AMERICAN ACADEMY
of ACTUARIES

April 25, 2025

Commissioner Michael Conway
Colorado Division of Insurance
1560 Broadway, Suite 850
Denver, CO 80202

Re: Feedback on the Template and Requested Data for the Colorado Data Call for Private Passenger
Automobile Insurance

Dear Commissioner Conway,

On behalf of the Property & Casualty Committee on Equity and Fairness (Committee) of the American
Academy of Actuaries,[1] I appreciate the opportunity to offer our input on the SB21-169 PPA Data Call
Template, as the Division of Insurance (DOI) seeks to develop a testing regulation applicable to private
passenger auto insurance. The Committee offers the following points for the DOI's consideration. These
comments are intended to help ensure that the data collected will be useful and appropriately structured
for sound analysis.

Some of the following comments relate to the data call fields, whereas others relate to the analysis method
itself:

1. **Conducting Analysis by Coverage**: The Committee recommends analyzing the data by
   coverage. Since claims are already being reported at the coverage level, it is reasonable to collect
   premiums at the same level to allow for meaningful comparisons. It should also be noted that
   some coverages, such as rental reimbursement and emergency roadside service, are typically
   immaterial in the context of broader pricing analysis. The DOI might consider narrowing the
   focus to key coverages, which would streamline the data call and reduce unnecessary burdens on
   the respondents.

   1. In the data call, any fields capturing premium or rating factors should be requested by
      coverage, in alignment with the coverage breakdown requested for the claims. Some
      rating factors differ by coverage, whereas some apply to the entire premium.

   2. Key coverages would include Bodily Injury/Liability, Property Damage, Collision,
      Comprehensive, and Uninsured/Underinsured Motorist.

   3. It would be helpful to clarify whether endorsements such as Additional Insureds are
      included. The Committee would recommend excluding them, in an effort to reduce
      complexity.

---

[1] The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial
profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial
advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the
United States.

2. **Properly Matching Losses to Premium**: It is critical to ensure that losses are properly matched to the corresponding premium. This may sound straightforward, but aligning policy premium with loss experience can be surprisingly complex. Actuaries use specific techniques to address this issue, and the Committee would be happy to share some of those methods with the DOI, if that would be helpful.

    1. Actuarial ratemaking principles state that premiums should be set based on expected loss costs and expenses. Unfair discrimination cannot be determined by analyzing premium independent from losses.

    2. We interpret Line 25 (Case reserves) to be the reserves for open claims at the end of the data call, not the case reserves established throughout the claim process. Further clarification on this point would be helpful.

    3. Some examples of complex situations include:

        1. Based upon how the date range is established, the policy and claim data may need different dates in order to align. This is due to an exposure period, which can extend before or after a date range based on policy date (e.g., a six-month policy issued 7/1/24 provides coverage for claims that occur after a data call end date of 7/31/24).

        2. Long-tailed claims that develop significantly over several years.

        3. Coverage changes within an exposure period, such as a deductible change.

3. **Clarifying Use of the Term "Underwriting"**: It would be valuable to highlight the importance of clarifying the term "underwriting." Underwriting can refer to different aspects of insurer behavior, such as operational decisions like policy non-renewals or declines, as well as setting premium levels. These activities rely on different models and assumptions. The DOI may consider clarifying which aspect of underwriting is being addressed in any data collection or analysis. For example:

    1. Line 36 (vehicle value), Line 77 (CLUE): Does "time of underwriting" mean when the policy was initially written, the beginning of the policy term, or some other time?

    2. Line 71 (CBIS name): In terms of the reference to "underwriting and/or pricing this policy," given that the data call is focused on premium calculations, we assume the scope is limited to pricing models. However, there are credit models which assist with new business and renewal business underwriting operations, such as non-renewal decisions. Removing "underwriting" from this description would clarify this scope.

    3. Line 73 (CBIS considered): The Committee would offer the same feedback as above in reference to line 71 and recommends replacing "underwriting" with "pricing."

4. **Handling Multi-Car, Multi-Driver Policies**: The data call appears to try to account for multi-vehicle and multi-driver policies. Rating plans can get quite complex in these scenarios and the DOI may need to ask additional questions to fully understand how rating factors are applied in practice. The Committee would be happy to assist in crafting additional clarifying questions, such as:

1. Are companies rating each vehicle independently? Or do they use aggregated factors at the policy level?

2. If an insurance company assigned a driver to a vehicle, how are the drivers being assigned to vehicles? Insurance companies may use different algorithms to make those assignments.

5. **Comparing Rating Factors Between Companies**. There is likely to be significant differences between companies in how they structure their rating factors. It will be challenging to structure a data call to allow the information to be aggregated. It may be necessary to consult the filed rating plan and/or contact each company in order to fully understand the nuances of their plans. Some potential differences are:

   1. Whether the factor is univariate or multivariate.
   2. If a factor resides inside a model or outside. For example, driver age could be an explicit rating factor or a model input or both.
   3. Whether the factor is additive or multiplicative.

   Rating factors can be set relative to different neutral scores. For example, one company may use a factor of 0.8 for possessing a characteristic and a factor of 1 for lacking it. Another company could use a factor of 1 for possessing the characteristics and a factor of 1.25 for lacking it. These are mathematically equivalent.

   In the data call, consider narrowing the scope of the "discount factor" list starting in row 40 to specific discounts of interest in order to reduce complexity. Also, the DOI may want to consider using the term "rating factor" instead of "discount factor," since rating factors can also be surcharges.

6. **Additional data fields to include.** In addition to what is mentioned above, consider adding the following fields to the data:

   1. Latitude and longitude: These would make it easier to append census data, which would allow for a broader analysis on demographic information, such as income, as well as certain protected classes.
   2. Imputed race: If the company already uses a race imputation method, it could be included in the response. The Committee would recommend this be listed as optional, since companies are unlikely to possess this field and/or may be hesitant to share it.

We appreciate the opportunity to offer our perspectives. The Committee looks forward to its continued conversations and collaboration with the DOI and will continue to offer its volunteer's expertise as a resource to the DOI. If you have any questions or would like to discuss these comments further, please contact Rob Fischer, the Academy's casualty policy project manager (fischer@actuary.org).

Sincerely,

Mike Woods, MAAA, FCAS
Chairperson, Property & Casualty Committee on Equity and Fairness
American Academy of Actuaries