

Highlights

This report provides a snapshot of recent travel patterns in the City of Ottawa, highlighting key information from the full *Transportation Trends Report*, found on Engage Ottawa. The report also provides an overview of how travel in Ottawa has changed over the last decade. The analysis is largely drawn from Origin-Destination Household Travel Surveys, the latest of which was conducted in the fall of 2022, following the COVID-19 pandemic.

This report is a supporting document to the City of Ottawa's Transportation Master Plan (TMP) Update. The TMP Update will incorporate data from the Origin-Destination Survey; it will also reflect changes in travel activity since the survey was conducted in 2022, as well as anticipated future changes as travel patterns continue to evolve.

Origin-Destination Survey

The Origin-Destination (OD) Household Travel Survey is a comprehensive survey of households in Canada's Capital Region that collects information on residents' daily travel, including trip origins and destinations, modes of travel, and trip purposes. Survey participants are asked about the trips made on the previous day by each member of their household 5 years of age or older. The survey also collects data on the characteristics of the household and the people who live there, such as dwelling type and vehicle ownership.

The latest OD Survey was completed in the fall of 2022 and obtained travel data from 69,501 persons across 31,818 households, capturing 162,243 trips. Overall, a 5% random sample of households was surveyed from each part of the region, including urban, suburban, and rural areas. Previous OD surveys were conducted in 2011, 2005, and 1995.

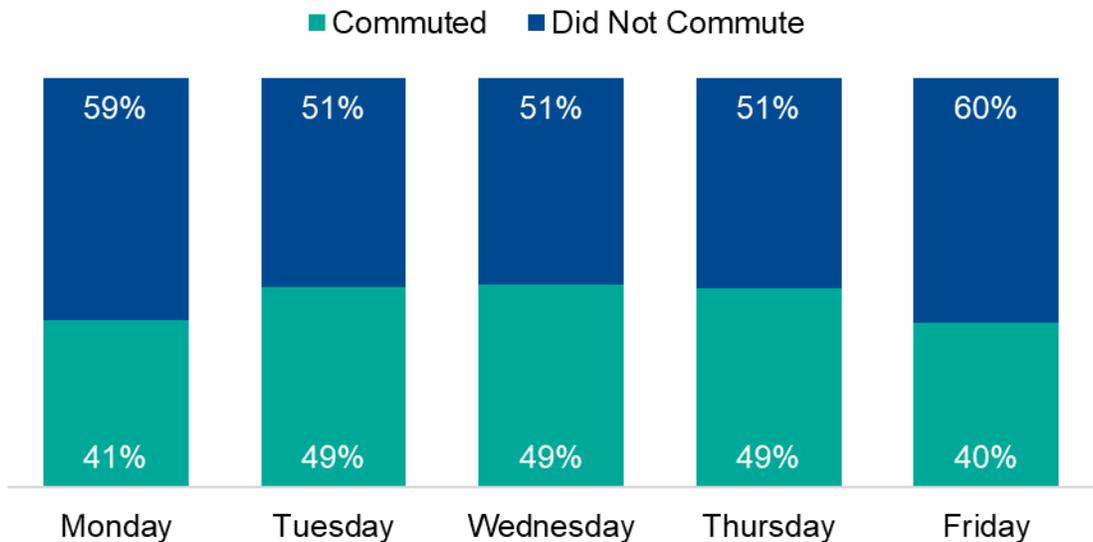
Changes in Travel Patterns

Between the 2011 and 2022 OD Surveys, Ottawa has seen many changes, including the pandemic, O-Train construction, and significant investments in walking and cycling infrastructure. Survey results indicate significant changes in travel patterns.

Increase in Working from Home

The COVID-19 pandemic caused significant disruptions to travel, with numerous implications that are likely to be long-lasting. In particular, there has been a dramatic increase in working from home. In the fall of 2022, 19% of Ottawa workers were still fully working from home; an additional 35% had hybrid work arrangements and commuted an average of 1.6 days a week. Linked to hybrid work arrangements, commuting activity was found to be concentrated in the middle of the week, as shown in Exhibit 1

Exhibit 1: Commuting Activity by Workers, by Day of Week (2022)

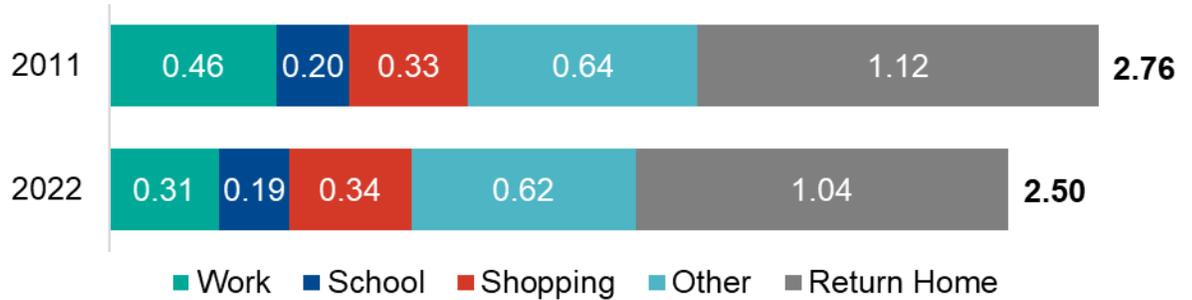


Fewer Trips, Shorter Trips and More Local Trips

With the increase in working from home, the number of daily trips per person decreased from 2.76 to 2.50 between 2011 and 2022, as shown in Exhibit 2. Overall, the total daily trips starting or ending in Ottawa decreased by 0.7% over this period, despite significant population growth.

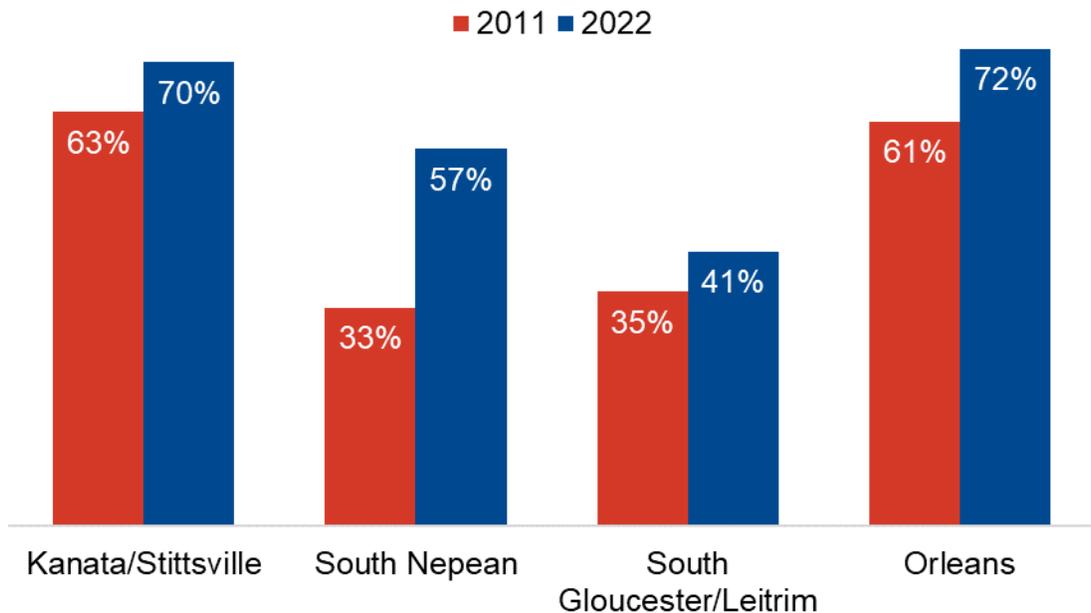
This is a notable departure from the historical trend of trips increasing with population.

Exhibit 2: Daily Trip Rates by Purpose per Capita (2011-2022)



Trips were shorter in 2022, with the median trip distance dropping from 4.4 km to 3.4 km. This trend reflects the reduction in work trips, which tend to be longer than trips for other purposes. Trips were also more localized, as shown in Exhibit 3. In particular, there was a significant increase in “internal trips” starting and ending in the same community. This is especially true in Ottawa’s suburban communities of Orléans, Kanata/Stittsville, and South Nepean (Barrhaven), indicating that these communities are becoming more “complete” with a mix of residential, commercial, and other uses.

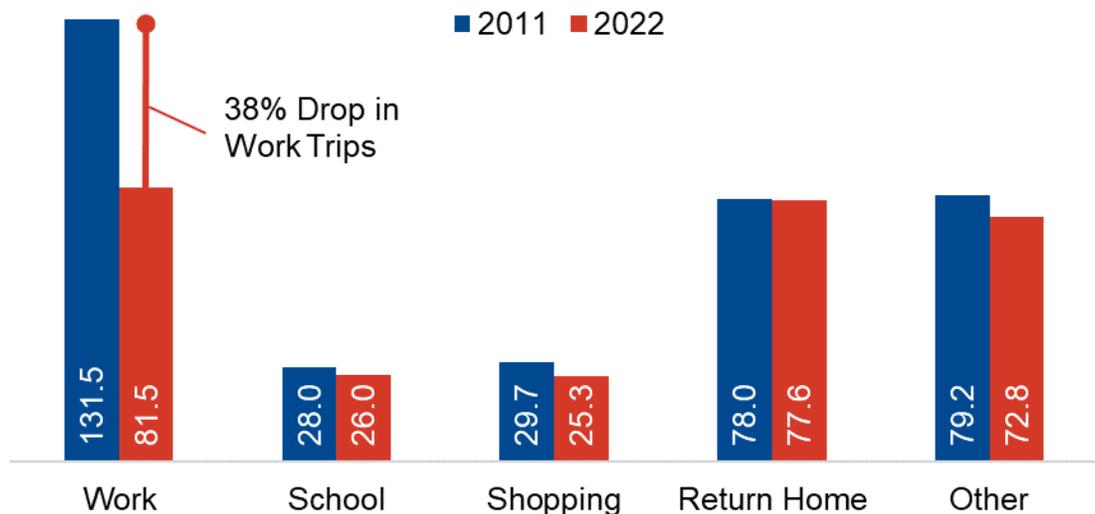
Exhibit 3: Percentage of Trips that Start and End in the Same Area



Fewer Downtown-Oriented Trips

Compared to 2011, daily trips to the downtown core have decreased dramatically due to a reduction in work trips, while trips for other purposes have remained relatively stable (Exhibit 4). Overall, daily commuting trips to the downtown core from Kanata/Stittsville, Orleans, South Gloucester/Leitrim (Riverside South/Findlay Creek) or South Nepean (Barrhaven) decreased by over 51% between 2011 and 2022. At the same time, daily commuting trips by transit from these areas dropped by almost 70%.

Exhibit 4: Daily Downtown-Oriented Trips by Purpose (Thousands, 2011-2022)



More Trips by Walking and Cycling, Fewer Trips by Transit

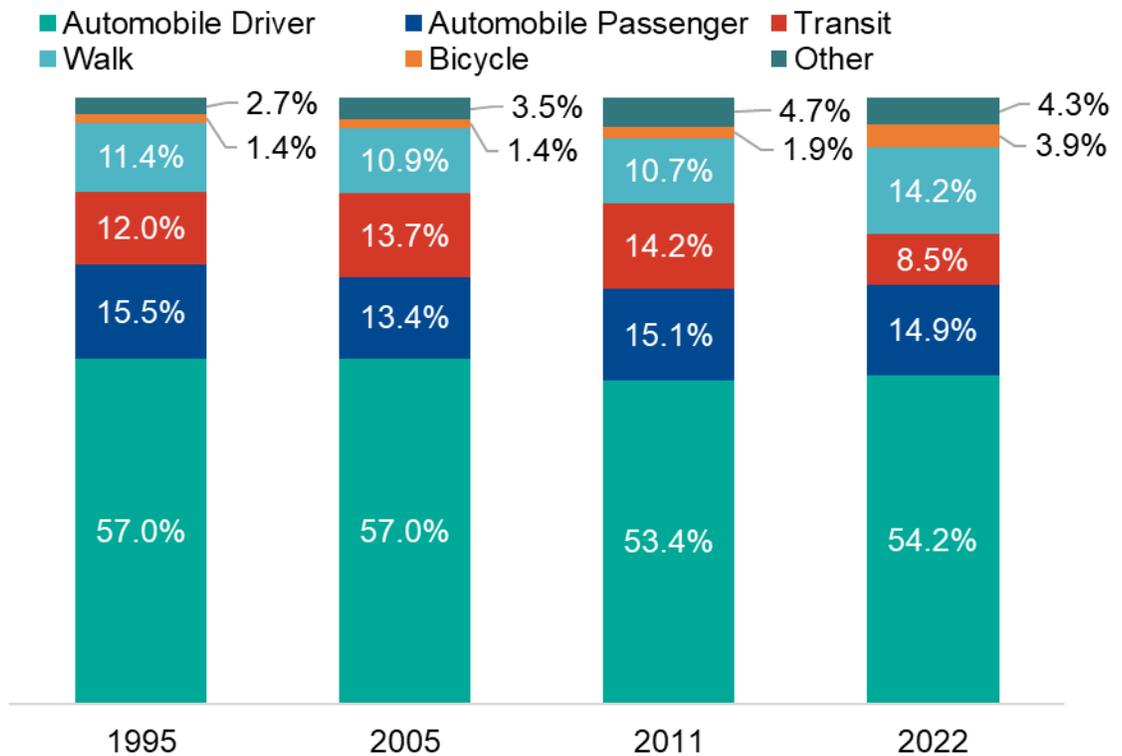
Mode share refers to the proportion of trips that are made by a particular mode of travel, such as walking, cycling, driving, and transit. Mode share is an important metric for understanding how residents’ travel behaviour has changed over time. From 2011 to 2022, there was significant growth in the active transportation (walking and cycling) mode share. This increase largely offset the decrease in the transit mode share:

- The walking mode share increased from 10.7% to 14.2%.
- The cycling mode share more than doubled from 1.9% to 3.9%.
- The transit mode share decreased from 14.2% to 8.5%.

- The driving mode share increased slightly from 53.4% to 54.2%, while the automobile passenger mode share remained stable at 15%.

Exhibit 5 further illustrates how daily mode shares have changed over time.

Exhibit 5: Daily Mode Share Over Time (1995-2022)

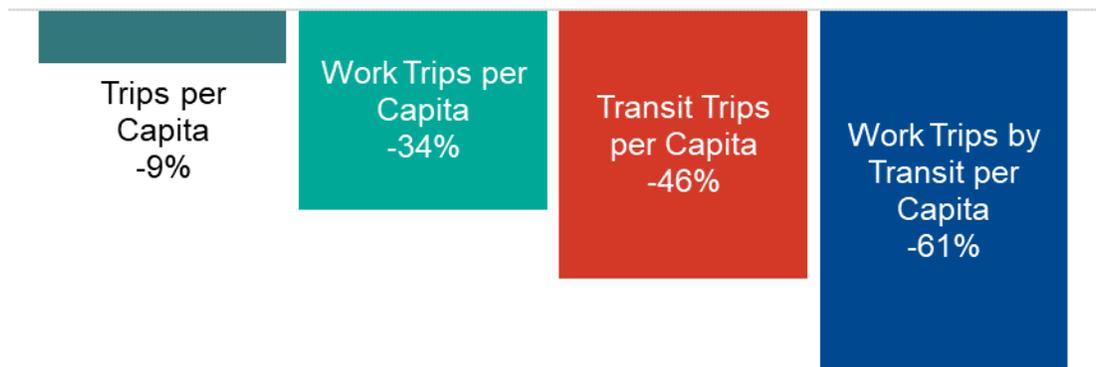


The decrease in transit mode share aligns with observed post-pandemic transit ridership trends; as of December 2023, system-wide transit ridership was still recovering, and had rebounded to about 75% of pre-pandemic levels.

The OD Survey results show that transit has been disproportionately impacted by changes in travel patterns (Exhibit 6). Many trips that had a high transit mode share are no longer occurring, by any mode (e.g. work trips to downtown). Furthermore, transit mode share has dropped for the remaining trips. This may partially be linked to hybrid work arrangements. Hybrid workers who only commute a few days a week are less likely to purchase a monthly transit pass. With infrequent work trips and without a transit pass, people are more likely to choose to drive to work, even if this

entails paying high parking costs and/or tolerating congestion. According to the 2023 Commuter Attitudes Survey (a separate survey that supports the Origin-Destination Survey), 73% of commuters who shifted away from public transit following the pandemic are now commuting by driving, while another 8 to 9% have shifted to walking, cycling and carpooling, respectively.

Exhibit 6: Change in Daily Trips per Capita (2011-2022)



Geographic, Socio-Economic and Demographic Trends

Travel patterns are closely tied to factors such as geography, income, age, and gender. Key results include the following:

- Trips starting in the downtown core and inner urban areas have the highest walking, cycling and transit mode shares, while trips starting in the suburbs and rural areas have the highest auto mode shares (refer to Exhibit 7).
- People living in lower income households are more likely to use transit and to make longer duration trips (see Exhibit 8).
- Youth have very high usage of transit as well as active modes of travel (refer to Exhibit 9). Starting in the 61 to 70 age bracket, the share of passenger trips and walking trips increases relative to driving.
- Males are more likely to drive than females, while females are more likely to be a passenger. Males are more likely to cycle, while females are slightly more likely to walk and use transit (see Exhibit 10).

Exhibit 7: Daily Mode Share by Trip Origin (2022)

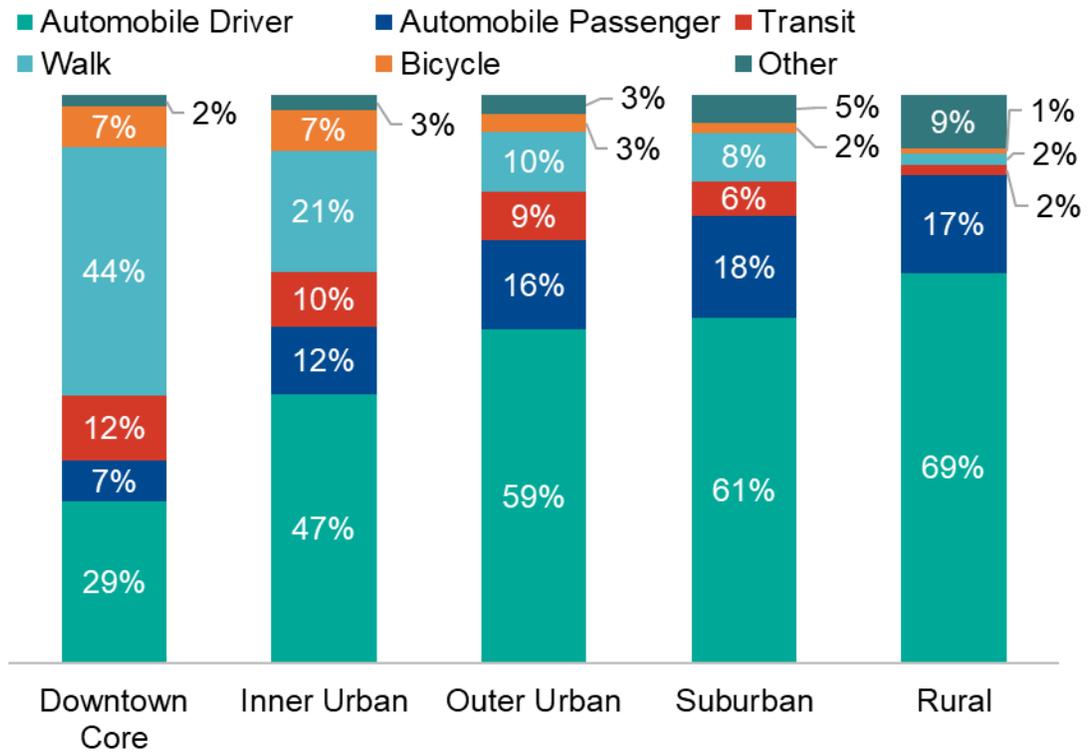


Exhibit 8: Daily Mode Share by Household Income (2022)

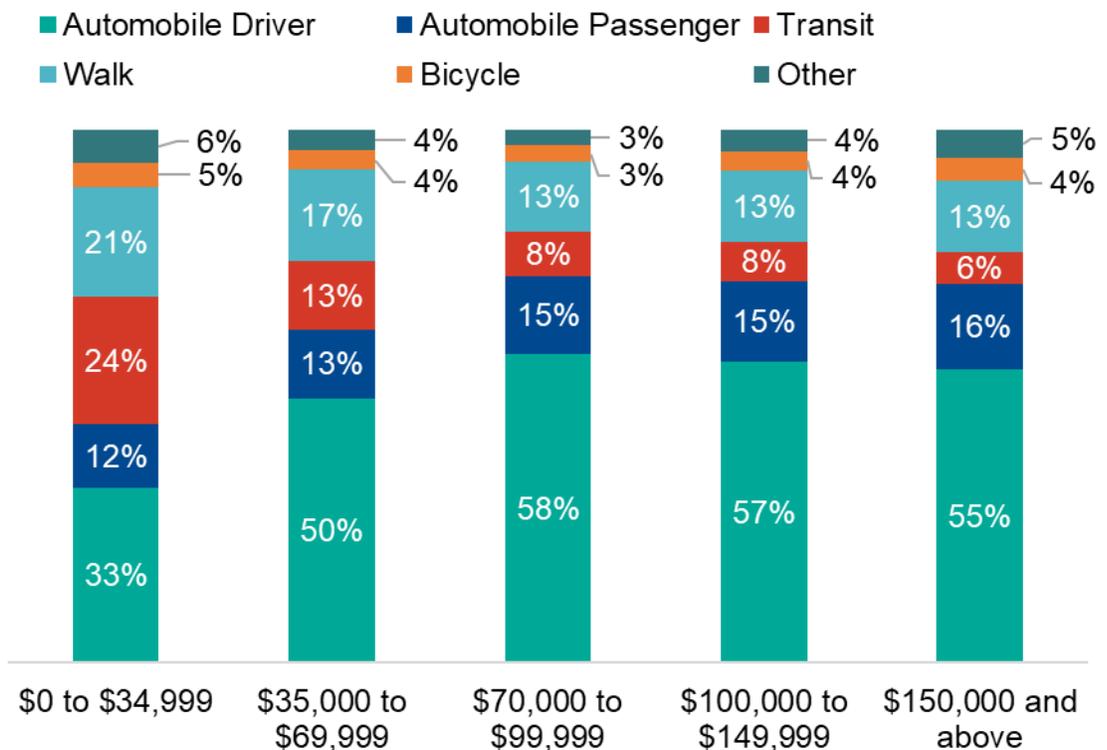


Exhibit 9: Daily Mode Share by Age (2022)

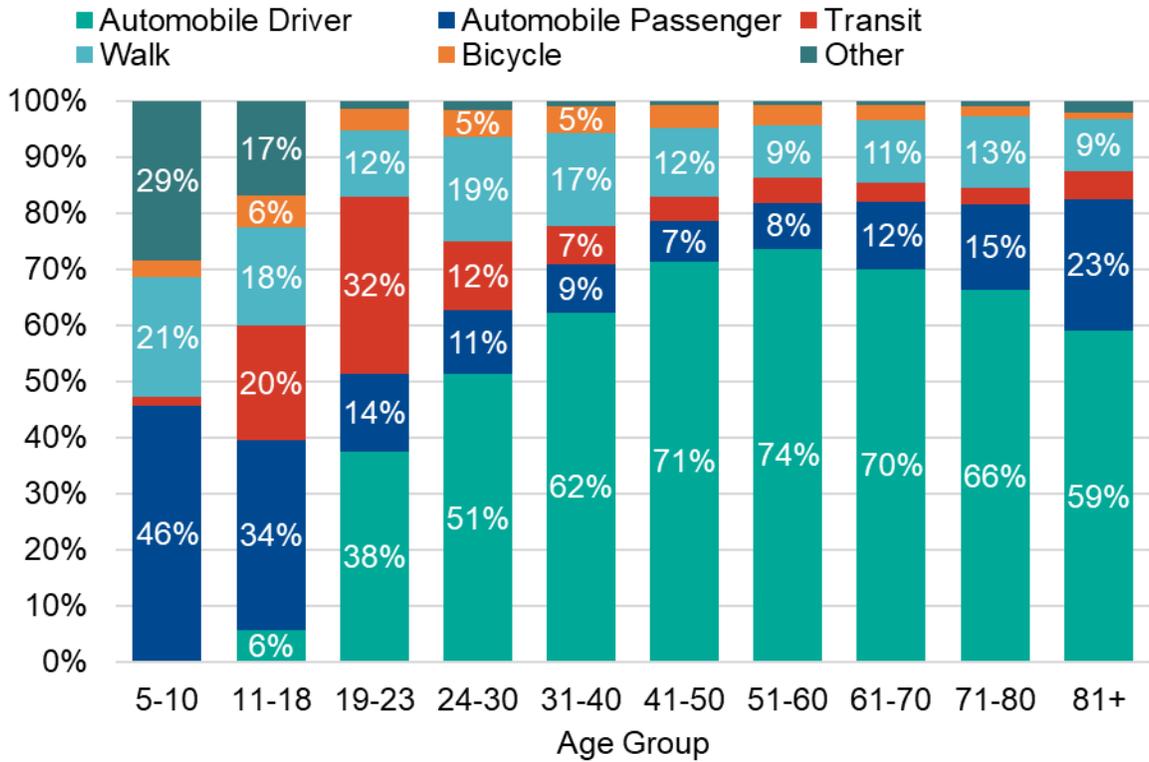
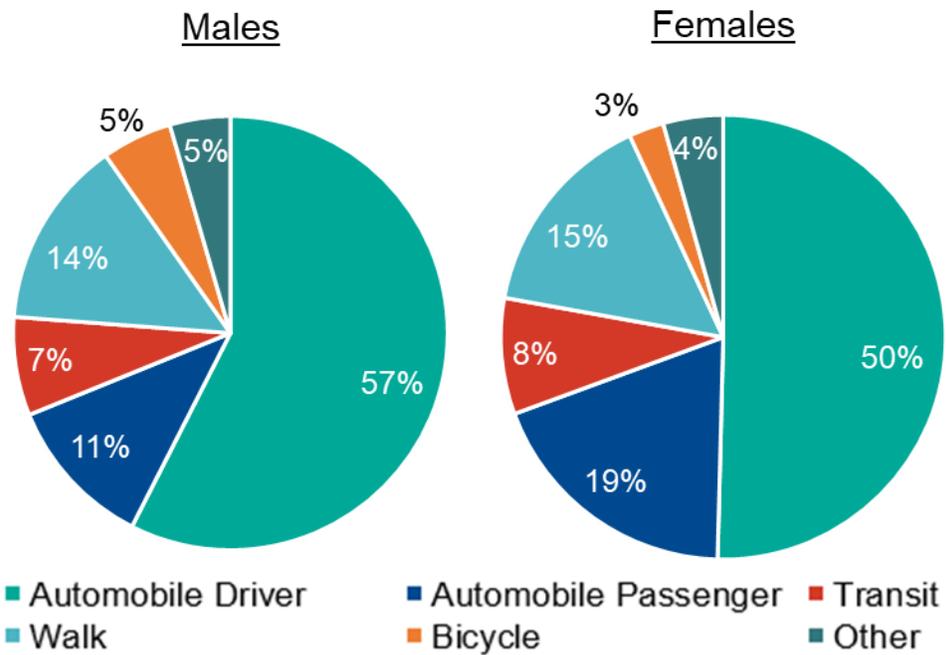


Exhibit 10: Daily Mode Share by Gender (2022)



Travel Patterns are Continuing to Evolve

The OD Survey captured travel at a specific moment in time in the fall of 2022, when travel was still transitioning from the pandemic. Since then, travel patterns have continued to evolve, including with the federal government mandating a hybrid return-to-office model in December 2022. Between fall 2022 and fall 2023, traffic crossing the Greenbelt increased by roughly 11%. Similarly, network-wide transit ridership increased by 21% between December 2022 and December 2023. Post-pandemic travel patterns will undoubtedly continue to evolve in the coming months and years; and it is important to consider these changes in the development of the City's Transportation Master Plan.

Next Steps

The fall 2022 OD data provides a valuable snapshot of post-pandemic travel in Ottawa. Recognizing that travel behaviour is continuing to evolve, the TMP Capital Infrastructure Plan will incorporate data from the 2022 OD survey; it will also reflect changes in commuting since then as well as anticipated future changes.

In the coming months, work will continue to develop the TMP Capital Infrastructure Plan. This will include finalizing the TRANS travel forecasting model; assessing future travel demand; and identifying a more detailed set of transportation needs (e.g. specific corridors / routes where congestion or bus delays are expected to be significant, or where additional road / transit capacity is needed to accommodate growth), considering the results of public engagement as well as technical analysis. The TMP team will then identify and screen transit and road projects; update the City's transportation networks; prioritize projects; and develop investment scenarios considering affordability as well as the City's mode shift objectives and climate change targets.