

Bike Host 2016 Report

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Introduction

Bike Host is a free cycling mentorship program for Convention refugees¹ and permanent residents, created by CultureLink Settlement and Community Services. This program involves the loan of a bicycle, helmet and lock along with participation in basic training and bike rides led by a matched mentor who is an experienced cyclist. In 2016, Bike Host was offered in partnership with the South Riverdale Community Health Centre and the Scarborough Cycles Bike Hubs at AccessPoint on Danforth and Birchmount Bluffs Neighbourhood Centre. Scarborough Cycles is a project funded by the Metcalf Foundation and led by the Toronto Centre for Active Transportation with partners Cycle Toronto, the Toronto Cycling Think & Do Tank, and CultureLink. This paper, by researchers at the University of Toronto's Cycling Think & Do Tank presents an overview of 2016 results based on data collected from participants in Entry and Exit surveys.

Methodology

The research team administered two surveys over the course of the Bike Host programming. The first, the "entry" survey, was available online immediately following program registration. Participants had the option to complete it online or in person when picking up the bikes loaned to them for the duration of the program. The second, the "exit" survey, was available online prior to the end of the program. For those who did not complete it online, it was administered when participants dropped off their bike or at the closing celebration. Some participants had their own bicycle but also completed the surveys.

We include only the 37 participants who filled out both an entry and an exit survey in our analysis.

We analyzed the survey results in Excel. We used Excel to calculate the standard deviation and mean of variables from the entry and exit surveys. When we had asked the same question at both the entry and exit surveys, we calculated a two-tailed t-test to analyze whether the change in days using a mode of travel was significant, or whether the change could have occurred by chance.

We analyzed intake and exit attitudes towards a series of statement using a Likert scale of strongly disagree, disagree, neither agree nor disagree, agree, strongly agree and not applicable. These were converted to values of 1 (strongly disagree) through 5 (strongly agree). We compared the averages upon entry and exit and conducted a two-tailed t-test to analyze whether any changes in attitudes were significant or whether the change could have occurred by chance.

We report results as significant if there is less than a one in twenty chance that the change could have occurred by chance. This 95% confidence interval is associated with a p-value of 0.05. It is possible, however, there may be some changes did not show up as significant because of the small sample size.

¹ Convention refugees are outside their home country or the country where they normally live, and who are unwilling to return because of a well-founded fear of persecution based on: race; religion; political opinion; nationality; or membership in a particular social group, such as women or people of a particular sexual orientation.

Demographics of Participants

Thirty-two of the thirty-seven respondents were between the ages of 25 and 44. Twenty-two identified as male and fifteen as female. They came from a wide range of self-defined ethnicities including Chinese, Indian, Pakistan, South Asian, Arab, Bangladeshi, European, Bengali, Filipino, Ethiopian. Twenty-one were working full-time or in school fulltime while ten worked or were in school part time. Twelve respondents had access to a car in their household while only two had access to a bicycle prior to the program. See Appendix TABLE 1 for full details.

Trip Changes

Recreation Trips

On average, participants made 4.56 more trips per month at program exit than at program entry by bicycle for fun or exercise. This change is significant at the 99.9% confidence interval (see Appendix TABLE 2).

Shopping Trips

At program exit, participants reported that they were less likely to use a bus or to walk and more likely to use a bicycle to go to shopping when compared to program entry.² On average, participants used their bicycles 2.6 more days per week to go shopping. This increased the bicycle mode share for shopping from 8% at entry to 32% at exit. Both bicycling increases and taxi ride decreases (combined in Figure 1 with 'ride with someone') are significant at the 99.9% confidence interval (see Appendix TABLE 3).

Figure 1 outlines the dramatic change in mode share for bicycling to shopping between entry and exit surveys.

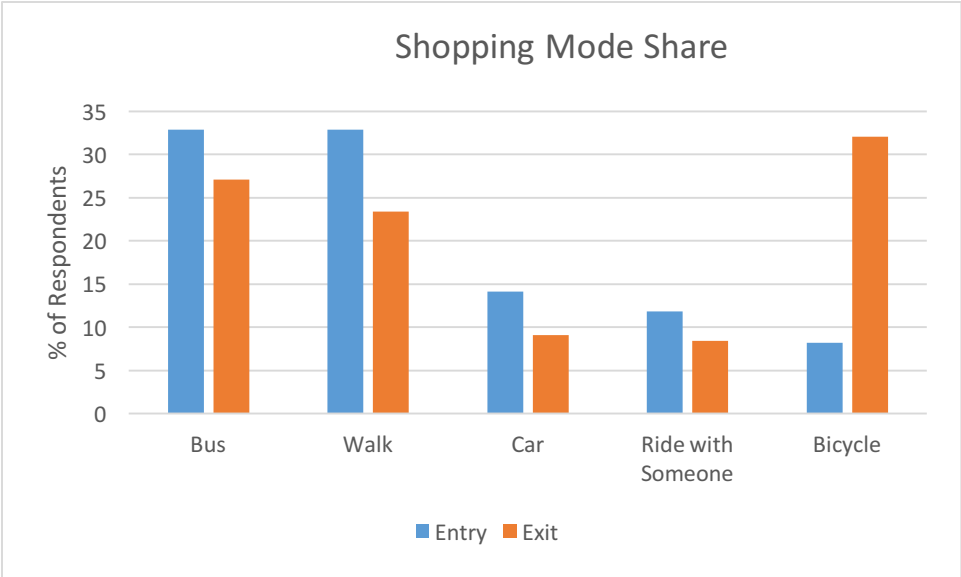


Figure 1 Shopping Mode Share (n=37)

² Ride with someone is the combined values for "Taxi" and for "Ride with someone."

Work or School Trips

At program exit, participants were more likely to use a bicycle to get to work or school than at program entry. On average, participants used their bicycles on 1.8 more days per week. Bicycle mode share to work and school changed from 5% at entry to 26% at exit, and this change is significant at the 99.9% confidence interval. The decreases in walking are also significant at the 99.9% confidence interval, though no other results are (see Appendix TABLE 4).

Figure 2 illustrates the dramatic increase in bicycle mode share to work and school.³

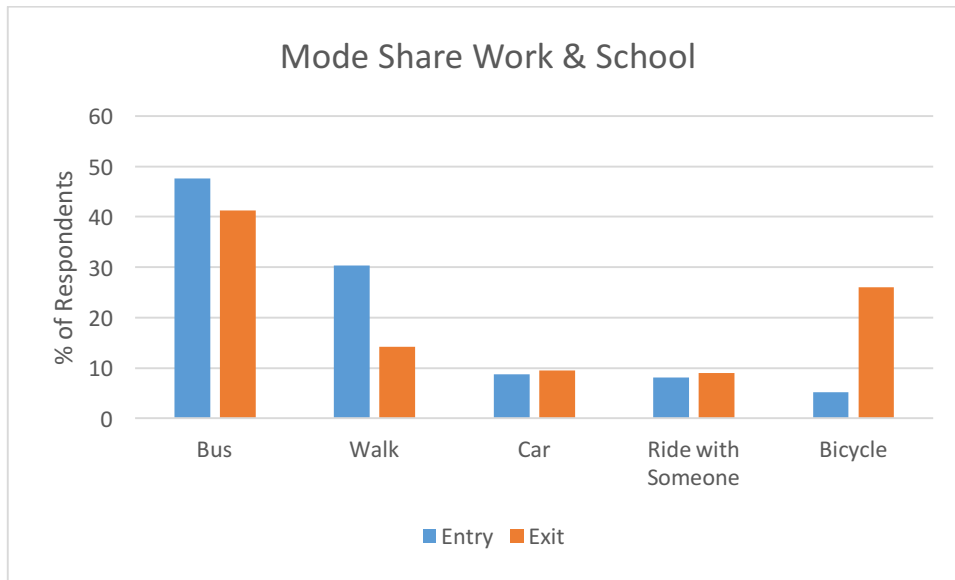


Figure 2 Work Trip Mode Share (n=37)

Combined Shopping Work & School Trips

At program exit, participants were more likely to use a bicycle to travel to shopping, work and school. Bicycle mode share increased from 7% to 31% when all daily uses were combined, and this change is significant at the 99.9% confidence interval (Figure 3). The changes in walking, taxi-ing (combined with *Ride with Someone* in Figure 3) and bicycling are significant at the 99% confidence interval (see Appendix TABLE 5).

³ Ride with someone is the combined values for “Taxi” and for “Ride with someone.”

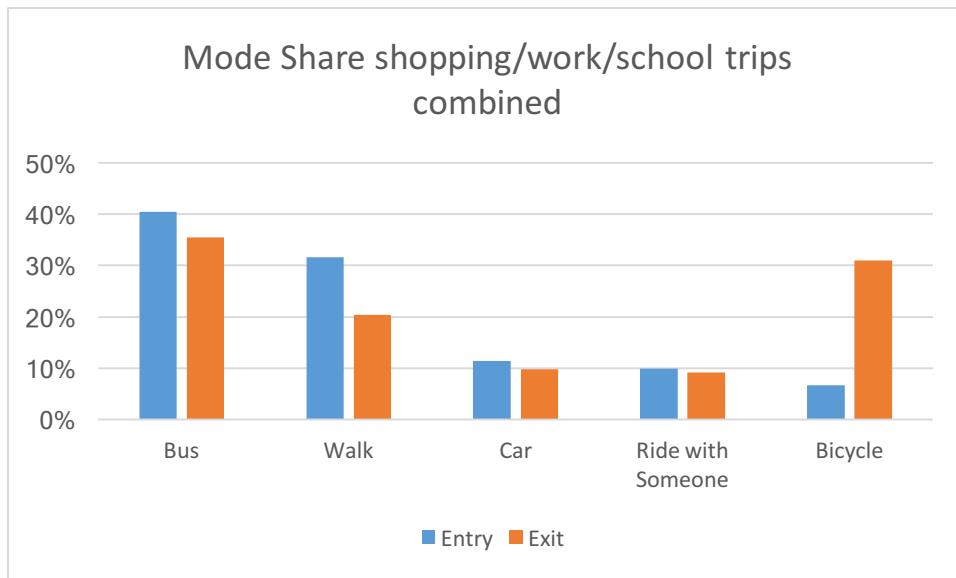


Figure 3 Mode share shopping/work/school (n=37)

Willingness to spend

On average, participants were willing to pay \$27 more for a bike and \$8.8 more for bike accessories at program exit. Neither change is statistically significant (see Appendix TABLES 6 & 7).

Attitudes

There were no other statistically significant attitude changes. However, several attitudinal changes fell just short of attaining statistical significance. Respondents were less likely to agree that riding a bike was easier than using transit in the exit survey (p-value=0.06). They were also less likely to agree that they could find safe streets to ride a bike in their community (p-value=0.08), and that they saw more cyclists on the road in their neighbourhood (p-value=0.09) (see Appendix TABLE 8).

Benefits

Social Connections

On average, individuals made 4.1 new social connections by participating in Bike Host, and met an additional 4.1 people outside of the program because of their bicycle (n=37). In the exit survey respondents were more likely to agree that they felt a sense of belonging in the community. This result, however, was not significant (p-value=0.14). There was no significant change in reported health.

Entry Benefits

At program entry, fun, health and exercise, and meeting new people were the top three perceived benefits of participating in Bike Host.

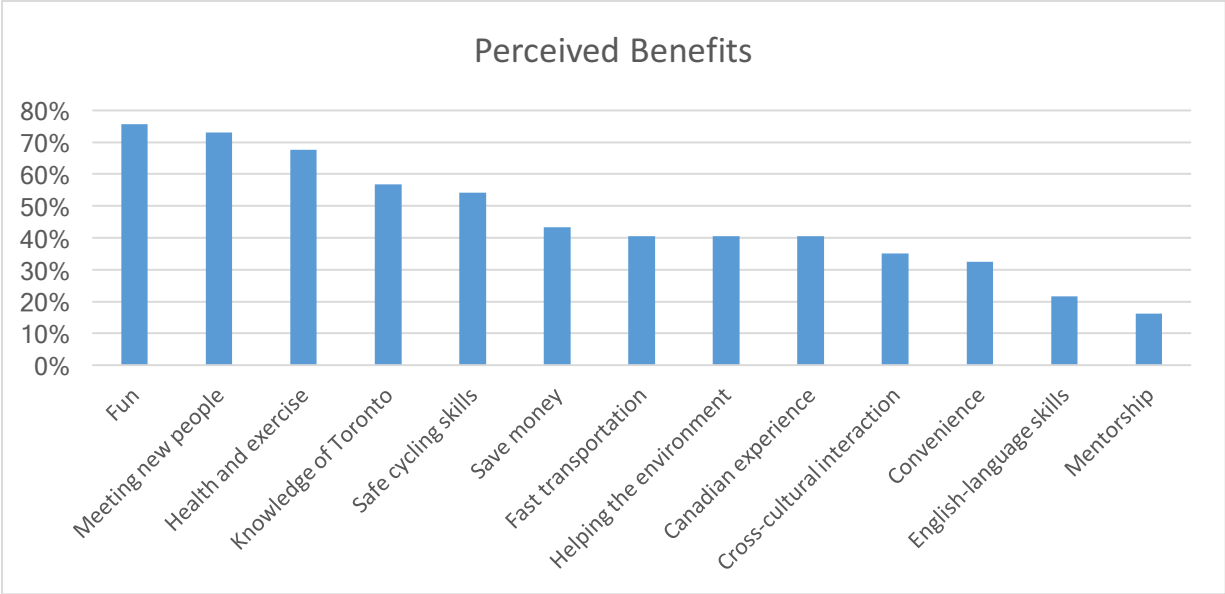


Figure 4 Perceived Benefits(n=37)

Exit Benefits

The top three benefits received from participating in Bike Host outlined in the exit survey are fun, health and exercise, and meeting new people. There was consistency between benefits expected from the program and benefits received from the program.

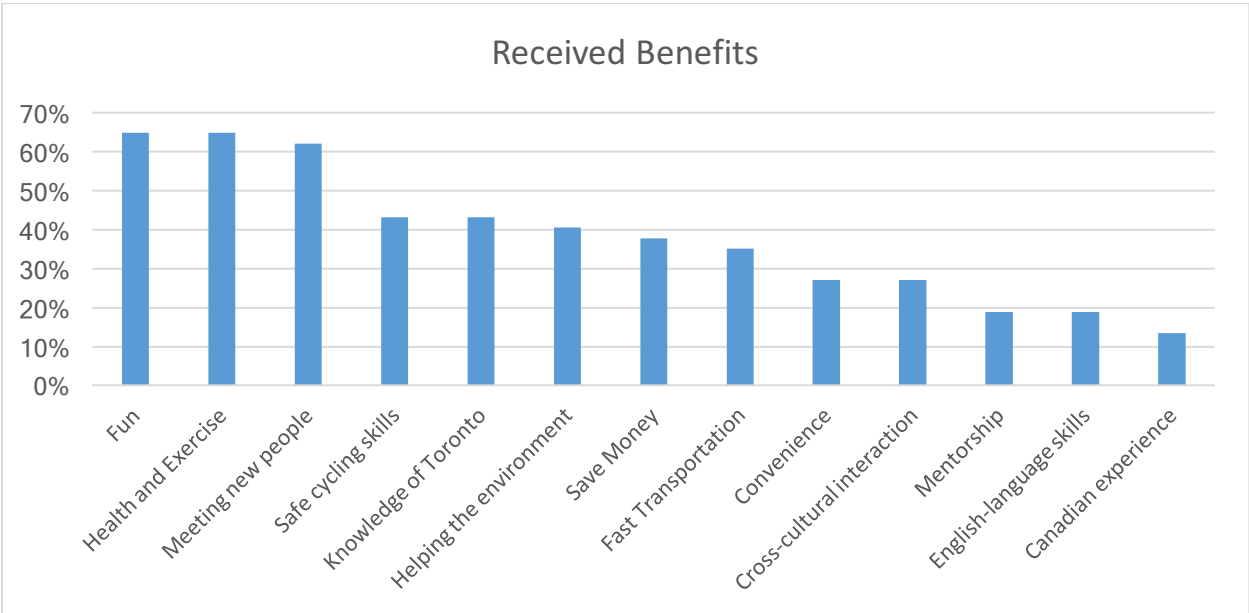


Figure 5 Received Benefits (n=37)

Financial Benefits

In the Exit Survey, respondents noted that they received a variety of financial benefits including saving money and the ability to access a wider variety of goods. 75% of respondents saved money on transit fares and 32% on gasoline costs. 24% of respondents could access better quality goods while 32% could find lower prices on goods.

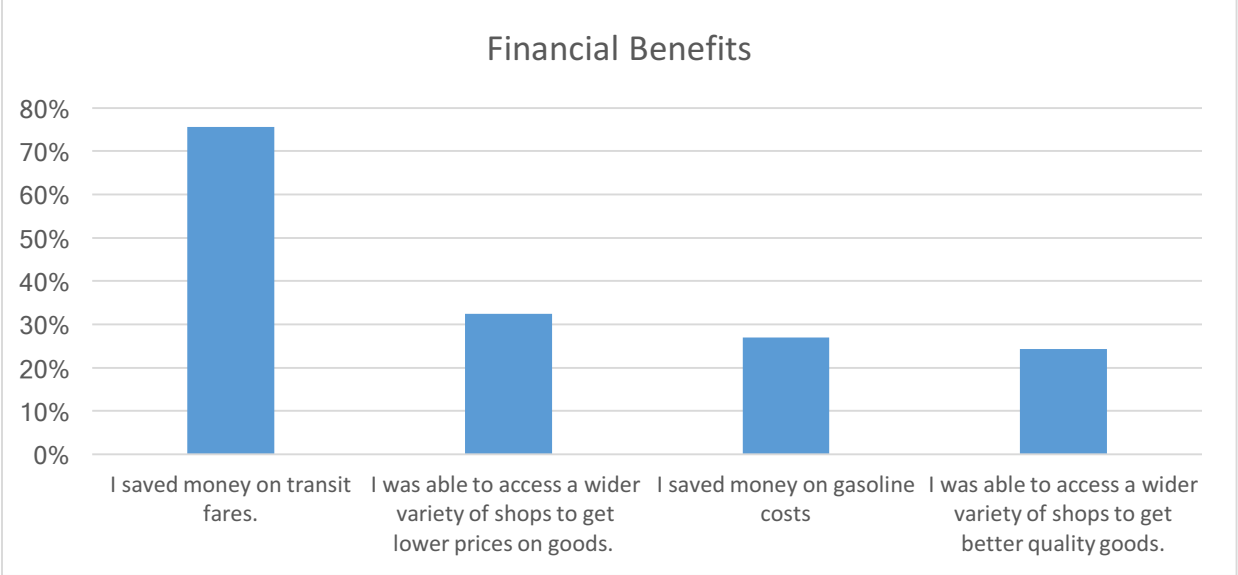


Figure 6 Financial Benefits (n=37)

Experiential Results

89% of exit survey respondents “strongly agreed” or “agreed” that their experience with Bike Host made them more likely to encourage their kids to bicycle to school. Given the age range of the participants (86% were in the prime child raising years aged 25-44) and 59% of participants lived with children under the age of 17 in their household, this is an important outcome. 86% agreed that the program had improved their own cycling skills and knowledge.

On average, survey responders considered riding in Toronto about the same as riding or a bit harder than riding in other places. At exit 81% agreed or strongly agreed that they felt comfortable riding a bike on the streets of Toronto while 11% disagreed or strongly disagreed. The 81% comfort level was a small decline from program entry but was not statistically significant (p=.13). Of the 37 respondents 6 felt more comfortable at program exit, 19 felt the same at exit as entry while 12 felt less comfortable at program exit. Although not statistically significant, this is an interesting result that deserves further exploration especially as it relates to the changes in attitudes towards finding safe streets to ride in their neighbourhoods and seeing others riding.

81% felt the program had both improved their knowledge of Toronto and their health and well-being.

78% felt the time commitment was manageable. 73% gained experience sharing their stories in English and 70% gained experience working as a team in Canada. 60% agreed they had gained experience planning an event.

Figure 7 outlines all other experiential benefits that respondents were asked to consider.

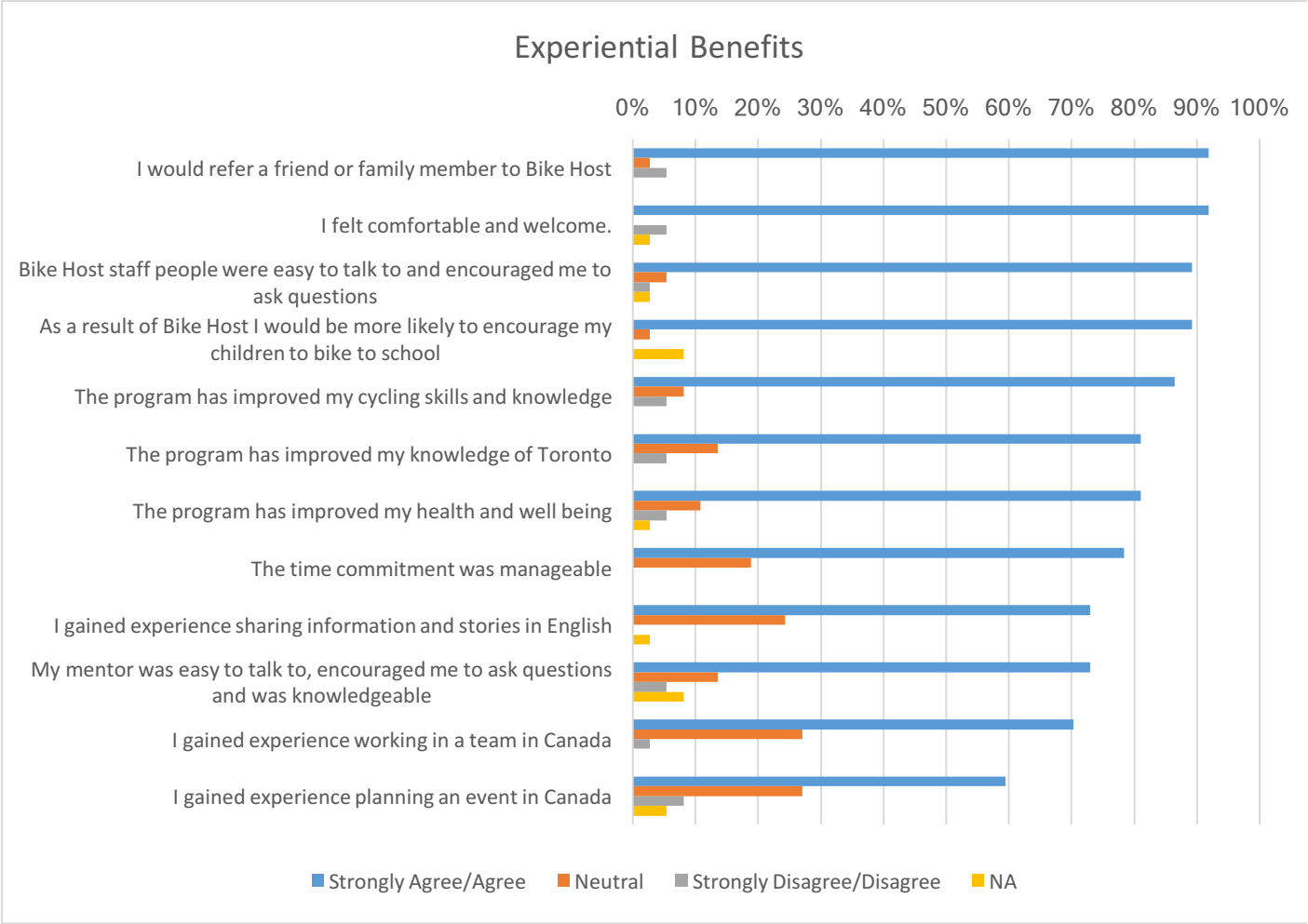


Figure 7 Bike Host Benefits (n=37)

Satisfaction with Bike Host

92% of Bike Host exit respondents “agreed” or “strongly agreed” that they would refer a friend or family member to Bike Host and that they felt comfortable and welcome, indicating overwhelming satisfaction with the program.

Conclusions

Bike Host participation resulted in many positive outcomes for participants and their communities. Bike Host participants travelled significantly more days by bike at program exit than at entry. This applied to all types of trips including recreation, shopping, and work/school. At program exit, they were willing to spend more money than at program entry, on both bikes and accessories although not at a statically significant level. This lack of significance may be due to small sample size. Participants met many new people both in the program and in their communities because of their bicycle. Their sense of belonging increased, although again, not at a statistically significant level. Participants improved their cycling skills and agreed that participation in the program made it more likely they would allow their children to bike to school. They improved their health

and well-being as well as their knowledge of Toronto. At the same time, they gained English language experience and many gained experience working with others in Canada and planning events. It would be difficult to imagine another program with so many positive outcomes.

Appendix 1

TABLE 1 Bike Host 2016 Participant Demographic Characteristics (n=37)

Sex	Male: 22 Female: 15
Age	<25: 2 25-34: 21 35-44: 11 45-54: 2 55-64: 1 65+: 0
Ethnicities	Chinese, Indian, Pakistan, South Asian, Arab, Bangladeshi, European, Bengali, Filipino, Ethiopian
Access to Car	Yes: 12 No: 25
Access to Bike	Yes: 2 No: 35
Years in Canada	< 1 year: 10 1-<3 years: 16 3-5 years: 11
Household size	1: 1 2: 11 3: 13 4: 4 5: 5 6: 2
Children <17	0 <17: 15 1 <17: 9 2 <17: 8 3 <17: 5
School	Part-time: 5 Full-time: 13 Not attending school: 19
Employment	Part-time: 5 Full-time: 9 Not applicable: 23
Housing	High-rise apartment: 20 Low-rise apartment: 6 Detached or semi-detached house: 8 Other: 3
Telephone	Cell: 36 Landline: 6
Safe Place to Lock a Bike	Yes: 35 No: 2

TABLE 2 Frequency of trips for recreation-days per month (n=37)

Base Number	3.6
Change	4.6
P-value	1.026E ⁻⁰⁵

TABLE 3 Shopping mode frequency-days per week (n=37)

	Bus	Walk	Taxi	Ride with someone	Drive Car	Bicycle
Base Number	2.7	2.7	0.3	0.65	1.2	0.68
Change	0.04	-0.4	-0.32	0.054	-0.27	2.47
P-value	0.47	0.23	0.005	0.40	0.27	2.71E ⁻⁰⁸

TABLE 4 Work and school mode frequency (n=37)

	Bus	Walk	Taxi	Ride with someone	Drive Car	Bicycle
Base Number	4.1	2.6	0.28	0.4	0.7	0.45
Change	-0.66	-1.41	-0.21	0.26	-0.17	1.9
P-value	0.13	0.0085	0.06	0.15	0.35	2.09E ⁻⁰⁵

TABLE 5 Shopping/work/school combined mode frequency (n=37)

	Bus	Walk	Taxi	Ride with someone	Drive Car	Bicycle
Base Number	6.84	5.34	0.6	1.08	1.92	1.1
Change	-1.1	-1.95	-0.54	0.24	-0.5	4.14
P-value	0.14	0.02	0.013	0.27	0.25	7.899E ⁻⁰⁷

TABLE 6 Willingness to spend on bicycle (n=37)

Average Willingness to Spend in Entry Data:	\$127.03
Change	\$27.03
P-value	0.17

TABLE 7 Willingness to spend on accessories (n=37)

Average Willingness to Spend in Entry Data:	\$44.59
Change	\$8.88
P-value	0.17

TABLE 8 Changes in Attitudes (n=37)

Attitude	Base Number	Change	P-value
I feel comfortable riding a bike on the street in my neighbourhood.	4.32	-0.27	0.13
There are safe streets to ride a bike in my community.	4.36	-0.28	0.08
I'm afraid my bike will get stolen if I lock it up outside.	2.89	0.17	0.28
It is possible to visit my friends using a bicycle.	4.25	0.04	0.39
I believe that biking is a fast and convenient way to get around in my neighbourhood.	4.43	-0.15	0.21
I believe it is dangerous to ride a bike in my neighbourhood.	1.94	0.005	0.5
People in my family think it is dangerous to ride a bike in my community	2	0.17	0.23
Only low income people ride bikes for transportation.	1.89	-0.03	0.45
I feel confident that I can find a good bicycle route.	4.08	-0.16	0.24
There are not many women or girls who ride bikes in my neighbourhood.	2.39	-0.02	0.48
Cycling can sometimes be easier for me than using transit.	4.36	-0.28	0.06
Cycling can sometimes be easier for me than driving.	4.14	-0.28	0.1
I feel confident that I know the rules of the road when I bicycle in Canada.	4.05	0.08	0.36
I see cyclists on the road in my neighbourhood.	4.46	-0.24	0.09
People from my culture think it is important to drive a car.	2.73	0.19	0.20