Passenger Transportation Board
MOVING FORWARD, TOGETHER

Quantitative analysis

An important part of the Passenger Transportation Board's role is to promote sound economic conditions in the passenger transportation industry while ensuring public need is addressed. To do this effectively, the Board is engaged in the development of data-driven quantitative analysis to assess market conditions across the industry.

Quantitative analysis uses a combination of economic theory, mathematics, and statistical inference to understand what is happening across an economic sector. It means looking at different variables to see how they affect each other, and how they might be impacting supply and demand in the market.

Why the Board does quantitative analysis

All independent tribunals are expected to make evidence-based decisions. Following the recommendations of the Select Standing Committee on Crown Corporations in its 2018 report, Transportation Network Companies in B.C., the government amended the Passenger Transportation Act to have the Board regulate transportation network services (TNS, or ride-hailing). The Committee also made recommendations, accepted by the government, that the Board undertake objective evidence-based decision-making based on empirical data.

The Board's use of quantitative analysis is now a central part of its work in regulating the passenger transportation industry. Through rigorous quantitative analysis and assessment, the Board examines the potential impacts of different regulatory measures (e.g., new rates structures) and industry events (e.g., new licensees entering the market) to inform its decisions as a regulator. This includes how it determines systemic decisions, application decisions, and policies.

Quantitative analysis helps the Board to promote a healthy passenger transportation industry that supports variety, sustainability, and innovation among service providers while also providing

accessibility, affordability, safety, and service quality for the public.

The importance of quality data

For quantitative analysis to be reliable, it requires quality data that is sufficiently comprehensive in coverage. If the data falls below a determined threshold of quality and coverage, quantitative analysis will not provide an accurate picture of what is happening in the industry.

In the case of the taxi and TNS sectors, sufficient coverage means that the majority of licensees are submitting data across the province, and across regions and sectors. The Board's reliability threshold for coverage is 90 per cent.

Data quality means that all required data is being submitted and the data elements are accurate. The threshold is approximately 75 per cent depending on the specific data elements containing quality issues.

By submitting quality data, licensees help the Board to effectively monitor and assess what is happening in the industry. The Board is then in a better position to make sound decisions to support the sustainability of the sectors and the health of the passenger transportation industry as a whole, as well as adequate supply in the public interest. This ultimately helps businesses and the public, underlining the importance of submitting quality data on an ongoing basis.

Quantitative analysis in the taxi sector

Following the introduction of TNS (ride-hailing) to B.C. in 2019, the Board has been monitoring the taxi sector while market restructuring occurs. The Board consulted extensively with taxi licensees in 2023 on new proposed rates structures, and it announced its decision on new structures for different regions on January 17, 2024.

The new rates structures are designed to promote the sustainability and competitiveness of the taxi sector in the evolving passenger transportation marketplace. To ensure the new rates structures are

implemented in a way that best supports licensees, the Board is reviewing and undertaking quantitative analysis of relevant data to implement the taxi rates structures beginning in 2025.