Policy Brief

An Analysis of the Current Satisfaction of McGill Students on Bus and Metro Transport

Executive Summary

The current projects of the Société de Transport de Montréal (STM) focus on reducing travel times and extending service. While important, these plans do not support the improved comfort of their users.
Based on survey results from the 2017-18 McGill Travel Survey, the STM needs to improve the reliability and comfort of their systems, mainly by integrating real-time data into Google and Apple maps and improving the interior design of their vehicles.

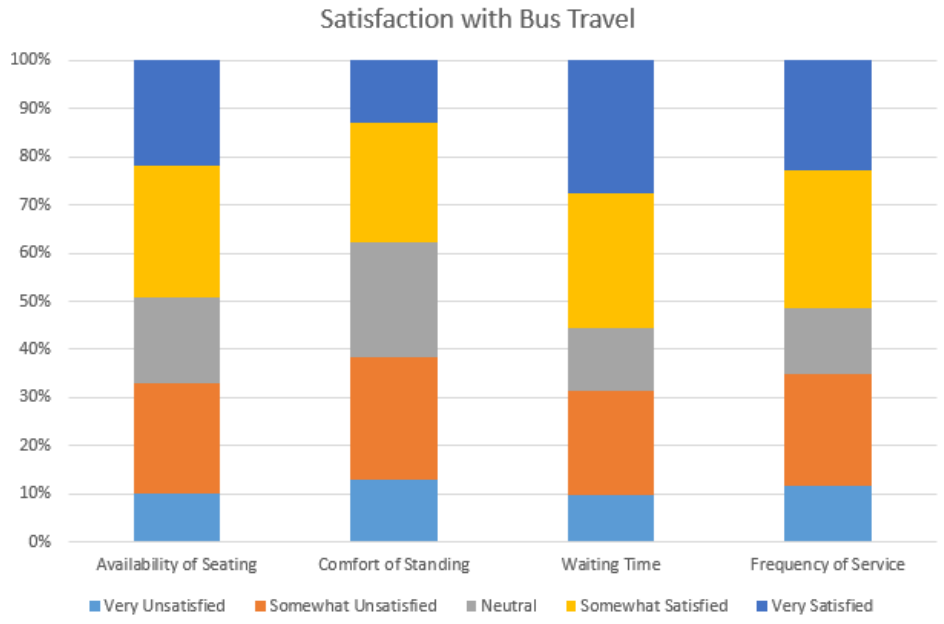
Context and Importance of Problem

47% of students use bus or metro to commute to McGill on a daily basis.
Out of the 4800 surveyed, 847 noted they typically commute to McGill via bus, while 1337 commute via metro. This is the largest proportion of any mode of transport. Therefore, a deeper understanding of these students' satisfaction with their current commutes is required to ensure their needs are being met.

Among bus users, the greatest dissatisfaction lies in reliabilty and trip comfort.
This includes a lack of available seating and high wait times.

- 32% of respondents were either very unsatisfied or somewhat unsatisfied with the waiting time.
- 33% of respondents were either very unsatisfied or somewhat unsatisfied with the availability of seating on the bus.
- 35% of respondents were either very unsatisfied or somewhat unsatisfied with the frequency of service.
- 38% of respondents were either very unsatisfied or somewhat unsatisfied with the comfort of standing.

Figure 1: Chart of bus travel satisfaction with various questions.



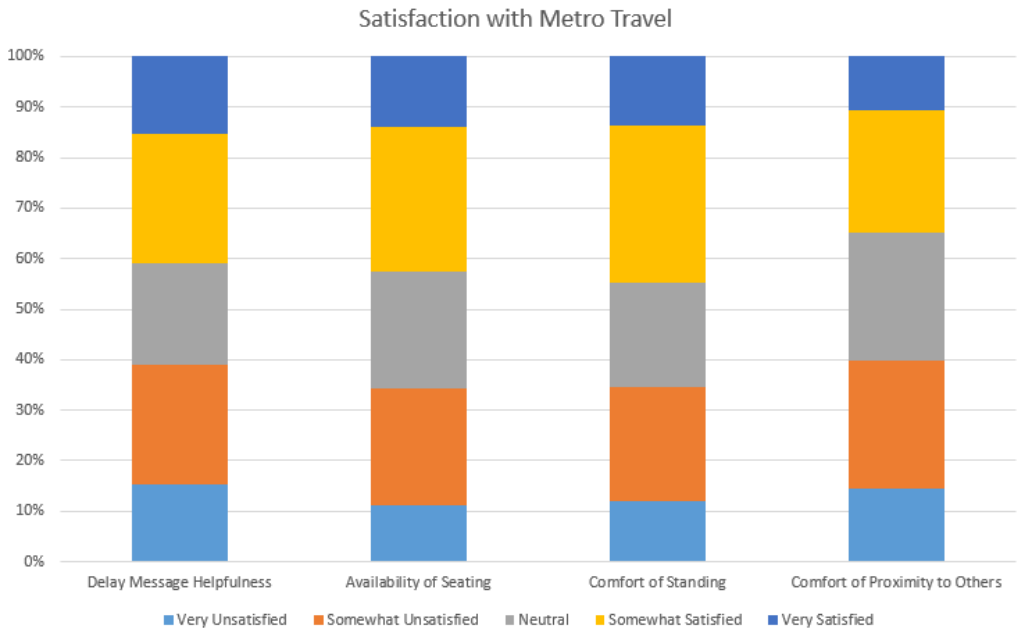


Figure 2: Chart of metro travel satisfaction with various questions.

Among metro users, the greatest dissatisfaction lies in comfort and the helpfulness of delay messages. This mainly includes unhelpful delay messages and a lack of available seating.

- 34% of respondents were either very unsatisfied or somwhat unsatisfied with availability of seating on the metro.
- 35% of respondents were either very unsatisfied or somwhat unsatisfied with comfort of standing.
- 39% of respondents were either very unsatisfied or somewhat unsatisfied with delay message helpfulness.
- 40% of respondents were either very unsatisfied or somewhat unsatisfied with comfort of proximity to others on the metro.

Through this data, it is clear that there is major work to be done in improving the comfort of journeys on transit. Doing this could help increase ridership and loyalty, and increase user satisfaction overall.

Source: LRDG Campus

Current Policy Shortcomings

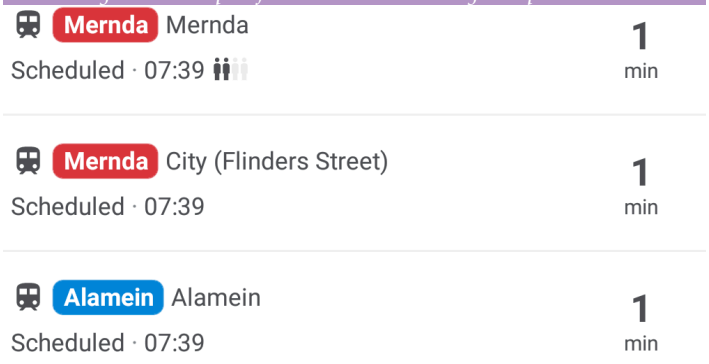
The STM currently outlines their major metro and bus projects on their website, along with progress updates and potential delays.

Current major metro projects focus on accessibility and serving new markets.
The largest project is the blue line extension, which extends service to into Montreal East until Anjou. This is projected to be completed in 2025. Additionally, the STM is increasing the number of elevators and escalators in every station, with the goal of finishing 30 universal accessibile stations in 2025.

Current major bus projects focus on electrification and a streamlining of the system.
STM's Mouvement Bus is an attempt to improve rider experience throughout their transit journey. This includes electrifying the entire bus fleet, installing new card readers, and constructing reserved lanes and bus rapid transit areas to speed up travel time.

There is a lack of an emphasis on rider comfort and reliability.
While these plans are incredibly important to continute to implement, there needs to be more a to improve the construction of the buses and metros themselves, to maximize the amount of seating and ensure a comfortable journey for everyone aboard.

Figure x: example of real-time data on Google maps.



Policy Recommendations

Integrate real-time data into Google and Apple Maps to combat reliability issues.
Many people had issues with the reliability of buses. STM should follow existing systems of integrating real-time data into popular smartphone map apps (such as in Tokyo, Japan) in order to help diffuse information to users. This would help people know when to leave their houses (*reduce risk of high wait time*), which cars are least busy (*reduce discomfort and proximity to others*), and if there are any major delays (*combat unhelpful of delay messages*).

Increase the number of articulated buses that are part of the fleet.
The lines that should be prioritzed are those with high-density during peak and off-peak travel times. This can be discovered with AVL-APC data. This data can also be used to increase the frequency of bus service on these lines to reduce wait times.

Ensure riders are well spread-out to reduce congestion on cars.
This goal would be aided by the streaming data integration. Additionally, any remaining old cars must immediately be replaced by those with the open gangways to increase space.

The most important tool that would help combat the current dissatisfaction of metro and bus users is to integrate real-time streaming data into smartphone map apps. In our age of mobile technology, it would be most useful to provide information that users could access anywhere, rather than just in the statio-in or on the bus.

Policy Takeaways

- Integrate **real-time data** into Google and Apple Maps to *decrease overall wait time.*
- Increase the number of **articulated buses** in the system to *increase* space for sitting and standing on the bus.
- Ensure the **replacement of all old metro trains** to *improve comfort* on the metro.

References

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