

City of Ottawa Commuter Attitudes Survey

Final Report

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City of Ottawa**

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EXECUTIVE SUMMARY

The City of Ottawa commissioned R.A. Malatest & Associates Ltd. (the Consultant) to conduct a survey with Ottawa residents to learn more about their preferred mode for commuting, their experiences with that mode during their commutes, and their perceptions of alternatives.

In total, 1245 surveys were conducted. In order to better understand the commuter experience from residents in differing parts of the city, roughly equal shares of surveys were completed by residents of the inner city, the inner suburbs (i.e., inside the Greenbelt), and the outer suburbs (i.e., outside the Greenbelt).

Ottawa's Commuters

- Most respondents (61%) commuted primarily by driving. Others primarily took public transit (23%), cycled (9%) or walked (6%). Considering not only the most common mode of commuting, but also occasional (or secondary modes) as well, 83% of respondents drove, 40% took public transit, 16% cycled and 12% walked at least occasionally while commuting.
- Cyclists and pedestrians are the most satisfied with their chosen mode of commuting compared to other commuters.

Walking in Ottawa

- Sidewalks are important to respondents: most respondents said they should be provided on one or both sides of residential streets and even more agreed the same for busier roads.
- Those who primarily commute by bike, by public transit and by car reported that they do not walk mostly due to the distance and the time it would take to get to their destination.
- Most pedestrians have access to a motor vehicle; the main reason pedestrians walk is for health and exercise.
- Pedestrians walk during most seasons, but less chose to walk during the winter.

Cycling in Ottawa

- Roughly one in ten respondents are comfortable cycling among city traffic. The remaining groups: those who do not cycle; those who are interested in cycling but have concerns; and those who cycle but prefer bike lanes are roughly the same size.
- The majority of cyclists did report feeling more comfortable cycling on streets designated as bicycle routes.
- Since almost all cyclists have access to a motor vehicle, they are not cycling for lack of choice. In fact, cyclists are more likely to come from higher income households. The main reason for cycling is for health and exercise.
- 7% of cyclist commuters bicycle year round.
- Two thirds of cyclists have adequate facilities like showers and change rooms at their destination location and this was an important factor in their decision to cycle.

Driving in Ottawa

- Those who travel by motorized vehicle (including lone drivers, passengers, motorcyclists, and carpoolers) most frequently chose this mode due to travel time, comfort and convenience.
- Most drivers do not pay for parking but most of these respondents would still drive if parking was at a cost.
- Most carpoolers travel with family. Including themselves, carpoolers travel with 2.4 people in the vehicle.

Riding Public Transit in Ottawa

- Most Ottawa residents only have to walk five minutes or less to the nearest transit stop.
- Most public transit riders chose this mode due to commuting costs and lack of affordable parking.
- Public transit commuters are using available technological resources to obtain transit information: survey respondents most commonly reported that they looked up routes and schedules online or using an application on their smartphone.

Program Recognition

- More respondents have heard of *Bike to Work Month* or *Sustainable Transportation Week* than *Ottawa on the Move*.
- Radio was most often mentioned by respondents as to how they had heard about *Ottawa on the Move* and *Bike to Work Month* or *Sustainable Transportation Week*. For the latter, the workplace was also often mentioned as the source of information.
- Of the respondents who had heard of either *Bike to Work Month* or *Sustainable Transportation Week*, 22% reported having participated in one of these programs.

SECTION 1: PROJECT BACKGROUND

In order to understand how and when residents commute within the region, the City of Ottawa periodically collects information on the travel patterns of its residents. This information is crucial to transportation planning and other municipal decisions. This information also has to be current as recent research has shown just how quickly transportation patterns change over time. A 2011 study of National Capital Region residents found that trips¹ made by public transit had increased by 9% since 2005 and trips by bicycle had increased by 40%.² Equally important to understanding how city residents commute is gaining an understanding of why they chose their preferred mode of transportation and their attitudes toward other modes. Understanding their attitudes may be as important as measuring behaviour in terms of predicting future traffic patterns and the potential for encouraging greater use of alternate, healthy and sustainable modes.

The City of Ottawa commissioned R.A. Malatest & Associates Ltd. (the Consultant) to conduct a survey with Ottawa residents to learn more about their preferred mode for commuting, their experiences with that mode during their commutes, and their perceptions of alternatives. The focus of this study is strictly trips for the purpose of school, work or volunteering (i.e., commutes completed on a regular basis). The purpose of the survey is to complement the current understanding of the commuting behaviors of Ottawa residents to facilitate urban planning, anticipate future needs, and support the City's attempts to promote sustainable modes of transportation. The survey also provided an opportunity to understand the attitudes of all commuters with respect to walking and cycling for consideration in updating the City's Pedestrian Plan and Cycling Plan.

Although the focus of this study is on regular commuters, this study also considered the perceptions of those that work from home.

The survey was administered between February and March 2013, during which time the Consultant conducted a total of 1245 surveys. Most respondents completed the survey via telephone. Some respondents preferred to complete the survey online at a time more convenient for them.

In order to better understand the commuter experience from residents in differing parts of the city, a sufficient number of surveys were completed by residents of differing areas of Ottawa. As a result 400 of the completed surveys come from inner city residents, 443 from the inner suburbs (i.e., inside the Greenbelt), and 402 from the outer suburbs (i.e., outside the Greenbelt). These areas are described further below.

¹ This includes trips for all purposes including personal and work related trips.

² 2011 TRANS Origin Destination Survey. TRANS Committee. http://www.ncr-trans-rcn.ca/uploadedFiles/ODSurvey/ODTravelsurvey_Brochure_en.pdf

SECTION 2: SAMPLING AND SURVEY APPROACH

The following section describes the activities and approach undertaken by R.A. Malatest & Associates Ltd. for the City of Ottawa Commuter Attitudes Survey.

2.1 Sampling Three Areas of the City

R.A. Malatest & Associates obtained an initial sample containing 24,000 records from a reputable supplier of phone listings³ that were defined as *Ottawa-Gatineau CMA (Ontario only)*. The Consultant then purged records from surrounding boroughs that were deemed outside the scope of the project.⁴ Although some residents in these boroughs do commute into Ottawa, they are considered outside of city lines and therefore out of scope for this study.

R.A. Malatest & Associates used the first three digits of the postal code contained in the phone records to stratify the sample into the three areas: inner city, inner suburbs, and outer suburbs. Using these postal codes, 16% of the initial sample was categorized as inner city, 45% as inner suburbs and 39% as outer suburbs. More information about how the sample was stratified into the three areas of the city, including a map, is presented in Appendix C. Figure 2.1.1 below summarizes the neighbourhoods contained in each of the three areas and their proportion of the sample.

Figure 2.1.1 – Example Neighbourhoods Included in the Three Sampling Areas

Area	% of Sample	Example neighbourhoods
Inner City	16%	Centretown
		Glebe
		Vanier
		Little Italy
		Hintonburg
Inner Suburbs	45%	Beacon Hill
		Alta Vista
		Hunt Club
		Nepean
Outer Suburbs	39%	Orleans
		Barrhaven
		Kanata
		Stittsville

³ R.A. Malatest & Associates Ltd. regularly develops their samples using records from a database maintained by ASDE. ASDE is a Quebec-based supplier of this kind of information with over 18 years of experience. ASDE builds its Canada-wide general population sample from published lists of telephone records. See www.surveysampler.com.

⁴ Records were excluded from the surrounding boroughs of: Casselman, Carleton Place, Embrun, Kars, Kemptville, Rockland, Russell and Winchester.

During the survey, respondents were asked to provide the first three digits of their postal code. In most cases, their responses confirmed the postal codes that were attached to the phone records. However, in some cases a different postal code was provided and as a result, some records were actually in a different part of the city than what was expected (For instance, the respondent may have recently moved, keeping the same phone number, but changing postal codes). These changes produced a net effect of locating more completed surveys in the inner suburbs that was expected. Data collection continued until a minimum of 400 completes was attained in all three areas.

However, the number of completed surveys in each area does not represent the actual population proportion of that area. Therefore when the data would be presented at the municipal level, the findings would be the result of an uneven distribution of data points. To be more specific, when you consider the actual population, the data would have too many data points in inner city and not enough data points in the other two areas.

To address this issue, the data presented in this report has been weighted (unless otherwise stipulated). This was achieved by estimating the population proportion for each area of the city based on the analysis of the original sample detailed above. For instance, the population of the inner city was estimated to be 16% as this was the proportion of records defined as inner city in the original sample (based on postal codes).⁵ As such, the data are weighted to bring down the amount that the inner city contributes to the total, while increasing the amounts that the inner suburbs and outer suburbs contribute. The implemented weighting scheme is summarized in Figure 2.1.2 below.

Figure 2.1.2 – Weighting Scheme

Area	Estimated Proportion of Metropolitan Population (based on sample)	Surveys Completed	Distribution of Surveys	Weighting factor	Weighted Survey Data
Inner City	16%	400	32%	0.51	203
Inner Suburbs	45%	443	36%	1.26	557
Outer Suburbs	39%	402	32%	1.20	484
Total	100%	1245	100%	-	1245

⁵ Prior to completing this report, the population estimates for the three areas of the city used for weighting were confirmed by comparing these estimates to estimates based on traffic zone data provided the City of Ottawa. This was accomplished by understanding the traffic zones that are located in each postal code and summing up the traffic zone population counts to estimate a postal code population count. The resulting proportions are quite similar. For instance, the estimate of the population proportion of the inner city based on the sample was 16.3%. The estimate of the proportion of Ottawa workers and students aged 16-65 living in the inner city based on traffic zone data was 17.8%.

2.2 Developing the Survey Questionnaire

The Consultant worked with the City of Ottawa to finalize the survey questionnaire. The Consultant reviewed a draft of the questionnaire to ensure that its structure, question order and wording were conducive to both a telephone and an online survey.

Once finalized, the Consultant programmed the survey questionnaire for telephone (CATI) and online (CAWI) administration in both French and English. Programming was extensively tested internally by the Consultant as well as by the City of Ottawa.

2.3 Administering the Survey

During the data collection phase, the Consultant first pre-tested the survey with 58 randomly selected cases. The pre-test confirmed that the survey flowed well and that the respondents understood the questions. Some respondents even remarked that they were happy to help the City of Ottawa shape its future commuter strategies. Following the pre-test, the Consultant launched full survey administration.

Data were collected during evenings and on weekends in February and March 2013. All interviewers conducting the surveys were trained to ensure their understanding of the nature of the research and the survey instrument, including key concepts and definitions. Interviewers were able to offer potential respondents access to an online version if that was more convenient to the respondent.

2.4 Analyzing Data and Reporting Results

Once the data collection was complete, the Consultant cleaned the data and compiled it into a SPSS database for analysis. To protect anonymity, the Consultant removed all indentifying fields from the database (name, address, phone number), but included the postal code, language of survey completion, and the results of the demographic questions.

The current report presents the results of the analysis of data from the City of Ottawa Commuter Attitudes Survey. The results presented below are weighted, with the exception of data that is presented by area, which is presented unweighted (i.e., the total column is weighted while the columns responding to the three areas are not). These results are intended to be the starting point of analyzing the results of the study, rather than a conclusion. It is hoped that many other analyses will be performed on this data over the coming years to fully understand the factors behind commuter attitudes and behaviours. To that end, the database (again with all indentifying fields removed) has been provided to the City of Ottawa for continued analysis.

SECTION 3: COMMUTERS IN OTTAWA

The following section provides an overview of the city's commuters and their preferred means of travel.

3.1 Destination of Ottawa Commuters

The majority of the respondents of the 2013 Commuter Attitudes Survey are part of the city's workforce (87% reported that they were employed). The remaining were volunteers (8%) and students (6%). It is recognized that these groups, in many cases, are not mutually exclusive. For the purposes of this survey, respondents were asked to select the group that best described their situation. Figure 3.1.1 summarizes respondent occupation by area of the city.

Figure 3.1.1 – Commuter Groups by Area

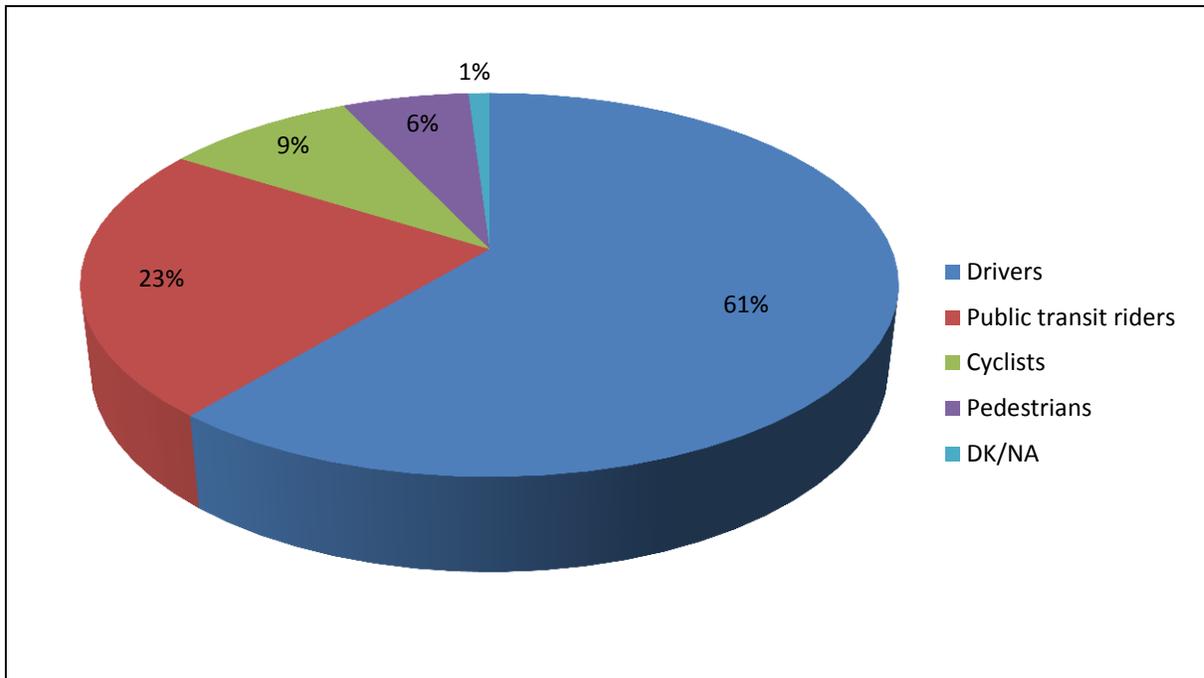
	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Work	87%	82%	87%	88%
Volunteer	8%	12%	9%	5%
School	6%	6%	4%	7%
Total	100%	100%	100%	100%

A small proportion of survey respondents reported that they worked from home as either telecommuters or a home-based business (3%). These respondents were not asked about their commuting habits but did answer questions about their attitudes on walking and cycling, program recognition and were also asked a series questions with respect to home workers.

3.2 Modes of Transportation

Drivers, whether alone or in a carpool, make up most of the commuting population. When asked how they most frequently traveled to their work, school or volunteering location, 61% of respondents indicated that it was by personal motorized vehicle. Figure 3.2.1 demonstrates that public transit (including OC Transpo, Para transpo, Société de transport de l'Outaouais (STO) and private bus services) was the second most common mode of commuting (23%) followed by bicycle (9%) and pedestrian modes (including walking, jogging, skateboarding, inline skating, and commuting by wheelchair) (6%).

Figure 3.2.1 – Commuter Distribution by Primary Mode



n=1198

There is some minor variation with respect to the respondent's chosen primary mode and their household income. Fewer respondents with a household income of less than \$30,000 drive compared to other modes (3% who drive versus 12% who ride public transit, 9% who walk and 4% who cycle). This result is likely driven by financial capacity to afford commuting by car. Other results show less correlation between mode and household income. However, as presented in figure 3.2.2, respondents from households with an income of over \$210,000 are more likely to commute by bicycle (13%) than any other income bracket.

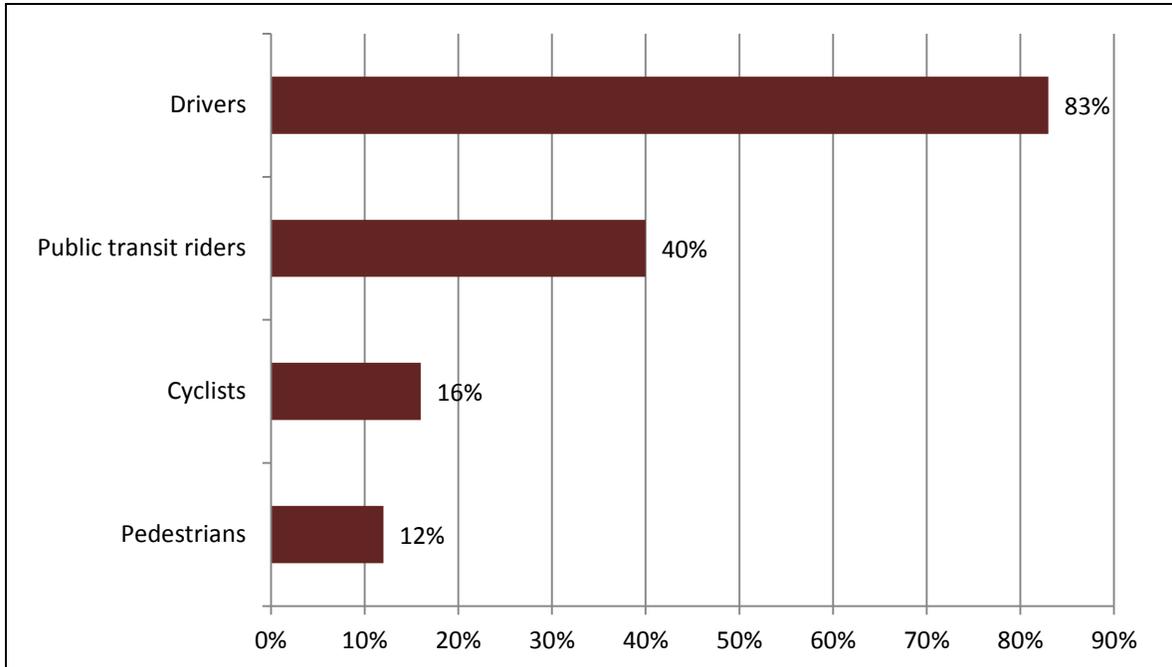
Figure 3.2.2 – Primary Commuting Mode by Household Income

	Total	Driving (alone or with carpool)	Public transit	Bicycle	Pedestrian
	n= 1198	n=684	n=263	n=135	n=100
Less than \$30,000	5%	3%	12%	4%	9%
\$30,000 to \$89,999	26%	25%	29%	25%	36%
\$90,000 to \$149,999	32%	32%	31%	31%	34%
\$150,000 to \$209,999	13%	14%	10%	14%	5%
More than \$210,000	8%	9%	3%	13%	6%
Do not know	15%	16%	15%	13%	9%
	100%	100%	100%	100%	100%

Other (n=7) and Don't know (n=9) were excluded from the columns.

After respondents were asked about their most frequent (primary) mode of transport, they were also asked if they occasionally commuted using another mode (secondary). When considering both primary and secondary modes of commuting the order of popularity remains the same but the proportions increase as presented in figure 3.2.3 below.

Figure 3.2.3 – Commuter Distribution by Primary and Secondary Mode



n=1198

Considering primary and secondary modes of commuting, 83% of respondents drive, 40% take public transit, 16% cycle and 12% walk. Considering both the primary and secondary modes provides a broader picture of how Ottawans commute and what their chosen alternative modes of transportation are, however, the incidence of use for the secondary mode is not measured and varies by respondent.

Respondents commute an average of 4.7 days per week with their commute taking on average 29 minutes. These results are similar to the latest data from Statistics Canada on commuting in Canada where it is reported that the average commuting time is 27 minutes for Ottawa residents.⁶ Average commuting times by area are presented in figure 3.2.4 below.

Figure 3.2.4 – Average Commuting Times by Area (Minutes)

Total	Inner city	Inner suburbs	Outer suburbs
n=1187	n=373	n=428	n=386
29	23	27	33

As expected, the average commuting time is greater for residents of the outer suburbs (33 minutes) compared to the inner suburbs (27 minutes) and inner city (23 minutes). Commuting times also fluctuate by mode of transportation. Some of these commuting averages also mirror the national results of the Statistics Canada Study as summarized in figure 3.2.5 below.

⁶ Statistics Canada. General Social Survey. www.statcan.gc.ca/pub/11-008-x/2011002/t/11531/tbl001-eng.htm

Figure 3.2.5 – Average Commuting Times by Mode of Transportation (Minutes)

	2010 Statistics Canada Results (National)	2013 Commuter Survey (Ottawa) (n=1187)
Car or private vehicle	24	26
Public transit	44	40
Walking or cycling	14	24

Commuting times by car and public transit are similar in Ottawa compared to Canada overall. There is, however, a meaningful difference in the average time spent walking or cycling in Ottawa compared to nationwide, with Ottawa cyclists and pedestrians spending a longer time commuting.

3.3 Satisfaction with Commute

Overall, Ottawa commuters are satisfied with their primary mode of commuting. Although results indicate a high level of satisfaction with all modes, cyclists and pedestrians reported the greatest satisfaction. Public transit riders were the least satisfied group. However, even amongst this least satisfied group, more public transit riders were satisfied than dissatisfied (See Figure 3.3.1 below).

Figure 3.3.1 – Satisfaction with Commute by Mode

	Total	Pedestrians	Cyclists	Drivers	Public transit riders	Other and DK
	n=1181	n=99	n=134	n=681	n=266	n=1
Very satisfied	52%	78%	72%	54%	30%	0%
Somewhat satisfied	38%	19%	26%	36%	53%	0%
Not very satisfied	7%	1%	2%	7%	12%	0%
Not at all satisfied	3%	0%	0%	2%	5%	0%
Don't know/No answer	1%	1%	0%	0%	0%	100%
Total	100%	100%	100%	100%	100%	100%

SECTION 4: COMMUTING MODES

The following section presents results pertaining to each mode of commute and attitudes about these modes.

4.1 Walking

The following section presents survey results related to walking and includes attitudes about walking expressed by all respondents, a profile of primary pedestrians and habits and opinions of respondents who commute by foot, either as a primary or secondary means of transportation.

4.1.1 Attitudes about Walking

All survey participants⁷ were asked a series of questions to explore perceptions around walking. Regardless of whether they commuted by foot, the average maximum distance that respondents would consider traveling by this mode was 25 minutes or 3.4 kilometres. The fact that the commute for many Ottawans is significantly greater than 3.4 kilometres does limit the number of walking commuters in the city. For example, those who primarily commute by bike, by public transit and by car reported that they do not walk mostly due to the distance (70%, 92% and 82% respectively) and the time it would take to get to their destination (35%, 15% and 18% respectively).

For almost all respondents (92%), sidewalks and pathways are important in making the decision to commute by walking. The vast majority (88%) of commuters felt that a sidewalk should be provided on one or both sides of residential streets. Attitudes about the requirement of sidewalks did vary depending on the respondent's area. A greater proportion of inner city residents (67%) indicated that sidewalks on both sides were necessary on local residential streets compared to inner (32%) and outer suburb (25%) residents. This is likely due to a larger volume of traffic on inner city streets, even those which are residential. However, the majority of all respondents agreed that sidewalks on busier roads should be provided on both sides of the street (88%). Figure 4.1.1 below further summarizes these results.

Attitudes regarding sidewalks likely stem from the need to feel safe as a pedestrian. Safety at crosswalks was also explored as respondents were asked what would make them feel safer when crossing an intersection. Most respondents reported that improved pedestrian signals such as a countdown timer display (48%) or more time to get across before the traffic light changes (34%) would make them feel safer.

⁷ Respondents who reported working from home were not asked about the maximum time or distance they would travel by foot and how important sidewalks were in that decision.

Figure 4.1.1 – Attitudes about Sidewalks

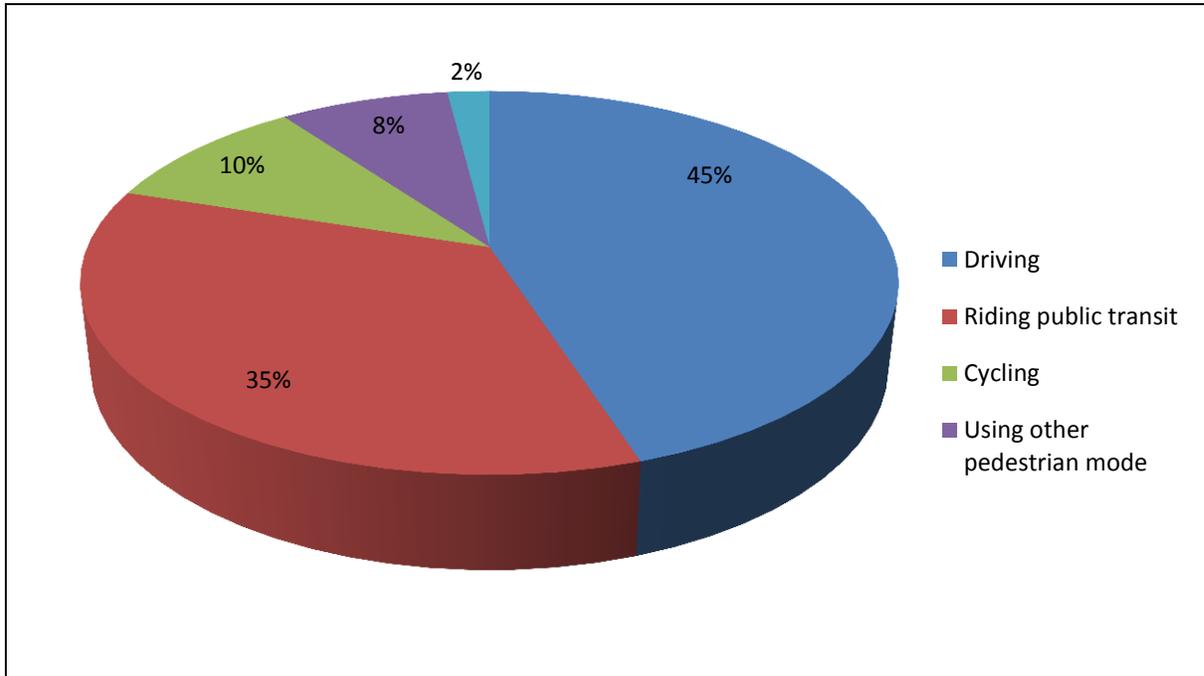
Attitudes about sidewalks on local residential streets	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Sidewalks should be provided on both sides	35%	67%	32%	25%
Sidewalks should be provided on one side only	53%	29%	55%	61%
Sidewalks are not necessary	11%	3%	12%	13%
Do not know/no answer	1%	1%	1%	1%
Total	100%	100%	100%	100%
Attitudes about sidewalks on busier roads	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Sidewalks should be provided on both sides	88%	92%	88%	85%
Sidewalks should be provided on one side only	11%	6%	11%	13%
Sidewalks are not necessary	1%	%	1%	1%
Do not know/no answer	1%	1%	1%	%
Total	100%	100%	100%	100%

4.1.2 Pedestrian Profile – Reasons for Walking

A modest number of Ottawa commuters (6% of respondents) chose walking as their primary means of transportation to work, school or volunteering. Considering occasional pedestrians, 12% of respondents consider walking as their primary or secondary commuting mode.

Most primary pedestrians do have other options for their commute. In fact, 69% of primary pedestrians have access to a motor vehicle. However, even when they do not walk for their commute, the majority still opt for other means of transport. For example, while 45% of pedestrians did report driving as a secondary mode of commuting, the remaining 55% identified other modes. Figure 4.1.2 presents how pedestrians commute when they are not walking. Of note is the 8% of pedestrians that identified another pedestrian mode as an alternative to walking (e.g., jogging, rollerblading, skateboarding etc.).

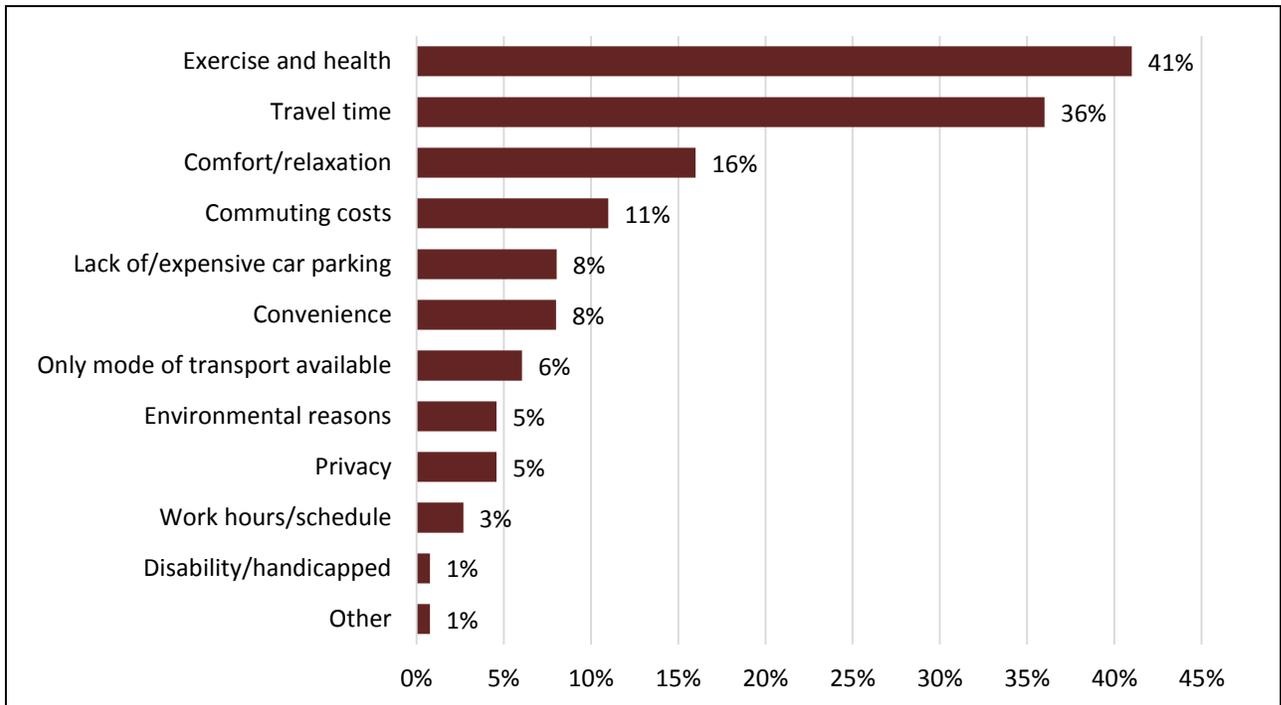
Figure 4.1.2 – Alternate Commuting Modes Used by Pedestrians



n=49

When asked why they chose to commute by foot, pedestrians most often reported it was for exercise and health (41%) and due to the travel time (36%). Figure 4.1.3 illustrates other common reasons for walking as a means of commuting.

Figure 4.1.3 – Reasons for Being a Primary Pedestrian



Percentage sums may be greater than 100% as respondents were able to select more than one response
n=99

4.1.3 Exploring Habits of Primary and Secondary Pedestrians

Although most pedestrians described their commute as being along sidewalks (73%) or pathways (14%), 9% of pedestrian commuters used neither sidewalks nor pathways and walked along the side of roads or on their shoulders. Figure 4.1.4 summarizes the commute reported by pedestrian respondents.

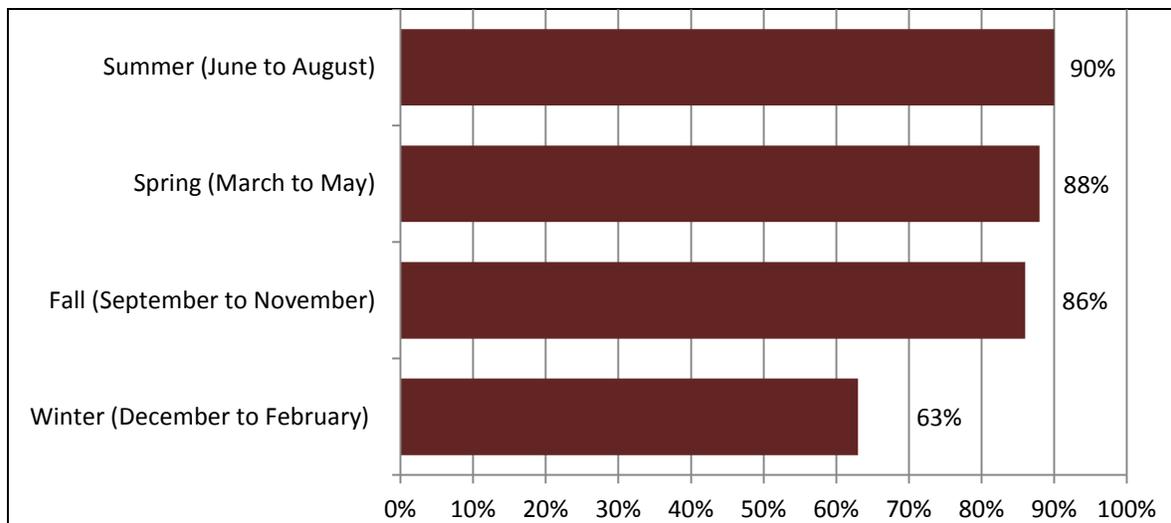
For pedestrians who chose this as their secondary means of travel, the average walking trip takes 29 minutes or is 2.96 kilometres long. The time fluctuates only slightly between areas. For example, the mean time for walking trips in the inner city is 31 minutes compared to 27 in the inner suburbs and 29 in the outer suburbs.

The incidence of walking trips is mainly affected by extreme weather as considerably less survey respondents reported walking during the winter (63%) than during other seasons. There is only a minimal decrease in the percentage of pedestrian commuters between summer and fall. The incidence of walking trip by season is demonstrated in Figure 4.1.5 below.

Figure 4.1.4 – Description of Walking Commute

	Total	Inner city	Inner suburbs	Outer suburbs
	n=182	n=129	n=40	n=13
Along sidewalks	73%	89%	51%	80%
Along pathways	14%	6%	25%	7%
Along the sides of roads without shoulders or sidewalks	7%	2%	12%	13%
Along the gravel shoulders of roadways	2%	0%	6%	0%
Other	3%	2%	6%	0%
Don't know / no answer	1%	2%	0%	0%
Total	100%	100%	100%	100%

Figure 4.1.5–Walking by Season



n=182

Respondents were asked if there were any features that encouraged them to walk to work, school or their volunteer location. Respondents did mention some common features, but as shown in Figures 4.1.6, there was no feature identified that garnered encouragement for a substantial proportion of pedestrians. Most commonly, respondents indicated that none of the design features listed encouraged them to walk (48%). The next most common response was for separation from traffic (17%). Rather this result shows that for the most part, other factors have played into Ottawans' minds when considering commuting by foot.

Figure 4.1.6 – Encouraging Pedestrian Design Features

		Total	Inner city	Inner suburbs	Outer suburbs
		n=182	n=129	n=40	n=13
	None of the above	48%	49%	45%	54%
Separation from:	Vehicular traffic (cars and trucks)	17%	19%	15%	15%
	Cyclists	7%	7%	8%	8%
Type of survey	Gravel/natural surface	6%	2%	10%	8%
	Asphalt pavement	7%	8%	3%	15%
	Concrete	10%	6%	13%	15%
	Quality of surface (flat, smooth)	14%	13%	15%	15%
Street crossings with:	Pedestrian signals/all stop phases for traffic	16%	16%	18%	8%
	Count-down timers	10%	10%	8%	15%
	Mid-street pedestrian refuges	1%	1%	0%	8%
Landscaping	Buffers	6%	4%	3%	23%
	Tree canopies	6%	5%	5%	15%
Amenities	Lighting	9%	8%	10%	8%
	Seating	1%	2%	0%	0%
	Trip end facilities (change-rooms, showers)	1%	0%	0%	8%
Other	Pedestrian bridges/underpasses	4%	5%	0%	8%
	Exercise/health	3%	2%	3%	8%
	Convenience	3%	2%	5%	0%

Percentage sums may be greater than 100% as respondents were able to select more than one response

While pedestrians were not encouraged by particular design features, they were more able to suggest areas for further improvement. Overall, pedestrians felt that clearing the snow from sidewalks and pathways needs improvement more than any other issue. Other improvements identified included removing snow from intersections and fixing uneven pavement. However, a relatively large proportion of respondents (28%) also reported that no improvements were needed. Figure 4.1.7 summarizes the areas that respondents selected as requiring improvements, overall and by area.

Figure 4.1.7 – General Maintenance, Design or Enforcement Issues to Improve

	Total	Inner city	Inner suburbs	Outer suburbs
	n=182	n=129	n=40	n=13
Snowplowing	32%	35%	25%	38%
Removing snow from corners and intersections	21%	20%	25%	15%
Uneven pavement surface	20%	19%	23%	15%
Sanding/salting for ice	15%	19%	13%	8%
Sidewalk cycling	10%	8%	13%	15%
Obstructions (such as sandwich board advertising)	6%	6%	8%	0%
Enforcement of vehicle traffic laws	6%	9%	3%	0%
Lack of lighting	5%	5%	5%	0%
Lack of sidewalk/access	5%	6%	3%	8%
Don't know/no answer	4%	4%	3%	8%
Drainage/puddle issues	2%	2%	3%	0%
Lack of pavement markings/signage	1%	1%	3%	0%
Enforcement of bylaws	1%	2%	0%	0%
Other	1%	0%	3%	0%
None of the above	28%	23%	33%	31%

Percentage sums may be greater than 100% as respondents were able to select more than one response

4.2 **Bicycling**

The following section presents survey results related to biking expressed by all respondents, a profile of primary cyclists and habits and opinions of respondents who commute by bike, either as a primary or secondary means of transportation.

4.2.1 Attitudes about Cycling

All survey respondents were asked a series of questions on attitudes and behaviour with respect to cycling. The first question served to categorize Ottawa citizens into four cycling types:

- Those who do not cycle;
- Those who are interested in cycling but have concerns;
- Those who cycle but prefer bike lanes; and
- Those who are comfortable cycling among city traffic.

This latter type represents the smallest category of cyclist with 9% of respondents identifying themselves in this manner and this group is consistently distributed among the three areas of

the city. There is some variance in the other types of cyclists by area (See Figure 4.2.1). For example, a larger proportion of residents in the outer suburbs are not interested in cycling than in the other areas. Also, the inner city residents are more likely than residents in other areas to be comfortable in traffic, but prefer using bike lines.

Figure 4.2.1 – Categories of Cyclists

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Don't cycle now and not interested in starting	33%	24%	29%	41%
Interested in cycling more but concerned about traffic and safety, waiting for more bike lanes or off-road paths	33%	26%	38%	31%
Comfortable in traffic but prefer bike lanes and like using segregated facilities	26%	42%	25%	19%
Comfortable cycling with traffic; roads fine as they are and somewhat dislike segregated facilities	9%	9%	8%	9%
Total	100%	100%	100%	100%

Survey respondents were asked how frequently they commuted via cycling between April and November 2012. Only 3% of respondents indicated that they always commute to work by this mode and the largest proportion of respondents indicated that they never commuted by bike (78%) including most outer suburb residents (90%). Figure 4.2.2 presents the frequency in which residents commute by bike, overall and by area.

Figure 4.2.2 – Frequency of Bike Commuting (Between April and November 2012)

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1220	n=385	n=436	n=399
Never	78%	58%	74%	90%
Occasionally	11%	18%	13%	6%
Most of the time	7%	12%	9%	3%
Always	3%	11%	3%	1%
Total	100%	100%	100%	100%

Half of the respondents (50%) who reported that they never cycled to work, school or to their volunteer commitment reported that they did not consider cycling as an option for commuting⁸.

⁸ Respondents who indicated that they don't cycle and are not interested in cycling were not asked further questions and are not included in these and following results.

Of those who did consider cycling to work, a larger proportion reside in the inner city (63%), compared to 52% of residents from the inner suburbs and 42% of residents from the outer suburbs who said they considered cycling an option for commuting.

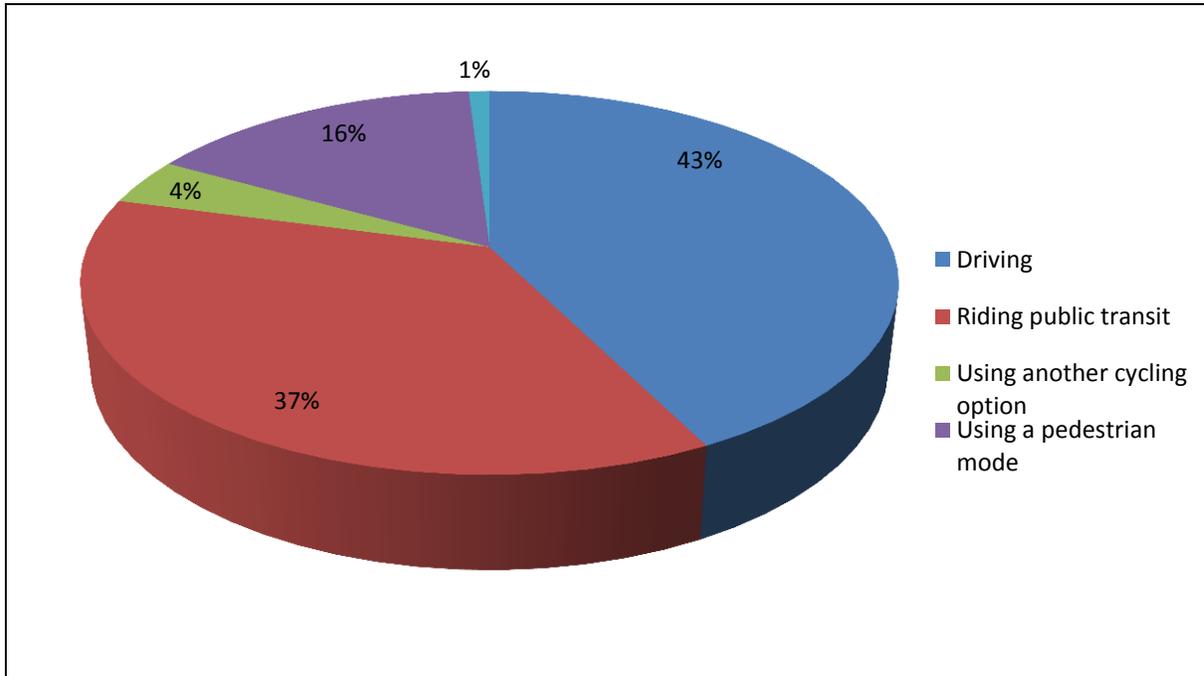
All respondents but those who previously indicated that they did not cycle and were not interested in starting were asked if they ever cycle to the nearest transit stop to take a bus; most (95%) said they did not. These respondents were asked if they would consider cycling to the nearest transit stop if secure bike storage was provided; just over one-third (38%) said they would. Lastly, when they were asked if they would consider it if the cycling route to the transit stop was safe; 50% said they would.

4.2.2 Cyclist Profile – Reasons for Cycling

As previously mentioned, 9% of respondents reported primarily commuting by this means. When those who commute by bicycle occasionally are added, 16% of Ottawa commuters are cyclists. As was the case for pedestrians, most cyclists do not bicycle to work for lack of other options. Most primary cyclists (85%) have access to a motor vehicle but choose to commute via bicycle. Most cyclists also opt not to drive when they are not able to cycle for their commute (for instance, during the winter). For example, 43% of cyclists did report commuting by car occasionally, but the remaining 57% chose an alternative and sustainable mode like public transit (37%), other cycling options⁹ (4%) or a pedestrian mode (16%). These secondary modes of travel used by cyclists are presented in figure 4.2.3 below.

⁹ Cycling related options for commuting modes included cycling to destination and back, cycling to transit station and cycling to transit station and taking bike along on transit.

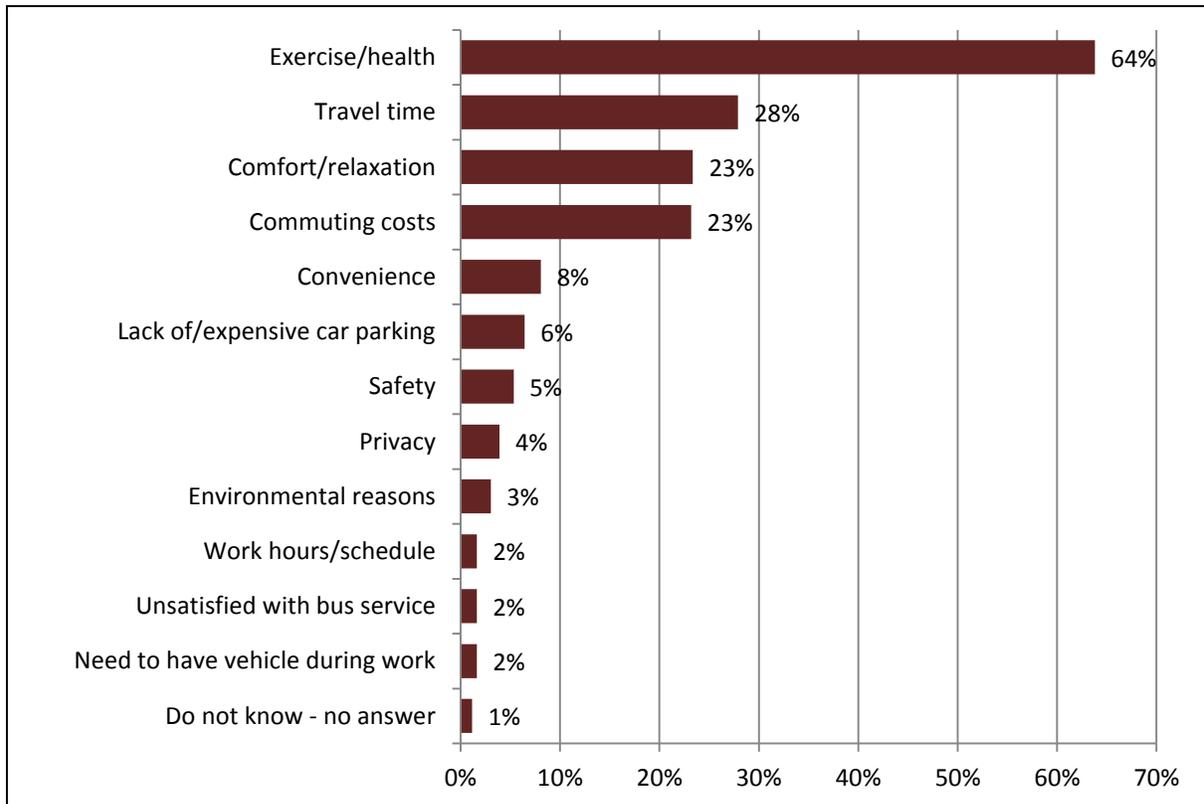
Figure 4.2.3 – Alternate Commuting Modes Used by Cyclists



n=103

The most common reason for commuting via cycling is exercise and health (64%). Figure 4.2.4 illustrates other reasons identified by respondents for cycling to work.

Figure 4.2.4 – Reasons for Primarily being a Cyclist



Percentage sums may be greater than 100% as respondents were able to select more than one response
n=134

4.2.3 Exploring Habits of Primary and Secondary Cyclists

The majority of cyclists in Ottawa (58%) have been part of this community for 5 or more years. A small proportion of cyclists in Ottawa adopted this commuting mode less than one year ago (7%). As mentioned previously, the average commuting time for cyclists is 26 minutes. The average maximum time that respondents would consider commuting by bike on a regular basis is 43 minutes or 13.5 kilometres, well above the current average.

The majority of cyclists (83%) are aware of bicycle route signs and most (71%) did report feeling more comfortable cycling on streets designated as bicycle routes. The greatest proportion of respondents reported that they did not need any special maps or signage when choosing their route (37%) (Figure 4.2.5).

Figure 4.2.5 - Signage and Maps Considered when Choosing Cycling Route

	Total	Inner city	Inner suburbs	Outer suburbs
	n=188	n=111	n=57	n=20
Cycling or trails map	35%	31%	37%	40%
Bicycle route signs	30%	35%	26%	30%
Online/portable smartphone map and directions	22%	23%	21%	20%
Directional signs to major destinations	14%	16%	9%	25%
No special help needed	37%	41%	37%	30%

Percentage sums may be greater than 100% as respondents were able to select more than one response

Further, more inner city cyclists cycle year-round (15%) than cyclists from other areas of the city. Figure 4.2.6 demonstrates that colder temperatures and the first snowfall most commonly determine the end of cycling season for most of the remaining cyclists.

Figure 4.2.6 – Indicators of the End of Cycling Season

	Total	Inner city	Inner suburbs	Outer suburbs
	n=188	n=111	n=57	n=20
The first snowfall	49%	56%	51%	30%
Colder temperatures (e.g., drops below zero degrees)	48%	36%	47%	80%
November time change (end of daylight saving time)	9%	10%	12%	0%
I cycle all year round	7%	15%	4%	0%
Beginning of October	2%	0%	4%	5%
Other	1%	2%	0%	0%

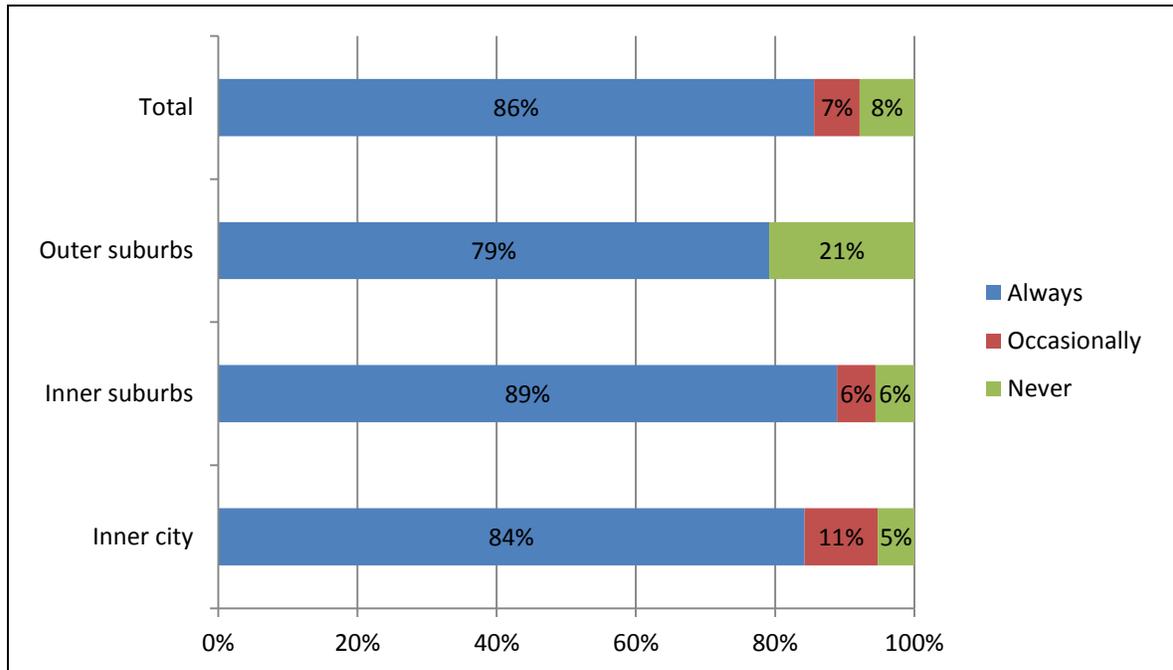
Percentage sums may be greater than 100% as respondents were able to select more than one response

Almost two thirds of cyclists (65%) reported that their school, workplace or volunteer location had adequate facilities such as showers or change rooms. Of the respondents who reported having facilities, 62% reported that access to such facilities was important in their decision to cycle (42% of who said it was very important). Respondents placed less importance on these facilities as a factor in choosing their workplace, school or volunteer location. Only 21% reported that it had some importance in this decision.

Most cyclists always wear a bicycle helmet when cycling (86%). However 8% said they never wore them, with most of these respondents residing in the outer suburbs (21%) (See Figure

4.2.7). A clear majority of cyclists (65%) think they should be mandatory for individuals over 18 years of age in Ontario.

Figure 4.2.7 – Frequency in Wearing a Bike Helmet



n=188

Most cyclist households in Ottawa have access to four bicycles with most bikes being traditional pedal bikes. A few respondents (n=5) did report having an electronic bicycle (bike or scooter style).

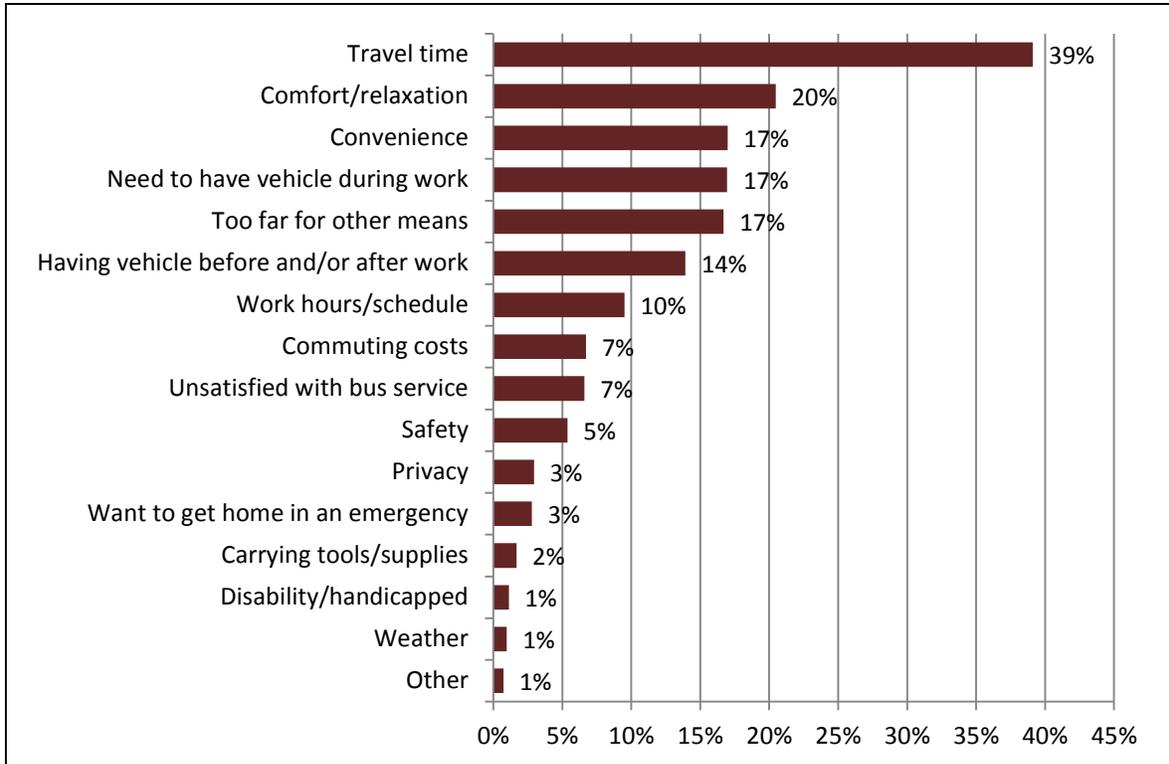
4.3 Driving

The following section presents survey results related to respondents who commute by motorized vehicle including cars, trucks and motorcycles. This section includes an overview of those who primarily commute by this mode and separate profiles of primary and secondary commuters that drive alone, or with others (i.e., carpool).

4.3.1 Driver Profile – Reasons for Driving or Carpooling

The most popular mode of commuting for Ottawa residents is via personal motorized vehicle. The majority of survey respondents (61%) reported commuting by this mode, including those who drive alone in a car (57%) on a motorcycle (1%) is a carpool driver (2%) and a carpool passenger (2%). Travel time was identified by the most respondents (39%) as a reason for commuting this way, followed by comfort/relaxation (20%) and convenience (17%). Figure 4.3.1 presents other reasons commuters choose to drive.

Figure 4.3.1 – Reasons for Primarily Driving to Commute



Percentage sums may be greater than 100% as respondents were able to select more than one response
n=681

4.3.2 Exploring Habits of Primary and Secondary Lone Drivers

Participants who reported driving alone as their primary or secondary commuting mode were asked a series of questions, particularly pertaining to parking and alternative modes of travel.

On average, these commuters reported they would spend up to 43 minutes commuting alone in their vehicles on a regular basis. As with other modes, respondents from the outer suburbs are willing to spend more time at 45 minutes compared to respondents from the inner city (34 minutes) and the inner suburbs (42.0 minutes).

The majority of lone drivers (59%) do not pay for parking. Of the respondents who do not pay for parking, 45% would still commute by driving alone if parking was paid and 29% said it would depend on the cost of parking. Twenty four percent (24%) reported they would not continue to drive alone and indicated how they would commute otherwise. These results are presented in Figure 4.3.2.

Figure 4.3.2 – How Respondents would Commute if they had to Pay for Parking

	Total	Inner city	Inner suburbs	Outer suburbs
	n=117	n=31	n=49	n=37
Public transit	55%	41%	61%	51%
Bicycle	7%	18%	2%	9%
Walk	10%	18%	15%	0%
Carpool / van pool	15%	12%	8%	27%
Don't know/no answer	14%	12%	15%	13%

Respondents who pay for parking and those who would continue to drive alone if parking was paid would pay an average maximum of \$95.70 per month for parking.

4.3.3 Exploring Habits of Primary and Secondary Carpoolers

Ottawa citizens who carpool tend to do so with individuals they are already familiar with, in particular, family or co-workers. Survey respondents indicated they commonly commuted to work with family (57%) co-workers (32%), friends (14%) and neighbours (4%). None of the survey participants indicated that they commuted to work with individuals from a carpool matching service.

On average, carpools include 2.4 people including the driver. The maximum number of carpoolers that respondents would consider carpooling with is 3.8.

Most of the carpoolers (82%) do not use any facilities that accommodate carpools. Only a small proportion 11% of carpoolers reported using carpool lanes. A small number of carpool respondents reported using a preferential parking spot (n=4) or a carpool parking lot (n=1)

Most carpoolers reported that parking was free (62%). Of these respondents, 58% would continue to carpool if parking was at a cost and 19% reported that it would depend on the price. The average maximum amount respondents would pay for parking is \$81.40 per month. For respondents who would not continue to carpool if parking was paid (19%), it was most often reported that they would ride public transit instead (64%), walk (18%) or drive alone (18%).

4.4 Using Public Transit

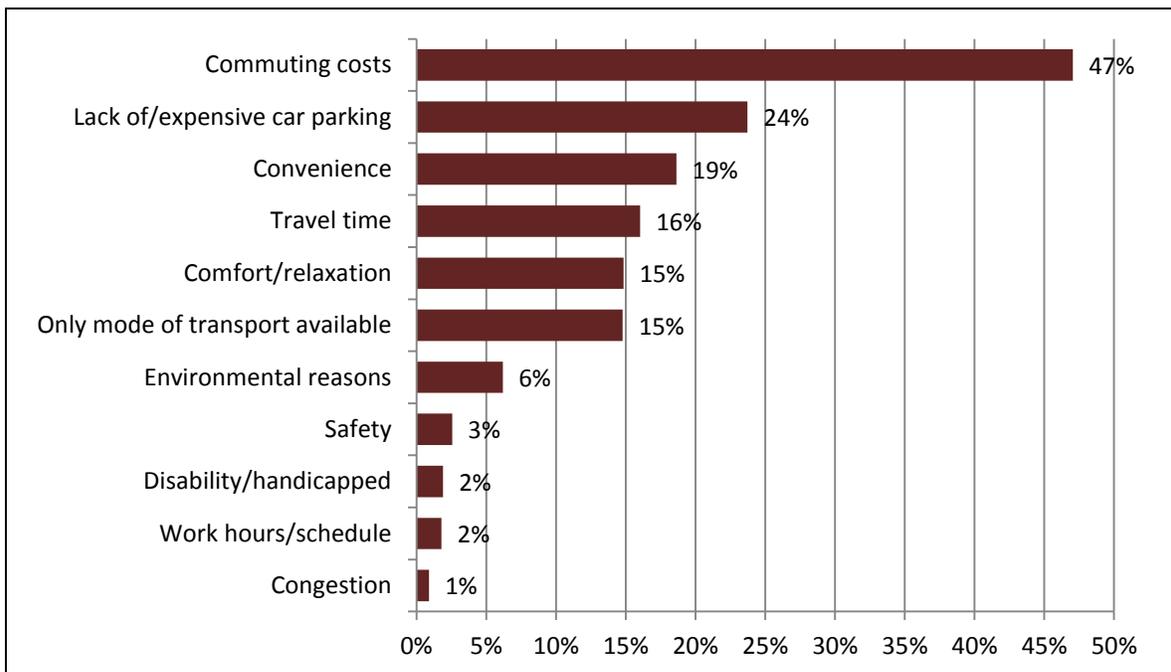
The following section presents survey results related to public transit. It includes a profile of primary riders and habits and opinions of respondents who commute by public transit, either as a primary or secondary means of transportation.

4.4.1 Public Transit User Profile – Reasons for Using Public Transit

Public transit is the second most common mode of commuting, representing the preferred mode of travel for 23% of the survey respondents. When considering commuters who travel occasionally by public transit, 40% of respondents commute by public transit. The majority of respondents reported being patrons of OC Transpo, however a portion of Ottawa commuters did take STO (n=3) and a private bus service (n=6).

As was the case for pedestrians and cyclists, most primary public transit users (67%) have access to a motor vehicle. Respondents most commonly said that commuting costs (47%) and lack of or affordable parking (24%) were reasons for using public transportation. Other reasons are presented in figure 4.4.1 below.

Figure 4.4.1 – Reasons for Primarily Commuting by Public Transit



Percentage sums may be greater than 100% as respondents were able to select more than one response
n=266

Most Ottawa residents (69%) only have to walk five minutes or less to the nearest transit stop. This level of accessibility is particularly available to inner city residents for whom 79% have a short five minute walk and only 2% reported the nearest transit stop as more than a 15 minute walk away compared to 13% of outer suburb residents. Figure 4.4.2 further summarizes these results.

Figure 4.4.2 – Length of Walk from Home to Nearest Transit Stop

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Less than 5 minutes	69%	79%	68%	65%
Between 5 and 15 minutes	24%	18%	28%	22%
More than 15 minutes	7%	2%	4%	13%
Do not know/no answer	0%	0%	0%	0%
Total	100%	100%	100%	100%

Good accessibility to public transit is also relatively consistent among the different commuter types; most respondents have a short walk to the nearest transit stops regardless of their chosen commuting mode. This demonstrates that access to public transit is likely not a criteria when choosing a primary commuting mode.

4.4.2 Exploring Habits of Primary and Secondary Public Transit Commuters

Public transit riders would allow an average maximum of 50 minutes to commute on a regular basis. The average is slightly higher for respondents from the outer suburbs at 54 minutes compared to inner city (45) and inner suburbs (49). Overall, the majority (91%) of riders walk to the transit stop. A small percentage of public transit riders park and ride (8%), particularly among those that live in the outer suburbs (18%).

Figure 4.4.3 – Modes of Getting to Transit Stop

	Total	Inner city	Inner suburbs	Outer suburbs
	n=454	n=144	n=170	n=140
Walk	91%	99%	95%	82%
Drive alone	8%	1%	4%	18%
Bike	1%	0%	1%	3%
Carpool	1%	0%	1%	2%
Dropped off	1%	0%	1%	2%
Don't know/no answer	1%	1%	1%	1%

Percentage sums may be greater than 100% as respondents were able to select more than one response
N=456

The type of route mostly used by Ottawa citizens who commute by public transit depends on where they live in the city. For example, the survey found that express buses were used more by outer suburb residents (66%) and inner city residents most commonly used local routes (71%). Complete route usage is summarized in Figure 4.4.4 below.

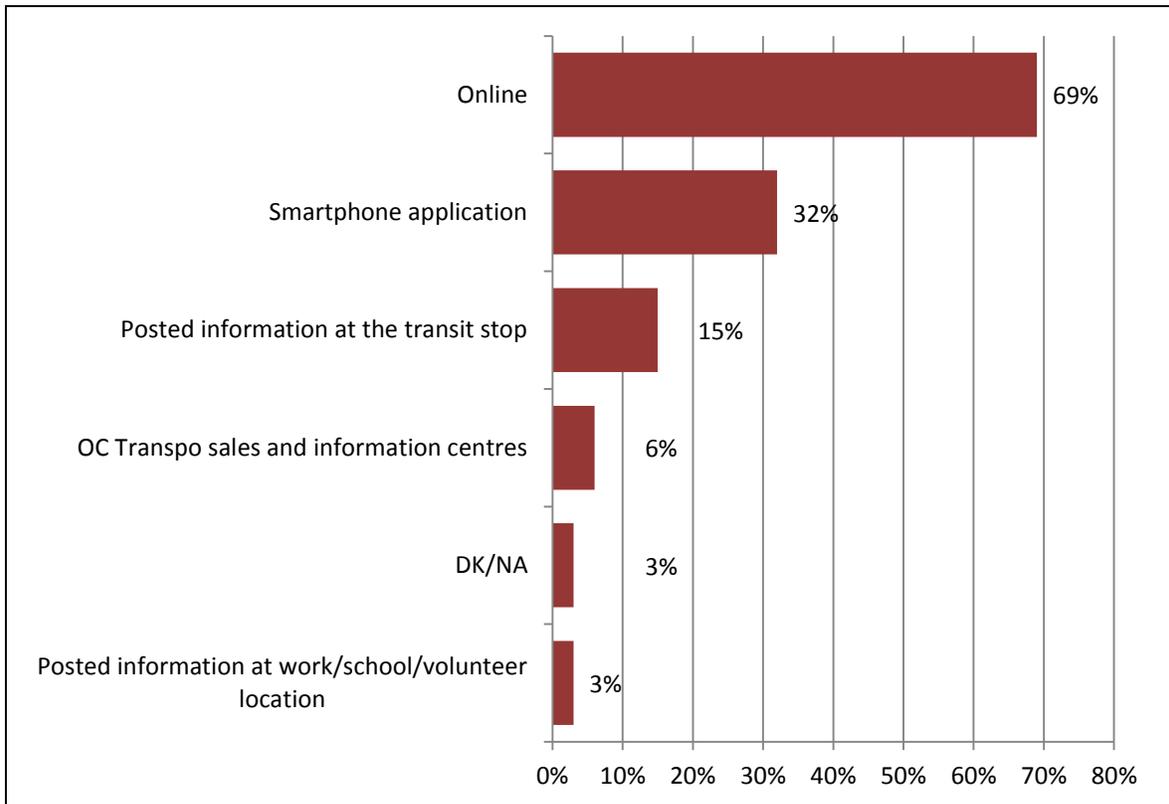
Figure 4.4.4 – Type of Transit Routes Taken

	Total	Inner city	Inner suburbs	Outer suburbs
	n=454	n=144	n=170	n=140
Main routes that run along the Transitway	62%	55%	77%	47%
Local routes	56%	71%	67%	36%
Express buses	33%	10%	15%	66%
O-Train	1%	1%	2%	0%
Paratranspo	0%	1%	0%	1%
Don't know	0%	2%	0%	0%

Percentage sums may be greater than 100% as respondents were able to select more than one response
N=456

Public transit commuters are using available technological resources to obtain transit information. For example, survey respondents most commonly reported that they looked up routes and schedules online (69%) or using an application on their smartphone (32%). Usage of these and other methods for obtaining transit information is demonstrated in Figure 4.4.5 below.

4.4.5 – How Transit Users Like to Obtain Route and Schedule Information



Percentage sums may be greater than 100% as respondents were able to select more than one response
n=454

4.5 Working from Home

Overall, 3% (n=42) of survey respondents reported that they work from home on a regular basis and 95% were satisfied with this arrangement (with 86% being very satisfied) Almost two thirds (62%) said they had a home-based business and 36% indicated they were telecommuting.

Telecommuters (n=15) reported an average of 17 days per month working at home. Most indicated that if they did not telecommute they would commute via public transit (43%) or drive alone (29%). Telecommuting was reported as supported by all employers with 80% being very supportive of this alternative work arrangement.

SECTION 5: AWARENESS OF CITY OF OTTAWA PROGRAMS

Ottawa on the Move represents the City of Ottawa’s direction to maximize and improve transportation in the region. A variety of projects are funded under this program including improvements to cycling infrastructure, bridges, roads and enhancements to OC Transpo services.¹⁰ *Bike to Work Month* and *Sustainable Transportation Week* are two outreach programs that include events sponsored by the City and its partners with the objective of encouraging the use of alternative and sustainable modes of transportation. Survey respondents were asked a series of questions to explore recall and opinions on these programs.

A large proportion of respondents had not heard about *Ottawa on the Move*. A greater percentage had heard about *Bike to Work Month* or *Sustainable Transportation Week*, with 48% having heard of at least one (see figure 5.1.1). Proportions with respect to recall were consistent across areas of the city.

Figure 5.1.1 – Program Recall

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Not heard of <i>Ottawa on the Move</i>	84%	84%	85%	84%
Heard of <i>Ottawa on the Move</i>	15%	14%	14%	16%
Do not know - no answer	1%	2%	1%	0%
	100%	100%	100%	100%
Not heard of <i>Bike to Work Month</i> or <i>Sustainable Transportation Week</i>	51%	49%	51%	52%
Heard of <i>Bike to Work Month</i>	21%	20%	23%	20%
Heard of both <i>Bike to Work Month</i> and <i>Sustainable Transportation Week</i>	20%	22%	20%	21%
Heard of <i>Sustainable Transportation Week</i>	7%	8%	7%	6%
Do not know - no answer	1%	1%	0%	1%
	100%	100%	100%	100%

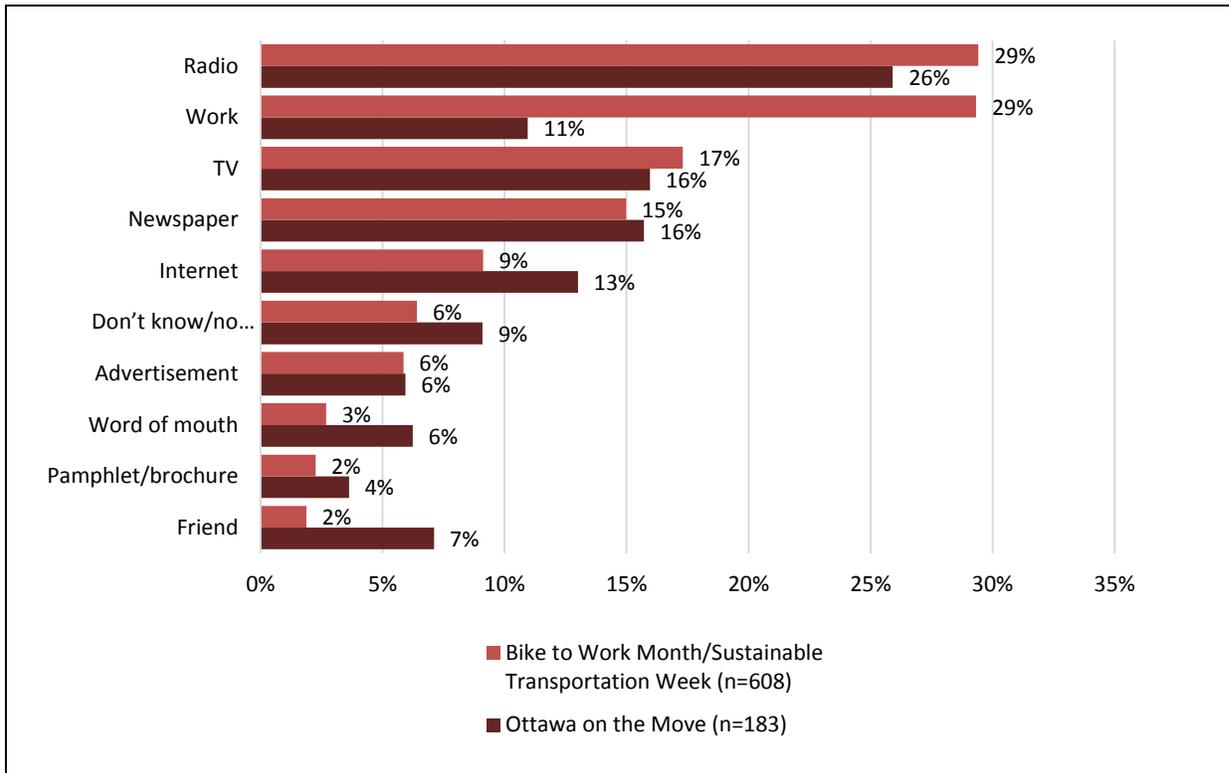
Of the respondents who had heard of either *Bike to Work Month* or *Sustainable Transportation Week*, 22% reported having participated in one of these programs including a large proportion of inner city residents (33%) compared to inner suburb (22%) and outer suburb residents (20%).

Radio was most often mentioned by respondents as to how they had heard about *Ottawa on the Move* and *Bike to Work Month* or *Sustainable Transportation Week* (29%, 26% respectively).

¹⁰ City of Ottawa, *Ottawa on the Move*. <http://ottawa.ca/en/city-hall/planning-and-development/transforming-ottawa/ottawa-move>

For the latter, the workplace was also often mentioned as the source of information (29%). Figure 5.1.2 presents other sources for having heard about the campaigns.

Figure 5.1.2 – Where Respondents Heard about the Campaigns



Percentage sums may be greater than 100% as respondents were able to select more than one response

Even among those that were aware of *Ottawa on the Move*, half were too unfamiliar with them to form an opinion of them (50%). However, of those with opinions, far more respondents held positive opinions than negative ones. Respondents noted that the campaigns were good for the community and helpful (See Figure 5.1.3).

Awareness for Bike to Work Month and Sustainable Transportation Week was not only greater overall, but of those that were aware, more were able to form an impression. And again the majority of the impressions formed were positive. For instance, 38% of those who were aware of the campaign felt it was good for the community.

Figure 5.1.3 – Impressions of Campaigns

Impressions of <i>Ottawa on the Move</i>	Total	Inner city	Inner suburbs	Outer suburbs
	n=183	n=52	n=62	n=63
No impression	50%	55%	56%	45%
Good for community	26%	34%	24%	25%
Helpful	14%	7%	10%	21%
Informative/interesting	11%	7%	6%	17%
Not helpful	7%	7%	8%	5%
Impressions <i>Bike to Work Month or Sustainable Transportation Week</i>	Total			
	n=608	n=200	n=218	n=190
Good for community	38%	36%	39%	38%
No impression	21%	23%	23%	19%
Helpful	20%	20%	23%	17%
Good idea	13%	14%	11%	14%
Environmentally friendly	4%	4%	5%	3%
Meaningless	4%	3%	5%	2%
Not helpful	4%	4%	5%	3%

Percentage sums may be greater than 100% as respondents were able to select more than one response

APPENDIX A: DEMOGRAPHIC INFORMATION

The following demographic data provides an overview of the respondents of the 2013 Commuter Attitudes Survey. These data are not weighted.

K1. Age categories

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
45 to 54	29%	29%	31%	28%
35 to 44	24%	21%	21%	31%
55 to 64	20%	23%	19%	19%
25 to 34	14%	12%	16%	12%
65 to 74	6%	10%	7%	3%
16 to 24	4%	4%	4%	6%
75 and older	1%	2%	2%	0%
"Do not know"	0%	0%	0%	1%
	100%	100%	100%	100%

K2. Language most often spoken at home

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
English	83%	85%	84%	79%
French	8%	11%	5%	10%
Other	5%	1%	7%	7%
Both English and French	3%	4%	3%	3%
Don't know/no answer	0%	0%	0%	0%
	100%	100%	100%	100%

K3. Whether telecommuting or attending classes from home is an option

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1139	n=352	n=405	n=382
No	58%	51%	64%	57%
Yes	42%	48%	36%	43%
Don't know/no answer	0%	0%	0%	1%
	100%	100%	100%	100%

K4. Regular access to home computer with internet

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Yes	97%	97%	96%	99%
No	2%	3%	3%	1%
Don't know/no answer	0%	0%	0%	0%
	100%	100%	100%	100%

K5. Selection of current employer/school, volunteer commitment based on commuting options

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1057	n=289	n=386	n=382
No	82%	79%	80%	86%
Yes	17%	19%	19%	13%
Don't know/no answer	1%	2%	1%	1%
	100%	100%	100%	100%

K6. Selection of current residence based on commuting options

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1057	n=289	n=386	n=382
No	52%	30%	51%	70%
Yes	47%	69%	49%	30%
Don't know/no answer	0%	1%	0%	0%
	100%	100%	100%	100%

K7. Total household income for 2012

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Less than \$30,000	6%	9%	7%	2%
\$30,000 to \$59,999	11%	13%	12%	7%
\$60,000 to \$89,999	16%	15%	19%	13%
\$90,000 to \$119,999	19%	16%	21%	21%
\$120,000 to \$149,999	11%	11%	8%	15%
\$150,000 to \$179,999	7%	8%	7%	8%
\$180,000 to \$209,999	6%	6%	5%	7%
More than \$210,000	8%	8%	7%	8%
Do not know	16%	15%	14%	18%
	100%	100%	100%	100%

K9. Gender

	Total	Inner city	Inner suburbs	Outer suburbs
	n=1245	n=400	n=443	n=402
Female	54%	53%	58%	50%
Male	46%	47%	42%	50%
	100%	100%	100%	100%

APPENDIX B: SURVEY QUESTIONNAIRE

2013 Commuter Attitudes Survey

Telephone Intro

Hello, my name is ***** from R.A. Malatest and I am calling on behalf of the City of Ottawa.

We are conducting a survey of commuter behaviour among the residents of Ottawa. This survey asks about your preferred means of transportation, your experiences with your commute, and your expectations. The results of this survey will facilitate urban planning, and anticipate future needs,

Would you be available to participate now?

Yes, continue

No, thank and terminate

Before we begin, I would like to inform you that your participation is completely voluntary and your answers will be kept strictly confidential. The survey should take about 12 minutes. Please note that this call may be recorded for quality control purposes.

[Read only if further info requested:]

All survey responses will be used solely for research purposes. All information collected through the survey will be held in strict confidence and is subject to the *Personal Information Protection and Electronic Documents Act* regarding access to and the protection of personal information.

Online Intro

Thank you for participating in the City of Ottawa's study about commuter behaviour among the residents of Ottawa. This survey asks about your preferred means of transportation, your experiences with your commute, and your expectations. The results of this survey will facilitate urban planning, and anticipate future needs. This study is being hosted by an independent research company, R.A. Malatest & Associates. Participation is completely voluntary and your answers will be kept strictly confidential. The survey should take about 12 minutes.

Click "yes, continue" to agree to participate and enter the survey.

Yes, continue

No, terminate survey

A. INTRODUCTION

All participants are asked these questions.

A.1. Are you employed, a student, or do you volunteer? (Prompt: Which best describes your situation?)

- Employed
- Student
- Volunteer
- None of the above *THANK AND TERMINATE INTERVIEW*

A.2. Do you travel at least three times per week either to work, to school, or to volunteer?

- Yes *SKIP TO B.1*
- No

A.3. Do you work from home on a regular basis – either as a teleworker/telecommuter or at a home-based business?

NOTE: A TELEWORKER/TELECOMMUTER IS SOMEONE WHO DOES NOT COMMUTE TO A CENTRAL PLACE OF WORK, BUT WHO WORKS FROM HOME OR OTHER LOCATIONS THAT ARE REMOTE FROM THEIR EMPLOYER'S CENTRAL PLACE OF WORK.

- Yes
- No *THANK AND TERMINATE INTERVIEW*

B. ATTITUDES ON WALKING AND CYCLING

All participants are asked this section. However, telecommuters are skipped B1 and B2.

- B.1. Regardless of where you live or work, what is the maximum time or distance that you would consider walking to [work/school /your volunteer commitment] on a regular basis?
- ___ minutes
 - ___ kilometres
 - Don't know/no answer
- B.2. How important are sidewalks and pathways to you in making that decision?
- Very important
 - Somewhat important
 - Not very important
 - Not at all important
 - Don't know/no answer
- B.3. When it comes to sidewalks **on local residential streets**, would you say...? (Read list)
- Sidewalks are not necessary
 - Sidewalks should be provided on one side only
 - Sidewalks should be provided on both sides
 - (DO NOT READ) Don't know/no answer
- B.4. How about when it comes to sidewalks on busier roads, would you say...? (Read list)
- Sidewalks are not necessary
 - Sidewalks should be provided on one side only
 - Sidewalks should be provided on both sides
 - (DO NOT READ) Don't know/no answer
- B.5. When you are a pedestrian at a crosswalk, which of the following is the most important in making you feel safer? (select one) (Read list)
- A shorter wait for the traffic light to change
 - A shorter crossing distance
 - More time to get across before the traffic light changes
 - Improved pedestrian signals such as a countdown timer display
 - Improved pavement markings such as "zebra stripes" within the crosswalk
 - None of the above
 - Don't know

- B.6. How long is the walk from your home to the nearest transit stop? (Read list)
- Less than 5 minutes
 - Between 5 and 15 minutes
 - More than 15 minutes
 - Don't know/no answer
- B.7. How do you feel about cycling? (Phone only: I will describe four categories); please consider which of the following best suits you: (Read list)
- Don't cycle now and not interested in starting -> *SKIP TO C.1*
 - Interested in cycling more but concerned about traffic and safety, waiting for more bike lanes or off-road paths
 - Comfortable in traffic but prefer bike lanes and like using segregated facilities
 - Comfortable cycling with traffic; roads fine as they are and somewhat dislike segregated facilities

Skip B8 and B9 for telecommuters

- B.8. Between April and November 2012, how often did you cycle to [work/school/your volunteer commitment]?
- Always *SKIP TO B10*
 - Most of the time *SKIP TO B10*
 - Occasionally *SKIP TO B10*
 - Never
- B.9. Do you consider cycling an option for commuting?
- Yes
 - No
 - Don't know/no answer
- B.10. Do you ever cycle to the nearest transit stop to take a bus?
- Yes *SKIP TO C.1*
 - No
 - Don't know/no answer
- B.11. Would you consider cycling to the nearest transit stop if secure bike storage was provided?
- Yes
 - No
 - Don't know/no answer

B.12. Would you consider cycling to the nearest transit stop if the cycling route to the transit stop was safe?

- Yes
- No
- Don't know/no answer

C. COMMUTER CLASSIFICATION

All participants except telecommuters are asked these questions.

C.1. How many days per week do you commute to [work/school/your volunteer commitment]?

- _____ days
- Don't know/no answer

C.2. On average, how long does your commute take? Please make your estimate in minutes based on a one way trip.

- _____ minutes
- Don't know/no answer

C.3. Between April and November 2012, how did you most frequently travel to [work/school/your volunteer commitment] (primary)? Did you occasionally use another means of travel to [work/school/your volunteer commitment] (secondary)? (Do not read list)

Accept up to two responses

- Drive alone:
 - Car
 - Motorcycle/scooter
- Carpool/vanpool:
 - Carpool/vanpool driver
 - Carpool/vanpool passenger
- Public transit:
 - OC Transpo
 - Société de transport de l'Outaouais (STO)
 - Private bus service
 - Para transpo
- Bicycle:

- Bicycle to destination and back
 - Bicycle to bus stop or Transitway station and then take transit
 - Bicycle to bus stop or Transitway station and take bike along on transit
 - Pedestrian:
 - Walk
 - Jog
 - Wheelchair/mobility assist device
 - Inline skate/rollerblade
 - Skateboard
 - Taxi
 - Other (SPECIFY _____)
 - Don't know/no answer
- C.4. What are your main reasons for [driving/using public transit/walking/etc. Based on Primary response FROM C.3]? (Select all that apply) (Do not read list)
- Commuting costs
 - Comfort/relaxation
 - Travel time
 - Privacy
 - Lack of/expensive car parking
 - Need to have vehicle during work
 - Having vehicle before and/or after work
 - Safety
 - Too far for other means
 - Work hours/schedule
 - Want to get home in an emergency
 - Other (SPECIFY _____)
 - Don't know/no answer
- C.5. (IF "SAFETY" MENTIONED IN C4) What do you mean by safety? (Select all that apply) (Do not read list)
- Personal security
 - Fear of theft
 - Traffic safety
 - Other (SPECIFY _____)
 - Don't know/no answer
- C.6. Generally speaking, how satisfied are you with [driving/public transit/walking/etc. FROM C.3] as a means to get to [work/school/your volunteer commitment]?
- Very satisfied
 - Somewhat satisfied

- Not very satisfied
 - Not at all satisfied
 - Don't know/no answer
- C.7. *(IF RESPONSE IS OTHER THAN "DRIVE ALONE" OR "DRIVE CARPOOL/VANPOOL" IN C.3)*
Do you have access to a motor vehicle?

(PROMPT: a motor vehicle can include a motorcycle, car, truck, S.U.V.)
- Yes
 - No
 - Don't know/no answer
- C.8. *(IF RESPONSE IS OTHER THAN "PEDESTRIAN" IN C.3)* Why do you not use walking as a means to get to [work/school/your volunteer commitment]? What deters you from walking/walking more? (Select all that apply) (Do not read list)
- Distance/too far
 - Travel time
 - Winter conditions (snow, ice)
 - Weather
 - Traffic Safety
 - Personal security
 - Convenience/flexibility
 - Mobility issues
 - Other (SPECIFY _____)
 - Don't know/no answer
- C.9. *(IF "CONVENIENCE/FLEXIBILITY" IN C8)* What do you mean by convenience/flexibility? (Select all that apply) (Do not read list)
- Need to have vehicle during work
 - Having vehicle before and/or after work
 - No other way to get to work
 - Work hours/schedule
 - Want to get home in an emergency
 - Other (SPECIFY _____)
 - Don't know/no answer

D. WALKING

Only participants who answered "Pedestrian" as primary or secondary in C.3 are asked these questions.

D.1. Which of the following best describes your [walk/jog] to [work/school/your volunteer commitment]? (Read list)

- Along sidewalks
- Along the gravel shoulders of roadways
- Along the sides of roads without shoulders or sidewalks
- Along pathways
- Other
- Don't know / no answer

D.2. (IF WALKING WAS THE SECOND MEANS) What is the typical time it takes for you to [walk/jog] to [work/school/your volunteer commitment], or the estimated distance (in kilometres)?

- ___ minutes
- ___ kilometres
- Don't know/no answer

D.3. During which seasons or time of the year do you [walk/jog] to [work/school/your volunteer commitment]? (Read list)

- Spring (March to May)
- Summer (June to August)
- Fall (September to November)
- Winter (December to February)
- Year round

D.4. Are there any pedestrian design features that encourage you to [walk] to [work/school/your volunteer commitment]? (Select all that apply) (Do not read list)

- Separation from:
 - Vehicular traffic (cars and trucks)
 - Cyclists
- Type of surface:
 - Gravel/natural surface
 - Asphalt pavement
 - Concrete
- Quality of surface (flat, smooth)
- Street crossings with:
 - Pedestrian signals/all stop phases for traffic
 - Count-down timers
 - Mid-street pedestrian refuges
- Landscaping:
 - Buffers
 - Tree canopies
- Amenities
 - Lighting
 - Seating
 - Trip end facilities (change-rooms, showers)
- Other (SPECIFY _____)
- None of the above

D.5. Are there any general maintenance, design or enforcement issues that could be improved? (Select all that apply) (Do not read list)

- Snowplowing
- Sanding/salting for ice
- Removing snow from corners and intersections
- Uneven pavement surface
- Lack of lighting
- Sidewalk cycling
- Obstructions (such as sandwich board advertising)
- Other (SPECIFY _____)
- None of the above
- Don't know/no answer

E. BICYCLING

Only participants who answered "Bicycle" as primary or secondary in C.3 are asked these questions.

E.1. Regardless of where you live or work, what is the maximum time or distance that you would consider cycling to [work/school/your volunteer commitment] on a regular basis?

- _____ minutes
- _____ kilometres
- Don't know/no answer

E.2. For how long have you cycled to [work/school/your volunteer commitment]?

- Less than a year
- Between 1 and 5 years
- More than 5 years

E.3. Are you aware of streets that have bicycle route signs (green signs with a bicycle symbol)?

- Yes
- No ->SKIP TO E5.
- Don't know/no answer ->SKIP TO E5.

E.4. Do you feel more comfortable cycling on streets with bicycle route signs that are green with a bicycle symbol?

- Yes
- No
- Don't know/no answer

E.5. When considering which route to take while cycling, do you consider? (Select all that apply) (Read list)

- Bicycle route signs
- Directional signs to major destinations
- Cycling or trails map
- Online/portable smartphone map and directions
- No special help needed
- Don't know/no answer

E.6. How do you decide when the cycling season is over? (Select all that apply) (Do not read list)

- Beginning of October
- November time change (end of daylight saving time)
- Colder temperatures (e.g. drops below zero degrees)
- The first snowfall
- Other (SPECIFY _____)
- I cycle all year round
- Don't know/no answer

E.7. What made you decide to start cycling to [work/school/your volunteer commitment]? (Select all that apply) (Do not read list)

- A friend encouraged me to try it
- I participated in an event like Bike to Work Month
- I have always cycled since I was a child
- Other (SPECIFY _____)
- Don't know/no answer

E.8. Are there adequate trip end facilities such as showers or change rooms at your [work/school/volunteer commitment]?

- Yes
- No *SKIP TO E.13*
- Don't know/no answer *SKIP TO E.13*

E.9. How important of a factor were these facilities in your decision to cycle to [work/school/your volunteer commitment]?

- Very important
- Somewhat important
- Not very important
- Not at all important
- Don't know/no answer

E.10. How important of a factor were these facilities in your decision to choose your current [place of work/school/volunteer commitment]?

- Very important
- Somewhat important
- Not very important
- Not at all important
- Don't know/no answer

E.11. When cycling, how often do you wear a bicycle helmet?

- Always
- Occasionally
- Never
- Don't know/no answer

E.12. Bicycle helmets are mandatory for cyclists under age 18 in Ontario. Do you believe that bicycle helmet use should be mandatory for adults?

- Yes
- No
- Don't know/no answer

E.13. How many bicycles are owned by your household?

- _____ bicycles
- Don't know/no answer

E.14. What kinds of bicycles are owned by your household? (select all that apply) (Read list)

- Pedal power
- eBike – bike style (eBikes look just like pedal powered bikes, and riders must pedal all the time)
- eBike – Scooter style (eScooters look larger, with fairings and smaller wheels; the riders do not pedal while they are riding)
- Don't know/no answer

F. PUBLIC TRANSIT

Only participants who answered “Public Transit” (other than Paratranspo) as primary or secondary in C.3 are asked these questions.

- F.1. Regardless of where you live or work, what is the maximum time in minutes that you would consider commuting by public transit to [work/school/your volunteer commitment] on a regular basis?
- _____ minutes
 - Don't know/no answer
- F.2. How do you get to the transit stop? (Select all that apply) (Do not read list)
- Walk
 - Bike
 - Drive alone
 - Carpool
 - Dropped off
 - Other (SPECIFY _____)
 - Don't know/no answer
- F.3. How would you like to get transit route and schedule information? (Select all that apply) (Do not read list)
- Through posted information at OC Transpo sales and information centres
 - Through posted information at the transit stop
 - Through posted information at work/school/volunteer location
 - Online
 - Through a mobile device such as a cellphone or smartphone
 - Don't know/no answer
- F.4. Do you take: (Select all that apply) (Do not read list)
- Local routes
 - Main routes that run along the Transitway (*Prompt: busses like the 95 and 97*)
 - Express busses
 - Paratranspo
 - Other (SPECIFY _____)
 - Don't know

G. CARPOOL/VANPOOL

Only participants who answered "Carpool/vanpool driver" or "Carpool/vanpool passenger" as primary or secondary in C.3 are asked these questions.

G.1. With whom do you carpool/vanpool? (Select all that apply) (Do not read list)

- Family
- Friends
- Neighbours
- Co-workers
- Carpool matches/ridematching service
- Other (SPECIFY _____)

Ask G2 if carpool matches/ridematching service in G1.

G.2. Which ridematching service did you use? (Do not read list)

- OttawaRideMatch.com
- Other (SPECIFY _____)

G.3. Including yourself, what is the total number of persons usually in the vehicle when you carpool/vanpool?

- _____ people
- Don't know/no answer

G.4. Regardless of space available in the vehicle, including yourself, what is the maximum number of people that you would want to carpool/vanpool with?

- _____ people
- Don't know/no answer

G.5. Does your carpool/vanpool use any facilities for carpool/vanpools, such as a preferential parking space, carpool parking lot or a dedicated lane for carpools? (Select all that apply) (Do not read list)

- Carpool parking lot
- Preferential parking spot
- Carpool lane
- Other (SPECIFY _____)
- No/none
- Don't know/no answer

G.6. Regardless of which member of your carpool/vanpool that actually pays, is there a fee for parking the vehicle?

- Yes *SKIP TO G.9*
- No
- Don't know/no answer *SKIP TO G.9*

G.7. If you had to pay for parking, would you still carpool/vanpool to work?

- Yes *SKIP TO G.9*
- No
- Depends on price *SKIP TO G.9*
- Don't know/no answer *SKIP TO G.9*

G.8. If not, how would you get to [work/school/your volunteer commitment]? (Do not read list)

- Public transit
- Cycle
- Walk
- Drive alone
- Don't know/no answer

G.9. What is the maximum amount you would pay per month to park at your [place of work/school/volunteer commitment]?

- _____ dollars per month
- Don't know/no answer

H. LONE DRIVERS/MOTORCYCLISTS

Only participants who answered "Drive alone" as primary or secondary in C.3 are asked these questions.

H.1. What is the maximum trip time in minutes that you would consider driving alone to [work/school/your volunteer commitment] on a regular basis?

- _____ minutes
- Don't know/no answer

H.2. Do you pay to park when driving alone to [work/school/your volunteer commitment]?

- Yes *SKIP TO H.5*
- No
- Don't know/no answer *SKIP TO H.5*

H.3. If you had to pay for parking, would you still drive alone to [work/school/your volunteer commitment]?

- Yes *SKIP TO H.5*
- No
- Maybe/Depends on price *SKIP TO H.5*
- Don't know/no answer *SKIP TO H.5*

H.4. If you had to pay for parking, how would you get to [work/school/your volunteer commitment]? (Select all that apply) (Do not read list)

- Public transit
- Bicycle
- Walk
- Carpool / van pool
- Don't know/no answer

H.5. What is the maximum amount you would pay per month for parking for [work/school/your volunteer commitment]?

- _____ dollars per month
- Don't know/no answer

I. HOME WORKERS

Only participants who answered "Yes" in A.3 are asked these questions.

- I.1. Do you have a home-based business or do you telework or telecommute for an organization? (Select that one that best describes your situation)
- Home-based business *SKIP TO I.5*
 - Telework/telecommute
 - Don't know/no answer *SKIP TO I.5*
- I.2. On about how many days do you telecommute in a typical month?
- _____ days per month
 - Don't know/no answer
- I.3. If you were not a teleworker/telecommuter, how would you most likely travel to work/school/your volunteer commitment? (Do not read list)
- Public transit
 - Cycle
 - Walk
 - Drive alone
 - Carpool
 - Don't know/no answer
- I.4. How supportive would you say your employer/school/volunteer organization is of teleworking/telecommuting?
- Very supportive
 - Somewhat supportive
 - Not very supportive
 - Not at all supportive
 - Don't know/no answer
- I.5. How satisfied are you with working at home?
- Very satisfied
 - Somewhat satisfied
 - Not very satisfied
 - Not at all satisfied
 - Don't know/no answer

J. PROGRAM RECOGNITION

All participants are asked these questions.

J.1. Have you ever heard of a program called "Ottawa on the Move"?

- Yes
- No *SKIP to J.4*
- Don't know/no answer *SKIP to J.4*

J.2. Where did you see or hear about "Ottawa on the Move"? (Select all that apply) (Do not read list)

- TV
- Radio
- Newspaper
- Internet
- Magazine
- Pamphlet/brochure
- Other (SPECIFY _____)
- Don't know/no answer

J.3. From what you know, what is your impression of "Ottawa on the Move"? (Select all that apply) (Do not read list)

Positive mentions

- Good for community
- Helpful
- Informative/interesting
- Other (SPECIFY _____)

Negative mentions

- Waste of money/tax dollars
- Meaningless
- Not helpful
- Other (SPECIFY _____)

Other mentions

- Other (SPECIFY _____)
- No impression

J.4. Have you ever heard of “Bike to Work Month” or “Sustainable Transportation Week”?

- Yes I have heard of both
- Yes I have heard of “Bike to Work Month”
- Yes I have heard of “Sustainable Transportation Week”
- No, I haven’t heard of either *SKIP TO K1*
- Don't know/no answer *SKIP TO K1*

J.5. Where did you see or hear about “Bike to Work Month” or “Sustainable Transportation Week”? (Select all that apply) (Do not read list)

- At work
- TV
- Radio
- Newspaper
- Internet
- Magazine
- Pamphlet/Brochure
- Other (SPECIFY _____)
- Don’t know/no answer

J.6. From what you know, what is your impression of “Bike to Work Month” or “Sustainable Transportation Week”? (Select all that apply) (Do not read list)

Positive mentions

- Good for community
- Helpful
- Informative/interesting
- Other (SPECIFY _____)

Negative mentions

- Waste of money/tax dollars
- Meaningless
- Not helpful
- Other (SPECIFY _____)

Other mentions

- Other (SPECIFY _____)
- No impression

J.7. Did you participate in “Bike to Work Month” or “Sustainable Transportation Week”?

- Yes
- No
- Don’t know/no answer

K. DEMOGRAPHICS

All participants are asked these questions.

K.1. Please indicate which of the following categories represents your current age:

READ

- 16 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 and older
- DO NOT READ: Don't know/no answer

K.2. What language do you speak most often at home? (Do not read list)

- English
- French
- Both English and French
- Other (SPECIFY _____)
- Don't know/no answer

K.3. *(IF "EMPLOYED" OR "STUDENT" IN A.1)* Is telecommuting or attending classes from home a potential option for you?

- Yes
- No
- Don't know/no answer

K.4. Do you have regular access at home to a computer with internet access?

- Yes
- No
- Don't know/no answer

(IF CYCLIST IN C3, SKIP K5 and K6)

K.5. Did you choose your current [employer/school/volunteer commitment] based on your commuting options?

- Yes
- No
- Don't know/no answer

K.6. Did you choose where you currently live based on your commuting options?

- Yes
- No
- Don't know/no answer

K.7. Which of the following categories captures your total household income for the year 2012?

READ LIST

- Less than \$30,000
- \$30,000 to \$59,999
- \$60,000 to \$89,999
- \$90,000 to \$119,999
- \$120,000 to \$149,999
- \$150,000 to \$179,999
- \$180,000 to \$209,999
- More than \$210,000
- DO NOT READ: Don't know/no answer

K.8. What are the first three digits of your home postal code?

- ___ ___ ___
- Don't know/no answer

K.9. RECORD GENDER, ASK ONLY IF UNSURE: Are you male or female?

- Male
- Female
- Transgendered/other

RECORD FROM SYSTEM: Language of interview:

- English
- French

Thank you very much for your time. Your answers will help the City of Ottawa with urban planning, and responding to your transportation needs.

APPENDIX C: DEFINING THREE AREAS OF THE CITY

Defining Three Areas of the City

R.A. Malatest & Associates used the FSA (the first three digits of the postal code) contained with each sample record to stratify them into the three areas of interest, namely: inner city, inner suburbs, and outer suburbs. The FSAs assigned to the three areas are detailed in Figure C.1 below and are shown graphically as a map in Figure C.2. Wherever possible, the Greenbelt has been used as the border between the inner and outer suburbs.

Three FSAs straddle both inner and outer suburbs (K1T, K1V and K2G). How these FSAs were handled and/or possible implications of these challenges are also noted in Figure C.1. Although imperfect, these FSA definitions allowed for an operational and transparent way of defining the three areas of interest.

Figure C.1: FSAs Assigned to the Three Areas of Ottawa

Area	% of Sample	Example Neighbourhoods	FSA	Notes
Inner City	16%	Centretown, Glebe, Vanier, Little Italy, Hintonburg	K1L	
			K1M	
			K1N	
			K1P	
			K1R	
			K1S	
			K1Y	
			K2P	
Inner Suburbs	45%	Beacon Hill, Alta Vista, Hunt Club, Nepean	K1B	
			K1G	
			K1H	
			K1J	
			K1K	
			K1T*	*FSA is split between inner and outer suburbs. A small percentage of cases in this FSA are in Findlay Creek, an area that many would likely define as outer suburb. There appears to be no clear way to further define K1T into inner and outer suburbs.
			K1V*	*FSA is split between inner and outer suburbs. A small percentage of cases in this FSA are in Riverside South, an area that many would likely define as an outer suburb. There appears to be no clear way to further define K1T into inner and outer suburbs.
			K1Z	
			K2A	
			K2B	

			K2C	
			K2E	
			K2G*	*FSA is split between inner and outer suburbs. Using the next digit of K2G allows for the FSA to be split. 1 thru 5 are North of Fallowfield Rd. (for instance, K2G 5T9).
			K2H	
Outer Suburbs	39%	Orleans, Barrhaven, Kanata, Stittsville	K1C	
			K1E	
			K1W	
			K1X	
			K2G*	*FSA is split between inner and outer suburbs. Using the next digit of K2G allows for the FSA to be split. 6 and 7 are South of Fallowfield Rd. (for instance, K2G 6W1).
			K2J	
			K2K	
			K2L	
			K2M	
			K2R	
			K2S	
			K2T	
			K2V	
			K2W	
			K4A	
			K4B	
K4C				
K4M				
K4P				

