

Easy Ride Project Demographic Survey: Summary of Results



HALIFAX
BIKE LAB

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Introduction

The stated goals of the Easy Ride pilot project are to introduce members of the public to pedal assist bicycles (also known as e-bikes), provide participants with the tools to overcome perceived barriers to choosing active transportation on a regular basis and increase the use of the e-bike in place of single occupant vehicles (SOV).

To better understand current travel habits and identify potential participants to replace their commutes with an on-loan e-bike through the Easy Ride project, we distributed an online demographic survey to Nova Scotia Health Central Zone employees in August 2020. The survey was distributed through a monthly employee newsletter and comprised 48 questions that included demographic information, as well as asking participants about their travel patterns, experiences with cycling and their interest in participating in the Easy Ride pilot project. The link to the survey was distributed once, and the survey closed after three weeks when no new responses were forthcoming.

Overall, there were 55 respondents to the survey, 33 of whom completed all of the required questions in the survey. Responses to individual questions therefore fall between these two numbers in the following sections (when numbers of respondents are lower than this, it reflects responses to conditional questions, i.e., responses to follow-up questions from those that required a response).

Results

Description of Sample

Of the responses to the questions on ethnicity (n=49), gender (n=50) and employment status (n=49), 72% of respondents identified as white, 62.5% identified as female, and 77% were employed full-time. Additionally, 52% identified themselves as the primary “run-around” person in their household (n=29 out of 49). Of those responding to the question on age range, 51% were under 40 years of age, and 49% were aged 40-65 years of age.

Travel Patterns

Of the 39 respondents who answered the question on travel modes to work, 54% (n=21) reported travelling to work in a SOV, with 15% (n=6) reporting that they commuted to work in a multi-occupant vehicle (MOV). 54% of people reported travelling by bus or ferry (n=21), 25% reported walking (n=10) and 36% reported travelling by bicycle (n=14) (note: percentages don't add up to 100 because some people reported using more than one travel mode).

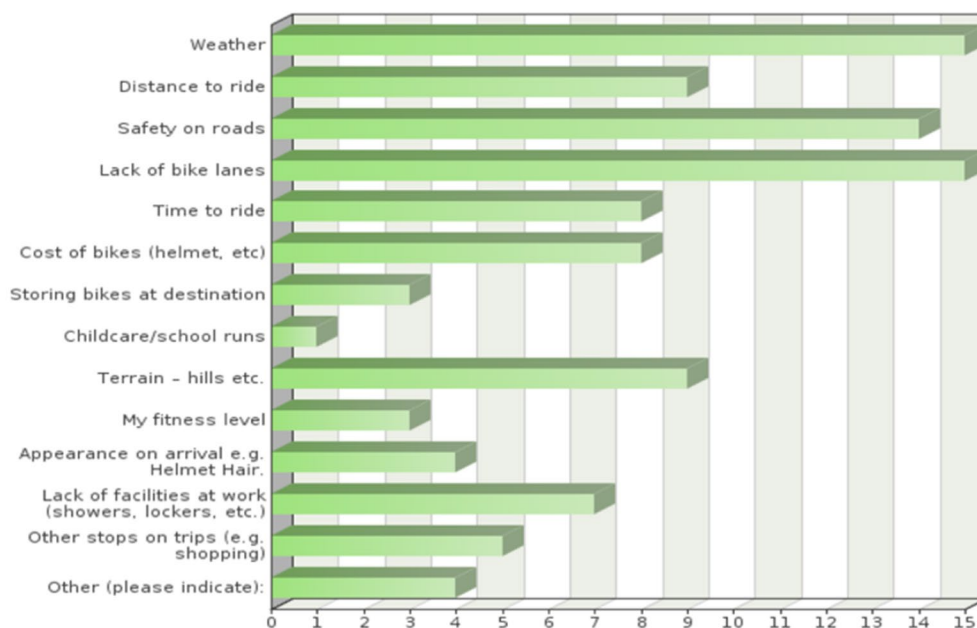
Because a key objective of the Easy Ride project is to shift people away from commuting by car, it is important to know how far people are commuting currently between home and work. Therefore, Google Maps was used to calculate the average distance travelled (one way) for the 44 respondents who provided home and work postal codes. We identified that the mean distance travelled to work was 11.2km (SD 14.1), with a range from 1.1 - 86.0km. Excluding one outlier whose commute was given as 86km each way, the responses gave a mean distance travelled of 9.5km (SD 1.2), with a range of 1 – 31km. This range represents distances that could realistically be covered using an e-bike. We also found that 64% of respondents lived within 10km of their work (n=28).

Of respondents to the question on whether they incorporated other trips on the way to or from work (n=39), 38% said ‘no’ (n=15), while 18% (n=7) said ‘yes’, and 44% said ‘sometimes’ (n=17). This is important to know, because it illustrates the percentage of people that could switch to an e-bike without impacting other demands on their time. Of the 39 respondents to the question on whether they would like more transport options, 67% said ‘yes’ (n=26) and a further 17% said ‘maybe’ (n=7), suggesting a demand for alternative modes of transport.

Experiences with Cycling

Just 10% of respondents disclosed a health condition that impacted their ability to cycle (n=4 out of 39). The conditions identified were arthritis, asthma and fatty liver. Asked whether their level of physical fitness impacted their ability to cycle, the same 10% agreed with this statement, identifying becoming winded or struggling to cycle uphill. Of the 37 respondents who answered the question on whether they considered themselves a cyclist, 51% responded ‘yes’ (n=19) and 49% responded ‘no’ (n=18). “Regular” bicycles were owned by 30 out of 37 who responded to the question (81%), with no respondents disclosing that they owned or had access to an e-bike. Out of 30 respondents who answered the question about whether they currently cycled to work, 43% (n=13) said that they did, with 61.5% of these saying they cycled five days a week. Respondents who cycled (n=37) were also confident in doing so, with a median rating of 8 out of 10, where 1 meant not at all confident and 10 meant very confident (range 4-10). Of the 24 people that responded to the question about whether they had considered cycling or e-bikes as a transportation option, 83% (n=20) had done so, suggesting a high degree of interest among the survey respondents. Asked what had stopped them from cycling or using an e-bike to commute, the biggest deterrents were the weather, and the lack of lack of bike lanes, with 15 out of 24 respondents selecting these two barriers (62.5% of those who responded). Safety on the roads was selected by 14 out of 24 respondents (58%), and the terrain (e.g., hills) was selected by 37.5% of respondents (n=9). Figure 1 below shows the frequency of barriers selected.

Figure 1. What has stopped you from using cycling or e-bikes as a transport option?



Impact of COVID-19 on commuting behaviours

Respondents were asked how COVID-19 had impacted their commuting habits. Of those that responded (n=35), 14% (n=5) felt that was no impact, 20% (n=7) were working from home at the time of the survey, 26% (n=9) had switched from public transit to driving, 11.5% (n=4) had switched from public transit to walking, 5.5% (n=2) had switched from public transit to cycling, and the remainder (22%, n=8) noted other impacts such as less traffic on the road, shorter commute times, the benefits of free transit or parking or different work schedules being implemented that impacted their commute. Respondents were also asked about their thoughts on how an e-bike might help them address COVID-19 related transportation issues and below is a selection of the responses:

“I have not felt comfortable taking the bus since COVID began but cannot afford to park my car here every day. The express bus got cancelled last outbreak and will probably happen again during second wave. An e-bike would give me comfort in my commute to work and would save me hours of commuting time. Our family is very close and I cherish my time with them” (female, under 40 years, usually commutes by bus, non-cyclist).

“It would provide me exercise, put less stress on the motorway infrastructure. Reduce cost towards parking. And most of all it would be better for the environment” (male, over 40 years, usually commutes in SOV, owns a bike and considers themselves a cyclist).

“First, it would save a lot of commuting time. My home to work distance will be reduced from 35 minutes to 10 minutes. Safer to ride instead of bussing” (female, under 40 years, usually commutes in SOV, considers themselves a cyclist but doesn't own a bike).

Understanding of e-bikes

Respondents were asked to share all that they knew about e-bikes, and 28 people chose to do so. Responses were diverse, from no or very little knowledge, e.g., *“I know e-bikes exist but do not have a lot of knowledge about them”* to detailed responses:

“Yes, I've been watching their development as they have entered into new markets. My husband and I both consider ourselves cyclists and believe that e-bikes will be a part of our future to allow us to continue to ride as we age and begin to develop conditions that affect our ability to ride ‘regular’ bikes. We have seen them go from being very heavy and expensive to starting to come down in price and function more like the types of bikes we enjoy riding (adventure, road & mountain bikes). We also believe that even though we are able to do longer distances at the moment and love it, in the future e-bikes will hopefully allow us to continue to ride to places we want to go but no longer have the ability to get there without aid”.

One response indicated a common misperception with e-bikes, e.g., *“Decreases exercise benefit of cycling”*.

Final thoughts

Respondents were asked to share any other thoughts about cycling that they had and below is a selection of the responses:

“I think safety is my biggest concern - the lack of dedicated bike lanes outside the peninsula makes cyclists share the road with cars and it prevents me from biking any distance. Instead I transport my bike to a multi-use trail” (female, over 40 years, usually commutes in MOV, owns a bike and considers themselves a cyclist).

“The infrastructure changes in the past year have made the idea of cycling to work more enticing” (male, under 40 years, usually commutes by SOV, owns a bike but does not identify as a cyclist).

“I think this is a great way to encourage exercise. Exercise is so important for maintaining our mental health. I am hopeful this program will start an e-bike program as Halifax is not friendly for commuters” (female, under 40 years, usually commutes by bus, non-cyclist).

“I used to bike to work when living in Ottawa and Toronto and that is my preferred method of transportation. I hope Halifax continues to invest in increasing road safety for cyclists as I would highly value being able to bike to work again” (female, under 40 years, usually commutes by SOV, identifies as a cyclist).

Conclusions

This survey provides a snapshot of the travel habits of a small sample of Nova Scotia Health Central Zone employees. It highlights some interesting findings in relation to how employees feel about their commuting options or choices and what they understand about the role of e-bikes for commuting. It also provides some insight into the impact of COVID-19 on commuting behaviours. Our findings suggest that e-bikes can be a viable alternative to SOV, given that two-thirds of respondents lived within 10km of their workplace and could overcome the common deterrents to cycling that were identified. The importance of safe cycling infrastructure in supporting a shift to cycling as a commuting mode was evident, with a lack of bike lanes and safety on the roads being the main deterrents identified. Other deterrents, like the terrain and time constraints, could be addressed through e-bikes, which can make it easier to cycle over hilly terrain and shorten commute time. While the weather was identified as a barrier, there is also evidence from other countries, like Finland, that with adequate infrastructure cycling rates can remain in double digits even with inclement weather.*

There are some important limitations that need to be noted with this survey. First, it is not possible to calculate a response rate because we don't know how many people received the newsletter, read it and then were interested enough to click on the link to the survey. Second, it is likely that those that participated in the survey already had an interest in cycling, which can introduce bias, and third, the timing of the survey, with distribution in August 2020, and short duration for responding (approximately 3 weeks), may also have reduced the number of responses. Despite these limitations, our findings provide some insight into the potential for e-bikes to encourage more people to cycle, as long as there is adequate infrastructure to support them.

Acknowledgements: Many thanks to Rebecca Davis for her work putting together the survey, and to Elyse Quann for setting it up online.

* Pratte J (2011). Mainstreaming Bicycling in Winter Cities: The case of Oulu, Finland. https://mspace.lib.umanitoba.ca/bitstream/handle/1993/4752/Pratte_Jeffrey.pdf;jsessionid=13746046A3FC63276A96224DA7BAC70A?sequence=1