Bike to the Future – Spring Bicycle Traffic Counts, 2008

Executive Summary

In the spring of 2008 Bike to the Future conducted its second annual spring bicycle traffic survey. During the months of March, April, May and June 28 volunteers completed 52 separate bicycle traffic counts during morning or afternoon rush hour. Most counts were done at locations leading into the downtown area, with some counts focusing on the University of Manitoba Fort Garry campus. Each count identified the number of cyclists traveling in each direction and whether they were riding in the street or on the sidewalks. In many cases counts were done at the same locations as in the 2007, allowing for some comparisons from year to year. Based on these counts and on comparisons between 2007 and 2008 the following conclusions were reached:

- An estimated 4,400 to 5,800 cyclists traveled in and out of downtown Winnipeg during weekdays in May and June of this year.
- Estimates of total weekday bicycle traffic in Winnipeg range from 9,000 to 14,000 per day during May and June.
- Comparisons of counts done in 2007 and 2008 at the same locations and the same time of day suggest that bicycle traffic increased by 25% in 2008.
- Compaisons of morning and afternoon counts at the same locations suggest that afternoon counts are about 35% higher than morning counts. This may reflect the activity of non-commuter cyclists.
- Sidewalk riding by cyclists is common, especially on bridges and through underpasses, even though it is generally illegal. In many locations a majority of cyclists ride on the sidewalk. The extent of sidewalk riding varies greatly, based on the nature of the location and facilities, the volume and speed of traffic, the presence of pedestrians and the time of day.
- Travel by bicycle is strongly influenced by weather, location and the nature of the facilities that are available. It is estimated that the volume of mid-winter travel by bicycle is about 10% of the summer level.
- 2,440 cyclists registered for Bike to Work Day on June 20, and more than 400 of them were biking to work for the first time. On average, Bike to Work Day counts were 40% higher than the highest previous morning rush hour counts recorded at these locations.

Direct counts are a useful way of monitoring the volume of bicycle traffic at key locations over time. Over the past two years Bike to the Future volunteers have started to build up a picture of cycling in Winnipeg at key locations, but apart from the downtown routes, most bicycle traffic goes uncounted. These counts are most useful when they are done consistently at the same locations and times of day, and depending on the willingness of volunteers, should be continued in future years.

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Purpose and Background

In April 2007 Bike to the Future decided to count bicycle traffic during rush hour at a few key locations in Winnipeg. This was motivated by the lack of information concerning numbers of cyclists in Winnipeg. We wanted to document the growing number of people using bicycles as a means of transportation in Winnipeg and bring this to the attention of city planners and traffic engineers. We also wanted to establish baseline data that could be used in future years to document trends in bicycle use and the impact of changes to bicycle infrastructure in the city.

In 2007 counts were carried out by volunteers near the beginning of April, May and June, and a report was completed summarizing the counts and findings. (See "Final Report on Winnipeg Bicycle Traffic Counts" at http://biketothefuture.org/design-for-the-future/bttf-publications.) The counts focused on the main access routes into or out of the downtown area. Over the three months 37 counts were carried out at 22 locations by 15 volunteers.

In 2008 counts were again carried out, with some counts starting as early as March in typical winter weather. In addition, a special effort was made to count bicycle traffic at the University of Manitoba, Fort Garry campus, and on the Fort Garry Bridges because of the Fort Garry Bridges rehabilitation project beginning there in mid-April. But the main focus of the counts continued to be on the downtown area, and most counts took place at the locations where counts had taken place in 2007. In addition, a special set of counts place as part of Bike to Work Day, on June 20. These counts were intended to document the impact of that one-day event on bicycle traffic, and they took place at many of the same locations previously surveyed. In total there we 26 volunteer counters in 2008 and they completed 52 separate counts at 31 locations.

The following report will summarize the counts for 2008, identify their times and locations, and analyze the results to estimate changes in bicycle traffic since 2007 and total bicycle traffic into the downtown area.

Methods

As noted the 2008 counts were carried out by Bike to the Future volunteers. One person acted as a coordinator for the effort, communicating with the volunteers by email. Volunteers were recruited through the Bike to the Future email list, and by contacting those who had volunteered in 2007. Except for the Bike to Work Day counts, most of the volunteers had also done counts in 2007. They were all provided with a tally sheet for use when counting, on which they could record the numbers of cyclists, keeping track of which direction they were traveling and whether they were traveling on the road or on the sidewalk. They were also provided with a set of directions and a spreadsheet that could be used to summarize the data and send it to the coordinator by email. The tally sheet allowed volunteers to count cyclists within five minute intervals over a two hour time period or longer. They were asked to focus on either the morning rush hour (6:30-9:00 AM) or afternoon rush hour (3:30-6:00 PM), but they were free to deviate from this slightly, depending on their own time availability. Locations were also

somewhat optional, based on locations that were most convenient to the counter, or locations in which the counter was particularly interested. Usually the volunteers asked the coordinator to suggest a convenient location. All of the 2008 counts were done mid-week (Tuesday-Thursday) except for the Bike to Work Day count, which took place on a Friday morning. In total 28 volunteer counters assisted in the effort.

Summary of 2008 Counts

The table below lists all of the bicycle counts done by Bike to the Future volunteers during the spring of 2008. These counts were done during 5 different time periods, generally near the beginning of each month from March through June, plus a special count done as part of Bike to Work Day on June 20. The table shows the date, location, weather conditions, time of day (morning/afternoon) and numbers of cyclists, standardized for a two hour period. Usually counts were done for exactly two hours during the rush hour period, but in some cases counts were a little longer or a little shorter. In these cases the counts have been adjusted by reducing the time period to exactly two hours, or by extrapolating counts to be equivalent to two hours. The table also shows the percentage of cyclists who road on the sidewalk at each location, and the ratio of pedestrians / cyclists for those locations where pedestrians were also counted. (This was an optional activity, depending on whether the volunteer counters felt they could keep track of pedestrians as well as cyclists.)

It can be seen that, generally, the numbers of cyclists increased from March through June as weather conditions improved. More counts were done as well as the season progressed. The proportion of cyclists riding on the sidewalks varied greatly depending on location and probably such factors as the width of both the sidewalk and traffic lanes. These issues will be examined below.

Table 1: Summary of 2008 Spring Bike Counts

Date	Location	Weather Conditions	AM/PM (rush hour)	2 hour count*	Sidewalk %	Pedestrians /Cyclist
MARCH COUNTS						
Mar-05	University Crescent	-27° / -36° windchill	AM	13	30%	6.7
Mar-05	Fort Garry Bridges	-15°, light breeze	PM	4	100%	1.0
Mar-06	University Crescent	-20°	PM	8	43%	12.0
Mar-06	Sherbrook/Maryland Bridges	-20°	PM	22	77%	
				48		
APRIL COUNTS						
Mar-26	University Cres	-15°	AM	23	40%	6.3
Apr-02	Louise Bridge	-1°, fog, no wind	AM	13	100%	
Apr-02	University Cres	6°, no rain or snow	PM	29	34%	3.0
Apr-03	Fort Garry Bridges	9°, partly cloudy, breezy	PM	23	89%	0.9
				87		
MAY COUNTS						
May-01	Osborne Underpass	19°, sunny, gusty	PM	136	62%	0.1
May-01	River Trail @ Mulvey	19°, sunny, gusty	PM	46	100%	
May-06	Louise Bridge	6°, wind 21, prtly cloudy	AM	81	94%	
May-06	Omand Bridge	6°, wind 21, prtly cloudy	AM	116	100%	0.4
May-06	Pembina-Jubilee underpass	6°, wind 21, prtly cloudy	AM	117	44%	0.2
May-06	Slaw Rebchuk Bridge	6°, wind 21, prtly cloudy	AM	51	57%	
May-06	Osborne Bridge	6°, wind 21, prtly cloudy	AM	189	35%	
May-06	Sherbrook/Maryland Bridges	16°, no precip	PM	285	70%	
May-07	University Cres	4°, no precip, wind N 18	AM	76	42%	
May-08	Main St Bridge	-5°, windy	AM	267	72%	
May-08	Chancellor Matheson Rd	-5°, windy	AM	21	75%	0.6
				1,384		
JUNE COUNTS						
May-21	Arlington @ Wellington	16° wind 20, no precip	PM	31	68%	0.8
May-21	Wellington @ Arlington	16° wind 20, no precip	PM	52	37%	3.6
Jun-02	Clifton @ Ellice	10° prtly cloudy	AM	10	0%	
Jun-02	Ellice @ Clifton	10° prtly cloudy	AM	38	29%	
Jun-02	Erin @ Ellice	10° prtly cloudy	AM	6	33%	
Jun-02	Wall @ Ellice	10° prtly cloudy	AM	12	8%	
Jun-02	Arlington @ Ellice	17° cldy, wind NNE 15	PM	51	57%	
Jun-02	Home @ Ellice	17° cldy, wind NNE 15	PM	17	0%	
Jun-02	Ellice @ Arlington	17° cldy, wind NNE 15	PM	58	55%	
Jun-03	Spence @ Ellice	11° prtly cldy wind SE 20	AM	27	7%	
Jun-03	Balmoral @ Ellice	11° prtly cldy wind SE 20	AM	33	30%	
Jun-03	Ellice @ Spence	11° prtly cldy wind SE 20	AM	60	15%	
Jun-03	Louise Bridge	11° prtly cldy wind SE 20	AM	128	93%	
Jun-03	Osborne Bridge	19° overcast, wind S 22	PM	387	59%	2.1
Jun-03	St Matthews @ Banning	19° overcast, wind S 22	PM	53	23%	
Jun-03	Banning @ St Matthews	19° overcast, wind S 22	PM	18	22%	

Table 1: Summary of 2008 Spring Bike Counts

Date	Location	Weather Conditions	AM/PM (rush hour)	2 hour count*	Sidewalk %	Pedestrians /Cyclist
Jun-03	Burnell @ St Matthews	19° overcast, wind S 22	PM	10	0%	
Jun-03	Sherbrook/Maryland Bridges	19° overcast, wind S 22	PM	360	69%	
Jun-04	University Cres @ Thatcher	7° overcast, wind SE 15	AM	121	45%	0.4
Jun-13	Sherbrook/Maryland Bridges	10° light rain, low wind	AM	121	48%	
Jun-13	Fort Garry Bridges**	10° light rain, low wind	AM	72	100%	
				1,665		
JUNE 20 COUNTS – BIKE TO WORK DAY						
Jun-20	Osborne Bridge	15° prtly cldy wind W 6	AM	275	32%	
Jun-20	Confusion Corner***	15° prtly cldy wind W 6	AM	265	37%	
Jun-20	Pembina-Jubilee underpass	15° prtly cldy wind W 6	AM	210	54%	
Jun-20	Sherbrook/Maryland Bridges	15° prtly cldy wind W 6	AM	297	49%	
Jun-20	Louise Bridge	15° prtly cldy wind W 6	AM	144	??	
Jun-20	Slaw Rebchuk Bridge	15° prtly cldy wind W 6	AM	61	??	
Jun-20	Ellice @ U of Wpg	15° prtly cldy wind W 6	AM	70	30%	
Jun-20	Omand Bridge	15° prtly cldy wind W 6	AM	242	100%	
Jun-20	Main St Bridge	15° prtly cldy wind W 6	AM	403	68%	
Jun-20	Main St @ Higgins	15° prtly cldy wind W 6	AM	206	72%	
Jun-20	Esplanade Riel	15° prtly cldy wind W 6	AM	249	74%	
Jun-20	Fort Garry Bridges**	15° prtly cldy wind W 6	AM	117	100%	
				2,539		

* In some cases this is an estimate based on extrapolation of counts over a shorter time period.

** Fort Garry Bridges rehabilitation project began in mid-April, reducing car traffic to one lane each way on the south span only.

*** Count included bicycles traveling on Osborne and Donald in any direction.

Estimates of Total Downtown Bicycle Commuters

One of the purposes of the bicycle counts is to estimate the number of cyclists commuting into and out of downtown Winnipeg. The locations for the counts were selected in part with this in mind. While these locations do not cover every possible route to downtown, over the two years of counting most of the routes have been counted at least once during May or June. Of course, there is also the likelihood of double-counting of cyclists who may pass more than one counting point on their trip to or from downtown. For example, those passing through the Pembina-Jubilee underpass are likely to also cross either the Sherbrook, Osborne or Midtown bridges on their trip downtown. In order to estimate downtown commuting traffic 16 counting points were selected which ring the downtown area and which are not likely to involve double-counting. These locations include almost all the major routes into downtown, although a few routes such as Notre Dame are missed. Also missed are routes which both start and end within the downtown or near-downtown areas of the city.

In estimating the traffic counts for May and June were used. By May the weather is usually warm and bicycle traffic is approaching summer levels. Bicycle traffic tends to be higher in June than May, but not always: a rainy, cool day in June is likely to see less cyclists on the road than a sunny day in May.

Some other factors were taken into account in arriving at these estimates. First, comparisons of morning and afternoon cycling counts in 2007 found that afternoon counts are 35% higher than morning counts at a given location, on average. Second, as will be shown below, comparisons of counts in 2007 and 2008 at the same location, month and time of day found that bicycle traffic had increased by an average of 25% from 2007 to 2008. Where no counts were done for a given location and time period, this information was used to estimate counts. For example, if there was no count for a given location in 2008, the 2007 count was multiplied by 1.25 to arrive at the 2008 estimate, or if there was no afternoon count for a given location, the morning count was multiplied by 1.35 to arrive at an afternoon estimate.

Table 2: Estimates of Downtown Bicycle Traffic, Winnipeg 2008

	Morning Rush Hour			Afternoon Rush Hour		
Location	**May**	**June**	**Average**	**May**	**June**	**Average**
Slaw Rebchuk Bridge	51	81*	66			86**
Louise Bridge	81	128	105			141**
Main St @ Higgins	139*	66*	103			138**
Esplanade Riel	144*		144			194**
Main St Bridge	267		267	276		360
Midtown (Donald) Bridge	59*	86*	73	74		74
Osborne Bridge	189	328*	258	300	387	343
Sherbrook/Maryland Bridges	268*	121	194	285	360	323
Omand Foot Bridge	176*	265*	221			298**
Portage Ave underpass	83*		83			111**
St Matthews @ Arlington		69*	69		53	53
Ellice @ Clifton		38	38		58	58
Arlington @ Ellice			23		31	31
Ellice @ Arlington			43		58	58
Sargent @ Arlington		50*	50			68**
Wellington @ Arlington			39		52	52
Totals			**1,773**			**2,307**
Estimated 24 hour traffic			**8,866**			**11,535**
Estimated cyclists			**4,433**			**5,768**

* Estimate based on 2007 count x 1.25.

** Estimate based on morning count x 1.35.

Table 2 summarizes the results of this process, with separate estimates shown for the morning and afternoon at 16 selected locations. Where counts exist for both May and June these are averaged. If only a May or a June count exits, this is taken as the average. The averages are then totaled to give an estimate of the total morning or afternoon downtown rush hour traffic. Research done in Portland has shown that rush hour counts are approximately 20% of the total daily counts at a given location.[1] This

1 Mia Birk and Roger Geller, "Bridging the Gaps: How the Quality and Quantity of a Connected Bikeway Network

is used to estimate total daily traffic. Total daily traffic, however, would count commuters twice, coming and going. Therefore, the number of *cyclists* is estimated by dividing the total traffic by 2. Because morning and afternoon estimates are different this results in an estimated range of between 4,400 and 5,800 downtown commuter cyclists per day during the spring.

Increase in Cyclists between 2007 and 2008

The counts provide evidence that the number of cyclists increased between 2007 and 2008. Because both the time of year and time of day may affect numbers of cyclists, wherever possible comparisons of counts done in each year at the same location, during the same month and at the same time of day. These comparisons are shown in Table 3. In total, it was possible to make 10 of these comparisons. The percentage change in the number of cyclists was quite variable, ranging from -27% to +91% with an overall weighted average of 25%. In 8 cases the counts increased while in 2 cases the counts decreased. In part the variability reflects variable weather conditions. For example, the low count at the Sherbrook/Maryland Bridges in June 2007 was due to rainy weather.

Table 3: Comparison of 2007 & 2008 Counts

Location	Month	AM/PM	2007	2008	Change	% Change
Louise Bridge	May	AM	63	81	18	29%
Louise Bridge	June	AM	90	128	38	42%
Osborne Bridge	May	AM	173	189	16	9%
Pembina - Jubilee underpass	May	AM	105	117	12	11%
Omand foot bridge	May	AM	141	116	-25	-18%
Osborne Bridge	June	PM	257	387	130	51%
Sherbrook/Maryland Bridges	May	PM	270	285	15	6%
Sherbrook/Maryland Bridges	June	PM	189	360	171	91%
Arlington @ Ellice	June	PM	49	51	2	4%
Ellice @ Arlington	June	PM	79	58	-21	-27%
Total			**1,416**	**1,772**	**356**	**25%**

Sidewalk Riders

As seen above, the counters kept track of how many cyclists were riding on the sidewalk and how many on the road at each counting location. Table 4 categorizes the different locations by the percentage of cyclists on the sidewalk. (In some cases a location appears twice because the percentages varied at different times.) Generally locations with less space for cyclists on the road and/or higher traffic volumes have higher numbers of cyclists on the sidewalks. Bridges and underpasses usually have higher percentages of sidewalk riders. Some locations are sidewalks only (Omand Foot Bridge and the Red River path). Quieter streets in the West End tend to have few sidewalk riders.

Correlates with Increasing Bicycle Use," July 27, 2005, p. 13, presented at the Transportation Research Board Annual Meeting, January 22, 2006.

Table 4: Percentage of Cyclists on the Sidewalk by Location

Percent on Sidewalk	Location
0 - 9%	Clifton @ Ellice Home @ Ellice Burnell @ St Matthews Spence @ Ellice Wall @ Ellice
10% - 29%	Ellice @ Spence Banning @ St Matthews St Matthews @ Banning Ellice @ Clifton
30% - 39%	University Crescent Ellice @ U of Wpg Balmoral @ Ellice Osborne Bridge Erin @ Ellice Wellington @ Arlington Confusion Corner (all directions)
40% - 49%	University Cres Pembina-Jubilee underpass Sherbrook/Maryland Bridges
50% - 59%	Pembina-Jubilee underpass Ellice @ Arlington Arlington @ Ellice Slaw Rebchuk Bridge Osborne Bridge
60% - 69%	Osborne Underpass Main St Bridge Arlington @ Wellington Sherbrook/Maryland Bridges
70% - 79%	Sherbrook/Maryland Bridges Main St @ Higgins Main St Bridge Esplanade Riel Chancellor Matheson Rd
80% - 100%	Fort Garry Bridges River Trail @ Mulvey Louise Bridge Fort Garry Bridges Omand Foot Bridge

Two other factors seem to be related to sidewalk riding – time of day and the presence of pedestrians. As shown in Table 5, where there is comparable data for both morning and afternoon rush hours the proportion riding on the sidewalk is consistently about 30% - 50% higher in the afternoon than in the morning. Possibly this is related to the higher numbers of cyclists counted in the afternoons, as previously noted. The afternoon counts may include a number of more casual cyclists who are taking short trips, for school, shopping or other purposes as distinct from commuter cyclists who are perhaps more accumstomed to riding in the street.

Table 5: Average Percentage of Cyclists on Sidewalks by Location, Month and Time of Day, 2007 and 2008

Location	Month	AM	PM	PM / AM
Osborne Bridge	May	36%	46%	1.29
Osborne Bridge	June	40%	53%	1.32
University Crescent	March	30%	43%	1.43
Sherbrook/Maryland Bridges	June	48%	69%	1.44
Sherbrook/Maryland Bridges	May	43%	63%	1.47

There is also evidence that when the number of pedestrians is higher, cyclists are more likely to ride in the street. As noted above, it wasn't possible for counters to keep track of pedestrians in all cases, but for those locations where they did keep track the number of pedestrians per cyclist was calculated. As Table 6 shows, at locations where the ratio of pedestrians/cyclist is higher, the percentage of cyclists riding on sidewalks is lower. This suggests that cyclists are influenced by congestion on the sidewalks to ride in the street.

Table 6: Sidewalk Percentage and Pedestrians per Cyclist

Location	Dates	AM/PM	Sidewalk %	Pedestrians / Cyclist
Wellington @ Arlington	May 21	PM	37%	3.6
University Crescent (averages)	March-June	mixed	40%	5.4
Pembina-Jubilee underpass	May 6	AM	44%	0.2
Average			**40%**	**3.1**
Osborne Bridge	June 3	PM	59%	2.1
Osborne Underpass	May 1	PM	62%	0.1
Arlington @ Wellington	May 21	PM	68%	0.8
Chancellor Matheson Rd	May 8	AM	75%	0.6
Fort Garry Bridges (averages)	March-April	PM	94%	1.0
Average			**72%**	**0.9**

Bike to Work Day Counts

Bike to Work Day took place June 20, 2008 and was the first such cycling event held in Winnipeg. 2,440 cyclists registered for the event, and 20% of them said that they were cycling to work for the first time.

As part of Bike to Work Day 12 counting locations were identified at key traffic choke points around the city, focusing especially on the main routes to and from the downtown area. While these locations did not cover all the possible routes into downtown by any means, they covered most of the major routes. The main goal was to document whether Bike to Work Day succeeded in increasing the number of commuters using bicycles on June 20. Almost all of the locations where counting was done were locations where we have carried out previous bicycle traffic counts in the spring of 2007 and 2008. Therefore we have some baseline data on which to base estimates of the increase in bike traffic on Bike to Work Day.

Ideally, comparisons with previous counts would control for several factors, including time of day, day of the week, and weather conditions. Our previous counts have shown that bicycle traffic tends to be about 35% higher in the afternoon than in the morning. Weather is also a major factor in numbers of cyclists. Day of the week is also generally considered to be important because there are higher traffic volumes during the mid-week than on Monday or Friday. Given that Bike to Work Day took place on a Friday, while our previous counts took place during mid-week, we are lacking perfectly comparable data.

For the present summary we have restricted comparisons to morning counts only. In order to take a more conservative approach to estimating traffic increases we have used the highest previous morning count as the basis for comparison. In some cases the highest counts were not the most recent counts, and this reflects variability in weather conditions, among other things. In one case (Confusion Corner) no previous count had been done at that location, so no comparison was possible. In all cases, the counts are standardized for a two hour period, 6:30-8:30 AM. Generally counts were done for exactly this period of time, but where our volunteers counted for a longer period of time, we only used counts for the period from 6:30-8:30.

The counting was done by volunteers using a tally sheet and set of instructions provided for the purpose. The counts also collected information on the direction of travel and whether cyclists were traveling on the road or on the sidewalk.

Table 7 (below) is a summary of the comparative counts for the Bike to Work Day counting stations. It can be seen that bicycle traffic was up at all but one location for which we have data, with changes of between -5% and +117% compared to previous high counts. Overall Bike to Work Day appears to have increased bicycle traffic by 40% over previous maximum morning counts. The largest percentage increases were seen at Esplanade Riel, Main St. & Higgins and the Pembina-Jubilee underpass. The Main St. & Higgins location was no doubt affected by traffic to the Forks where the BTWD pancake breakfast was taking place that morning. The smallest increases were at the Slaw Rebchuk bridge and the Osborne bridge. In total, Bike to Work Day seems to have induced something like 650 additional commuters to cycle to work at the 11 locations that we compared with previous counts. It is difficult to estimate the impact of holding Bike to Work Day on a Friday. On the one hand, the total number of people going to work on a Friday is likely to be lower than during mid-week, but it is also possible that holding the event on a Friday may increase the participation rate of those who are commuting to work

that day, since Friday is often viewed as a more casual or relaxed work day.

It should be remembered that we were focusing on selected routes, mainly in the downtown area, and that bicycle traffic in other parts of the city may also have increased as a result of Bike to Work Day. Therefore these numbers do not represent all of the cyclists in the city.

Table 7: Comparison of Bike to Work Day Counts to Previous Counts

Location	Highest Previous AM Count	Date of Previous Count	BTWD AM Count (June 20)	Difference	% change
Osborne Bridge	262	June 4 2007	275	17	5%
Confusion Corner	No counts	n.a.	265	n.a.	n.a.
Pembina-Jubilee underpass	117	May 6 2008	210	93	79%
Sherbrook/Maryland Bridges	214	May 1 2007	297	83	39%
Louise Bridge	128	June 3 2008	144	16	13%
Slaw Rebchuk Bridge	65	June 5 2007	61	-4	-6%
Ellice @ University of Wpg	60	June 3 2008	70	10	17%
Omand Bridge	212	May 9 2007	242	30	14%
Main St Bridge	267	May 8 2008	403	136	51%
Main St @ Higgins	111	May 1 2007	206	95	86%
Esplanade Riel	115	April 30 2007	249	134	117%
Fort Garry Bridges	72	June 13 2008	117	45	63%
Totals (excluding Confusion Corner)	**1,623**		**2,274**	**651**	**40%**

Total Winnipeg Bicycle Traffic Estimate

It is difficult to estimate total bicycle traffic for Winnipeg because of the lack of appropriate or reliable data. In 2001 and 2006 the Census of Canada asked those who were employed outside their homes how they got to work and calculated that, in Winnipeg in 2001, 1.4% of this group (4,570) usually traveled to work by bicycle while 1.6% (5,760) commuted by bicycle in 2006. As stated this would suggest that these people use their bicycles year-round. This seems like an over-estimate for the winter. At the same time, this would leave out those who travel by bicycle for various purposes other than going to work. A telephone survey carried out by the City of Winnipeg, Public Works in the fall of 2004 found that 2.8% of the population commuted by bicycle most of the time. Again this would probably be an over-estimate for the winter, but may reflect travel patterns in the fall when the survey was done.

As shown in Table 2 above, our travel counts suggest that 4,400-5,800 people travel in and out of the downtown area daily during the spring. This would include those traveling to work, to school or for other purposes. But this leaves out those who travel in the outlying areas of the city or who travel within the downtown area. Data from Bike to Work Day registrations show that only 40% of those registered actually travel between downtown and other parts of the city. The remainder travel between

various neighbourhoods, apart from downtown, or travel within their neighbourhoods. This would suggest that total bicycle travel in the spring is in the range of 11,000 – 14,000 per day, if the whole city and all types of trips are included.

Conclusions

Travel by bicycle is substantial and has been growing in Winnipeg. It is estimated that, during May and June, between 4,400 and 5,800 cyclists travel in and out of Winnipeg's downtown area daily, and more than 11,000 people cycle daily if the whole city is taken into account. It is also estimated that travel by bicycle increased by about 25% between 2007 and 2008.

The estimated number of cyclists arrived at here may be compared to data from the 2006 Census which found that 5,760 people in Winnipeg commute to work by bicycle. If the number of commuter cyclists has been increasing at the rate of 25% per year since 2006, this would suggest that there are 9,000 bicycle commuters as of 2008. It should be kept in mind as well that the Census question only covers travel to work and does not include travel to school, for shopping or for other purposes.

Recent initiatives such as Commuter Challenge, Bike to Work Day, and the formation of Bike to the Future may have helped spur growth in bicycle use, along with increasing environmental concerns and rising gas prices. Bike to Work Day saw a surge in bicycle riding, calculated as a 40% increase over previous maximum traffic counts. 432 of those who registered for Bike to Work Day said that they were cycling to work for the first time. Based on experiences elsewhere some of the new riders generated by the event are likely to add to the total volume of bicycle traffic.[2]

Travel by bicycle is strongly influenced by weather and location and the nature of the facilities that are available. Based on limited counts it is estimated that the volume of mid-winter travel by bicycle is about 10% of the summer level. Afternoon counts are substantially higher than morning counts and may reflect the activity of non-commuter cyclists.

Sidewalk riding by cyclists is common, especially on bridges and through underpasses, even though it is generally illegal. The extent of sidewalk riding varies, based on the nature of the location and facilities, the volume and speed of traffic, the presence of pedestrians and the time of day.

Direct counts are a useful way of monitoring the volume of bicycle traffic at key locations over time. Over the past two years Bike to the Future volunteers have started to build up a picture of cycling in Winnipeg at key locations, but apart from the downtown routes, most bicycle traffic goes uncounted. These counts are most useful when they are done consistently at the same locations and times of day, and depending on the willingness of volunteers, should be continued in future years.

-- Prepared by Jeremy Hull.

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2 Geoff Rose and Heidi Marfurt, "Travel behaviour change impacts of a major ride to work day event ," **Transportation Research Part A: Policy and Practice, Vol 41, No 4**, May 2007, Pages 351-364.