Passenger VFH rates, it would have been incorporated as the starting baseline (i.e., rates higher than now proposed by $1,117).

- In addition, an amount would have been added for an estimate of Serious Losses. Not insignificant.

- Rate stability is not a high priority:

  - Users are very new – have not had significant time to base business model on the current rates.

  - TNCs in Manitoba are new – some drivers would only now be making decisions about whether to participate. Important to send these drivers accurate price signal.

  - Taking more than 10 years to transition is not reasonable. In the meantime, MPI skewing marketplace

    - Taxis at 86% Loss Ratio, Passenger VFH at 122-128% - will get worse with Serious Loss.

- MPI not even using current tools available to solve issue:

  - Rate design criteria would permit 15% increase each year. This would be achieved by applying about a 40% credibility weighting.

  - MPI only applying a 10% weighting.

- Based on the above considerations:

    - The PUB should make it a priority to address the material cross-subsidization now, before entrenching more unfairness in the marketplace.

    - Failure to address the issue now may lead drivers to opt into TNC when their actions are not economically efficient, and would not be pursued absent cross-subsidization. These drivers will then see material increases year-over-year for many years into the future, causing other unnecessary rate design issues and customer impacts.

    - MPI's proposals would lead to under-recovery from TNC drivers by well over $1000/year each.

- For these reasons, the normal MPI rate design principles regarding rate stability should be suspended.

    - In MPI's language, a "special rating adjustment" is required.

- It would be appropriate to impose the full 56% further increase on Passenger VFH at this time.

  - Serious Losses could suggest even higher.

- A mitigation-based approach could reduce this level by 15%, such that next year the full cost could be reflected without imposing any new rate shock.

- Concerns still exist that TNC activity is becoming more concentrated, and the Raw Relativities will increase as casual drivers decrease as a percentage. Future relativities that indicate higher risk profiles should also be more quickly reflected in rates than the 10% level.

InterGroup

C O N S U L T A N T S