

An Examination of Commuting Patterns to McGill University – Results of the 2011 McGill Transportation Survey

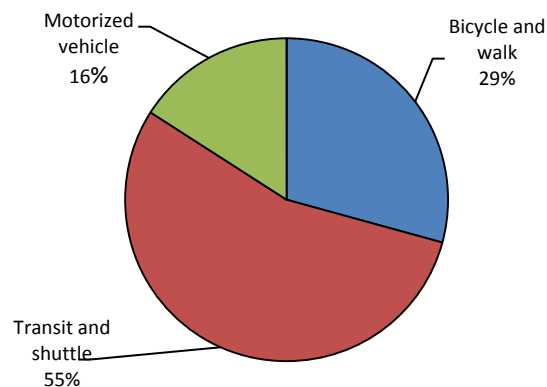
McGill University, comprising of over 30,000 affiliates, contributes significantly to the transportation network. The data collected by the 2011 McGill Transportation Survey has been compiled for analysis in order to examine commuting behaviour patterns of a cross-section of the McGill community.

Response Rate

A total of 19,662 survey invitation emails were sent out to McGill students, faculty and staff. A total of **5,016 responses were received by the closing date of the survey, yielding a survey response rate of 25.5%**. Of these responses, 56% are employees (including faculty and staff), 43% are students, and 1 % falls into the category of 'other', including visiting students and professors.

Mode Split

The current commuting mode split among McGill-affiliated individuals is as follows:



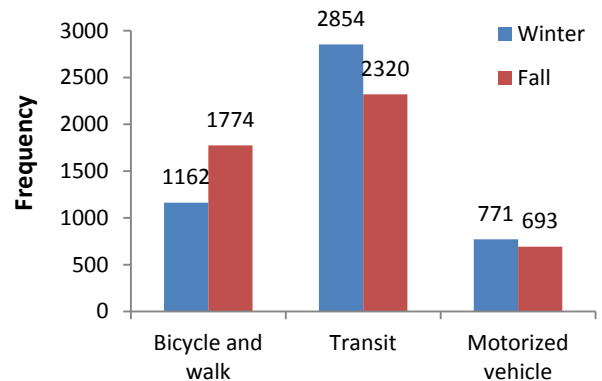
Active transport and public transit combined make up 84% of transportation to and from McGill campuses indicating a culture of sustainable transportation among McGill affiliates. Motor vehicle use accounts for a higher proportion of trips to and from Macdonald campus, whereas active and public transit outweighs car use on the Downtown campus.

Distances and Seasonality

The majority of individuals live within 7-11 kilometers of a McGill campus, which corresponds with the optimal distance at which

individuals choose to use active transport or public transit. Rates of car use stay relatively constant as distance increases, suggesting that access to an automobile encourages use, regardless of distance.

Seasonality greatly affects mode split; transit use increases during Montreal's harsh winter months, while rates of active transport increase significantly during the warmer months.

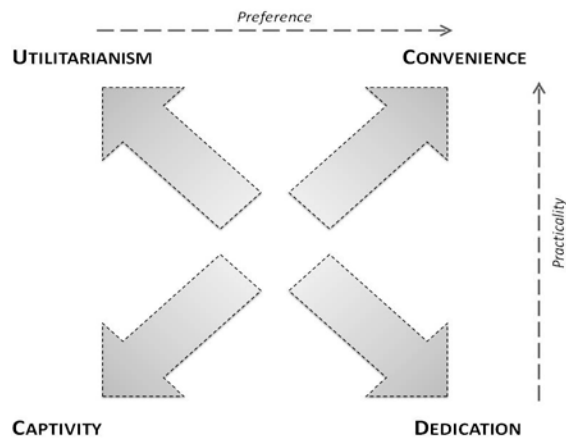


Greenhouse Gas Emissions

It is estimated that **commuters to McGill's Downtown campus generate 31.1 tons of CO₂ equivalent on their trip to McGill on a single winter day, and 29.5 tons of CO₂ equivalent on a fall day.** Translated into emissions per commuter per trip to the Downtown campus, on average, on a typical winter (fall) trip an employee emits 1.8 kg CO₂ (1.7 kg) and a student emits 0.71 kg CO₂ (0.68 kg)

Types of Commuters

The analysis of types of commuters at McGill (for both campuses combined) yielded **four market segment extremes, each with a varying level of trip preference and practicality: captivity, utilitarianism, dedication or convenience.**



Individuals are considered to moving along a continuum of choice toward the various extremes as their circumstances change, thus affecting their travel behaviour choices. Ideally, individuals would move toward a preferred and more practical travel choice.

Comments and Concerns

Comments and concerns are vital to understanding the motivations for certain trips, and alleviating the burden of lengthy and costly commutes. Key comments and concerns are grouped into well-defined categories:

Cycling Comments and Concerns:

- Enhance commute safety by creating more bicycle lanes and maintaining existing ones.
- Offer incentives for students to purchase Bixi memberships or used bicycles.
- Introduce facilities for cyclists such as showers, lockers, and sheltered or secure parking.

Walking Comments and Concerns:

It is paramount to maximize the satisfaction of the commute for transit users, where feasible, as they account for over two thirds of total trips made to and from McGill campuses every day. Additionally, by maintaining infrastructure, improving design and introducing traffic-calming measures, overall safety will augment, creating a culture of respect among pedestrians, cyclists and motorists.

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- Enhance walking environment, such as sidewalks, benches, adequate lighting, and tree canopy cover.
- Improve efficient snow removal of sidewalks and outdoor stairs.
- Reorganize traffic signaling at problematic intersections, such as Rue Milton and Rue University, and add crosswalks, especially at Avenue des Pins and Rue Dr. Penfield.

Public Transit Comments and Concerns:

- Offer a school-wide discounted transit pass to circumvent the age cap of 25 for reduced fares.
- Improve the reliability and frequency of bus route 144 (Avenue des Pins) and the frequency of the AMT commuter trains during evenings.
- Improve access to transit stations for the mobility impaired (i.e., escalators and elevators).

Shuttle Service Comments and Concerns:

- Increase shuttle frequency and capacity to overcome long wait times and overcrowding while providing adequate shelter at bus stops and heating in the buses.
- Introduce a streamlined system to simplify the purchase of passes for staff, and an ID-swipe machine for students boarding buses.
- Promote the shuttle service through informational posters, online media, posted schedules, and clearly marked bus stops.
- Incorporate a shuttle that connects other McGill facilities, such as hospitals.
- Incorporate express buses to Macdonald campus and local buses that make several stops.

