

**COMMENTS OF
AMERICAN PROPERTY CASUALTY INSURANCE ASSOCIATION
IN CONNECTION WITH DRAFT MARKET CONDUCT EXAMINATION REPORT
EVALUATING UNINTENTIONAL BIAS IN PRIVATE PASSENGER AUTOMOBILE INSURANCE
JUNE 28, 2024**

The American Property Casualty Insurance Association (APCIA) represents over 1,200 member companies that provide insurance coverage and reinsurance in every state and around the world. APCIA members write 72.9 percent of the private passenger auto insurance in D.C. and have a long-term commitment to the welfare of the District and our customers.

We appreciate the Department of Insurance, Securities and Banking (DISB) sharing the draft market conduct examination report *Evaluating Unintentional Bias in Private Passenger Automobile Insurance* (Report) in advance and the deliberate process by Commissioner Woods and staff in engaging the industry and the public in the process. We wish to emphasize that we want to be at the table going forward prior to any further DISB actions and recommendations.

While our members have many questions and concerns regarding assertions made in the draft Report, we would like to note that the **Report’s undisputable finding is that premiums accurately reflect losses.** Accordingly, we urge DISB to work with highway safety and insurance groups including the Insurance Institute for Highway Safety, the Coalition Against Insurance Fraud, the National Insurance Crime Bureau, and federal and D.C. transportation and safety agencies to improve safety and lower loss costs for all drivers, especially those with the highest losses.

Our members have many questions and concerns regarding the draft Report, which we would like to share with DISB.

Market Context for Our Comments on the Draft Report

The District of Columbia is a viable and competitive market, despite serious challenges such as inflationary pressures and the growth in costs resulting from those pressures in a densely urbanized environment. Those challenges are increasing and affect all of us—especially the deterioration in highway safety performance throughout the region and the dramatic inflationary upswing that particularly affects the products and services auto insurance pays for. Our comments are provided in the spirit of maintaining this healthy and competitive market and avoiding unintended harm to the D.C. market and consumers if a ban on risk-based pricing factors is implemented.

General Observations

The draft Report analysis shows that there is no bias in auto insurance pricing and that the premium from protected classes studied is lower than the proportion of their corresponding losses. Additionally, the Report states that “All private passenger automobile insurance rates are reviewed and approved by DISB actuaries to our statutory standard that the rates not be excessive, inadequate, or unfairly discriminatory.”

Differences in loss ratios would more than explain the reason for the “premium gap.” That being said, not all the rating factors that are used by insurers in pricing auto insurance were used in the analysis, which could further explain the “premium gap.” Additionally, the BIFSG method, like all other methods used to impute race is not a 100 percent accurate reflection of race and ethnicity, and its shortcomings may also impact the results.

The Department receives all the rate filings, has access to the analysis/data and can also ask insurers additional questions if there are concerns about a specific rate filing. It would be of value to know based on its review of rate filings over the last few years how many filings have been flagged for possible bias concerns.

Insurers need to collect enough premium to pay for claims and related expenses. According to the [NAIC's Report on Profitability by Line by State in 2022¹](#), over a 10-year period (2013-2022), insurers' cost of claims and expenses in D.C. were \$102.4 for every \$100 of premium. The higher loss costs for Black insureds compared to other races is perhaps the most difficult question that arises from the Report and should be addressed more broadly than through insurance pricing. It would be more beneficial for consumers, and have a more impactful outcome, to investigate and address societal and infrastructure issues (e.g., road conditions, street lighting, public transport, traffic density/congestion, visibility, installing guardrails or rumble strips, adding turn lanes at intersections, improving traffic signal phasing, converting intersections to roundabouts, providing/improving facilities for pedestrians and cyclists) to help lower the frequency and cost of claims that premiums reflect.

Factual and Actuarial Concerns

APCIA believes that the Report contains several factual errors and/or misinterpretations that need to be addressed, as outlined below:

Pricing Structure and Risk Assessment

Insurer pricing structures are designed to accurately reflect loss costs, in compliance with the Actuarial Standards of Practice (ASOP), based on the risk associated with individual drivers. The result is higher-risk drivers pay more and lower-risk drivers pay less. This adherence to risk-based pricing is echoed in the comments from DISB on the Report's findings, which were shared in response to questions from councilmembers during the performance oversight hearings. APCIA concurs with DISB's remarks below:

- *The systems insurers use to produce quotes reasonably reflect the policies offered to insureds. The Department reviewed quote systems to make sure they were not used to dissuade certain groups from purchasing policies.*
- *Premiums need to be reviewed in relation to losses to get the best picture of how different classes of policyholders are faring.*
- *Premiums reviewed are calculated following actuarial standards.*

Insurers do not consider race in their risk assessments, adhering strictly to actuarially justified standards and D.C. law. The infrastructure or social constructs that impact losses for policyholders who live and

¹ The most recent version of NAIC's *Report on Profitability by Line by State in 2022* was published in March 2024.

work in densely urbanized environments cannot be overcome by insurers where their solvency and the availability of insurance are dependent upon accurately reflecting the risk of future losses in premiums.

Now that the Report has conclusively determined that the examined insurers are charging premiums reflective of loss costs consistent with actuarial standards, we would respectfully urge DISB and the Office of the Mayor to shift their collective focus toward attempting to determine why certain drivers experience higher loss costs.

"Legitimate Explanatory Variables"

APCIA questions the notion of "legitimate explanatory variables" and the requirement for a "stronger relationship than correlation." We believe this could lead to a potentially problematic path. Much like the phrase "unintentional bias" noted below, the terms "legitimate explanatory variables" and "reasonably related to the risk" are not clearly defined, and no legal authority is provided to regulate based on these principles. These terms imply a need for a narrative explanation of why a variable might be related to higher risk, in addition to a mathematical correlation. This seems to be a highly subjective and arbitrary standard.

In addition, this requirement is problematic and contrary to ASOP 12 (Risk Classification) 3.2.2, which states that a cause-and-effect relationship is not necessary. As discussed in Section 3.2.1, "Rates within a risk classification system would be considered equitable if differences in rates reflect material differences in expected cost for risk characteristics." We would like to emphasize that insurer pricing adheres to actuarial principles in ratemaking and D.C. law, which provide a different definition of a legitimate variable as one that reflects a material difference in expected cost for risk characteristics.

Unintentional Bias

The Report examines unintentional bias, which is not a legal standard set forth in the D.C. laws and/or ratemaking standards. Nor did the data call or Report attempt to define what is encompassed within the term "unintentional bias." The Report should apply well-established legal and actuarial principles, that are clearly defined by and consistent with D.C. ST § 31-2703 and Principle 4 from the [Statement of Principles Regarding Property and Casualty Insurance Ratemaking](#), which states that "A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer."

Speculative Statements

D.C. ST § 31-1404(a) requires that the Report "be comprised of only facts appearing upon the books, records, or other documents of the company...and those conclusions and recommendations as the examiners find reasonably warranted from the facts." (Emphasis added.). Respectfully, the Report does not fully comply with the specified requirements. The Report contains numerous speculative statements and draws conclusions that appear to be based on conjecture rather than solid evidence. For example, the following statements contained in the Report do not align with the requirements outlined in the cited statute:

- "Auto insurance companies are prohibited from using race or geographic data explicitly. Given there is nevertheless a demonstrable difference in premiums by race, there are legitimate concerns that insurers may be using other characteristics correlated with race and/or geography in determining premiums.";
- "Even so, the differences in premiums may not be explainable by these additional causal factors." (Emphasis added.);
- "Nevertheless, DISB concludes that some of the factors, which are correlated with losses but have no reasonable explanatory basis for losses, may be introducing unintentional bias into the premium determination. The use of those additional factors should be subject to additional review to evaluate how they impact Black/white premium differentials." (Emphasis added.);
- "Discounts likewise are often proxies for wealth--for example, there are discounts related to homeownership or education outcomes, and 'multiline' discounts that reward customers who have more assets to insure--and therefore end up being proxies for race as well, again without a satisfying causal story. Finally, payment modes are once again a proxy of wealth because they are often based on the ability to pay in advance."

The illustrations above are not intended to be an exhaustive list. Rather, they serve as mere examples of suppositions that should be removed from the Report, as they do not conform to the above-cited statute.

Additionally, the Report speculates that certain variables, which are permitted by law, are being used as proxies for race, without any support beyond conjecture. This speculation should also be removed from the Report. Otherwise, the public may develop a misconception that carriers are acting contrary to the laws in D.C., which is inaccurate and not supported by any of the data submitted in response to this market conduct exam.

Additional Areas of Concern

The perspective that any variable not included in the Report's select and limited set of variables is deemed as not legitimate raises concerns. This diverges from established ratemaking standards, principles, and D.C. law. For instance, insurer pricing models are built on a comprehensive suite of many different variables and interactions. A thorough analysis should encompass more than just a small selection of chosen variables.

Moreover, the insurance industry thrives on competition, with thousands of professionals striving to accurately predict losses. Restricting ratemaking to only those "legitimate explanatory factors" that DISB considers "reasonably related to the risk" could potentially hinder competitive rates and availability. In addition, during the Q&A session with DISB held on June 7, 2024, DISB recognized that its selection of variables was limited and admitted that there may be other factors that, if included in the analysis, might have had more of an impact on the premium gap differential (i.e., intuitively more risk-related that could explain the difference).

With respect to previous claims data, the Report indicates that a causal mode is necessary to "try to predict the premium next period based on the premium this period and the count of claims the period." Causation is not part of ratemaking. Rather, correlation and predictiveness are the applicable standards.

Erroneous Representation of the FTC Report

On Pages 5 and 14 of the Report, an FTC report from 2007 titled *Credit-Based Insurance Scores: Impacts on Consumers of Automobile Insurance* is referenced to support DISB's assertion that credit-based insurance scores may be a racial proxy. However, the conclusion of the FTC report (see Pages 92-94) clearly states that the analysis does not support any such assertion. Specifically, the FTC analysis clearly states: "The Commission's analysis...shows that a relatively small portion of the impact of scores on these groups comes from scores acting as a proxy for race, ethnicity, and income."

Conflicts with Actuarial Standards of Practice and NAIC Model Rating Laws

In the process of applying established standards and principles and actuarial science, it appears that some aspects of the Report's conclusions may benefit from further review. Specifically, the focus on premium over loss ratio findings in the Report's conclusions may not fully align with actuarial standards and rating laws. Essentially, premiums are reflective of loss cost differences. Auto insurance rating algorithms utilize variables that predict loss costs, in line with ASOPs. Variables are not merely correlated, nor are they confined to a subjective interpretation of causality. It is important to note that insurers neither classify risks based on race nor are they allowed to do so. We have identified several specific statements in the report which conflict with these standards in **Appendix A**. It would be beneficial to consider these points before finalizing the Report.

Erroneous Statement on Minimum Limit Policies

On Page 25 of the Report, a footnote reads: "This explanatory factor is notably counterintuitive: minimum-limit policies cost less than higher limits. We suspect this is because the people who can only afford minimum limits are paying more for other reasons (e.g., their credit is worse, they don't own a home, they pay premium monthly rather than lump-sum)." The chart is improperly described as minimum-limit policies costing less when they actually show a higher average premium. Further, the conjecture that it is more intuitive that minimum limit policies should have a lower average premium seemingly ties to the potential severity component of average cost and ignores the frequency, or likelihood, component of average cost. The study should display the average losses by coverage limits for accurate conclusions to be drawn regarding what drives premium for minimum limit policies.

Methodology Concerns

When insurers set auto insurance rates, they charge premiums based on loss costs, with the goal of reaching a level loss ratio across each segment. A loss ratio is calculated using total aggregate losses divided by total earned premiums, where loss costs are the product of the average amount of a claim and the frequency of claims; this metric is not addressed at all in the study. Instead, the study compares average losses to average premiums on what is admitted in the footnotes to be a subset of the data. This metric amounts exclusively to an evaluation of average claim cost (severity) and neglects the impact of frequency--the rate at which claims occur.

The Report claims that premium gaps are "unexplained" without any valid actuarially sound attempt at explaining them. Prices are explainable: insurers determine premiums by examining aggregate and cohort analyses of loss costs and loss ratio across legally permissible variables that are blind to race and ethnicity to determine the cost associated with insuring a given state and customer. These rates are

reviewed and approved by regulators based on insurance company loss cost data before approval. Instead of evaluating costs (losses) associated with any particular variable, DISB has not conducted a review of how any variables might be correlated with loss ratio.

Insurance companies do not act outside of the regulatory framework put in place by local legislatures. A customer with higher expected loss cost being charged a higher premium relative to those with lower expected loss costs is the only path to regulatory approval for rates; a customer paying more than their expected loss costs would be an excessive or unjustified and unexplainable premium difference. By evaluating only premiums and ignoring loss costs, DISB has not broached the issue of fairness in a substantive manner. The removal of proven objective and predictive rating factors based on the highly subjective conclusion that they are not "legitimate explanatory factors," would lead to more customers paying premiums with a greater variance from their projected loss costs and give customers fewer options for competitive rates or ways for rates to be personalized for individual situations.

As stated, there are important proven factors missing from the analysis such as vehicle characteristics, vehicle use/mileage and vehicle history. Vehicle characteristics, or some aggregate metric that captures cost of repair differences across vehicles, is critical in determining the price a customer pays. How often a customer is using the vehicle, and their annual mileage is an important determining factor since the more one drives, especially in an urban environment, the more they expose themselves to risk. The decision to use linear regression as the modeling technique to relate premium gaps and prior claim history to the explanatory factors is questionable. There is no evidence presented that validates the assumptions required to use ordinary least squares (OLS) regression. This is especially important considering insurance pricing models are typically generalized linear models (GLMs) due to the underlying data and model errors not following a normal distribution and that the outputs are multiplicative factors. While there is mention of a GLM approach being explored, no details of that analysis are presented, which makes one skeptical of the results of that effort and the analysis put forward in this paper.

In addition to the general methodology concerns outlined above, our members have raised several specific questions which we have included in **Appendix B**.

Conclusion

The Report's undisputable finding is that premiums accurately reflect losses. For all the above reasons, we urge DISB to consider all the issues we raised before moving forward with the Report as proposed and conclude that there are far more cost-effective/beneficial ways to consider the issues that would not harm the market and not be inconsistent with legal and statutory standards. APCIA stands ready to work with DISB to better use the extensive amounts of existing data in the context of applicable legal and statutory standards and identify what steps we can take to address the underlying insured costs and losses that are literally driving insurance pricing.

Please contact us with any questions.



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Appendix A – Statements Unsupported by the Relevant Actuarial Standards of Practice and NAIC Model Rating Law

Statements	Errors
<p>On Page 5 of the Report: "In undertaking this analysis, however, DISB did not expect the exact same premiums for different race groups. Rather, DISB sought to identify causal factors that could legitimately explain the premium differences, and specifically the Black/white premium difference. For example, the agency looked at age, type of policy, driving record, claim history, gender, and many others factors to determine if and how those factors impact premiums. When accounting for all these factors, however, there was still an unexplained gap of \$271 between Black and white drivers."</p> <p>On Page 6 of the Report: "DISB believes that hard braking and hard acceleration are legitimate causal factors for insured losses and would not limit their use, however, when a proxy for hard braking and hard acceleration is used, the insurer should also be required to demonstrate how their proxy is applied in such a way it does not add to the Black/white premium gap."</p> <p>On Page 7 of the Report: "ORCAA computed the overall losses by race and noted that on average Black policyholders pay more in premium compared to white policyholders--a factor of 1.39--but generate 2.4 times the losses, on average. That means Black drivers as a group have a higher loss ratio (note this loss calculation only includes pay-out to the insured and does not include operational costs for the insurers)."</p> <p>On Page 16 of the Report: "Loss ratio: As discussed above, reviewing premiums relative to insurance losses is important, but there should be a reasonable expectation that the factors used to develop premiums have a stronger relationship</p>	<p>Below are the relevant Actuarial Standards of Practice and NAIC Model Rating law excerpts that contradict the statements appearing in the lefthand column of this table:</p> <ul style="list-style-type: none"> • ASOP #12 – “Rates within a risk classification system would be considered equitable if differences in rates reflect material differences in expected cost for risk characteristics. In the context of rates, the word fair is often used in place of the word equitable.” • NAIC Model Rating Law: “Unfair discrimination exists if, after allowing for practical limitations, price differentials fail to reflect equitably the differences in expected losses and expenses.” • NAIC Model Rating Law: “No risk classification, however, may be based upon race, creed, national origin or the religion of the insured.” • ASOP #12 – “A relationship between a risk characteristic and an expected outcome, such as cost, is demonstrated if it can be shown that the variation in actual or reasonably anticipated experience correlates to the risk characteristic.” • ASOP #12 – “3.2.2 CAUSALITY: While the actuary should select risk characteristics that are related to expected outcomes, it is not necessary for the actuary to establish a cause-and-effect relationship

<p>to losses than simply correlation or, if not, the factors do not materially impact the racial gap in premiums."</p>	<p>between the risk characteristic and expected outcome in order to use a specific risk characteristic."</p>
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Appendix B - Other Questions and Concerns

1. Three different premium ratios between Black and white drivers are provided throughout the report:
 - On Page 5, the premium paid by white policyholders is given as 1.46 times as much as Black drivers.
 - In Section 2 at the bottom of Page 7, the Report claims that Black policyholders pay 1.39 times the premium of white policyholders.
 - The top of Page 8 lists Black average premiums at \$1,024.42 versus \$709.96, a ratio of 1.44.

What is the cause of these discrepancies? Specifically, is the difference between the ratios noted on Pages 5 and 7 attributable to the calculation used on Page 5 being based on the entire dataset, while the ratios from Page 7 are seemingly would both be based upon the same dataset, filtered to the records with valid loss information?

2. On Page 9, It is unclear if the use of BIFSG is reasonable to apply to a subset of a population, as was done when filtering the dataset to single vehicle/single driver policies.
 - There does not appear to be any attempt in the Report to assess this question or to consider it as a source of error in the Report's graphs/conclusions.
 - Furthermore, in trying to compare the distributions included by driver age and race on Page 9 of the Report to 2020 Census data, there appear to be some data discrepancies and meaningfully different distributions. Can DISB account for the source of this bias/error?
3. On Page 23, *Average Premium by Driver Age* indicates that older drivers have higher average premiums. The plot *Average Premium by Driving Record* shows that policies with prior incidents have higher average premiums.
 - The exposure plots show that Black drivers in D.C. are older on average than white drivers, and that Black drivers are more likely to have prior incidents than white drivers. It would be helpful to have a multivariate view, to see what the impact of being both older and having prior incidents is on average premium, instead of looking at each variable separately.
4. Also on Page 23, *Driver Age by Race* shows the number of drivers in each age and race category. Similar plots for other variables (driving record, marital status, etc.) are not provided. This information is important for understanding the credibility of the results.
5. General Questions on Exhibits:
 - Was any multivariate analysis performed? What are possible interaction effects?
 - For premium gap plots: it would be interesting to recreate these plots showing the ratio of the average premium in a group to the average premium for white drivers in the same group, instead of plotting the differences.
6. On Page 25, *Marital Status by Race*, about 2/3 of drivers are unmarried, and only a small percent is married. We are not sure what the "other" category represents.
 - This may be reflective of the fact that this study only considers single-car-single-driver policies, and highlights that the population under consideration is likely not representative of D.C. as a whole.

7. On Page 25 there is a footnote that states *“This explanatory factor is notably counterintuitive: minimum-limit policies cost less than higher limits. We suspect this is because the people who can only afford minimum limits are paying more for other reasons (e.g., their credit is worse, they don't own a home, they pay a premium monthly rather than lump-sum).”*
 - The assertion in this footnote is strong and does not come with supporting evidence.
8. On Page 26 the Report states: *“As the middle chart below shows, >95% of our data is from policy years 2019, 2020, and 2021. The extreme values of average premium and premium gap outside those years is a reflection of small data.”*
 - Despite this statement, the plots show average premiums and premium gaps for the years 2017–2023. How much data is there for the year 2017 and the years 2022–2023, particularly once it's broken down by race? If these results are not credible, why were they included?
9. On Page 31 the Report states: *“Then we do linear regressions to investigate the relationship between a given driver's premium in this policy period (Pnow), their premium in the previous policy period (Plast), their claims activity in the previous policy period (Clast), and their race.”*
 - Linear regression is not the appropriate model for the relationship between premium and claim count. In practice, this is a multiplicative relationship. A policy with a claim will receive a percentage increase in premium. Therefore, policies with lower premiums would end up with a smaller increase per claim than policies with higher premiums would.
 - The slope referred to as “beta 2,” which is noted to be around \$30, is a surprising result. In general, a policy with a prior claim would see a large increase in premium since prior claims are associated with higher costs. An increase of only \$30 would be low. This low number is the result of modeling the relationship with linear regression when that is not the underlying relationship.
10. On Page 30 Appendix D, was a multiplicative version of the model created for this model only, or was one also created for the model including prior claims in Appendix E?
 - Point of clarification: Insurance premiums are often modeled using GLMs. This is not equivalent to taking the log of pure premium and carrying out OLS with the features. A GLM also accounts for the distribution of the target variable.
 - Are the summary outputs for the multiplicative version of the model available? They were not included in the appendix.
 - In what way are they “the same” as the outputs from before? The coefficients would have a different interpretation, so the details would be interesting here.
11. On Page 31 – Appendix E – Causal model of premium bump in response to claims.
 - Comment: Due to a data limitation, this analysis only includes drivers who had prior claims with the same insurer. In general, claims from a prior carrier receive a different factor at new business than do claims from a prior term at the current carrier. Therefore, we cannot use this analysis to draw conclusions about the relationship between premiums and prior claims in general.

- Since prior premium (P_{last}) is a variable predicting current premium (P_{now}), did you consider changing the target to $P_{now} - P_{last}$, or perhaps the ratio P_{now} / P_{last} ?

12. On Page 32 – Regression Results

- Were any checks done to verify that the assumptions for linear regression were met? For example, were residual plots for numeric features like age created?
- Were any transformations considered for the included variables? For example, age generally does not have a linear relationship with premium.
- Why were outputs of the log version of the model not included?

13. One item highlighted in the Report is that quotes from agents tended to be lower than quotes from other sales channels. DISB points to the need to conduct an analysis regarding how the sales channel might explain the race gap. The explanation is likely to be the simple fact that an agent would provide the insured with a quote based on their representation of multiple companies, and a discussion of the customer's needs. In contrast, a consumer would be doing this themselves, getting multiple quotes and choosing from among them.