CANTRAC SURVEY REPORT BRIEFING

CALGARY SURVEY REPORT

Purpose Of The Note

This briefing note provides an overview of the Calgary Canada Travel Activity (CanTRAC) survey, developed by the Dalhousie Transportation Collaborartory (DalTRAC). It outlines the survey's objectives, methodology, and key findings related to travel behaviour in Calgary, Alberta.

Specifically, the briefing note:

- Summarizes the survey's purpose and development;
- Describes the methodology used to collect and analyze data on residents' travel patterns, lifestyle choices and transportation preferences; and,
- Highlights insights into residents' willingness to adopt electric vehicles (EVs) in the future.

This Briefing note is intended to support transportation engineers, planners, and policy makers in making informed decisions regarding infrastructure planning and transportation initiatives in the City of Calgary.

Key Observations

- The Calgary CanTRAC survey collected responses from 922 households between November 2023 and June 2024.
- While there are minor differences compared to the 2021 Canadian Census, the sample is broadly representative of the population.
- The data reveals auto-centric travel patterns among residents, particularly during peak commuting hours. Respondents made an average of 2.1 trips per day, with 73.3% of those trips made by personal vehicles. Of these, 67.1% involved a single occupant.
- The average trip length was 9.5km, with 20.5% of trips being short distances (under 2km).
- Respondents reported an average household vehicle ownership rate of 1.58 cars, followed by 1.19 bicycles per household.

Project Description

The 2023–2024 Canada Travel Activity (CanTRAC) Survey was conducted to examine how Calgary residents travel, live, and view emerging transportation options such as electric vehicles. The survey builds on the Nova Scotia Travel Activity (NovaTRAC) Halifax Survey, previously implemented in Halifax by the Dalhousie Transportation Collaboratory (DalTRAC) in partnership with the Halifax Regional Municipality.

The resulting data is intended to support evidence-based transportation planning and infrastructure development in the City of Calgary.

Context

The survey examined Calgary residents' travel choices and behaviours following the COVID-19 pandemic to identify emerging trends. During the pandemic, daily commuter numbers in Canada dropped by 2.8 million people between 2016 and 2021 (Statistics Canada, 2022), reflecting widespread shifts such as increased teleworking and changes in shopping habits. The findings provide the City of Calgary with critical data to support evidence-based planning and investment in transportation infrastructure and services.

Methodology

DalTRAC developed the survey using a computer-assisted web interviewing (CAWI) instrument. The questionnaire collected socio-demographic information, travel choices and preferences, and weekday travel behaviour. The survey included lifestyle and policy preference questions, offering a greater understanding of electric vehicle interest and adoption.

The survey was conducted in four different phases:

- **Social media sampling:** Meta Ads were utilized to target individuals within a 27-mile radius of Calgary. This sampling method reached 11 579 Calgary residents. Sampling was conducted between November 2023 to February 2024.
- **Landline sampling:** 11 000 postcards invitations were sent in two batches to randomly selected Calgary addresses. Three to four weeks after invitations were mailed, households who had not completed the survey were contacted for a telephone interview. Sampling was conducted between February and April 2024.
- **Cellphone sampling:** 6 000 cellphone numbers with 403-area codes were generated from random digit dialing (RDD) to invite households to participate in the survey. Sampling was conducted between May and June 2024.
- **Panel sampling:** A third-party vendor recruited hard-to-reach participants through panel sampling, which was conducted in June 2024.

DalTRAC obtained ethics approval for this nationwide survey from Dalhousie University, ensuring responses remained anonymous. A total of 33 534 individuals were invited to participate. DalTRAC provided incentives for completing the survey by giving respondents a chance to win one of eleven VISA gift cards.

Survey Statistics

A total of 922 households responded to the survey across the four sampling methods: 285 from social media sampling, 388 landline sampling, 45 from cellphone sampling, and 204 from the panel sampling. Overall, 71% of responses were collected through web-based entry during all phases, while the remaining 29% were gathered through telephone-based entry conducted only during the landline and cellphone sampling.

Survey Results

Key survey findings to inform future infrastructure investments include:

- **Travel Patterns:** Residents' travel patterns remain heavily auto centric, with 73.3% of trips made using a personal vehicle. The highest trip volumes occurred during morning peak hours (6:00AM to 9:00AM, 8.5%) and evening peak hours (3:00PM to 6:00PM, 10.2%), as illustrated in figure 1.

Survey Results Continued

- **Transport Mode Use:** Travel mode preferences varied by gender. Men made more trips by car (74.6% vs. 72.9%), cycling (3.7% vs. 1.9%), and walking (13.8% vs. 13.1%) than women. Women took more transit trips (11.5% vs. 7.5%). Additional findings include preference for walking over driving (54.0%), discomfort using public transit (29.9%), and reluctance to use carpool/rideshare services (43.2%).
- **Pandemic Travel Response:** The COVID-19 pandemic influenced travel behaviours, with 71.0% of respondents favouring flexible work schedules, 73.4% preferring in-person activities, and 54.2% opting for in-person shopping compared to virtual alternatives.
- **Electric Vehicle Interest:** One-third (33.1%) of respondents indicated a desire to purchase an EV in the next five years. Key barriers to adoption included purchase price (30.0%) and perceived lack of charging infrastructure (17.9%).

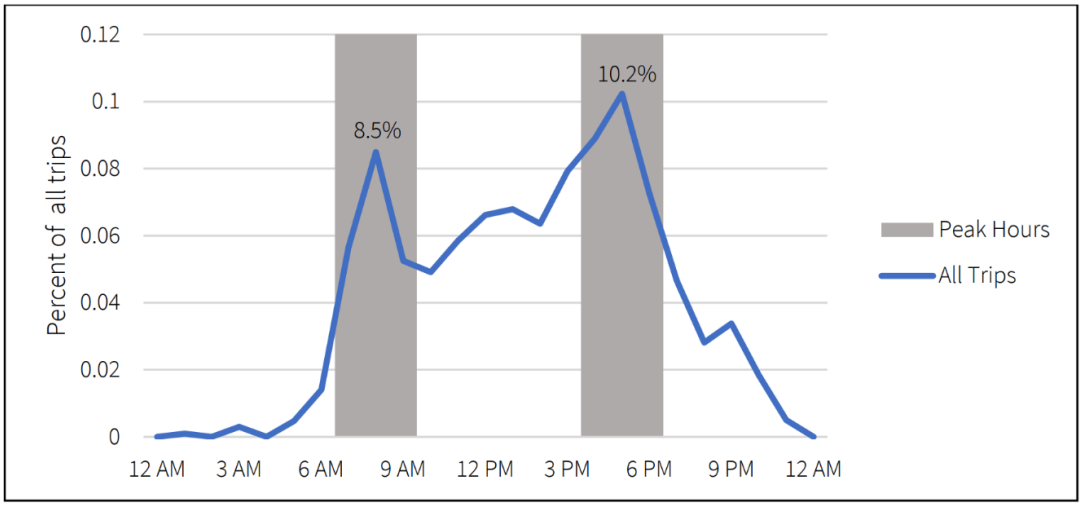

Figure 1: Distribution of Start Time for all Trips.

Conclusion

The COVID-19 pandemic significantly altered travel behaviour in cities, accelerating trends such as online shopping, teleworking, and hybrid work arrangements. In Calgary, Alberta, these shifts have changed how residents move through the city and use its transportation network. While still considered an autocentric city based on the data collected, the CanTRAC survey indicated the potential for a shift in transport mode share away from private cars. With strong support bases for active transportation and transit use, and preference for these modes indicated through the survey, Calgary has shown to have strong roots for shifting towards a more sustainable mode share. This is further supported by Calgary's expanding higher-order transit system and plans for enhanced and expanded active transportation infrastructure. Together, these factors will result in the City of Calgary stepping closer to reaching their sustainability, environmental, and transportation accessibility goals.

DalTRAC's Calgary CanTRAC study provides valuable insights into current travel habits and residents' willingness to use an electric vehicle in the future. These findings can help the City of Calgary align future transportation infrastructure investments with evolving mobility patterns and support climate action objectives.

References

Statistics Canada. (2022, November 30). Has the COVID-19 pandemic changed commuting patterns for good? https://www150.statcan.gc.ca/n1/daily-quotidien/221130/dq221130c-eng.htm.

About DalTRAC and CART Network

Dalhousie Transportation Collaboratory (DalTRAC) is a multi-disciplinary research facility dedicated to the advancement of transportation engineering and planning research and practice at Dalhousie University in Halifax, Nova Scotia. The research unit aims to contribute to transportation studies, planning, and analysis at local, regional and national levels.

The Climate Action Research for Transportation (CART) Network is a multi-university, multidisciplinary team of researchers and academics working to advance climate action in the transportation sector. The network focuses on the quantification of greenhouse gas (GHG) emissions at the municipal level and is supported by Environment and Climate Change Canada.

CART was initiated by DalTRAC to support cross-institutional research on transportation and climate action. It brings together expertise from civil and resource engineering, urban planning, computer and data science, and risk management to inform evidence-based transportation planning and climate policy across Canada.

Further Reading

For additional technical reports and research conducted by DalTRAC, please visit the DalTRAC research webpage at https://www.dal.ca/sites/daltrac/research.html.

Contact

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