ACTIVE TRANSPORTATION

Community Survey

Town of Bridgewater

Nova Scotia

Final Report

September 24, 2010

Nova Insights
Market Research & Consulting

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1.0 Executive Summary

1.1 Background, Purpose, and Methodology

The Town of Bridgewater, Nova Scotia commissioned Nova Insights Market Research & Consulting to conduct a survey among adult (18+) residents of the town to identify behaviours, motivators, and challenges in relation to walking and bicycling. Funding, as well as active planning and consultation, was provided by Nova Scotia Health Promotion and Protection.

The overarching purpose of the research is to **understand the attitudes and behaviours of Bridgewater residents to inform the planning of the town's active transportation infrastructure and programming**.

The specific objectives of the research include:

- To determine the frequency with which residents engage in active transportation—walking and cycling, in particular.
- To identify the primary drivers to participate—transportation modes, exercise/health, recreation/enjoyment, protecting the environment, or a relative combination of these.
- To determine the barriers to participation (or greater participation) in active transportation modes.
- To understand how residents view Bridgewater as a place conducive to cycling or walking.
- To determine the proportion of Town residents aware of Bridgewater's Active Transportation committee.

The Town of Bridgewater Active Transportation committee designed the lines of questioning based on internal and community consultations. Nova Insights then translated those lines of questioning into a structured quantitative questionnaire for efficient and unbiased collection of results from residents. The full questionnaire is included in Section 5.0 of this report.

The primary sample used in this research is one established through random telephone recruitment. A sample of all Bridgewater households with a listed landline home phone, as well as some scientifically generated unlisted numbers, was called to participate in the survey by telephone.

Of the 3595 households in Bridgewater, 1394 have listed landline telephone numbers. The remaining are likely a combination of unlisted, wireless only, Voice Over IP, or have no telephone. Interviews were conducted among 300 listed and unlisted landline households. The telephone interviews were conducted by trained market research interviewers at Vision Research, Inc. in Charlottetown, PE.

Respondents were assured of the confidentiality of their responses to encourage complete openness and honesty.

To best reflect the Bridgewater community as a whole, the data were weighted by age and gender to more closely align with the actual distribution of demographics within the town.

The survey was completed between August 5 and August 15, 2010. The sample size of n=300 carries a *maximum* sampling error of plus or minus 5.42 percentage points, 19 times out of 20, based on a population of 3,595 adult residents of Bridgewater[1].

[1] Statistics Canada, 2006

1.2 Key Findings

1. Three quarters (74%) of Bridgewater adults are walkers, and one-fifth (21%) are bicyclists.
2. Walkers spend 85% of their walking time in the town, compared to 66% for bicyclists.
3. Average time for walking and bicycling is 44 minutes.
4. Three-fifths (61%) of Bridgewater citizens walk at least a few times per week, while one-in-twelve (8%) bicycle this often.
5. The most common destination for both walkers and bicyclists is a non-destination—just going for the leisure.
6. Bridgewater citizens most often walk and bicycle for the exercise, pure enjoyment, and fresh air.
7. There is no definitive challenge that keeps citizens from walking or bicycling. However, they most often say they'd just rather drive and that Bridgewater is too hilly for walking. Secure bicycle parking, not having a bike, and traffic safety are also top barriers for bicycling.
8. Four-in-five (80%) give a positive rating to Bridgewater's walkability, and half that (41%) say it is bike-friendly.
9. Enjoyable surroundings are the top-rated aspects of Bridgewater's walkability and bike-friendliness. Convenience through connected routes and trails also rank highly along with safety considerations.
10. Sidewalks have the highest correlation to Bridgewater's overall walkability, followed by safety.
11. Streets being easy to bicycle and the intersections and crosswalks correlate most highly with the bike-friendliness of the town.
12. One-third (35%) report being aware the Town of Bridgewater is working on increasing active transportation.

2.0 Detailed Findings

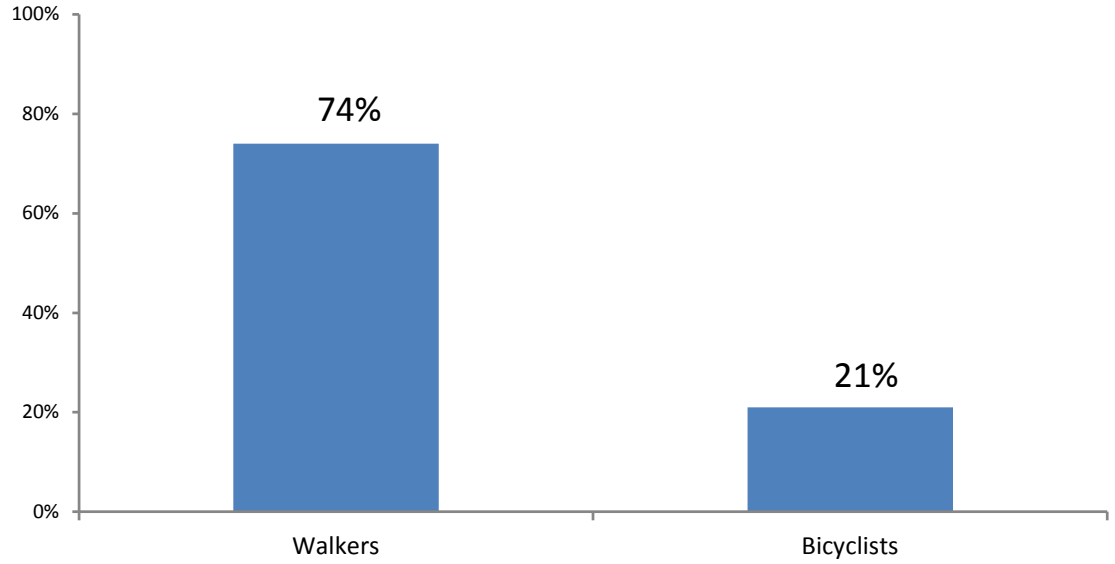
2.1 Participation

2.1.1 Walkers and Bicyclists

For this research, Active Transportation participation and considerations are restricted to walking and bicycling modes. Citizens are considered to be walkers or bicyclists if they have engaged in these activities during the past twelve months for a duration of at least 10-minutes.

As seen in Figure 1 below, **nearly three-quarters (74%) of Bridgewater adults are walkers**, compared to **about one-fifth (21%) that are bicyclists**.

Figure 1 – Proportion of Bridgewater adults that are walkers or bicyclists



Those aged 65 or older are significantly less likely to be walkers (64%) or bicyclists (1%). The 18-34 age segment shows the highest prevalence of walkers (81%) and bicyclists (39%). Females are slightly more likely to be walkers (76%) than males (72%). However, males are slightly more likely to be bicyclists (24%) than females (18%).

Bicyclists are significantly more likely than average to be walkers (86%), but walkers are only slightly more likely to be bicyclists (24%).

2.1.2 Duration

On average, walkers spend **85% of their walking time within Bridgewater**, and walk for an average of **44 minutes**. Among the adult Bridgewater population as a whole (including non-walkers), the average walking time is 32-minutes.

Bicyclists spend **two-thirds (66%) of their biking time within Bridgewater**, on average, and bike for an average of **44 minutes**. Among the adult population as a whole, the average biking time is only 8 minutes, influenced severely by the high proportion of non-bicyclists.

2.1.3 Frequency

Frequency of walking and cycling within Bridgewater was measured by asking citizens the frequency of using each active transportation mode to reach possible destinations. Although an extensive list of possibilities was presented, it is possible there may be some that were not. However, we do not believe it would significantly change the findings.

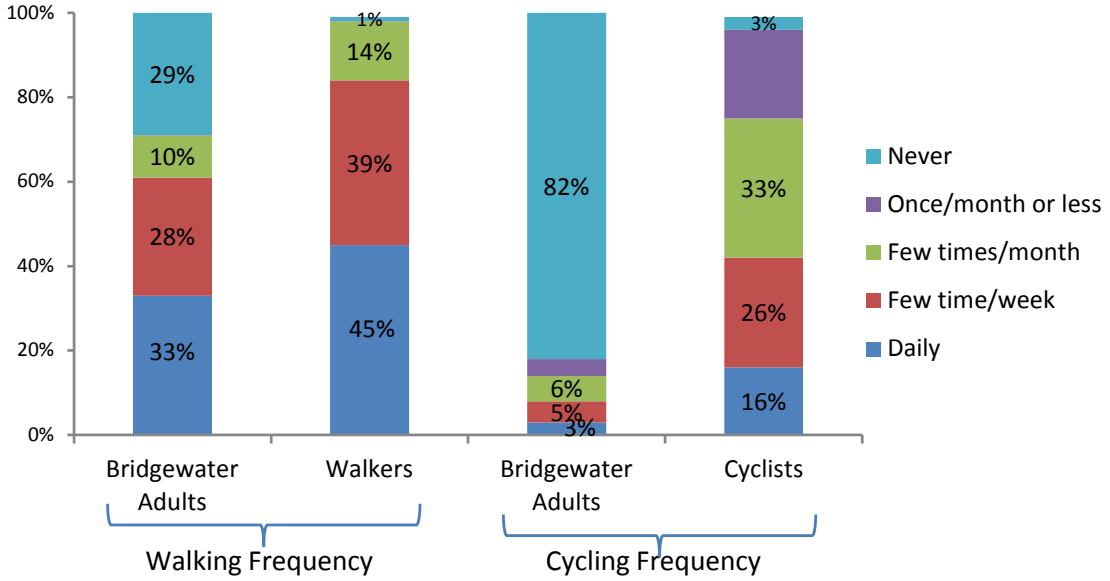
It is also possible that some destination walking or cycling could be mutually exclusive and additive to frequency. For example, if you cycle to various destinations a few times a week, you could answer a maximum of a few times a week to these questions, but actually cycle every day overall. For this reason, the data presented below should be interpreted with caution.

The list of destinations used to derive overall frequency can be found in Section 2.2.1.

The derived data shown in Figure 2 below show that one-third (33%) of Bridgewater citizens walk daily. This increases to nearly half (45%) among Bridgewater walkers. **Three-fifths (61%) of citizens walk at least a few times per week in Bridgewater.**

A much smaller 3% of Bridgewater adults bicycle daily, increasing to 16% of Bridgewater bicyclists. **One-in-twelve (8%) citizens bicycle at least a few times per week.**

Figure 2 - Overall frequency of walking and cycling



2.2 Walkers

As mentioned earlier in this report, walkers are those who self-report that they have regularly taken walks during the past 12 months that have lasted at least 10-minutes. This represents 74% of the adult Bridgewater population.

2.2.1 Where are they going?

The determination of walkers' destinations is focused on their walking *within* the Town of Bridgewater. There are some walkers that say they do not walk within Bridgewater (2%). This means that **28% of adult Bridgewater citizens are not walkers *or* do not walk *in Bridgewater***. This focus helps town officials better understand the habits of their citizens within the town over which they have influence and can affect change for improvement and encouragement of increased active transportation.

Although 28% have indicated they do not walk in Bridgewater, the data presented below will maintain an analytic base of the adult population so future measurements can more appropriately be compared as the non-walkers proportion changes along with destination behaviours.

Figure 3 below shows the frequency with which adult Bridgewater citizens say they walk to each of the six possible destinations that were presented to them. By a two-to-one margin, the most common destination for Bridgewater walkers is a non-destination—they simply take **leisure walks** within the town at least a few times a week (50%).

A distant second, **errands or shopping** is cited by 24% as a destination at least a few times a week. Close behind this are the proportion who say they walk to **visit friends or family** in town (20%) or to **get to a recreational place** (19%) at least a few times a week.

Fewer (16%) say they walk to **get to work** at least a few times a week. Very few walk to a **school or daycare** (4%) at least a few times a week.

Figure 3 - Walking destinations

	At least a few times / week	Daily	Few times / week	Few times / month	Once a month or less	Never
Just for leisure within Bridgewater	50%	22%	28%	13%	2%	6%
To do errands or go shopping in Bridgewater	24%	7%	18%	16%	6%	26%
To visit friends or family in Bridgewater	20%	4%	16%	14%	8%	30%

	At least a few times / week	Daily	Few times / week	Few times / month	Once a month or less	Never
To get to a recreational place such as a park or arena in Bridgewater	19%	3%	16%	11%	11%	31%
To get to work or volunteering in Bridgewater	16%	11%	5%	7%	3%	46%
To get to or bring someone to school or daycare in Bridgewater	4%	3%	1%	1%	2%	66%
Combinations of segments may not equal the total cited due to rounding.						

Those in the 55-64 age segment are significantly more likely than others to say they walk at least a few times a week for leisure (65%). Those in the 18-34 segment are more likely than average to say they visit friends and family in town (34%). The 35-54 year olds are more likely to say they walk to a school or daycare (10%).

2.2.2 Why walk?

Walkers living in Bridgewater were asked the importance of each of a series of nine possible reasons for why they walk. They provided this evaluation on a scale from one-to-seven where one means it is not at all important and seven means it is extremely important. Figure 4 below shows a summary of these ratings provided by walkers. High, mid, and low ratings are grouped, and a mean rating is provided. The "High intensity" measurement is the percentage the seven-rating is of the "High" ratings.

None of the top three reasons for walking relate to transportation or a destination. **Exercise** for health reasons tops the list of important reasons to walk with a mean rating of 6.4, and fully 93% assigning a high rating. Close behind (mean 6.3) is the **fresh air** and enjoyment of being outside, and the simple **enjoyment of walking** (mean 5.9).

The second tier of reasons for walking have mid-level importance to walkers and **use walking as a means to an end**. **Helping the environment** (mean 4.5), **spending time with friends or family** (mean 4.4), and to **see the neighbourhood** (mean 4.4).

Convenience in getting around (mean 3.9) and **affordability** in getting around (mean 3.8) relate to walking as a transportation mode, but both make up the high end of the bottom tier of reasons for walking.

The reason for walking with the lowest importance rating is **walking the dog** (mean 2.8). Although this receives the overall lowest rating, it may suffer some from those ratings from

people who do not have dogs. Evidence of this is found in the "high intensity" variable. Among those that provide a high (5,6,7) rating, three-quarters (75%) say it is an *extremely* important reason for their walking.

Figure 4 - Importance of reasons for walking

			Importance Rating		
	MEAN Rating	High intensity	High (5-7)	Mid (4)	Low (1-3)
To get exercise for health reasons	6.4	77%	93%	3%	5%
To get fresh air and enjoy being outside	6.3	69%	92%	5%	3%
For the simple enjoyment of walking	5.9	60%	87%	6%	7%
To help the environment	4.5	47%	59%	10%	30%
To spend time with friends or family	4.4	35%	59%	9%	33%
To see my neighbourhood or explore the area	4.4	31%	57%	15%	28%
For convenience in getting around	3.9	38%	47%	12%	41%
To have an affordable way to get around	3.8	54%	42%	12%	46%
To walk the dog	2.8	75%	28%	1%	65%
					Percentages may not add to 100% due to rounding

Females rated the importance of each of these reasons for walking higher than males. The differences were greatest on the following reasons:

- For the simple enjoyment of walking (mean: female 6.3, male 5.5)
- To spend time with friends or family (mean: female 4.7, male 3.9)
- To get fresh air and enjoy being outside (mean: female 6.6, male 5.9)
- For convenience in getting around (mean: female 4.2, male 3.5)
- To help the environment (mean: female 4.8, male 4.1)
- To get exercise for health reasons (mean: female 6.7, male 6.1)

The transportation items, convenience (mean 5.1) and affordability (mean 5.0) in getting around, were assigned higher importance ratings by those with a household income under $30,000.

2.2.3 Why not walk more?

The barriers and challenges to walking more were evaluated by both walkers and non-walkers. Below in Figure 5 are the levels of agreement with statements about 15 possible challenges that may prevent an increased duration or frequency of walking.

None of the 15 statements relating to walking challenges receive a high proportion agreement. In fact, the highest level of agreement (mean 3.4) only receives a top three rating (*on a seven-point scale*) from one-third (34%) of the citizens—**I would rather drive**. Fairly close behind are those who agree that **Bridgewater is too hilly** (mean 3.2) and that it is **too far to walk** where they need to go (mean 3.1).

All other possible challenges tested received mean ratings below 3.0 on the seven-point scale. This **speaks well for the many possible challenges that may have been perceived involving the Bridgewater infrastructure**. Low proportions feel the sidewalks, pathways, or trails are in poor shape (mean 2.9) or that there are too few of them (mean 2.8). The lowest level of agreement was with the statement that the community in unclean or unpleasant (mean 2.0).

Figure 5 - Agreement with reasons for not walking more

			Agreement Rating		
	MEAN Rating	Agreement intensity	Agree (5-7)	On fence (4)	Disagree (1-3)
I would rather drive	3.4	38%	34%	14%	51%
Bridgewater is too hilly	3.2	40%	30%	11%	59%
It's too far to walk where I need to go	3.1	33%	27%	13%	59%
I don't have time	2.9	30%	27%	9%	64%
The sidewalks, pathways, and trails are in poor shape	2.9	38%	22%	14%	62%
There are not enough sidewalks, pathways, or trails	2.8	35%	23%	11%	64%
The weather is uncomfortable to walk in	2.8	39%	17%	18%	63%
Health reasons prevent me from walking	2.7	63%	26%	6%	68%
I don't feel safe walking	2.6	27%	20%	12%	67%
Our community doesn't really support walking	2.6	27%	18%	10%	66%
I don't feel fit enough to walk	2.5	38%	22%	5%	73%
There isn't a shower or lockers where I'm going	2.5	69%	18%	4%	65%
I don't have anyone to walk with	2.4	39%	17%	7%	74%
I don't know of any nice walking routes	2.2	32%	12%	8%	78%
My community is unclean or unpleasant	2.0	27%	13%	2%	85%
			Percentages may not add to 100% due to rounding		

Those who say they have not taken 10-minute (or longer) walks during the past 12 months **(non-walkers) provide equivalent or higher ratings on all statements presented**, except for a statistically insignificant higher proportion of walkers agreeing that the community is unclean or unpleasant.

The challenges with the greatest difference between non-walkers and walkers were:

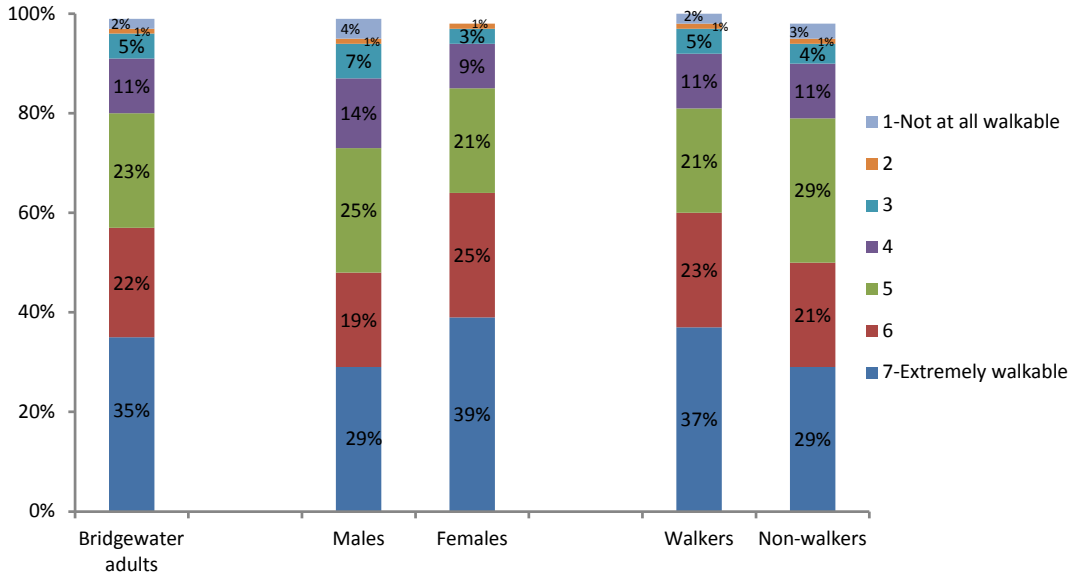
- I would rather drive *(mean: walkers 3.0, non-walkers 4.5)*
- Health reasons prevent me from walking *(mean: walkers 2.4, non-walkers 3.8)*
- I don't feel fit enough to walk *(mean: walkers 2.1, non-walkers 3.5)*
- I don't have time *(mean: walkers 2.6, non-walkers 3.6)*
- I don't have anyone to walk with *(mean: walkers 2.1, non-walkers 3.1)*
- It's too far to walk where I need to go *(mean: walkers 2.8, non-walkers 3.7)*
- I don't know of any nice walking routes *(mean: walkers 2.0, non-walkers 2.6)*

2.2.4 Walkability of Bridgewater

On a seven-point scale where one means Bridgewater is not at all walkable, and seven means it is extremely walkable, the mean score given is 5.6. One-third (35%) find it extremely walkable, and four-fifths (80%) rate in with a top three score. Females find it more walkable (mean 5.9) than do males (mean 5.3) with 86% of females providing a top three score, compared to 72% of males.

As seen below in Figure 6, there is little difference between the opinions of walkers (81%) versus non-walkers (79%) on their top three score-giving. However, the *intensity* of this high rating is somewhat higher among walkers (45%) than for non-walkers (37%).

Figure 6 - Overall walkability of Bridgewater



After providing their evaluation of the overall walkability of Bridgewater, walkers were asked about specific aspects that may or may not affect the walking experience.

As seen in Figure 7 below, the highest rated specific aspect of Bridgewater's walkability is the **enjoyable surroundings** (mean 5.7). About six-in-seven (85%) give it one of the top three ratings. Other aspects that rank in the **top tier** among walkers also relate to the **broader experience of walking**—convenient and connected routes (mean 5.4), trails and pathways (mean 5.4), safety from crime and harassment (mean 5.3), recreational spaces to walk (mean 5.1), and safety from accidents and falls (mean 5.0).

The **second tier** quality ratings for walkability features relate primarily to **Bridgewater's infrastructure**—Intersections and crosswalks (mean 4.9), Sidewalks (mean 4.9), Lighting at night (4.8), and Indoor public areas (mean 4.8).

The lowest tier relates to **informational** aspects that could contribute to walkability. Walking events, programs, or clubs (mean 3.8) receives a low score from walkers primarily resulting from a lack of knowledge—one-fifth (21%) say they "don't know." Information on walking routes (mean 3.7) also receives "don't know" comments from one-in-eight (13%) walkers.

Figure 7 - Walkability features of Bridgewater among walkers

			Walkability Rating			
	MEAN Rating	High rating intensity	Good (5-7)	Mid (4)	Poor (1-3)	*Don't know*
Enjoyable surroundings	5.7	42%	85%	7%	8%	*<0.5%*
Convenient & connected routes to get to your destinations	5.4	32%	78%	9%	9%	*3%*
Trails & pathways	5.4	35%	75%	8%	9%	*9%*
Safety from crime & harassment	5.3	30%	75%	13%	11%	*1%*
Recreational spaces where you can walk	5.1	33%	70%	9%	16%	*5%*
Safety from accidents & falls	5.0	25%	74%	9%	16%	*1%*
Intersections & crosswalks	4.9	23%	70%	10%	19%	*<0.5%*
Sidewalks	4.9	27%	67%	13%	19%	*1%*
Lighting at night	4.8	26%	53%	19%	17%	*10%*
Indoor public or commercial areas where you can walk	4.8	34%	52%	20%	17%	*11%*
Walking events, programs, or clubs	3.8	32%	32%	13%	33%	*21%*
Information on walking routes	3.7	13%	35%	14%	37%	*13%*
						Percentages may not add to 100% due to rounding

Female walkers provide a higher rating than males for Bridgewater's sidewalks (mean: female 5.1; male 4.7) and on safety from accidents and falls (mean: female 5.3; male 4.8). Female walkers also are more likely to score indoor public areas in the top-three ratings (59%) than are males (43%).

The **18-34 age** segment of walkers is significantly more likely to score the convenient and connected routes with a top-three rating (92%) than the overall sample of walkers (78%).

The **65 or older age** segment of walkers provides a higher mean rating (mean 6.2) than the overall sample of walkers (mean 5.7).

A bivariate **correlation analysis** between the overall walkability rating and the specific evaluations shows the top driver of the overall walkability rating is the **sidewalks**. The second and third most powerful drivers have correlations very close to each other—**safety** from crime and punishment and safety from accidents and falls. In other words, statistically, the variables with the highest influence on high overall walkability ratings are high ratings of sidewalks and safety.

2.3 Bicyclists

Bicyclists are those who self-report that they have regularly ridden a bicycle during the past 12 months that have lasted at least 10-minutes. This represents 21% of the adult Bridgewater population.

2.3.1 Where are they going?

The determination of bicyclists' destinations is focused on their bicycling *within* the Town of Bridgewater. There are some that say they do not bicycle within Bridgewater (11%). This means that **81% of adult Bridgewater citizens are not bicyclers *or* do not cycle *in Bridgewater***.

Although 81% have indicated they do not bicycle in Bridgewater, the data presented below will maintain an analytic base of the adult population so future measurements can more appropriately be compared as the non-bicyclist proportion changes along with destination behaviours.

Figure 8 below shows the frequency with which adult Bridgewater citizens say they bicycle to each of the six possible destinations that were presented to them. By nearly a three-to-one margin, the most common destination for Bridgewater bicyclists is a non-destination, as it was with walkers—they simply bicycle for leisure within the town at least a few times a week (6.6%).

To visit friends or family in town is a distant second (2.4%), with travel to a recreational place (2.3%), and getting to work or volunteering (2.2%) very close behind.

Fewer (1.7%) say they bicycle when doing errands at least a few times a week, and very few (0.8%) bicycle to a school or daycare.

Figure 8 - Bicycling destinations

	At least a few times / week	*Ever*	Daily	Few times / week	Few times / month	Once a month or less	Never
Just for leisure within Bridgewater	6.6%	*16.3%*	1.7%	4.9%	6.2%	3.5%	2.3%
To visit friends / family in Bridgewater	2.4%	*8.5%*	0.3%	2.1%	2.3%	3.9%	10.1%
To get to a recreational place such as a park or arena in Bridgewater	2.3%	*10.4%*	0.3%	2.0%	4.1%	4.1%	8.2%
To get to work or volunteering in Bridgewater	2.2%	*5.2%*	1.1%	1.1%	0.8%	2.3%	13.4%

	At least a few times / week	*Ever*	Daily	Few times / week	Few times / month	Once a month or less	Never
To do errands or go shopping in Bridgewater	1.7%	*7.7%*	1.0%	0.7%	1.5%	4.6%	10.9%
To get to or bring someone to school or daycare in Bridgewater	0.8%	*1.6%*	0.4%	0.3%	0%	0.9%	17.0%
Combinations of segments may not equal the total cited due to rounding.							

2.3.2 Why bicycle?

Bicyclers living in Bridgewater were asked the importance of each of a series of nine possible reasons for why they bicycle. As with the walkers, they provided this evaluation on a scale from one-to-seven where one means it is not at all important and seven means it is extremely important.

Figure 9 below shows a summary of these ratings provided by bicyclers. High, mid, and low ratings are grouped, and a mean rating is provided. The "High intensity" measurement is the percentage the seven-rating is of the "High" ratings.

Consistent with the finding for walkers, **none of the top three reasons for bicycling relate to transportation** or a destination. However, the order of the top three is somewhat different for bicyclers. **Exercise** was the top reason for walkers, but ranks third for bicyclers (mean 5.6) behind the **simple enjoyment** of bicycling (mean 6.0) and to **get fresh air** (mean 6.0).

Again consistent with walkers, the second tier of reasons for bicycling have mid-level importance and **use bicycling as a means to an end—Spending time with friends or family** (mean 4.6), to **see the neighbourhood** (mean 4.6), and **helping the environment** (mean 4.2).

Affordability in getting around (mean 3.9) and **convenience** in getting around (mean 3.6) relate to bicycling as a **transportation mode**, but both make up the high end of the bottom tier of reasons for bicycling, as they did for walkers.

The reason for bicycling with the lowest importance rating is **to exercise the dog** (mean 1.5).

Figure 9 - Importance of reasons for bicycling

	MEAN Rating	High intensity	Importance Rating		
			High (5-7)	Mid (4)	Low (1-3)
For the simple enjoyment of biking	6.0	50%	90%	5%	5%
To get fresh air and enjoy being outside	6.0	60%	88%	9%	4%
To get exercise for health reasons	5.6	55%	81%	4%	15%
To spend time with friends or family	4.6	43%	59%	13%	29%
To see my neighbourhood or to explore the area	4.6	38%	59%	20%	21%
To help the environment	4.2	52%	50%	7%	39%
To have an affordable way to get around	3.9	55%	46%	9%	46%
For convenience in getting around	3.6	57%	37%	13%	50%
To exercise the dog	1.5	0%	9%	3%	84%
			Percentages may not add to 100% due to rounding		

Because of the low sample size of bicyclists (n=53), differences among sub segments do not emerge with sufficient statistical reliability, with the exception of one—the **18-34 age segment provide a significantly lower score on exercise** (mean 4.8) than did either the 35-54 segment (mean 6.1) or 55-64 group (mean 6.8).

2.3.3 Why not bicycle more?

The barriers and challenges to bicycling more were evaluated by both bicyclists and non-bicyclists. Below in Figure 10 are the levels of agreement with statements about 17 possible challenges that may prevent an increased duration or frequency of bicycling. Opinions were provided on a scale from one-to-seven where one means they disagree strongly with the statement, and seven means they agree strongly.

As with the walking challenges, **none of the 17 statements relating to bicycling challenges receive a high proportion agreement**.

The top two reasons for not bicycling more relate to **logistics**—there is **not enough secure bicycle parking** (mean 4.2) with two-fifths (41%) agreeing that this is the case, and **not having a bicycle in good working condition** (mean 4.1) with 46% agreement.

Very close behind these top two are those who **do not feel safe in traffic** (mean 4.1), and who say they would **just rather drive** (mean 4.0).

Nearly two-fifths (38%) agree that Bridgewater is **too hilly** (mean 3.7), and one-third (35%) say there are **not enough biking paths**, lanes, or trails (mean 3.7). A similar proportion believes the **roads and bikeways are in poor shape** (32%, mean 3.4). Slightly fewer (28%) say they **don't know of any nice biking routes**.

One-third (33%, mean 3.5) say they are **not confident in their biking abilities**, and three-in-ten (30%, mean 3.0) say the **community doesn't really support biking**.

The remaining reasons for not bicycling have mean scores of less than 3.0.

Figure 10 - Agreement with reasons for not bicycling more

			Agreement Rating		
	MEAN Rating	Agreement intensity	Agree (5-7)	On fence (4)	Disagree (1-3)
There is not enough secure bicycle parking	4.2	47%	41%	8%	32%
I don't have a bike in good working condition	4.1	82%	46%	3%	44%
I don't feel safe in traffic	4.1	63%	42%	8%	40%
I would rather drive	4.0	64%	42%	8%	40%
Bridgewater is too hilly	3.7	39%	38%	12%	42%
There are not enough biking paths, lanes, or trails	3.7	47%	35%	11%	42%
I am not confident enough in my biking abilities	3.5	69%	33%	5%	52%
The roads and bikeways are in poor shape	3.4	32%	32%	11%	45%
I don't know of any nice biking routes	3.2	43%	28%	11%	50%

			Agreement Rating		
	MEAN Rating	Agreement intensity	Agree (5-7)	On fence (4)	Disagree (1-3)
Our community doesn't really support biking	3.0	36%	22%	10%	50%
I don't have time	2.9	35%	25%	11%	54%
Health reasons prevent me from biking	2.8	67%	26%	2%	63%
I don't have anyone to bike with	2.8	62%	22%	7%	60%
The weather is uncomfortable to bike in	2.8	42%	18%	12%	58%
It's too far to bike where I need to go	2.6	41%	20%	5%	65%
There isn't a shower or lockers where I'm going	2.6	56%	17%	5%	56%
My community is unclean or unpleasant	1.7	26%	6%	3%	83%
			Percentages may not add to 100% due to rounding		

Females are more likely than males to say they don't feel safe in traffic (mean: female 4.6, male 3.5).

Those in the **less than $15,000 household income** segment are more likely to say they have no one to bike with (mean 4.3) than the higher income segments. They also are more likely to say they do not know of any nice biking routes.

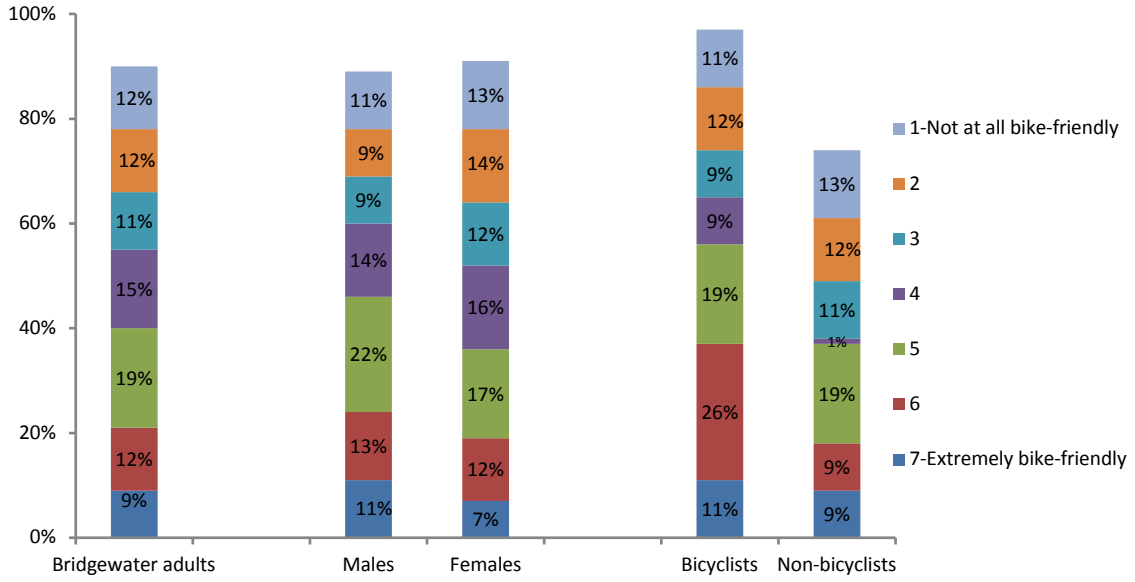
The likelihood of agreeing that health is a reason that prevents biking increases with **age**. The 65 years or older segment is significantly more likely than the overall sample to say they do not have a bike in good working condition (mean 5.1), and that they are not confident enough in their biking abilities (mean 5.0). The younger 18-34 age segment are more concerned with the available secure bicycle parking (mean 5.0).

2.3.4 Bike-friendliness of Bridgewater

On a seven-point scale where one means Bridgewater is not at all bike-friendly, and seven means it is extremely bike-friendly, the mean score given is 4.0. Fewer than one-in-ten (9%) find it extremely bike-friendly, and two-fifths (41%) rate in with a top three score. Males find it more bike-friendly (mean 4.2) than do females (mean 3.8).

As seen below in Figure 11, there is a significant difference between the opinions of bicyclists (56%) versus non-bicyclists (36%) on their top three score-giving.

Figure 11 - Overall bike-friendliness of Bridgewater



After providing their evaluation of the overall bike-friendliness of Bridgewater, bicyclists were asked about specific aspects that may or may not affect the bicycling experience.

As seen in Figure 12 below, the highest rated specific aspect of Bridgewater's bike-friendliness is the **enjoyable surroundings** (mean 5.4). Almost three-quarters (72%) give it one of the top three ratings. Other aspects that rank in the **top tier** among bicyclists are the feeling of **safety** from crime and harassment (mean 5.1) and the **convenient and connected routes** (mean 5.0).

The **second tier** quality ratings for bike-friendliness features relate primarily to **Bridgewater's infrastructure**—Trails and pathways (mean 4.8), Intersections and crosswalks (mean 4.4), lighting at night (mean 4.4), and streets that are easy to bicycle (mean 4.2). Safety from accidents and falls (mean 4.3) also falls within this tier.

As with walkers, the lowest tier relates to **informational** aspects that could contribute to bike-friendliness. Information on biking routes (mean 3.3) receives a low score from bicyclists. Bicycling events, programs, or clubs (mean 2.8) receives the lowest score and receives "don't know" comments from three-in-ten (29%) bicyclists.

Figure 12 - Bike-friendly features of Bridgewater among bicyclists

			Bike-friendliness Rating			
	MEAN Rating	High rating intensity	Good (5-7)	Mid (4)	Poor (1-3)	*Don't know*
Enjoyable surroundings	5.4	46%	72%	12%	13%	*3%*
Safety from crime & harassment	5.1	31%	66%	16%	14%	*3%*
Convenient & connected routes to get to your destinations	5.0	21%	64%	16%	16%	*4%*
Trails & pathways	4.8	31%	56%	19%	17%	*8%*

			Bike-friendliness Rating			
	MEAN Rating	High rating intensity	Good (5-7)	Mid (4)	Poor (1-3)	*Don't know*
Intersections & crosswalks	4.4	16%	55%	8%	33%	*4%*
Lighting at night	4.4	24%	47%	17%	23%	*13%*
Safety from accidents & falls	4.3	19%	51%	10%	29%	*9%*
Streets that are easy to bicycle	4.2	19%	44%	21%	32%	*3%*
Information on bike routes	3.3	39%	22%	15%	55%	*8%*
Bicycling events, programs, or clubs	2.8	19%	7%	20%	44%	*29%*
						Percentages may not add to 100% due to rounding

Because of the low sample size of bicyclists (n=53), differences among sub segments do not emerge with sufficient statistical reliability.

A bivariate **correlation analysis** between the overall bike-friendliness of Bridgewater and each of the specific evaluations shows the top driver of the overall rating is the **streets being easy to bicycle**. This is followed by **intersections and crosswalks**. In other words, statistically, the variables with the highest influence on high overall bike-friendliness ratings are high ratings of easy-to-bicycle streets and intersections and crosswalks.

2.4 Awareness of Bridgewater's Active Transportation Initiative

The final question for Bridgewater adults explained the meaning of active transportation and then asked if they had previously been aware that the town was working on increasing active transportation. Slightly more than one-third (35%) report being aware of this, with the remaining saying they were not. These findings were fairly consistent across gender, age, and income segments of the population.

3.0 About Nova Insights

Nova Insights is a **market research and evidence-based consulting** firm providing services to companies across Canada and the United States. The services provided range from basic data processing to providing cross-tabulations, instrument design, analysis, reporting, or the full range of these services along with overall project management.

From customer or employee satisfaction surveys to likely voter or general population surveys, Nova Insights helps clients understand their constituents better by providing reliable evidence through sophisticated analytical techniques along with interpretation that can be understood and acted upon.

Nova Insights provides an independent, third party design and analysis outlook so the client can receive the unbiased story told by constituents.

The founder and President of Nova Insights is Paul DesBarres. He brings 15 years of experience to clients in the market research industry. Paul built his experience working in the U.S. for a diverse client list including major universities, lobbyists, international music companies, major newspapers, entertainment companies, and professional and amateur sports organizations. In Canada, he has worked for various government departments, municipalities, political parties, ad agencies, public relations firms, social marketing organizations, educational institutions, and the gaming industry.

Paul began his career with the Becker Institute of Boston. Becker has a long history as New England's first name in survey research, and provided a vital foundation where Paul specialized in higher education and public policy research.

Paul then spent nearly a decade with The Taylor Research & Consulting Group of Portsmouth, New Hampshire. At Taylor, Paul specialized in quantitative consumer research in the sports, media, and entertainment industries. It was during this time that Paul received specialized training as a qualitative moderator from the RIVA Institute in Bethesda, Maryland.

After spending many years learning and honing his skills in the United States, Paul returned to Nova Scotia to live in Kentville. Paul dived into the data collection side of market research by becoming Vice President of Operations for a telephone collection facility when he returned to Nova Scotia in 2005. This gave Paul an inside look into the data collection side of the business giving him additional insights into the importance of quality control on the collection side.

Paul DesBarres turned back to the design, analysis, and consulting side of the industry as Vice President of Research for Thinkwell Research, specializing in public policy and social marketing.

His varied career over the past 15 years has culminated into the creation of his own company, Nova Insights, allowing him to bring evidence-based research to his clients in an unbiased, professional, cost effective, and timely manner.

4.0 Methodology

4.1 Survey design

The questionnaire was designed by Nova Insights based on lines of questioning developed by the Town of Bridgewater Active Transportation committee.

4.2 Sample Design and Selection

Respondents were recruited through a combination of listed telephone and computer generated random numbers meeting the exchange and extension definitions for the area.

4.3 Survey Administration

The survey was conducted by telephone from call centre facilities in Charlottetown, PEI between August 5 and August 15, 2010. All interviewing was conducted by fully trained and supervised interviewers at the Vision Research Inc. (VRI) call centre facility in Charlottetown. At a minimum, 10 percent of calls were validated randomly through telephone and visual monitoring.

4.4 Completion results

The rate of response for the survey was 19.2 percent. The response rate is calculated as the number of cooperative contacts (375) divided by the total number of eligible numbers attempted (1953). The final disposition of all telephone numbers called is shown below in accordance with the Marketing Intelligence and Research Association's *Empirical Method of Response Rate Calculation Formula*.

A (1-14)	**Total Attempted**	**4392**
1	Not in service	1272
2	Fax	186
3	Invalid #/Wrong#	981
B (4-14)	Total Eligible	1953
4	Busy	32
5	Answering machine	512
6	No answer	250
7	Language barrier	2
8	Ill/Incapable	29
9	Eligible not available/Callback	16
C (10-14)	Total Asked	1112
10	Household/Company Refusal	119
11	Respondent Refusal	618
12	Qualified Termination	0
D (13-14)	Co-operative Contact	375
13	Not Qualified	75
14	Completed Interview	300
	REFUSAL RATE	66.28
	(10+11+12) / C	
	RESPONSE RATE	19.20
	D (13-14) / B (4-14)	
	INCIDENCE*	80.00
	[(14+12) / (13+14+12)]*100	
	[(CI+QualTM)/(NQ+CI+QualTM)]*100	

4.5 Sampling Error

As with any quantitative study, the data reported in this research are subject to ***sampling error***, which can be defined as the likely range of difference between the reported results and the results that would have been obtained had we been able to interview *everyone* in the relevant population. Sampling error decreases as the size of the sample increases and as the percentage giving a particular answer moves toward unanimity. At the 95% confidence level, worst-case potential sampling error for a **sample of 300** is ±5.42 percentage points.

The **walker subsample** of n=221 carries a maximum sampling error of ±6.4 percentage points, 19 times out of 20. **Bicyclists** (n=53) carries a maximum sampling error of ±13.4 percentage points, 19 times out of 20.

4.6 Sample Distribution

The table below shows a comparison of the collected, unweighted distribution of interviews by gender and age, compared to the weighted results used for reporting.

	Unweighted	Weighted
Age		
18-34	15%	25%
35-54	36%	35%
55 or older	49%	40%
Gender		
Male	39%	46%
Female	61%	54%
Income		
Under $15,000	6%	6%
$15,000 to less than $30,000	18%	17%
$30,000 to less than $50,000	25%	24%
$50,000 or more	38%	39%
Refused	13%	14%
Years lived in Bridgewater		
Less than one year	3%	4%
1-3 years	6%	7%
4-5 years	7%	7%
6-10 years	13%	13%
11-20 years	23%	23%
More than 20 years	48%	46%