

DUNEDIN CITY
SUMMER CYCLE
SURVEY



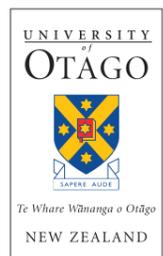
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CENTRE FOR RECREATION RESEARCH

Dunedin City Summer Cycle Survey

Carla Jellum

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School of Business
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Dunedin
New Zealand

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Section 1. Introduction

This research examines user and non-user preferences for, and experiences of, Dunedin City's bicycle transportation system. The aim is to obtain information from cycleway users and non-users (walkers, cyclists, motorists, etc.) in order to provide insights into cyclists' experiences and initial information that could enhance the current cycleway system. Current plans exist for cycling improvement projects in Dunedin in order to expand the cycling network, increase sustainable transportation options, and upgrade some of the cycle sites¹. However, after a thorough review of the literature and according to the Dunedin City Council, research of cycleway users and non-users in Dunedin City has not been conducted to inform such plans. The purpose of this research is to contribute to general information on urban bicycle use trends in and around Dunedin as well as to provide valuable information for management and policy purposes by addressing public perspectives on safety issues, user needs, and recreation transportation barriers (i.e. interconnectivity and facilities). The goal of this research is to obtain user and non-user feedback about Dunedin cycleways in order to provide insight into user trends, barriers to participation, benefits, and safety and enhancement needs. To address this goal the research objectives are to: 1) investigate reasons/motivations/barriers to use or non-use of the cycle system; 2) explore experiences or concerns pertaining to cycle safety; and 3) examine community suggestions for cycle and related facility improvements.

Section 2. Background to the Study Area

Cycling within and around urban areas has been promoted due to various benefits, including personal and community oriented. Such benefits include improved personal health and fitness, reduction of negative environmental impacts, and contributions to the local economy through tourism opportunities (Page, 2004). Major cities throughout New Zealand have adopted strategic cycling plans, whereas many smaller city councils have adopted combined walking and cycle strategies (MacBeth, Boulter, & Ryan, 2005). However, few studies have looked at the urban cycle trends in New Zealand (Opinions Market Research, Ltd., 2005). In 2004, Dunedin City adopted its own cycle strategy plan and identified three main objectives: increasing the number of people who cycle to work, cycling for recreation and health benefits, and increased safety (DCC, 2004). Although a concept plan has been developed to improve road safety and Dunedin's cycleway (DCC, 2008), no empirical research has examined the experiences and needs of cycleway users and non-users.

Dunedin City's cycleway network consists of shared lanes on the roadway as well as some shared, sealed footpaths (see Appendix 1). The DCC identified and designated cycleway areas along sections of State Highway 1 through Dunedin on the one-way system; Kaikorai Valley Rd, Great King Street – North Rd, and Midland Street; and through Mosgiel along Bush Rd, Factory Rd and Gladstone Road South. Dunedin cycleways along shared footpaths include Thomas Burns, Wharf St, Portsmouth Dr, Portobello Rd; sections of Main South Rd; Great King Street; and along Dunedin boat harbour to Ravensbourne and Maia (DCC, 2009).

This project was aligned with Bikewise month, a national campaign organised by New Zealand Transport Agency and Ministry of Health, which aims to promote cycling throughout New Zealand (Bikewise, 2009). Throughout February, bike activities were promoted by Dunedin City Council, Sport Otago, and Public Health South. Moreover, Dunedin is host to or has affiliations with several cycle organisations and advocacy groups, such as SPOKES, Cycle Advocates' Network (CAN), Harbour Cycle Network, Mountain Biking Otago, and Otago Central Rail Trail Trust (DCC, 2009), which promote local, regional, and national cycle opportunities.

¹ Dunedin City Council Road Safety and Cycling Improvement Projects 2008/2009 from <http://www.dunedin.govt.nz/council-online/public-consultation/consultations/consultations-stage-2/road-safety-and-cycling-improvement-projects>

Section 3. The Survey

The aim of the survey was to obtain information from cycleway users and non-users (walkers, cyclists, motorists, etc.) in order to provide insight into enhancing the current cycleway system. The survey was designed to gather statistical data on urban bicycle trends in and around Dunedin as well as additional insight (from open-ended, qualitative questions) about safety and enhancement needs. A thorough review of literature indicated, and according to the Dunedin City Council, research about cycleway users and non-users in Dunedin City had not been conducted. A definition for the term “cycleway” was provided at the top of the first page of the questionnaire, and was constructed in order to provide a context of understanding for the respondents. For the purpose of this research a cycleway system is defined as:

A transport/recreation network dedicated to the inclusion of cycling needs. Cycleways are typically *marked for bicycles*, sealed, multiple-use transportation routes which may include on-street cycle lanes shared with other motorists and/or off-street cycle paths/tracks shared with pedestrians.

3.1 Questionnaire

The questionnaire was administered over a two week period from 15 February to 1 March 2009. The 2-sided A3 folded questionnaire was designed to be completed in approximately 5 minutes. The questionnaire’s short, simple layout was purposefully created to limit the time burden imposed on participants in order to increase the response rate.

The survey consisted of two parts: (a) a cover letter that outlined the project goals, identified information to be obtained, and addressed confidentiality and (b) the questionnaire (see Appendix 2). The questionnaire contained five sections including: 1. General Information; 2. Cycling Facility Improvement; 3. Motivations; 4. Your Household; and 5. Respondent Information. Sections 1, 2, and 3 contained questions that were primarily focused on Dunedin City cycle trends (frequency of participation), barriers to participation, safety concerns, and reasons for using the cycleway. Section 4 inquired about household cycleway use (although not specific to cycling) and section 5 aimed to obtain information about the respondent’s demographics. In total, the questionnaire was comprised of 19 questions; some were multiple-part questions. The majority of questions were closed except for four open-ended questions which allowed respondents to elaborate on their perspectives on cycling in Dunedin. Additional comments were also welcome.

The questionnaire went through rigorous review by academics, Dunedin City Council staff, and community stakeholders. The Dunedin City Council’s Transportation Operations, including two transportation engineers and the sustainable development coordinator, was instrumental in providing insight into the ongoing management of the cycleway system. After the questionnaire was reviewed by these staff members of the DCC, the questionnaire was pilot-tested by four post-graduate students, two university lecturers, and one community member. Adjustments were made to the questionnaire following the reviews/evaluations.

3.2 Survey Administration

The questionnaire was distributed from 15 February to 1 March 2009. A stratified, random sample of 500 Dunedin household addresses were purchased from New Zealand Post to ensure that an accurate and equal distribution of the survey was conducted to Dunedin’s various suburbs in order to collect feedback from both users and non-users. The survey was distributed to the following postcodes: 9010; 9011; 9012; 9013; 9014; 9016; 9018; 9022; 9023; 9024; and 9035. Each household was posted a cover letter; a 2-sided, A3 folded questionnaire; DCC cycling brochure; and self-addressed, pre-paid return envelope.

The survey was to be completed by one household member, aged 18 years of age or older with the most recent birthday to the survey date (to encourage a random household response). An incentive for participation was advertised in the cover letter indicating that for those respondents wished and who completed and returned questionnaires would be entered into a prize draw one of two individual \$50 gift vouchers to R & R Sports (see Appendix 2).

3.3 Survey Analysis

The data entry and analysis was undertaken at the Centre for Recreation Research, University of Otago using SPSS Version 15. Descriptive statistics are provided for each question. Graphs and tables illustrate the total number of responses for each question; however, non-responses are not included unless otherwise noted. Percentages and/or raw data are presented in tables. All open-ended responses are available in the appendices; however, pertinent direct quotes and summaries of the open-ended responses are incorporated into the discussion to provide qualitative insights and to enhance the quantitative analysis.

3.4 Survey Limitations

Several limitations to this survey need to be addressed. Again, the aim of this survey was to obtain a representative sample of information from both users and non-users of Dunedin's cycleway system. This survey was the first cycle survey in Dunedin incorporating responses from both the users and non-users; therefore, basic information was required across a spectrum of respondents. Obtaining a broad scope of information in a short and concise questionnaire was challenging. However, the final questionnaire, after peer review, was deemed appropriate for obtaining baseline data and addressed the data needs of the research objectives. One major limitation of this research was timing. This project was funded as a summer research bursary and undertaken from November 2008 to February 2009, during which time there was potential for household absences due to summer school holidays. Therefore, the questionnaire was distributed in the latter half of February when it was anticipated that residents had returned from summer holidays. Finally, it must be mentioned that a major limitation was also the cost associated with printing, postage (outbound and pre-paid return), stationary, and acquiring residential addresses. Due to limited funds, a one-time distribution of 500 questionnaires was sent to Dunedin households. Lack of funds inhibited the ability to post a follow-up reminder postcard or a second questionnaire, both of which would typically have increased response rates. However, the number of complete questionnaires returned was sufficient for this exploratory research. These limitations, among a few others uncovered during the analysis phase, are considered with future research recommendations.

3.5 Ethical Considerations

University of Otago Category B ethics approval was applied for and granted. Questionnaires were posted to a random selection of Dunedin City households and were voluntarily returned in self-addressed envelopes directly to the researchers, C. Jellum and Dr A. Thompson, at the Centre for Recreation Research in the School of Business, University of Otago. Data was compiled in aggregate form and participant anonymity ensured. Data entry and analysis was conducted only by the named researchers. All returned questionnaires remained in secure storage in the Department of Tourism for five years, then destroyed.

Section 4. Survey Findings

The survey findings are presented in the same order as in the questionnaire with the exception of Sections Four and Five. Section Five is presented first, followed by Section Four, to first provide background information about respondents and their households.

A total of 500 questionnaires were distributed to a random selection of Dunedin households. Of those questionnaires successfully delivered, a total of 109 questionnaires were returned representing a 22.1% response rate. Eight were returned as “undeliverable”.

Section One, question four was used to determine whether or not a respondent was a Dunedin cyclist or non-cyclist. Respondents were asked to indicate if they DO cycle in Dunedin, during which seasons they were most likely to cycle. The represented sample included 40 cyclists (36.7%) and 69 non-cyclists (63.3%) for each group (see Table 1).

Table 1: 2009 Questionnaire Response Rates

2009 Survey	Returned N	Total Response Rate	Response Per Group
Cyclists	40	8.1%	36.7%
Non-cyclists	69	14.0%	63.3%
Total	109	22.1%	100.0%

Throughout this study, comparisons are made between cyclist and non-cyclist respondents; however, it must be noted that Dunedin cycleways are multi-purpose and some respondents may use the cycleway for purposes other than cycling. It will be clearly indicated throughout these research findings whether or not the data is reported for cyclists and non-cyclists, cycleway users (pedestrians and cyclists), or combined information from all respondents.

4.1 Respondent Information

Section Five in the questionnaire requested information about the respondent including gender, age, resident location (suburb by postcode), nationality, and employment status. The purpose of obtaining demographic information from each respondent was to provide an overview of cyclist and non-cyclist profiles and compare the two group’s perspectives on cycleway facility needs, safety, as well as their motivations for and/or constraints to using the cycleway.

4.11 Gender

Response by gender was evenly distributed for cyclists with 20 male (50%) and 20 female (50%). There was a slightly higher number of female respondents in the non-cyclist group with 41 female (60.3%) and 27 male (39.7%) (see Figure 1).

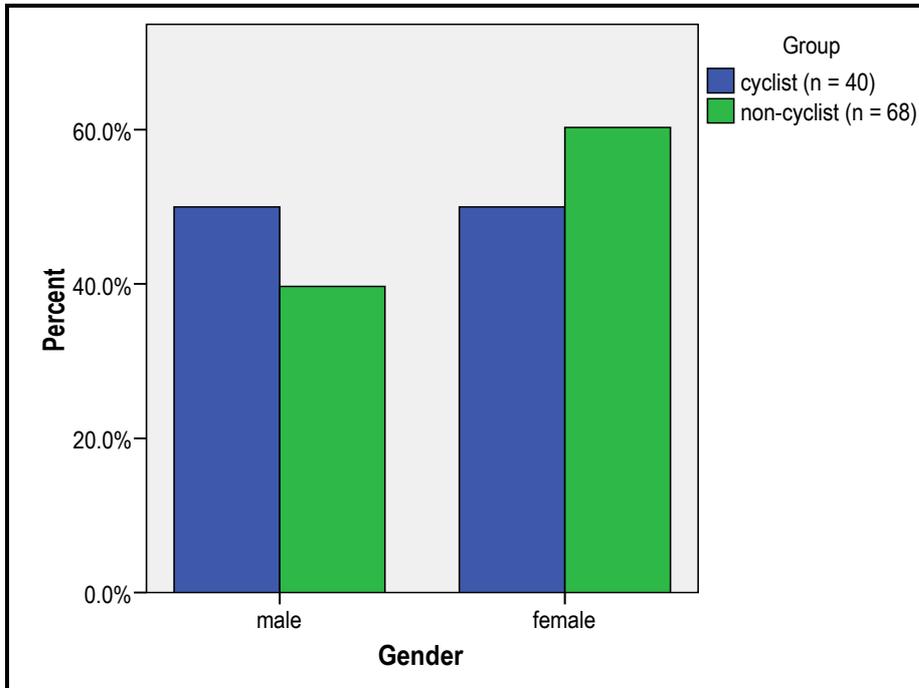


Figure 1: Group Type and Gender

4.12 Age

All respondents were asked to indicate their age. Six age categories were provided including '18 – 24', '25 – 34', '35 – 44', '45 – 54', '55 – 64', and '65+ years' of age. The first category, '18 – 24', was a smaller range due to the age requirement to participate in the survey being 18 years of age or older. There were responses from both cyclists and non-cyclist from each age category with the majority of responses being from 12 cyclists (30%) age '35 – 44'; whereas 31 non-cyclists (44.9%) were 'age 65+' (see Figure 2). In general, the sample population was typified by respondents aged 45 years of age and older. This suggests that possibly the younger population of respondents were underrepresented. Suggestions for collecting data from a more diverse age population are addressed in the conclusion section of this report.

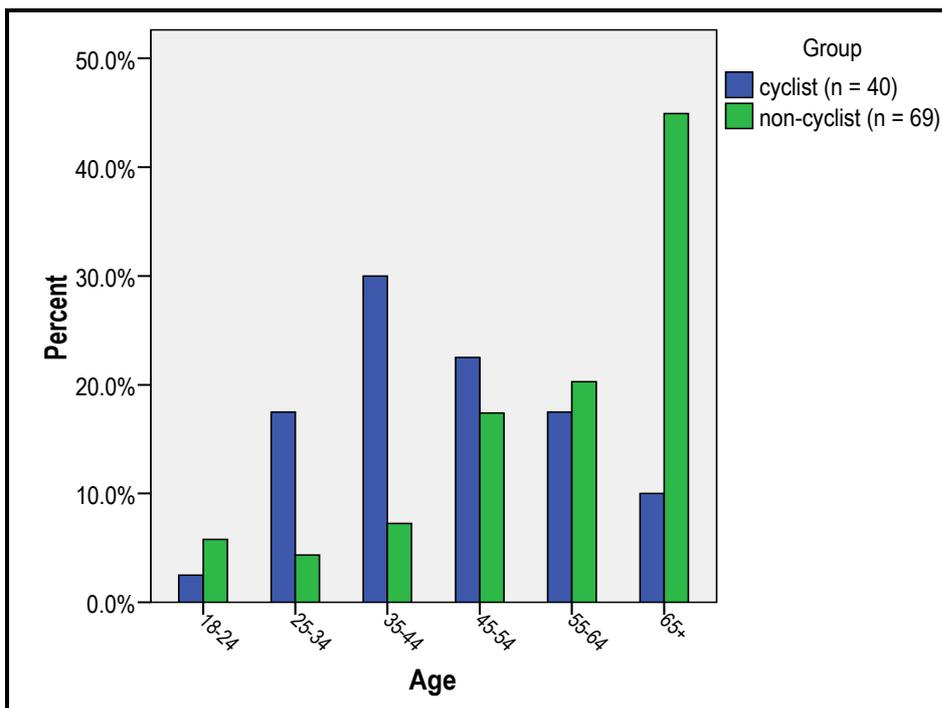


Figure 2: Group Type and Age

4.13 Household Residence Location

Each respondent was asked to indicate which suburb they lived in. The question was open-ended. In total, 38 suburbs were represented in the final sample (see Appendix 3). The suburbs were grouped by postcode for analysis purposes (see Figure 3). Most of the responses, (n = 26; 25.2%) were from the 9010 postcode, which includes the northern suburbs of Dunedin. Southern Dunedin's 9012 postcode including south Dunedin, St. Clair and St. Kilda areas, were the second most common household response with 17 respondents (16.5%). Mosgiel (postcode 9024) included 11 respondents (10.7%).

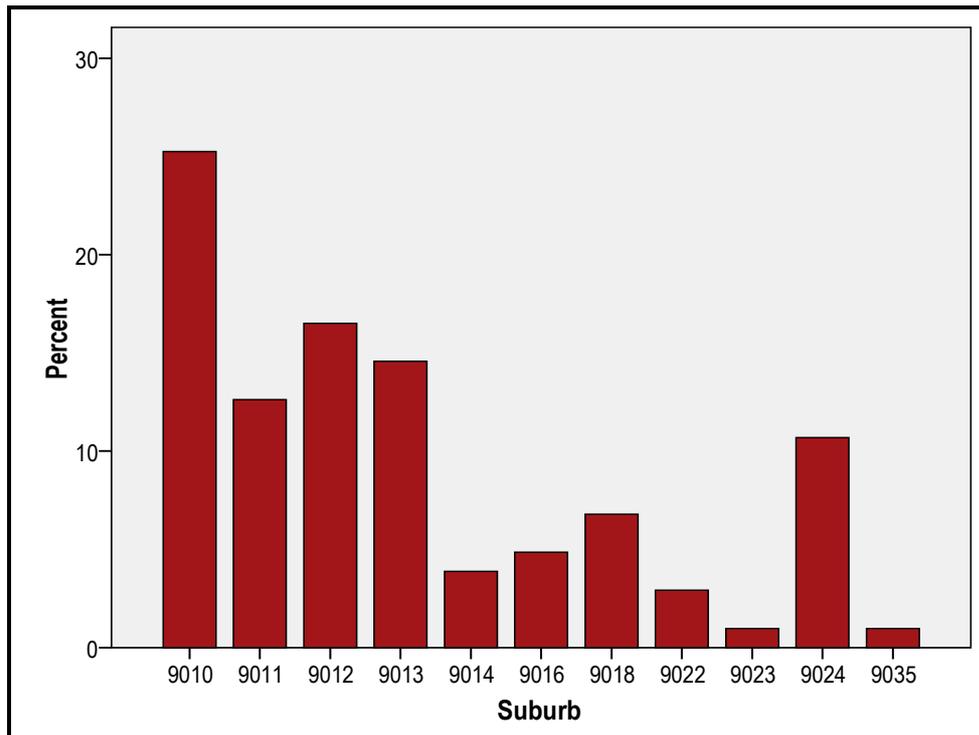


Figure 3: Household Residence Location: All Respondents (n = 103)

4.14 Nationality

Each respondent was asked to indicate their nationality as an open ended question. The vast majority of all respondents (n = 84; 80.0%) indicated they were “New Zealander” including 32 cyclists (80.0%) and 52 non-cyclists (80%) (see Figure 4). Seven categories were created from the hand written answers provided by the respondents. However, it is important to note that there were some discrepancies in the data due to some of the responses. Four types of responses were grouped into the “New Zealander” category including those who responded as “New Zealander”, “Pakeha”, “New Zealand European”, and “Kiwi”. A second category was created for those responses indicating nationality as “European”. This category was created since it was not possible to determine if the “European” respondent was referring to ethnic origin or nationality (place of birth)². Another issue that arose was dual nationality (e.g. “Dutch/New Zealander”). These findings are presented in separate categories in order distinguish the response.

² The 2006 New Zealand census survey addresses the issue of ethnicity classification and the increased response/identification as a “New Zealander”. Please refer to the report *Profile of New Zealander Responses, Ethnicity Question: 2006 Census*, Statistics New Zealand (2006).

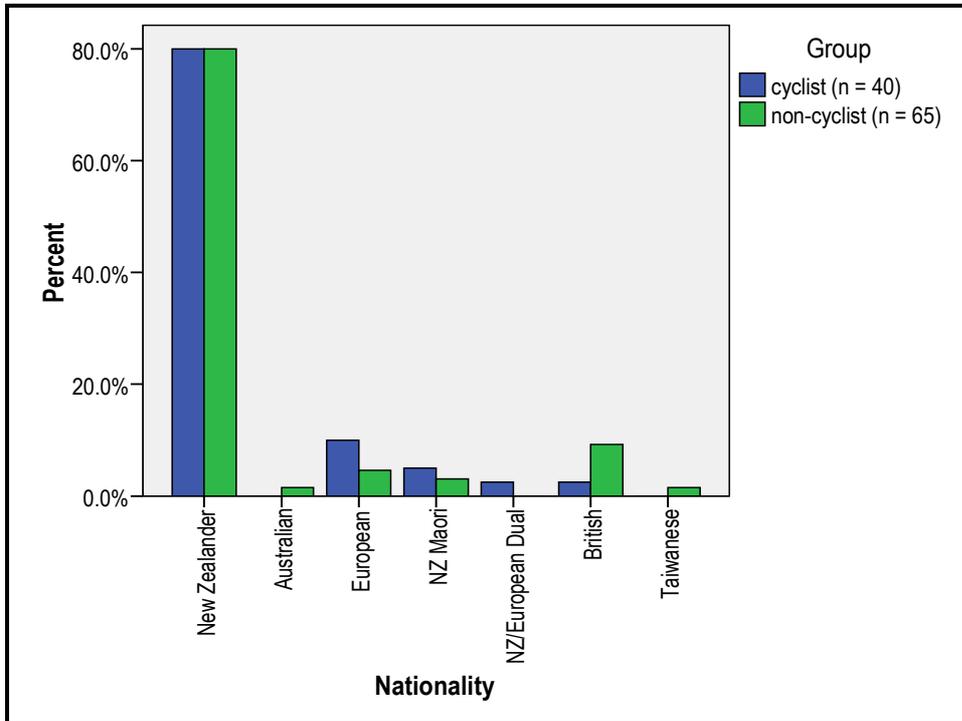


Figure 4: Group Type and Nationality

4.15 Employment Status

The response to employment status was representative of the response by age. Many cyclists (n = 18; 45.0%) were employed full-time; whereas the non-cyclists (n = 32; 46.4%) were predominately retired. Low numbers of respondents were university/polytech students, with only 2 cyclists (5%) and 4 non-cyclists (5.8%).

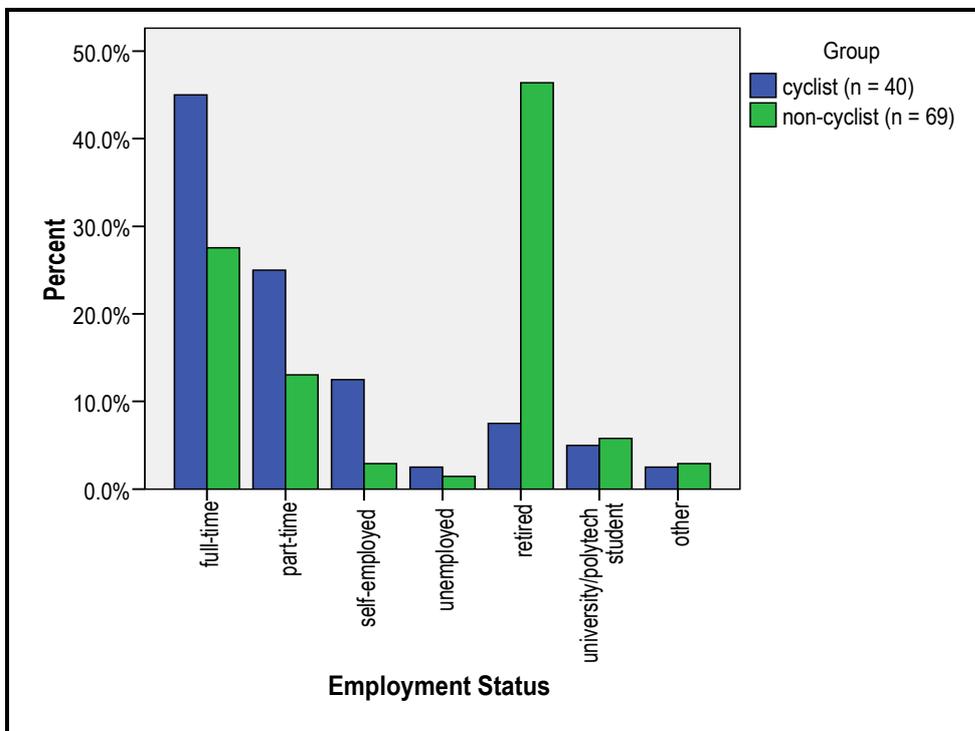


Figure 5: Group Type and Employment Status

4.2 Household Information

Section Four of the questionnaire asked respondents about the number of people in their household and household use of the cycleway system. The purpose for inquiring about household information was to obtain basic data on household cycleway use (both cyclist and pedestrian) and the number of school age children utilising the cycleway (see Table 2). Respondents were also asked to indicate the total number of bicycles in the household, regardless of use or non-use (see Figure 6).

4.21 Household Members

First, respondents were asked to indicate the total number of adults and total number of children in their household. The data in Table 2 provides the total number household residents from the sample population. A total of 206 household adults and 67 household children were represented. Respondents were then asked for the total number of household adults and children, categorised by age, who use Dunedin cycleways and tracks. This question did not distinguish between the types of cycleway use, therefore, includes any use type. Of the total number of people in all households ($n = 273$), 109 were cycleway users (39.9%). Approximately 89 adults (43.2%) were cycleway users; whereas 40 children (59.8%) used the cycleway.

Table 2: Number of People in Household & Cycleway Use

2009 Survey	Frequency	Percent
Household Numbers		
Adults	206	75.5%
Children	67	24.5%
Total	273	100.0%
Cycleway Users		
Adults	89	43.2%
Children (age 13 – 17)	8	12.0%
Children (age 5 – 12)	24	35.8%
Children (age 4 and under)	8	12.0%
Total	109	100.0%

4.22 Number of Bicycles per Household

Each respondent was asked how many bicycles they had within their household. The number of bicycles reported per household ranged from zero to 10 (Figure 6). The total number of bikes reported for all households was 164. Not surprisingly, cyclists reported at least one bicycle within each household; whereas 50 non-cyclists (74.6%) reported zero bicycles within their households. The median number of bicycles within cyclist households was four (see Table 3). The maximum number of bicycles within a non-cyclist household was five.

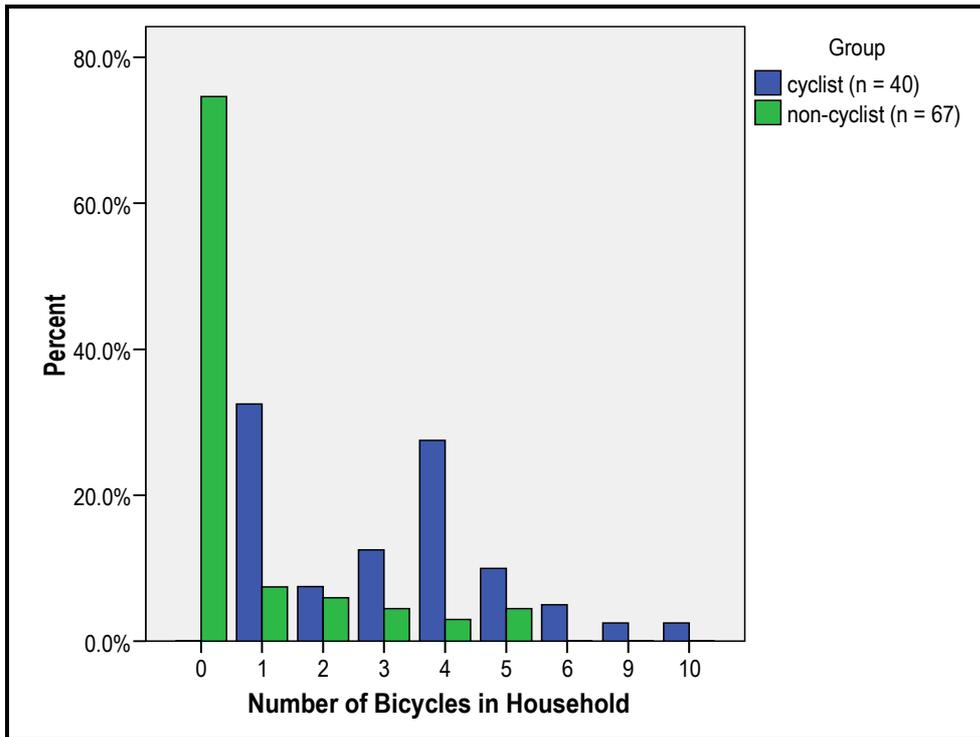


Figure 6: Number of Bicycles in Household

Table 3: Number of Bicycles per Household: All Respondents

Number of Bicycles	Cyclist	Non-Cyclist	Total Number of Households	Total Percent	Total Number of Bikes
Valid 0	0	50	50	45.9	0
1	13	5	18	16.5	18
2	3	4	7	6.4	14
3	5	3	8	7.3	24
4	11	2	13	11.9	52
5	4	3	7	6.4	35
6 - 10	4	0	4	3.6	31
Total	40	67	107	98.2	164
Missing System	0	2	2	1.8	0
Total	40	69	109	100.0	164

4.3 General Cycling Information

4.31 Mode of Transportation & Frequency: Previous 3 Months

Section One of the questionnaire aimed to obtain general information about the type of transportation residents use throughout Dunedin. The first two questions on the questionnaire addressed what mode of transportation respondents had used within the past three months. This question specifically targeted the summer season, as the survey was administered during the latter half of February. Eight categories were provided including 'car', 'bicycle', 'walk', 'bus', 'carpool', 'taxi', 'motorcycle', and 'other'. Respondents were asked to tick any and all types of transport that they used. Figure 7 illustrates the percentages for combined totals of actual responses in each category. Respondents indicated that the three primary modes of transport

used in Dunedin within three months of this survey were 93.6% car (n = 102), 83.5% walking (n = 91), and 43.1% bus (n = 47). 33 respondents (30.3%) indicated cycling as a mode of transport within the past three months, which is slightly less than the 40 respondents (36.7%) that indicated they cycle in Dunedin. Only one respondent ticked the 'other' category and stated "scooter" as mode of transportation.

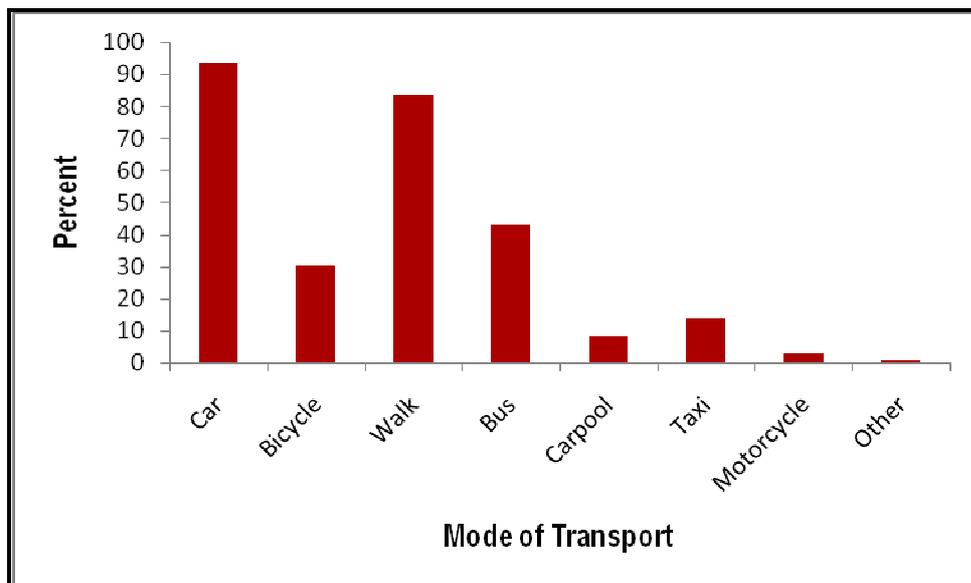


Figure 7: Modes of Transportation Used in Dunedin (within the past 3 months)

Respondents were then asked to indicate if they cycle, walk, or run on Dunedin's cycleway system (if at all) and the frequency used within the past three months. Respondents were provided a five-point scale with categories 'most days', '2-3 days per week', 'about once a week', '1-2 times per month', '1-2 time in the past 3 months'. A sixth, 'never', category was also provided. For all categories provided, the majority of respondents indicated 'never' using the cycleway. Figure 8 and Figure 9 show the percentage of respondents, both cyclists and non-cyclists, who indicated they used the cycleway for either cycling (n = 97) or walking (n = 97) within the past three months. Figure 8 illustrates the 67 respondents (69.1%) who 'never' cycle on the cycleway with the most frequent use being '1-2 times within the past three months' (11.3%). Walking use of the cycleway (Figure 9), however, is slightly more frequent. Only 44 respondents (40.4%) 'never' walk on the cycleway system, whereas 10 respondents (10.3%) walk 'most days' 13 respondents (13.4%) walk '2-3 days per week'.

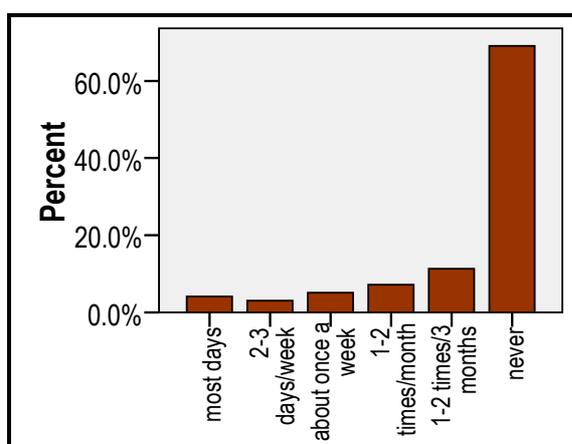


Figure 8: Cycle Use of Cycleway (past 3 months)

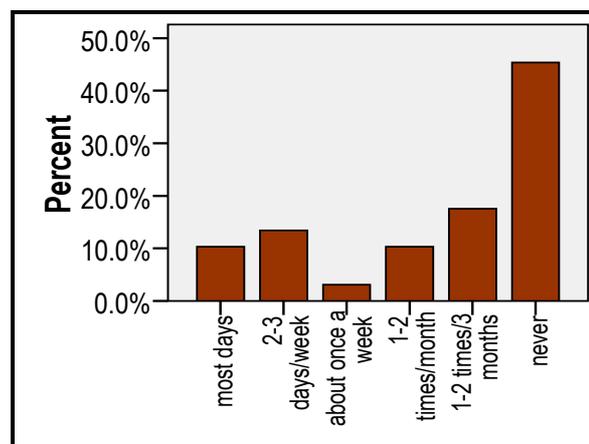


Figure 9: Walking Use of Cycleway (past 3 months)

The category for 'running' on the cycleway was less frequent than both cycling and walking. 62 respondents (87.3%) indicated they 'never' run on the cycleway, however, 38 of the respondents (34.9%) left this question blank and only 9 of respondents (12.7%) indicated that they used the cycleway for running within the past three months. No one indicated any 'other' mode of transportation on the cycleway system.

4.32 Barriers to Cycle Participation

The 73 respondents who indicated that they had ‘never’ cycled within the past three months were asked to indicate all of the reasons why they had not cycled. Figure 10 illustrates the barriers of participation as percentages for the combined totals of actual responses for each category. The most commonly reported barrier for not cycling on the cycleway system was not owning a bicycle (n = 48; 65.8%). The next most common barrier was ‘steep hills’ (n = 28; 38.4%) followed by ‘poor road safety’ (n = 21; 28.8%), ‘heavy traffic flows’ (n = 18; 24.7%), ‘need to transport goods/other people’ (n = 17; 23.3%), ‘weather’ (n = 16; 21.9%), ‘personal health/mobility’ (n = 16; 21.9%) and ‘inconsiderate drivers’ (n = 16; 21.9%). In regards to reducing or minimising barriers to cycle participation, external barriers such as ‘steep hills’, ‘poor road safety’, ‘heavy traffic flows’, and ‘inconsiderate drivers’, may be minimised through education and/or management, thus increasing cycling and cycleway use. ‘Other’ barriers to cycling that respondents reported include age, inability to ride a bike, inadequate places to safely park a bicycle, and family bicycles not located in Dunedin (at family holiday home).

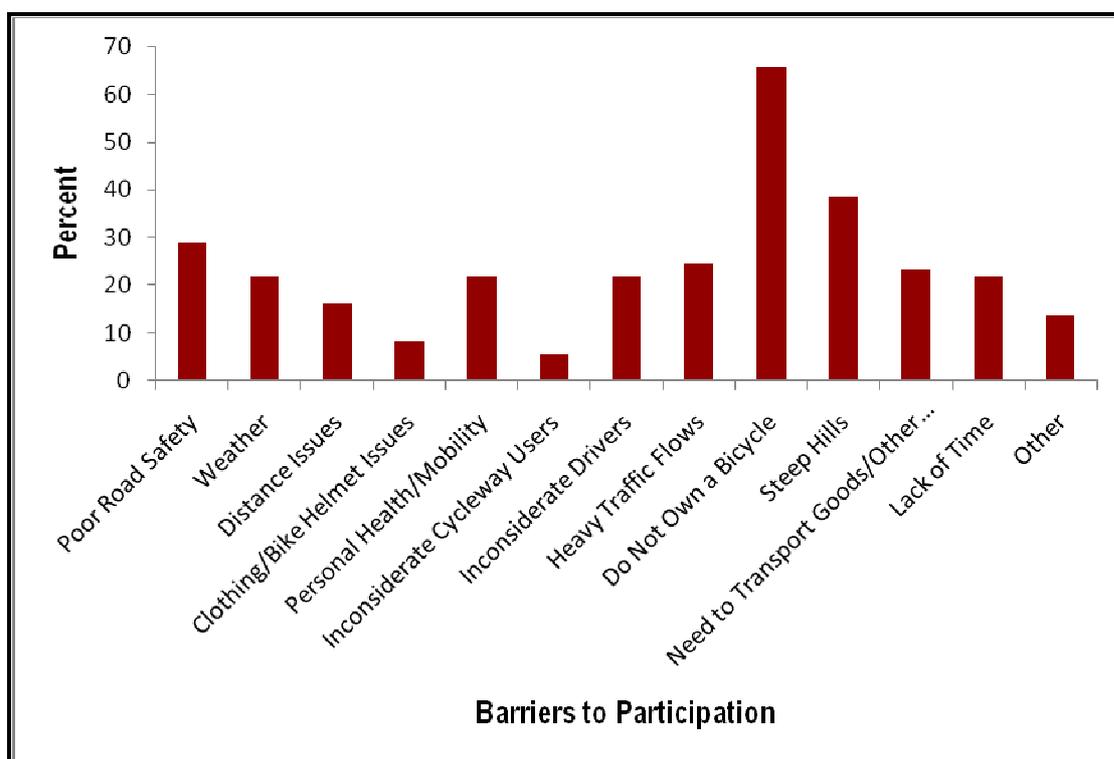


Figure 10: Barriers to Cycling Participation in Dunedin (within the past 3 months)

4.33 Seasonality and Cycling in Dunedin

For the respondents who cycle in Dunedin, question four in Section One asked respondents to indicate which season they were most likely to cycle. This was the question which determined whether or not a respondent was a Dunedin cyclist or non-cyclist. Figure 11 illustrates each season category with percentages for the combined totals of actual responses. A total of 40 respondents (36.7%) indicated that summer was the primary season for cycling. This response was closely followed with 34 respondents (31.2%) cycling in autumn, 31 respondents (28.4%) cycling in spring, and 11 respondents (10.0%) cycling in winter (see Figure 11). The low response to winter cycling may be due to a variety of factors such as inclement weather or the low student response rate.

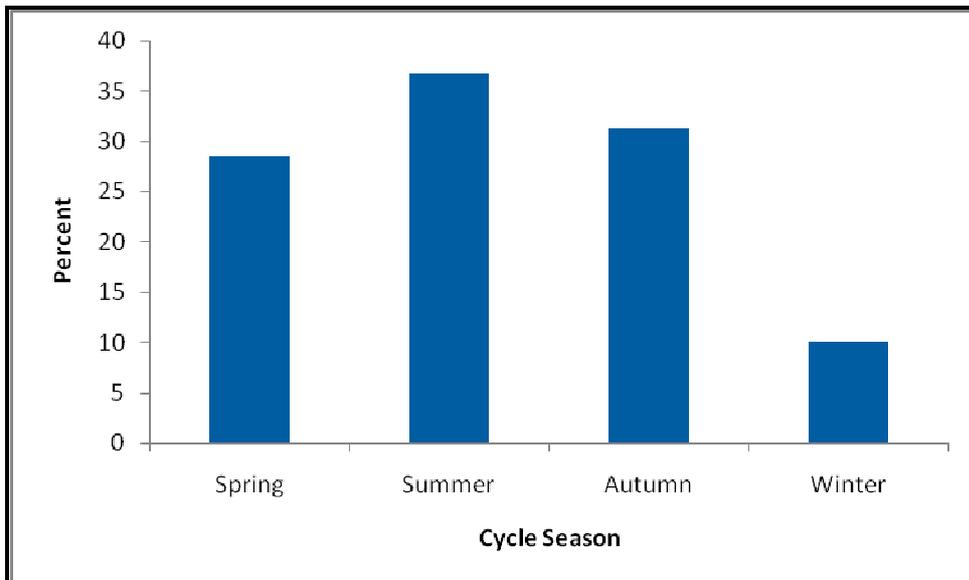


Figure 11: Most Common Seasons to Cycle

Respondents who cycle in Dunedin were also asked to provide details on which routes or areas they most commonly cycle. This was an open-ended question with results pointing to various cycle routes throughout Dunedin. Common cycle routes include the St. Clair area, Portsmouth Dr and Ravensbourne cycleways, Elgin Rd, Mosgiel, and on main streets through the Central Business District. For details on specific routes cycled, please see Appendix 4.

4.4 Cycling Facility Improvement and Safety

Section Two of the cycle survey focused on cyclist and non-cyclist perceptions of cycling facilities and safety.

4.41 Improvements to Enhance Dunedin Cycle Facilities

All respondents were provided a list of potential improvements for the cycleway system and asked to indicate whether or not they felt an improvement was important or not. A total of 11 suggested improvements were provided (see Table 4). Respondents could tick 'Yes', 'No', or 'I don't know' for each condition provided. A summary of responses is provided in Table 4. The suggested improvement most commonly selected by 77 respondents (80.2%) was for separate cycle lanes from the roadway, which was closely followed with 65 respondents (71.4%) who indicated there is a need for available and secure public cycle parking. 57 respondents felt improvements were needed for provisions for cycleway crossings (63.3%) and cleaner pathways, rubbish and glass removal (61.3%). 37 respondents (44.6%) felt improving surface conditions was important; whereas 16 respondents (19.3%) did not think improving surface conditions was important. The suggestion for more rubbish bins, picnic tables, toilets, and other facilities along the cycleway was indicated as important by 36 respondents (39.6%), whereas 15 respondents (16.5%) felt that more facilities along the cycleway were not important.

An open-ended question allowed respondents to elaborate on where they feel cycleway improvements are needed. All comments are listed in Appendix 5.

Table 4: Summary for Suggested Improvements to Dunedin Cycleway: All Respondents

Improvement Suggestions*	Yes	No	I don't know
	Number of Respondents		
Separate cycle lanes from roadway (n = 96)	77	5	14
Availability/security of public cycle parking (n = 91)	65	3	23
Provisions for cycleway crossings at intersections (n = 90)	57	12	21
Cleaner pathways/rubbish & glass removal (n = 93)	57	9	27
Better cycle route signs (n = 90)	56	12	22
Cycle friendly guttering/curb (n = 92)	52	6	34
Bicycle racks on public transport (n = 91)	46	12	33
Better street/pathway light at night (n = 83)	43	14	26
Use as an education resource (n = 86)	42	5	39
Improve surface conditions (n = 83)	37	16	30
More rubbish bins, picnic tables, toilets, etc. along path (n = 91)	36	15	40

* Ranked in order of importance ("Yes" response).

For each suggested improvement to the cycleway, the percentage of responses from cyclists and non-cyclists are compared. Each improvement is discussed in order of importance.

The first suggested improvement was to separate cycle lanes from the roadway. This suggestion was the most popular among 34 cyclists (87.2%) and 43 non-cyclists (75.4%). Only 3 cyclists (7.7%) and 2 non-cyclists (3.5%) indicated separate lanes would not enhance the cycleway system (see Figure 12). A cyclist commented on the notion of off-road cycleways:

"We have a young family and enjoy family rides with 4 and 6 year olds on cycle and younger one in a cycle trailer. Good off-road cycleways with good picnic/toilet facilities would be great." (cyclist)

Safety and provisions for more off-road cycleways were common themes among respondents with families with younger children. A Dunedin non-cyclist commented:

"I would like to cycle with my children so safety is the main issue for us. Cycleways well away from roadways are ideal. The track to Maia is perfect! Please extend it to Port Chalmers." (non-cyclist)

More and secure public cycle parking was deemed important by 30 cyclists (76.9%) and 35 non-cyclists (67.3%). Interestingly, very few, 3 cyclists (7.7%) and zero non-cyclists (0%) found public cycle parking to be not important (see Figure 13). The limited availability of secure public cycle parking in Dunedin was noted by a cyclist:

"Apart from around the university, cycle parking is normally limited to a lamppost." (cyclist)

Due to limited numbers of available and secure cycle parks, several respondents suggested that more cycle parking is needed specifically around the central business district.

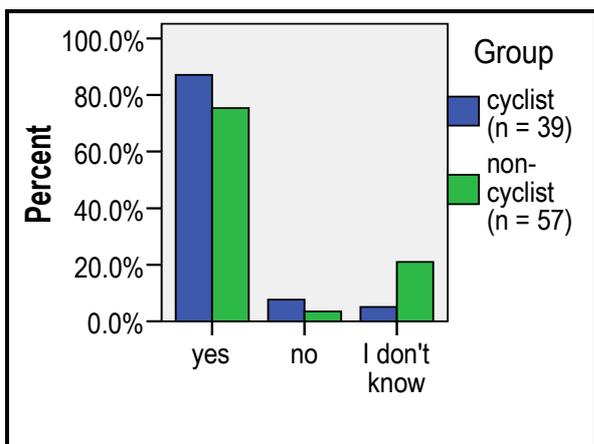


Figure 12: Separate Cycle Lanes from Roadway

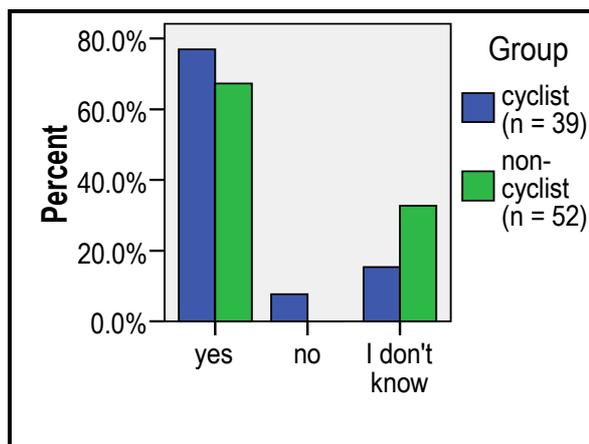


Figure 13: More/Secure Public Cycle Parking

The need for cycle crossings at intersections was important for 27 cyclists (73.0%) and 30 non-cyclists (56.6%). 5 cyclists (13.5%) and 7 non-cyclists (13.2%) did not feel improved cycle crossings were important (see Figure 14).

29 cyclists (74.3%) and 29 non-cyclists (53.7%) felt rubbish and glass removal was important, whereas 6 cyclists (15.3%) and 3 non-cyclists (5.5%) did not think it was important (see Figure 15). There were several respondents who commented on the need to clean up rubbish and remove broken glass from along the cycleway path. Comments about rubbish removal ranged from 'glass in the university area is terrible' to simply 'rubbish and glass and cluttered gutters need clearing'. Comments made by cyclists include:

"The on-road cycleways need to be swept more often from debris or cyclists will just use the road and not the cycleways." (cyclist)

"North Dunedin campus - awful amount of litter on footpath and roadway – off putting for weekend cycling." (cyclist)

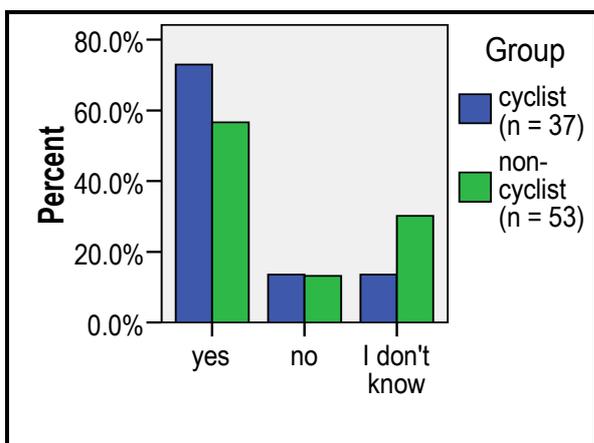


Figure 14: Need Cycle Crossings at Intersections

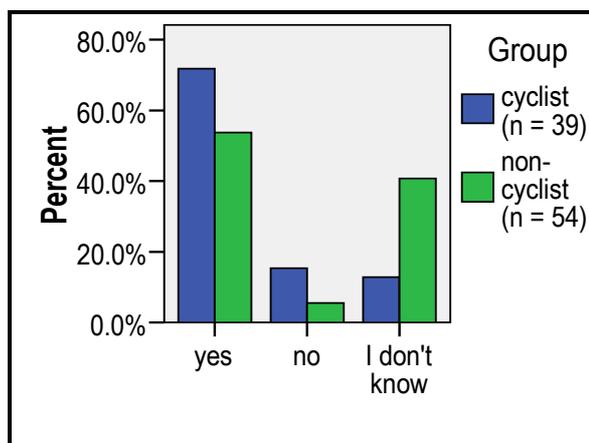


Figure 15: Cleaner Path/Rubbish & Glass Removal

Better cycle route signage was indicated as important by 25 cyclists (67.6%) and 31 non-cyclists (58.5%). However, 10 cyclists (27.0%) and 2 non-cyclists (3.8%) did not feel better route signage would enhance the current cycleway system (see Figure 16). This may be due to a number of variables including familiarity with the cycleway or cycle routes used may indeed be adequately signed. Some suggestions from respondents for

areas needing better signage include along the Maia cycleway and from the city to Ravensbourne cycleway. One specific suggestion for Portobello Rd was made by a cyclist:

“Portobello Rd needs to have the cycleway painted with the cycle logo every so often so it’s obvious it’s for cyclists, as it currently appears to be the hard-shoulder only.” (cyclist)

In response to the importance of improving guttering and curbs to be cycle friendly, 30 cyclists (75.0%) and 22 non-cyclists (42.3%) agreed, whereas 2 cyclists (5.0%) and 4 non-cyclists (7.7%) disagreed (see Figure 17).

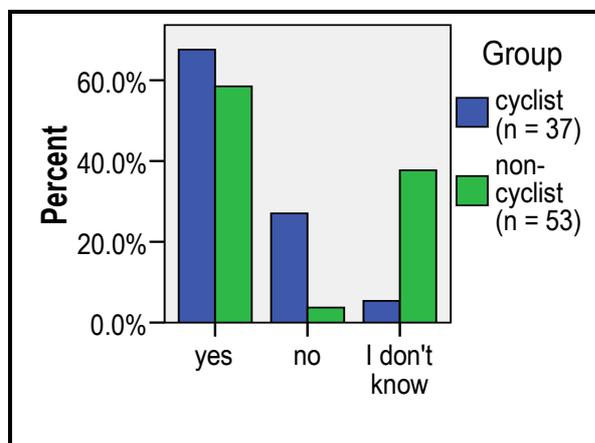


Figure 16: Better Cycle Route Signage

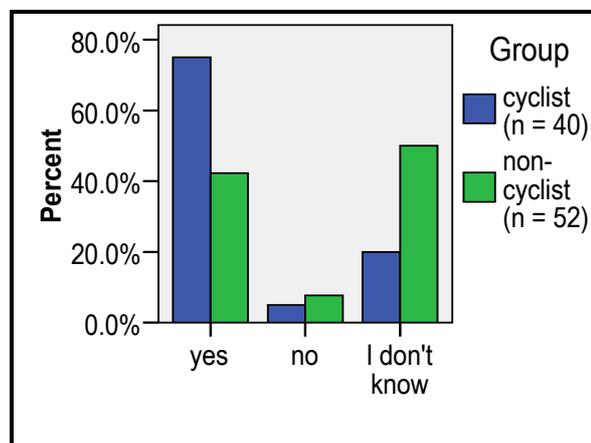


Figure 17: Cycle Friendly Guttering/Curb

More and improved public transport facilities, such as bicycle racks available on taxis and buses, were indicated as an important cycleway enhancements by 23 cyclists (58.9%) and 23 non-cyclists (44.2%). 7 cyclists (17.9%) and 5 non-cyclists (9.6%) did not feel that bicycle racks on public transport was important (see Figure 18).

Findings show that improvements for better cycleway lighting at night are favoured by 17 cyclists (50.0%) and 26 non-cyclists (53.1%). However, 12 cyclists (35.3%) and 2 non-cyclists (4.1%) did not feel improved lighting at night along cycleways was important (see Figure 19). One comment made by a non-cyclist stated that there was a need for *“more lighting everywhere for a safe environment”*.

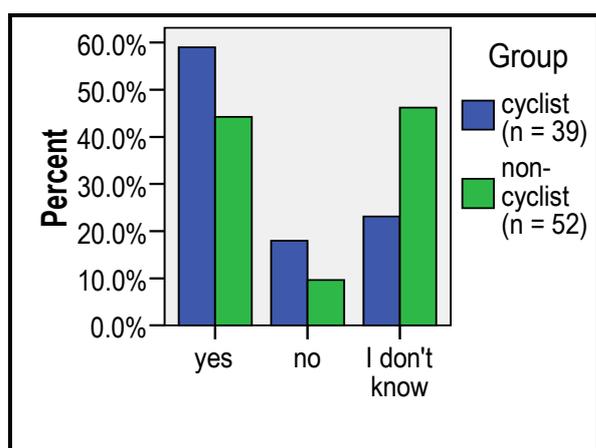


Figure 18: Bike Racks on Public Transport

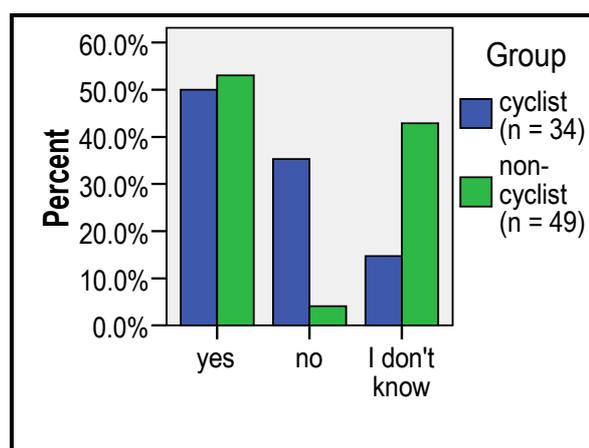


Figure 19: Better Cycleway Lighting at Night

In regards to using the cycleway as an educational resource, 18 cyclists (51.4%) and 24 non-cyclists (47.1%) felt that that it was important (see Figure 20). Only 3 cyclists (8.6%) and 2 non-cyclists (3.9%) did not feel using the cycleway as an educational resource was important. The way in which the cycleway could be used as an educational resource was not specified in the questionnaire, but rather left for the respondent to

interpret. However, the need for cycleway education was commented on by several respondents. One non-cyclist briefly commented:

“It may be beneficial to be educated about our current cycleway system while still at school.” (non-cyclist)

For the suggestion to improve the surface condition of the cycleway, 26 cyclists (70.3%) and only 11 non-cyclists (23.9%) felt improving the surface condition was important, whereas 10 cyclists (27.0%) and 6 non-cyclists (13.0%) indicated they did not think improvements to cycleway surface conditions was necessary (see Figure 21).

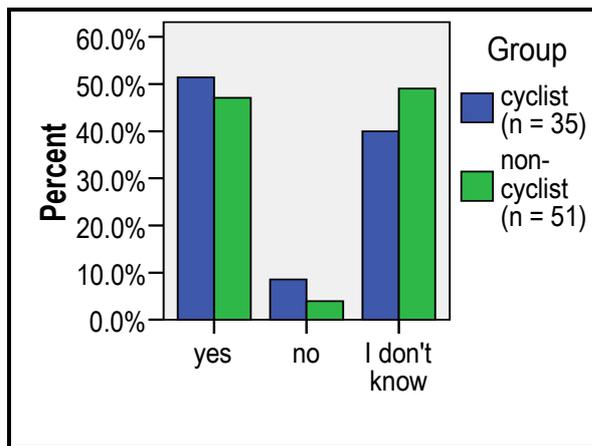


Figure 20: Use Cycleway as Education Resource

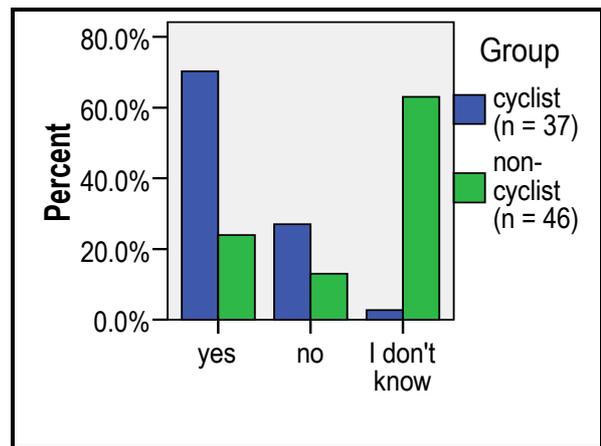


Figure 21: Improve Surface Conditions

Respondents were asked if they thought more facilities such as rubbish bins, picnic tables, toilets, or water facilities along the cycleway would enhance the cycleway system. 15 cyclists (39.5%) and 21 non-cyclists (39.6%) felt more cycleway facilities are important, whereas 11 cyclists (28.9%) and 4 non-cyclists (7.5%) indicated more facilities are not important (see Figure 22). Although additional facilities were found to be less important than other suggested cycleway improvements, a few respondents commented on the need for increased or better facilities along the cycleway path. Many respondents commented, in general, about the amount of litter and rubbish scattered along cycleways.

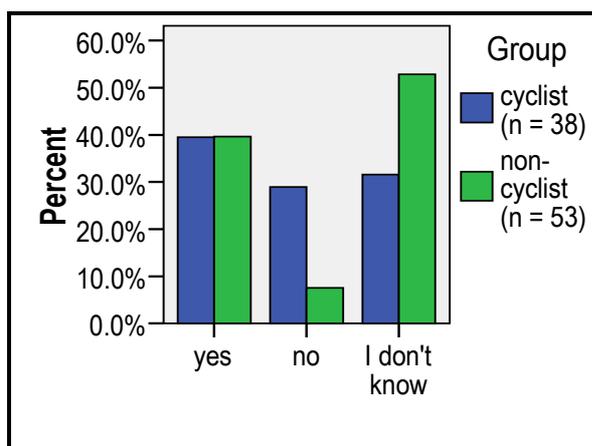


Figure 22: More Facilities along Cycleway Path

4.42 Perceptions of Cycle Safety

Respondents were asked to provide their perceptions towards safety and Dunedin's cycleway system. Question six in Section Two focused on safety for four general locations within Dunedin: off-road cycleways and tracks, on-road cycleways and tracks, Portsmouth Drive cycleway and Ravensbourne Cycleway. Respondents were provided a five-point scale with the categories 'very unsafe', 'quite unsafe', 'neutral', 'quite safe', and 'very safe'. A sixth category for 'I don't know' was provided.

Perceptions about off-road cycleway safety ranged from 'very unsafe' to 'very safe'. The majority of cyclists felt that the cycleway was on the safer side of the spectrum (see Figure 23³). 17 cyclists (45.9%) indicated 'quite safe', followed by 11 cyclists (29.7%) indicating they 'did not know' if the off-road cycleway was safe, and only 4 cyclists (10.8%) felt that off-road cycleway safety was 'neutral' or 'very safe'. 33 non-cyclists (57.9%), on the other hand, 'did not know' if the off-road cycleway was safe, followed by 11 non-cyclists (19.3%) indicating they felt it was 'quite safe'. Zero non-cyclists (0%) indicated that off-road cycleways were 'very unsafe'.

Respondents were asked how safe they felt the on-road cycleway system is in Dunedin. 16 cyclists (41.0%) and 22 non-cyclists (37.9%) responded that on-road cycleways were 'quite unsafe' (see Figure 24⁴). Zero respondents (0%) indicated that on-road cycleway safety is 'very safe'. Zero cyclists (0%) and 26 non-cyclists (44.8%) indicated they 'did not know' if on-road cycleways were safe. As expected, the responses from both cyclists and non-cyclists suggest that Dunedin's off-road cycleways are safer than the on-road cycleways.

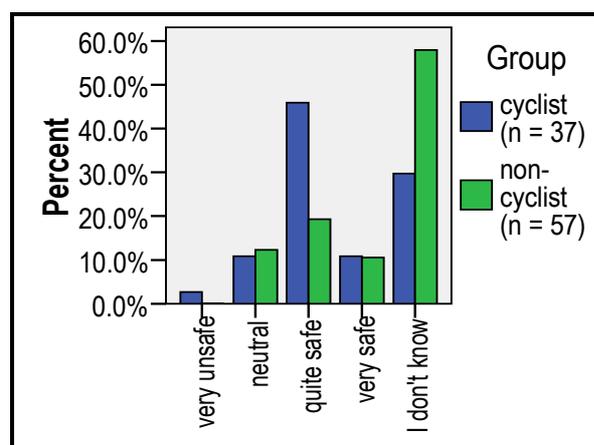


Figure 23: Off-Road Cycleway/Track Safety

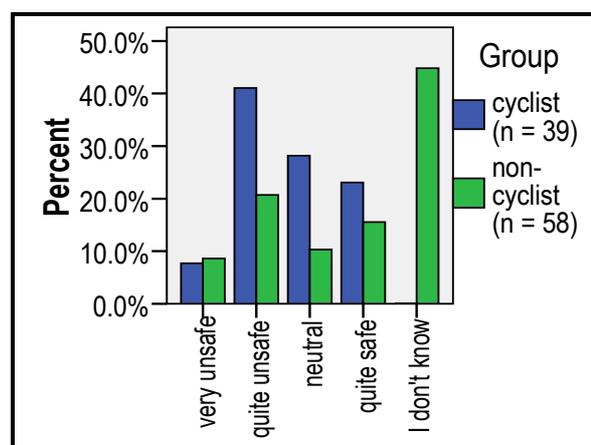


Figure 24: On-Road Cycleway/Track Safety

Respondents were asked to indicate their perception of safety for cycling along both Portsmouth Drive and Ravensbourne cycleway. For Portsmouth Drive, the majority of both cyclists and non-cyclists felt that it was 'quite safe' (see Figure 25). 18 cyclists (45%) and 14 non-cyclists (23.7%) felt Portsmouth Drive was 'quite safe' followed by 9 cyclists (22.5%) and 7 non-cyclists (11.9%) felt it is 'very safe'. Very few respondents, 1 cyclist (2.5%) and 3 non-cyclists (5.1%) felt that Portsmouth Drive was 'very unsafe'. 27 non-cyclists (45.8%) 'did not know' if Portsmouth Drive was safe for cycling.

³ Note: Zero respondents indicated that off-road cycleways were 'quite unsafe'; however, the statistical package SPSS 15.0 does not recognize or illustrate the category for 'quite unsafe' in the bar graph. Therefore, the graph's representation of safety is shifted towards the 'safe' responses.

⁴ Note: Zero respondents indicated that off-road cycleways were 'very safe', therefore, the graph's representation of safety is shifted towards the 'unsafe' responses.

Perceptions of safety towards Ravensbourne cycleway were even higher than Portsmouth Drive. 14 cyclists (35.0%) and 5 non-cyclists (8.3%) indicated they felt Ravensbourne cycleway was 'very safe' followed by 7 cyclists (17.5%) and 6 non-cyclists (10.0%) felt it is 'quite safe' (see Figure 26). Very few, 1 cyclist (2.5%) and 2 non-cyclists (3.3%), felt that Ravensbourne cycleway was 'very unsafe'. 14 cyclists (35.0%) and 42 non-cyclists (70.0%) 'did not know' if Ravensbourne was safe for cycling or not.

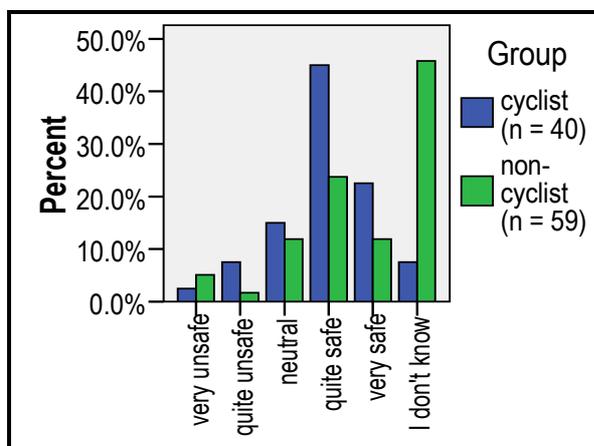


Figure 25: Portsmouth Drive Safety

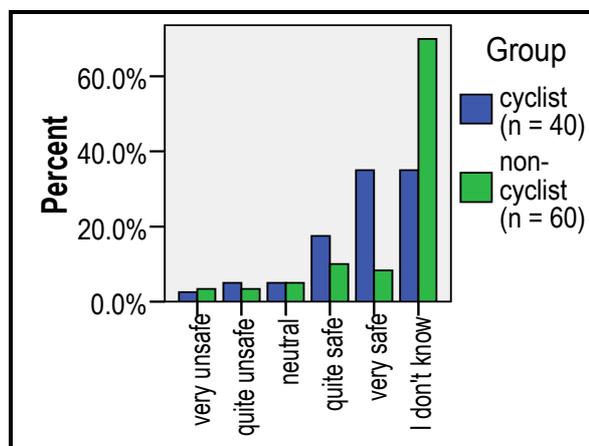


Figure 26: Ravensbourne Cycleway Safety

4.43 Comments about Cycle Safety

An open-ended question was provided to allow respondents to elaborate on why they felt that the cycleway system was either safe or unsafe. Several themes emerged from respondents comments. One main theme, as mentioned previously, was separating cycle lanes and roadways as a safety precaution. Many comments were made about the hazards that cyclists face around traffic and at intersections. Several respondents commented about unsafe on-road cycleway conditions such as car doors opening into cycle lanes and busses passing cyclists on narrow roadways.

"I have come within inches of being hit by a bus while at lights riding home from work on Princes St." (cyclist)

"I feel mostly unsafe just cycling on any road. Portsmouth Dr and Ravensbourne are very safe for cycling because cars are not involved." (cyclist)

To see the additional specific comments about cycleway safety made by cyclists and non-cyclists, please refer to Appendix 6.

4.44 Cycle Safety and Motorists

All respondents were asked how safe they felt while cycling around motorists and while driving around cyclists. For both of these questions a five-point scale was provided with categories consisting of 'very unsafe', 'quite unsafe', 'neutral', 'quite safe', and 'very safe'. A sixth category was provided for each question to select the option 'I don't cycle' and/or 'I don't drive'.

When respondents were asked how safe they feel while cycling around motorists, the most common answer selected was 'quite unsafe' with 20 responses (21.1%), followed by 9 'neutral' responses (9.5%), 7 'very unsafe' responses (7.4%), and 7 'quite safe' responses (7.4%). (see Figure 27⁵). Zero respondents (0%) felt

⁵ Note: Zero respondents indicated that they felt 'very safe' cycling around motorists, therefore, the graph's representation of safety is shifted towards the 'unsafe' responses.

'very safe' cycling around motorists. 52 respondents (54.7%) indicated that they do not cycle in Dunedin. Some comments indicated reasons behind cyclists feeling unsafe on the cycleway system:

"On road cycleways compromised by parking cars and turning traffic." (cyclist)

"Cycleway down one-way system less safe because close to traffic, particularly at traffic lights. Difficult light at times - eg from lower Stuart St around in front of Early Settlers museum then on to Cumberland St is tricky. I don't like to take my kids there." (cyclist)

"Unsafe - cars are parking/using cycleways which causes cyclists to go into the road." (cyclist)

In response to how safe respondents feel while driving around cyclists, 40 respondents (38.5%) indicated that they felt 'quite safe', followed by 29 respondents (27.9%) feeling 'quite unsafe', and 25 respondents (24.0%) were neutral (see Figure 28). Only 4 respondents (3.8%) felt 'very safe' and less, 2 respondents (1.9%), indicated that they felt 'very unsafe'. 4 respondents (3.8%) stated that they 'do not drive'.

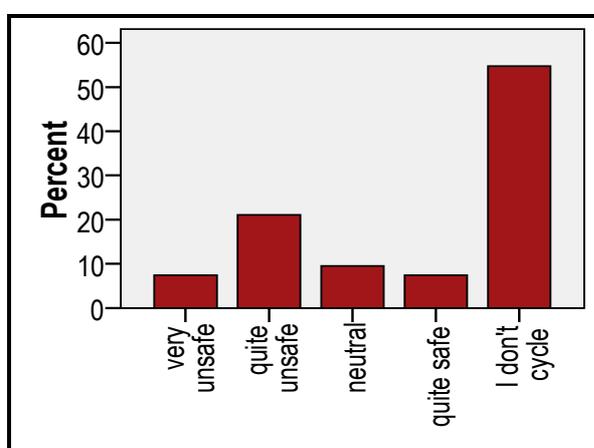


Figure 27: Cycle Safety around Motorists (n = 95)

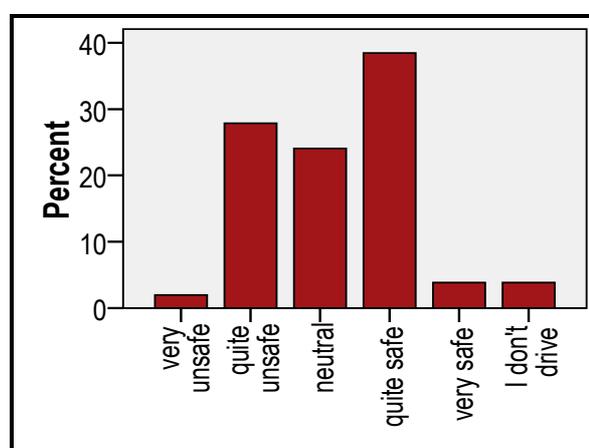


Figure 28: Driving Safety around Cyclists (n = 104)

4.45 Suggestions for Designating New Cycle Routes

An open-ended question allowed all respondents to provide their input on where they felt new cycleway routes would benefit the community. From the suggestions provided, three main areas for designating new cycleways in Dunedin were St. Clair and south Dunedin to the central business district; along Portobello Rd and around the harbour; and generally through the centre of town. Many respondents also provided cycleway improvement suggestions, the most common being either more provisions for off-road cycleways or wider distances between roadway and cycle lanes. Another common comment by both cyclists and non-cyclists was to open the Caversham tunnel for cyclist and pedestrian use. Some specific suggestions for designating new cycle routes include:

"Andersons Bay Road. Improving state highways by providing a wider shoulder. Caversham Tunnel to improve links to Kaikorai Valley." (cyclist)

"There is scope throughout large parts of flat bits of town for example, through south Dunedin - out to St. Clair and St Kilda." (cyclist)

"Along Victoria Road from St. Clair to the dinosaur park (Marlow?). It would be very family friendly and safe." (non-cyclist)

One general comment was made by a non-cyclist about the positive effects of developing of new cycleways in Dunedin:

“Please invest in safe cycleways wherever possible. I’m sorry I don’t know enough to have specific suggestions but a city with fewer cars and more happy, safe cyclists is good for our health and our planet and something to aim for.” (non-cyclist)

For more specific comments from both cyclists and non-cyclists about designating new cycle routes in Dunedin, please refer to Appendix 7.

4.46 Perspectives towards Cycle Safety Precautions

All respondents were asked their perspectives on three safety precautions and if these precautions were an issue for Dunedin cyclists. The three safety issues were lack of bicycle rearview mirrors, lack of bicycle horn/bell use, and cyclists not obeying traffic laws (e.g. running red lights). Respondents could indicate ‘yes’, ‘no’, or ‘I don’t know’ to provide their opinion on whether or not the issue was a concern for cycling in Dunedin.

In response to the lack of bicycle rearview mirrors, fewer cyclists than non-cyclists indicated it was a problem. 10 cyclists (25.6%) and 23 non-cyclists (41.1%) indicated that they were concerned about the lack of rearview mirrors (see Figure 29). 21 cyclists (53.8%) and 8 (%) non-cyclists (14.3%) did not indicate it was a problem.

Results were similar for concern towards the lack of bicycle horn/bell use. Again, fewer cyclists than non-cyclists felt that cyclists not using a bell or horn was a problem. 11 cyclists (28.9%) and 21 non-cyclists (37.5%) indicated that they were concerned about the lack of bell and horn use (see Figure 30). 22 cyclists (57.9%) and 10 non-cyclists (17.9%) did not report it as a problem.

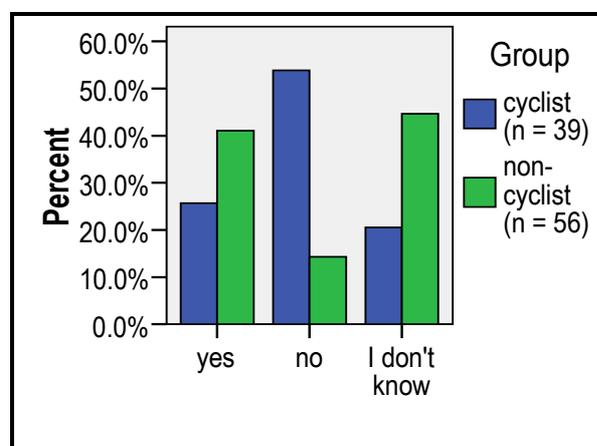


Figure 29: Lack of Bicycle Rearview Mirrors

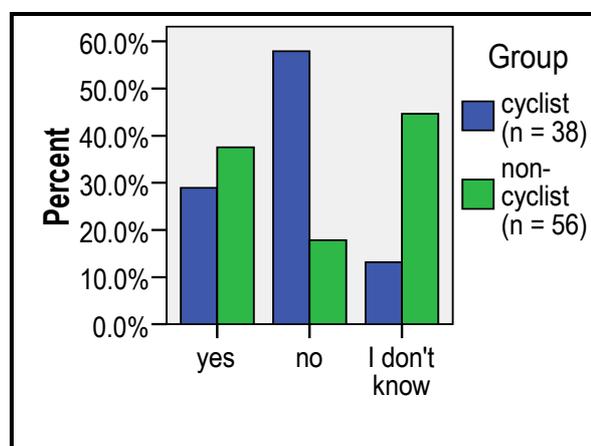


Figure 30: Lack of Bicycle Horn/Bell Use

Both cyclists and non-cyclists indicated that they were most concerned about cyclist not obeying traffic laws, such as running red lights and not stopping at stop signs. Interestingly, a higher percentage of cyclists than non-cyclists felt that this was a problem (see Figure 31). 30 cyclists (78.9%) and 41 non-cyclists (70.7%) felt that there was a problem with cyclists in Dunedin not obeying traffic laws. Only 5 cyclists (13.2%) and 4 non-cyclists (6.9%) did not think there was a problem.

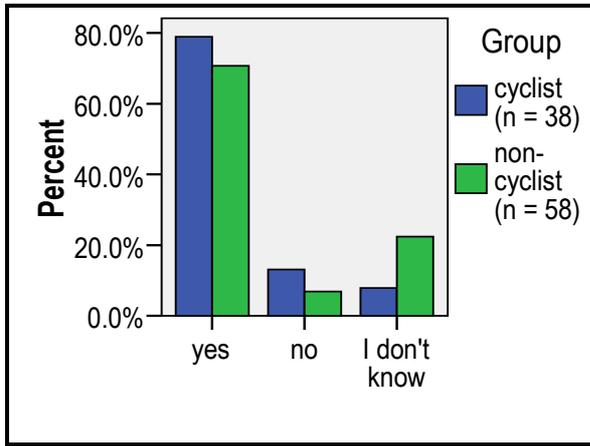


Figure 31: Cyclists Not Obeying Traffic Laws

4.5 Motivations

A list of 13 motivations for cycleway use was provided and all respondents were asked to indicate if they walked and/or cycled on the cycleway and asked the frequency of cycleway use for each specific motivation (see Table 5). However, some respondents did not indicate the type of transport used per motivation, yet indicated the frequency of use per motivation. Therefore, the results for the types of cycleway use per motivation and the frequency of cycleway use per motivation are presented separately. It was not possible to analyse responses between type of cycleway use and frequency per motivation.

Table 5: Motivations and Cycleway Use: Walk, Cycle or Both

Type of Motivation*	Number of Cycleway Users	Percent
For exercise/health/fitness	57	51.4%
Scenery/general recreation/leisure	43	39.4%
To go to work	36	33.0%
For shopping/errands	32	29.4%
Spend time with family/friends	31	28.4%
Use Portsmouth Drive cycleway	27	24.8%
To visit friends/family	26	23.9%
Use Ravensbourne cycleway	21	19.3%
To be sustainable	16	14.7%
To go to university/polytechnic	12	11.0%
Exercise the dog	11	10.1%
To go to school	9	8.3%
For competitions/training	9	8.3%
Other	3	2.8%

* Ranked in order of importance.

4.51 Reasons for Cycleway Use

For each motivation listed in Table 5, each respondent was asked if they cycle and/or walk along the cycleway. Most, 57 respondents (51.4%), indicated that they either by walk, cycle, or both along the cycleway for exercise/health/fitness purposes. This result was followed by 43 respondents (39.4%) indicating they use the cycleway to enjoy the 'scenery, general recreation, and leisure', 36 respondents (33.0%) using the cycleway 'to go to work', 32 respondents (29.4%) using it 'for shopping and errands', 31 respondents (28.4%) using the cycleway 'to spend time with family and friends', and 26 respondents (23.9%) using the cycleway 'to visit friends and family'. Only 9 respondents (8.3%) indicated they use the cycleway for 'going to school', which may be due to the 18 year age limit for completing the questionnaire, and only 9 respondents (8.3%) indicated they use the cycleway for 'competitions and training'. 'Other' motivations, noted by three respondents, were "cheap", "work with students on cycleway", and "use Brighton Rd."

4.52 Frequency of Cycleway Use per Motivation

Respondents were asked to indicate, for each motivation, how often they used the cycleway (see Table 6). Five categories were provided including 'daily', 'weekly', 'monthly', '1-2 times per year', and 'never'. The most common motivation to use the cycleway, for exercise, health and fitness benefits, was indicated by 22 respondents (25.0%) for 'daily' use, 24 respondents (27.3%) for 'weekly' use, 5 respondents (5.7%) for 'monthly' use, and 10 respondents (11.4%) for '1-2 times per year' (see Table 6).

Table 6: Motivations and Frequency of Cycleway Use: All Respondents

Type of Motivation*	Daily	Weekly	Monthly	1-2 Times/Year	Never
For exercise/health/fitness (n = 88)	22	24	5	10	27
Scenery/general recreation/leisure (n = 80)	3	22	17	10	28
To go to work (n = 79)	12	13	4	7	43
For shopping/errands (n = 79)	5	16	6	5	47
Spend time with family/friends (n = 73)	3	14	7	6	43
Use Portsmouth Drive cycleway (n = 78)	1	9	5	15	48
To visit friends/family (n = 75)	2	9	8	6	50
Use Ravensbourne cycleway (n = 80)	2	6	5	12	55
To be sustainable (n = 64)	7	6	1	3	47
To go to university/polytechnic (n = 72)	6	1	0	3	72
Exercise the dog (n = 72)	5	2	2	2	61
To go to school (n = 70)	3	2	1	1	63
For competitions/training (n = 73)	3	8	0	2	60
Other (n = 23)	2	0	1	0	20

* Ranked in order of importance.

Several comments by respondents indicated that there is support for off-road cycleways such as Portsmouth Drive and Ravensbourne cycleway. However, 15 respondents (19.2%) indicated that they use Portsmouth Dr '1-2 times per year', whereas only 1 respondent (1.3%) indicated 'daily' use and 9 respondents (11.5%) reported 'weekly' use. Likewise, 12 respondents (15.0%) indicated using Ravensbourne '1-2 times per year', whereas 2 respondents (2.5%) indicated 'daily' use and 6 respondents (7.5%) indicated 'weekly' use. It should be further noted that motivations may overlap, for example, one may have reported weekly use along the cycleway 'to go to work' and then also reported that the cycleway they use is 'Ravensbourne cycleway'.

4.6 General Comments

Several themes emerged in the general comments section at the end of the survey and many of the comments reflected the findings from the quantitative survey. Several comments were made about the need for safe cycleways for children and families.

"So important to us to be able to have the kids biking/walking to school in MacBay." (cyclist)

"There are very few places I can take my 5 year old who can ride his own bike. I wouldn't take him on a cycle lane on a road, so that leaves only the Ravensbourne track and the area at Marlowe Park. This restriction has meant that I haven't done much cycling as I usually am with my children." (cyclist)

Providing separate cycle lanes away from traffic was a theme that emerged as a general safety precaution from both cyclists and non-cyclists. One specific suggestion noted throughout the survey was to create an off-road cycleway around the harbour from Port Chalmers through to Portobello.

However, not all comments focused on fostering new cycling facilities for cyclists. Negative comments which indicate the existence of conflict between cyclists and other cycleway users (e.g. pedestrians and motorists) were noted as well. Some general comments were made about inappropriate cyclist behaviour:

"I would like to see more policing of the North Rd footpaths that threaten pedestrians that cyclists use instead of the road." (non-cyclist)

"For me to have any sympathy for the cyclists, I will need them to obey the same rules of the road as I obey when driving. Cyclists constantly disobey traffic lights and road signs and frequently ride down the one-way road on which I live against the flow of traffic. They are a great danger to themselves and to me." (non-cyclist)

Most cyclists and non-cyclists are in agreement that a major safety concern for cycling in Dunedin is due to cyclists not obeying traffic laws. Some comments were made about increasing enforcement of cycle traffic laws to ensure a safe cycleway for all who use it. One non-cyclist comments:

"Cyclists who do not wear fluorogear should be prosecuted and unlit cycles at night confiscated. Dunedin driving is often discourteous – incentives and rewards could be used to improve driving behaviour and increase safety thus increasing cycle use." (non-cyclist)

Finally, one Dunedin cyclist summarised many of the various concerns as well as the benefits for cycling:

"Dangerous roads encourage cyclist misbehaviour, i.e. biking on foot path, etc. Cycling needs to be encouraged: clean, green, quiet, healthy, cheap. Needs funding at the all government levels to combat pollution, traffic problems, encourage tourism, fight obesity. Cycling is great and popular way of seeing New Zealand for tourists. Greatest hindrance: lack of safety, need lots of education, make people aware of cyclists/pitfalls. Huge potential (tourism) nationwide network of cycle routes." (cyclist)

Section 5. Conclusions and Recommendations

5.1 Conclusion

This research provides information about use trends and perspectives towards Dunedin's cycleway system. 109 respondents, both users and non-users of the cycleway system, returned the questionnaire. The information gathered included cycleway use frequency, barriers to use, safety concerns, motivations, and general thoughts on cycleway improvements.

First, for the purpose of this research, a definition was developed to clarify the term 'cycleway' in order to provide a context of understanding for the respondents.

Then, profiles indicated that the majority of respondents were over the age of 35, with most of the cyclists being between the age 35 and 44; whereas non-cyclists were mainly over 65 years of age and retired. The vast majority of the respondents identified themselves as 'New Zealanders'. Although responses were received from across 11 Dunedin postcodes, it is noteworthy to mention that the majority of response was from the 9010 postcode, the northern suburbs of Dunedin.

Several constraints and barriers were noted by respondents who had not cycled within the past three months. The main barrier, not having a bicycle, is one in which the individual may self-control. External barriers, such as poor road safety, heavy traffic flows, or inconsiderate drivers, may be minimised with proper management and transportation planning.

Several key themes emerged from both the quantitative and qualitative responses. First, the concept that off-road cycleways are safer than on-road cycleways was more often agreed upon by both cyclists and non-cyclists than not. Many respondents commented on the need for more off-street cycling opportunities. In addition, many respondents, both cyclists and non-cyclists, highlighted the need for safer cycling areas for families with small children. Some non-cyclists indicated that they would cycle more if safer cycle opportunities existed.

5.2 Recommendations

Dunedin City's Cycle Strategy, as well as New Zealand's national cycling strategy, aims to "encourage participation in cycling and address cycling safety" (DCC, 2004). Based on the findings of this research, a few recommendations are provided.

- The majority of cyclists and non-cyclists felt that off-road cycleways were safer than on-road cycleways. It is recommended that more comprehensive off-road cycle network is developed and signposted to promote use, both through the city centre and in periphery areas. Furthermore, as noted by several respondents, an extended cycleway from Port Chalmers to Portobello would provide a sustainable transportation route for both commuting and recreational purposes as well as provide an opportunity to promote cycleway tourism.
- Many Dunedin residents find rubbish, litter, and glass along the cycleway system a deterrent for cycling. Keeping cycleways and walkways clear of these hazards is necessary to ensure safety and encourage use. In areas with high amount of litter, e.g. north Dunedin, more rubbish bins are recommended to encourage individuals to dispose of their rubbish along the cycleway.
- Most cyclists and non-cyclists shared the concern that many Dunedin cyclists do not obey traffic laws. Education programmes and increased enforcement may be necessary to reduce the number of traffic incidences.

- To promote cycleway use, an appropriate number of facilities are necessary, especially in Dunedin's central business district. It is recommended that an increased number of secure parking facilities would help to enhance and promote cycleway use.

5.3 Future Research

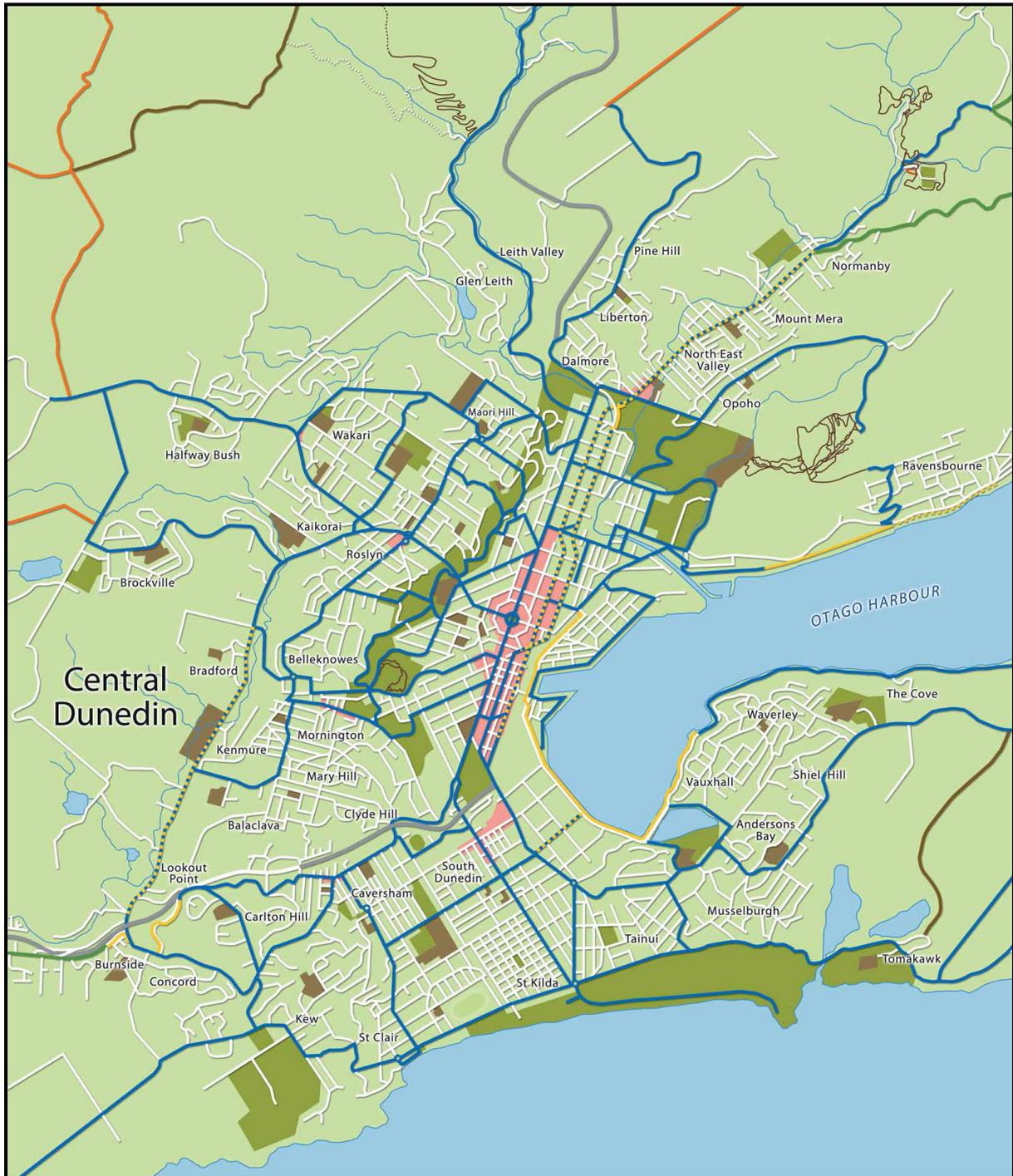
A larger sample of Dunedin residents is needed to obtain a more representative sample of both users and non-users of the cycleway system. Four ways in which to gain a more extensive sample population is to 1) distribute postal questionnaires to an increased number of random Dunedin households, 2) target interest groups such as cycle networks, walking clubs, and community groups, 3) obtain input from the student population at the University of Otago and Otago Polytechnic, and/or 4) conduct an on-site survey of cycleway users. To further enrich the data from this report, interviewing community stakeholders may significantly contribute to a better understanding of needs and issues concerning Dunedin's cycleway system.

This research was conducted at the end of February and had a focus on summer cycleway use. Further research is also needed to address cycleway use and seasonality. Likewise, future research is needed to examine Dunedin's cycleway use trends and changes over time.

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Appendix 1: Dunedin Cycleway Map



General Legend⁶

-  On – Road Cycle Lanes
-  Off – Road Cycle Paths

⁶ Note: A detailed cycleway brochure is available on Dunedin City Council's website at <http://www.dunedin.govt.nz/services/cycling-information/cycle-lanes>

Appendix 2: 2009 Dunedin City Cycle Survey

DUNEDIN CITY CYCLE SURVEY

15 February 2009

Dear Sir or Madam,

The Centre for Recreation Research at the University of Otago invites you to spend 5 minutes to provide your input on Dunedin cycling opportunities by completing the attached questionnaire. **We are collecting information from BOTH cyclists and non-cyclists.**

This survey may be filled out by ANY one household member aged 18 and older, preferably the person who has the closest birthday to the survey date. Should you agree to take part in this project, please complete the enclosed questionnaire and **return it before 1 March 2009** along with the PRIZE DRAW entry slip in the self-addressed, paid envelope. All respondents can enter into the prize draw for a gift voucher to R & R Sports (two \$50 prizes). Your identity on the entry slip will only be used for the purposes of the prize draw and will be destroyed immediately after winners have received their prize.

THE OBJECTIVES OF THIS SURVEY

The goal of this research is to provide insight into Dunedin's cycling trends, barriers to participation, benefits, and safety enhancement needs. We are aiming to gather information about use or non-use of Dunedin's cycle system. We are interested in your experience and knowledge for the following topics:

- 1) Your reasons/motivations/barriers to use or non-use of the cycle system
- 2) Your experience or concerns pertaining to cycle safety
- 3) Your suggestions for cycle and related facility improvements

All information gathered is confidential and your responses will be compiled with the views of other respondents. All data will be securely stored and only the researchers will have access to the data.

The results of the project may be published and will be available on the Centre for Recreation Research's website at <http://www.crr.otago.ac.nz/>. You are also welcome to request a copy of the results of the project.

If you have any questions about this project, either now or in the future, please feel free to contact either:



Carla Jellum
Centre for Recreation Research
Ph: 64 3 479 5866
Email: cjellum@business.otago.ac.nz

or



Dr Anna Thompson
Centre for Recreation Research
Ph: 64 3 479 8057
Email: athompson@business.otago.ac.nz

PRIZE DRAW FOR A \$50 R & R SPORTS GIFT VOUCHER

Please return complete questionnaire before 1 March 2009 to be entered into the Prize Draw

If you want to enter the PRIZE DRAW please fill in the following details and post with complete questionnaire:

Name: _____

Physical Address: _____

E-mail Address: _____ Phone Number: _____

DUNEDIN CITY CYCLE SURVEY

This survey is for both cyclists and non-cyclists, age 18 and over.

Please complete all questions to the best of your ability.

CYCLEWAY DEFINITION: A transport/recreation network dedicated to the inclusion of cycling needs. Cycleways are typically *marked for bicycles*, sealed, multiple-use transportation routes which may include on-street cycle lanes shared with other motorists and/or off-street cycle paths/tracks shared with pedestrians.

SECTION 1: GENERAL INFORMATION

1. In the past 3 months, please indicate the modes of **transportation** you have used in Dunedin (Tick (☑) all that apply)

Car <input type="checkbox"/> ₁	Walk <input type="checkbox"/> ₃	Carpool <input type="checkbox"/> ₅	Motorcycle <input type="checkbox"/> ₇
Bicycle <input type="checkbox"/> ₂	Bus <input type="checkbox"/> ₄	Taxi <input type="checkbox"/> ₆	Other, please specify <input type="checkbox"/> ₈ _____

2a In the past 3 months, how often have you used a designated Dunedin **cycleway and/or cycle track** for the following purposes? (Please refer to the enclosed brochure for routes. Please tick one box (☑) per row)

	Most Days	2-3 days per Week	About once a Week	1-2 times per Month	1-2 times in the past 3 Months	Never
a) Cycle	①	②	③	④	⑤	⑥
b) Walk	①	②	③	④	⑤	⑥
c) Run	①	②	③	④	⑤	⑥
d) Other (Please specify _____)	①	②	③	④	⑤	⑥

2b. If you selected **NEVER** for cycling, what reasons do you attribute to this (Tick (☑) all that apply)?

Poor Road Safety <input type="checkbox"/> ₁	Personal Health/Mobility <input type="checkbox"/> ₅	Do Not Own a Bicycle <input type="checkbox"/> ₉	Other <input type="checkbox"/> ₁₃
Weather <input type="checkbox"/> ₂	Inconsiderate Cycleway Users <input type="checkbox"/> ₆	Steep Hills <input type="checkbox"/> ₁₀	If Other, please specify _____
Distance Issues <input type="checkbox"/> ₃	Inconsiderate Drivers <input type="checkbox"/> ₇	Need to Transport Goods/Other People <input type="checkbox"/> ₁₁	
Clothing/Bike Helmet Problems/Concerns <input type="checkbox"/> ₄	Heavy Traffic Flows <input type="checkbox"/> ₈	Lack of Time <input type="checkbox"/> ₁₂	

3. If you **DO cycle** in Dunedin, what are the most common routes or areas that you cycle? (Please be specific with start point, road name, destination, etc.)

4. If you **DO cycle** in Dunedin, when are you most likely to cycle? (Please (☑) all that apply)

Spring ₁ Summer ₂ Autumn ₃ Winter ₄

SECTION 2: CYCLING FACILITY IMPROVEMENT

5a What **IMPROVEMENTS** do you feel are important to **ENHANCE** the current cycleway system:

a) Improve surface conditions	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
b) Separate cycle lanes from roadway	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
c) Better cycle route signs	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
d) Better street/pathway light at night	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
e) Provisions for cycleway crossings at intersections	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
f) Greater use as an educational resource (e.g. school activities, outdoor education)	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
g) Bicycle racks on public transport (i.e., buses, taxis)	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
h) Availability/security of public cycle parking (i.e., supermarket, Octagon)	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
i) More rubbish bins, picnic tables, toilets, and water facilities along cycleway path	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
j) Cycle friendly guttering/curb	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
k) Cleaner pathways/rubbish & glass removal	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃

5b For those areas you feel need improvement, please provide site locations and any additional information.

6a How **SAFE** do you believe Dunedin's cycleway is for transportation or recreation purposes?

	Very Unsafe	Quite Unsafe	Neutral	Quite Safe	Very Safe	I Don't Know
a) Off-road Cycleways/Tracks	①	②	③	④	⑤	⑥
b) On-road Cycleways/Tracks	①	②	③	④	⑤	⑥
c) Portsmouth Drive Cycleway	①	②	③	④	⑤	⑥
d) Ravensbourne Cycleway	①	②	③	④	⑤	⑥

6b Why or why not do you consider these areas to be safe or unsafe?

7. When you are **CYCLING** in Dunedin, how safe do you feel around motorists?

Very Unsafe	Quite Unsafe	Neutral	Quite Safe	Very Safe	I don't CYCLE
①	②	③	④	⑤	⑥

8. When you are DRIVING in Dunedin, how safe do you feel around cyclists?

Very Unsafe	Quite Unsafe	Neutral	Quite Safe	Very Safe	I don't DRIVE
①	②	③	④	⑤	⑥

9. Do you have any suggestions for designating NEW CYCLEWAYS/ROUTES?

10. In regards to CYCLING, do you feel the following issues are SAFETY CONCERNS in Dunedin:

a) Lack of bicycle rearview mirrors	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
b) Lack of bicycle horn/bell use	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃
c) Cyclists NOT obeying traffic laws (i.e. running red lights & stop signs)	Yes <input type="checkbox"/> ₁	No <input type="checkbox"/> ₂	I don't know <input type="checkbox"/> ₃

SECTION 3: MOTIVATIONS

11. Please indicate how often you CYCLE or WALK on Dunedin's cycle lanes/tracks for the following REASONS?

Please tick () one or more boxes if you walk and/or cycle, THEN select how often you use lanes/tracks.

	CYCLE	WALK	Daily	Weekly	Monthly	1-2 times per year	Never
a) To go to work	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
b) To go to school	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
c) To go to university/polytechnic	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
d) Exercise the dog	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
e) For exercise/health/fitness	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
f) Spend time with family/friends	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
g) For competitions/training	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
h) To visit friends/family	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
i) For shopping/errands	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
j) Scenery/general recreation/leisure	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
k) Use Portsmouth Drive cycleway	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
l) Use Ravensbourne cycleway	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
m) To be sustainable	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤
n) Other, please specify _____	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	①	②	③	④	⑤

SECTION 4: YOUR HOUSEHOLD

12. How many people live in your household? Adults (18+) _____ Children (Under 18) _____

13. How many people in your household use Dunedin cycleways/tracks?

Adults (18+) _____ Children (age 13 - 17) _____

Children (age 5-12) _____

Children (age 4 and under) _____

14. How many bicycles does your household have in total? _____

SECTION 5: RESPONDENT INFORMATION

15. What is your gender? Male ₁ Female ₂

16. What is your age group?

18-24 ₁

25-34 ₂

35-44 ₃

45-54 ₄

55-64 ₅

65+ ₆

17. Which suburb do you live in (i.e. St. Clair, NE Valley, Maori Hill, etc.)? _____

18. What is your nationality? _____

19. What is your employment status? (Please tick (☑) only one box)

Employed Full-Time <input type="checkbox"/> ₁	School student <input type="checkbox"/> ₄	University/Polytechnic student <input type="checkbox"/> ₇
Employed Part-Time <input type="checkbox"/> ₂	Unemployed <input type="checkbox"/> ₅	Other <input type="checkbox"/> ₈
Self-Employed <input type="checkbox"/> ₃	Retired <input type="checkbox"/> ₆	If Other, please specify _____

Thank you for completing this survey!

Don't forget to fill out the prize voucher and return with this survey by 1 March 2009 in the postage paid envelope!
Or send to:

Centre for Recreation Research
Department of Tourism, University of Otago
PO Box 56
Dunedin 9054

Additional comments are welcome:

Appendix 3: Household Response Rates by Suburb

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	St. Clair	8	7.3	7.8	7.8
	Dunedin Central	5	4.6	4.9	12.6
	Roslyn	2	1.8	1.9	14.6
	Tainui	1	.9	1.0	15.5
	McAndrew Bay	1	.9	1.0	16.5
	Maori Hill	5	4.6	4.9	21.4
	Wakari	2	1.8	1.9	23.3
	Andersons Bay	6	5.5	5.8	29.1
	Glenleith	2	1.8	1.9	31.1
	Mosgiel	11	10.1	10.7	41.7
	Company Bay	1	.9	1.0	42.7
	Brockville	1	.9	1.0	43.7
	Abbotsford	1	.9	1.0	44.7
	Helensburgh	2	1.8	1.9	46.6
	Belleknowes	5	4.6	4.9	51.5
	Fairfield	3	2.8	2.9	54.4
	Sawyers Bay	1	.9	1.0	55.3
	Glenross	2	1.8	1.9	57.3
	St. Kilda	5	4.6	4.9	62.1
	Mornington	4	3.7	3.9	66.0
	Waverley	6	5.5	5.8	71.8
	Broad Bay	2	1.8	1.9	73.8
	Concord	1	.9	1.0	74.8
	Corstorphine	1	.9	1.0	75.7
	Ocean Grove	1	.9	1.0	76.7
	NE Valley	8	7.3	7.8	84.5
	Kaikorai Valley	2	1.8	1.9	86.4
	Caversham	1	.9	1.0	87.4
	Pine Hill	1	.9	1.0	88.3
	Waldronville	1	.9	1.0	89.3
	Ravensbourne	3	2.8	2.9	92.2
	Maryhill	1	.9	1.0	93.2
	Musselburgh	1	.9	1.0	94.2
	Normanby	1	.9	1.0	95.1
	South Dunedin	2	1.8	1.9	97.1
	Ocean View	1	.9	1.0	98.1
	Green Island	1	.9	1.0	99.0
	Halfway Bush	1	.9	1.0	100.0
	Total	103	94.5	100.0	
Missing	System	6	5.5		
Total		109	100.0		

Appendix 4: Most Common Routes Cycled in Dunedin

Cyclists ONLY	<ul style="list-style-type: none"> • Portsmouth Drive & cycleway past Ravensbourne/Maia/St Kilda/St Clair/South Dunedin routes. • Vauxhall yacht club to St Clair. • Musselburgh Rise, Royal Cres, Victoria Rd, Esplanade, Forbury Rd, Main St, Princes St, Cumberland St, Anderson Bay Rd, Cycle track from Yacht Harbour to St Leonards etc., Portsmouth Dr. • I drive out to the Taieri plain to get away from traffic (~around Mosgiel and Outram is where I go). • Mosgiel - Forth St - Church St, exercise anywhere. • Only just started as now have helmet. Only used cycle pathways on new Company Bay/MacBay and also around Ravensbourne, new railway track is safer for kids too. • Flat road areas, considerate other cycle users. • Andersons Bay to Ravensbourne via Portsmouth Drive, Thomas Burns St, Anzac Ave, Awatea St, etc. • Daily - Sawyers Bay - Dunedin (exchange) via old road and main-boatclub cycleway. Occasionally Peninsula, Taieri Mouth Rd, Karitane Rd, saddle road to Waitati, North Rd, Upper Junction Rd, Mt Cargill Rds. • Factory Rd, Mosgiel. • Forrester Park, Cycle Park, Kaikorai Valley Rd, North Taieri Rds. • Riccarton Rd. Mosgiel, around Taieri for fitness. • Surrey St, Bayview Rd, Anderson Bay Rd, Midland St, Portsmouth Dr, Thomas Burns St, Cumberland St. • Tomahawk Rd to Smails to Centre Rd. • North East Valley, Otago Yacht Club – Maia. • Elgin Rd to exchange. Elgin to Kenmure to Highgate down to Ross Creek. Elgin to Kaikorai Valley Rd to Taieri Rd over three mile hill and return via Fairfield. • Elgin Rd, Lookout Point to Stevensons Rd, Kaikorai Valley Rd, Main St, Chapman St, Balmacewen Rd, Highgate, Kenmure Rd. • In Mosgiel from Berwick St, up side roads around Haggard, Alexander, Gordon, or Dukes Rd return to Berwick St. Usually try to use side streets with less traffic and limited stops at intersections. • Portsmouth Drive cycleway to Moray Place. • Ravensbourne cycleway. • Moerangi St, Broad Bay to Otakau and Portobello. • Elgin Rd., Mailer Street - home to shops and return. • Highcliff Rd to Moray Place (to and from work), All around the Peninsula (exercise and training). • Helensburgh, Dundas Harbours, Balmacewen, Taieri, Flagstaff, 3 Mile Hill. • Portsmouth Dr cycleway (to go to Saturday market), King Edwards St, Princes St, MacAndrew Rd, all over Dunedin. • Mt Bike. Mostly start from home, Andersons Bay, cycle through Tomahawk and over the Karetai track, then return home. Also bike from home along Portsmouth Harbour to University oval and home. • North Rd to University (Great King Street) North Rd to St Clair (Cliffs Rd). • From Ocean View to Green Island on Brighton Rd. • Mainly in Mosgiel (along Silverstream) and around town and on the Taieri. • Around home in Waverley, Scobie Rd, McKerrow St, Portsmouth Dr cycleway. • I cycle from St Clair to city through Caversham, sometime south Dunedin.
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**Cyclists
ONLY
continued...**

- North Road and George Street.
- South Dunedin - Highcliff - Peninsula - South Dunedin - Leith Valley Rd - Waitati Valley Rd - Mt. Cargill Rd - S. Dunedin. Swamp Ridge track.
- Cycle to school and back. Graham St - Queen St. Cycle to Outram.
- Ravensbourne cycleway.
- Scott St. Waverley to Victoria Road and around Tahuna and St. Clair residential area.

Appendix 5: Areas that Need Improvement to the Cycleway System

<p>Cyclists</p>	<ul style="list-style-type: none"> • My cycling mostly recreational. Would be great to see the more speedy building of cycleways on both sides of the harbour and beach areas. • Around St. Clair beach area. • Just general intersections. • Portobello Rd needs to have the cycleway painted with the cycle logo every so often so it's obvious it's for cyclists as it currently appears to be the hardshoulder only. • Octagon needs more cycle stands. Brockville Rd is very steep, I see many cyclists riding the wind - if one should collide into traffic/pedestrians it would be disastrous. • Maia cycleway could do with clearer signposting. • When cycling along any road there is always glass on road. • In general, cycling in Dunedin is dangerous. The roads are too narrow, while I still bike we don't allow our children (5 and 11) to bike for safety reasons. We could learn a thing or two from Timaru wide, bike-friendly roads! • We have a young family and enjoy family rides with 4 and 6 year olds on cycle and younger one in a cycle trailer. Good off-road cycleways with good picnic/toilet facilities would be great. • Apart from around the university, cycle parking is normally limited to a lamppost!! • At intersections with high use of cycles to include crossings. Generally cycle lanes with signs to say where these are. To be able to safely leave a cycle anywhere in a business location would be great. • Several main thoroughfare roads eg Bush Rd, Reid Ave, Murray St, Mosgiel area. • On Portsmouth Drive cyclist should not cycle on road, only on the cycleway. On the cycleway cyclist should travel on the left hand side of the cycleway. If possible, widen the cycleway slightly. • Peninsula road - some parts there is very little room for cyclists or visibility. This is not a cycleway yet, but it would be great to have one! • Glass in the university area is terrible. • Starting with cycleways most frequently used. • One-way street system. • Places to park bikes in CBD. • Mainly on the main road due to traffic on busy roads. • Signage to/from cycle path at city end of Ravensbourne track. More cycle lanes across city generally needed. Rubbish and glass and cluttered gutters need clearing. • The on-road cycleways need to be swept more often from debris or cyclist will just use the road and not the cycleways. • North Dunedin campus awful amount of litter on footpath and roadway off putting for weekend cycling.
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Appendix 5: Continued....

Non-Cyclists	<ul style="list-style-type: none"> • South Dunedin, around St. Clair.
	<ul style="list-style-type: none"> • More lighting everywhere for safe environment.
	<ul style="list-style-type: none"> • More rubbish bins, facilities, etc. and cleaner pathways/rubbish glass removal on Portsmouth Dr.
	<ul style="list-style-type: none"> • All.
	<ul style="list-style-type: none"> • There are too few rubbish bins located at the Ravensbourne cycleway & people walking their dogs have nowhere to dispose of their waste so they leave it on the path. The curbing along Anzac Ave is particularly steep and hard to keep left with trucks and buses passing.
	<ul style="list-style-type: none"> • Not having cycled for over 60 years, don't feel qualified to comment above (Q5a)
	<ul style="list-style-type: none"> • Having parked cars then cycle lane then main traffic lane eg Cumberland St is just damn stupid. Cyclists have a good chance of being killed if a car door is opened etc.
	<ul style="list-style-type: none"> • I ticked yes from general observation of conditions here and in overseas cities which I have spent time in and which are more cycle-friendly than here.
	<ul style="list-style-type: none"> • I just know that some roads I drive on are quite narrow for cars and cycles, but not sure of exact street names. Mornington is one area.
	<ul style="list-style-type: none"> • I think that it may be important to ensure that the rubbish is removed around student flatting areas on the cycleway system. It may be beneficial to be educated about our current cycleway system while still at school.
	<ul style="list-style-type: none"> • Frequent glass on NEV footpath (cyclepath?).
	<ul style="list-style-type: none"> • All around Dunedin.
	<ul style="list-style-type: none"> • Portsmouth Dr, harbour.
	<ul style="list-style-type: none"> • Greater Dunedin over all area.
	<ul style="list-style-type: none"> • Can't answer above as do not cycle.
	<ul style="list-style-type: none"> • Hillside Rd.
	<ul style="list-style-type: none"> • I would like to cycle with my children so safety is the main issue for us. Cycleways well away from roadways are ideal. The track to Maia is perfect! Please extend it to Port Chalmers.
	<ul style="list-style-type: none"> • Would like to see cycle track from town right down to Port Chalmers the same on the other side from town to Portobello.
	<ul style="list-style-type: none"> • I am just commenting as a prospective cyclist really - quite new to Dunedin.

Appendix 6: Reasons for Safe or Unsafe Cycleways

Cyclists	
	<ul style="list-style-type: none"> • Cycleways themselves generally very good. Access and road crossing points remain to be of concern.
	<ul style="list-style-type: none"> • Out of harms way of traffic.
	<ul style="list-style-type: none"> • I feel mostly unsafe just cycling on any road. Portsmouth Dr & Ravensbourne are very safe for cycling because cars are not involved.
	<ul style="list-style-type: none"> • Segregation from normal traffic is not great. Also as a driver I have encountered times where (but shouldn't) cyclists become hazard, especially at peak traffic times.
	<ul style="list-style-type: none"> • Distance from traffic - separate cycleways much more safe.
	<ul style="list-style-type: none"> • Mosgiel is okay.
	<ul style="list-style-type: none"> • Better signage at cycleways needed. Crossing from the side of the streets onto other side of Portobello Rd would be great for the kids with caution and slow down signs. Would be great to have one from Luss Rd across Portobello Rd bus stop area. Cars come along here very quickly.
	<ul style="list-style-type: none"> • Considered safe.
	<ul style="list-style-type: none"> • Relative degree of separation from vehicles. Those most safe have little or no opportunity for vehicle interaction.
	<ul style="list-style-type: none"> • Portsmouth Drive, poorly signposted, turning traffic unaware of cyclists (i.e. driveways + streets). On-road cycleways: opening car doors particularly dangerous (needs education): cycleway blocked by buses, turning traffic and open car doors. People getting in/out of cars often seem totally unaware of traffic, i.e. get something out of car from street side, seems dumb to me.
	<ul style="list-style-type: none"> • Unsafe on-road because of the intersections - also not much room between parked cars & lines of traffic. Protruding curbs very dangerous.
	<ul style="list-style-type: none"> • I have come within inches of being hit by a bus while at lights riding home from work on Princes St.
	<ul style="list-style-type: none"> • Too narrow!
	<ul style="list-style-type: none"> • North Rd has a great cycleway but is quite a hazard with buses pulling in and out. Often parking on the cycle-lanes. Other vehicles act in similar manner at times.
	<ul style="list-style-type: none"> • Some of the cycleways on/road- are quite close to traffic still - but as long as we are vigilant it is ok.
	<ul style="list-style-type: none"> • Although the Ravensbourne cycleway is very safe to use many people still opt to ride on the road. I think more people might use the cycleway if there was access from Moller Park. I never ride on the road without high visibility clothing and even then some drivers don't see cyclists.
	<ul style="list-style-type: none"> • Ravensbourne - separate from traffic; Portsmouth Dr - wide, separate from traffic.
	<ul style="list-style-type: none"> • No exposure to traffic.
	<ul style="list-style-type: none"> • Portsmouth Dr cycleway - railway tracks, driveway at Gardeners and the two road crossings need care.
	<ul style="list-style-type: none"> • Probably more a problem of car drivers.
	<ul style="list-style-type: none"> • I have never had any problems, accidents, etc.
	<ul style="list-style-type: none"> • Cycleway down one-way system less safe because close to traffic, particularly at traffic lights. Difficult light at times - eg from lower Stuart St around in front of Early Settlers museum then on to Cumberland St is tricky. I don't like to take my kids there.
	<ul style="list-style-type: none"> • Unsafe - cars are parking/using cycleways which causes cyclists to go into the road.
	<ul style="list-style-type: none"> • Only as safe as the care and courtesy displayed by other vehicle users.
	<ul style="list-style-type: none"> • Portsmouth Dr - if I want to go to Bayfield, busy road to cross. If I want to leave car at Vauxhall and cycle after busy road to safely pull into carpark.
	<ul style="list-style-type: none"> • Inconsiderate Drivers especially bus drivers.

Cyclists continued...	<ul style="list-style-type: none"> • Unsafe areas are due to traffic speeding past or being too close to cyclers. • On road cycleways compromised by parking cars and turning traffic. • Distance from moving vehicles. • Because the cycleway is too narrow to accommodate groups of walkers. Cycleways should be as the name says - for cyclists and walkways should be separate for walkers. Even if a bike has a bell or horn the sound would not reach a walker if they and the cyclist are moving into a headwind which would carry the sound away.
Non-Cyclists	<ul style="list-style-type: none"> • Heavy traffic, drivers unaware of cyclists. • No traffic (ie cars/trucks) on safe areas. On road, inconsiderate traffic. • Portsmouth Dr is very close to the road when it gets closer to town (no curbing or grass verge) in places. Painted lanes on the road don't seem very safe - but are probably better than no lines (lanes) at all!! • Unable to comment specifically on cycleways as have not used them as cyclist. • Buses! • Safe away from cars. • The narrow roadway allowed. Speed of traffic. • On-road cycleways are unsafe due to the behaviour of other road users - most noticeably not giving cyclists room and overtaking cyclists when it is not safe to do so (on bends). • People don't hear because of Ipods. • 6ab: Assumes not riding abreast. From a drivers point of view. • 6ab: Proximity to motor vehicles, traffic often being too fast, too dense and too inconsiderate for safety. • Traffic levels are not very high, and have not heard of many major cycling accidents. • Heavy traffic and speed. • I am too afraid to ride on roads shared by cars. Would like designated area between footpath and cycle trail currently used to park cars to be used as cycle trail. The parked cars would act as buffer between cyclist and motorist. • Portsmouth Dr cycleway looks safe although I haven't used it - cars drive too fast along this road. • Well fenced, good surface. In general cyclists give warning to their approach, dog owners are cleaning up and it's an enjoyable walk/cycle for people of all ages. • Too much motor traffic on the road and not giving cyclists enough room. • Pedestrians also allowed = crashes. • Better vision of traffic flow. • Have not used these cycleways yet. • On one-way systems - motorised scooters use cycleways; difficult to overtake slow cyclists without going into traffic lane; motorists don't look before crossing through cycle lanes at intersections and driving into supermarket entrances eg New World and Countdown in CBD; heavy traffic on oneway system is very discouraging. • Portsmouth drive seems safe as there is good separation between road and cycleway. • On-road: same level as road; Portsmouth Dr - raised above Rd. • Proximity to traffic. • Too many cars, not enough policing of dangerous drivers. • Some areas of cycleway on roads just run out and you are competing with inconsiderate drivers.

Appendix 7: Suggestions for Designating New Cycleways/Routes

Cyclists	<ul style="list-style-type: none"> • Make bells or some signaling device a requirement so cyclists can warn walkers of their approach (from behind mainly). • Yes, a larger distance between roadways and cycleways. • All the way down Portobello Rd especially keen to see it really well signed and safe between Company Bay and MacBay because we have a lot of children who could be biking/walking to school. • Maia - St. Leonards should not be too hard. • When repairing, extending or replacing roads, maximize the width and put in cycle lanes. • Having a good cycle route along the Craighleith & Leith offering a car free way into town could be great especially for family cycling. • Just to have more cycleways on busier roads. • Access to the cycleway at Moller Park, access across the Leith from Magnet St to Parry St. The vast majority of cyclists & pedestrians already use the rail bridge. • Portobello Rd. • Andersons Bay Road. Improving state highways by providing a wider shoulder. Caversham Tunnel to improve links to Kaikorai Valley. • Allow cyclists to cycle up certain steep pavements eg Drivers Rd. • There should be safe cycle routes everywhere, especially in town. • Extra cycleway around both sides of Harbour would be great. • There is scope throughout large parts of flat bits of town for example, through south Dunedin - out to St. Clair and St Kilda. • A cycle walkway tracing Kaikorai stream. Also Caversham railway tunnel opened up for cycles and pedestrians. • More around the Taieri. • From south Dunedin to CBD. • More use of wide footpaths (combine use/lanes on footpath... introduce use of bells on bikes). Traffic lights for cyclists and curbs lowered. • No. (<i>commented 2 times</i>)
Non-Cyclists	<ul style="list-style-type: none"> • Along Victoria Road from St. Clair to the dinosaur park (Marlow?). It would be very family friendly and safe. • They should be off the roads for cyclists' safety. • No. [<i>commented 5 times</i>] • Have not lived in Dunedin sufficient time to comment on new routes. • Colour bright large signs. • Where possible site them in low traffic areas. • Sorry, nothing comes to mind. • Yes, keep them off roads and let them use one side of footpath or use car parking as discussed in 6b. • Along busy fast traffic roads. • Through the centre of town. • On the Taieri - school routes - more in greater university area. • Please invest in safe cycleways where ever possible. I'm sorry I don't know enough to have specific suggestions but a city with fewer cars and more happy safe cyclists is good for our health and our planet and something important to aim for. • Opening up the Caversham tunnel as a cycleway for use for those in Abbotsford, Green Island, Fairfield to be able to bike into town • To be very clear/visible and well lit - and well policed.

Appendix 8: General Comments

Cyclists	<ul style="list-style-type: none"> • What on earth do you mean by "to be sustainable"? Is this about global warming? It's a fallacy it's a cycle itself. Riding on footpaths should be allowed, but controlled. Riding a bike should be on the opposite side of the road facing traffic so both cyclists and motorists can see each other. Think about it. It makes perfect sense. • So important to us to be able to have the kids biking/walking to school in MacBay. • I love Dunedin with all its faults weather wise, road safety and scenic drive places. Dunedin needs people that are prepared to give a little to our environment and health zones to be kept clean at all times. Thanks. • Dangerous roads encourage cyclist misbehaviour, i.e. biking on foot path, etc. Cycling needs to be encouraged: clean, green, quiet, healthy, cheap. Needs funding at the all government levels to combat pollution, traffic problems, encourage tourism, fight obesity. Cycling is great and popular way seeing NZ for tourists. Greatest hindrance: lack of safety, needs lots of education, make people aware of cyclists/pitfalls. Huge potential (tourism) nationwide network of cycle routes. • I would love to use my cycle trailer more to be more sustainable but being able to have children out during busy day traffic is dangerous unless better safe cycleway rules are enforced. As a family we love the Ravensbourne cycleway. Keep it up! Extend it! Yes! • I think, in general, cycling in Dunedin is pretty good - except for the inexperienced or elderly cyclist who seem to find it quite intimidating. I think educating the car drivers who don't cycle themselves is important as well, some of them have no idea!! • A white continuous 'verge' line especially between Mosgiel to Outram, but more particularly from Outram to Berwick & Maungatua - there are several deep water table channels - the road, although two lane, does not have very much shoulder. • I would use the cycleway more often but find that the prevailing wind is westerly in the morning & easterly in the evening so a headwind to go to Uni & return home! The cycleways are more relatively exposed to the wind so I choose to walk instead. It's a pleasant walk though! • I would like to ride more. • Dunedin desperately needs more safe cycleways, especially for children/elderly all over the place. • Thanks for the route track brochure. Could do with more mountain bike off-road tracks. Cheers. • There are very few places I can take my 5 year old who can ride his own bike. I wouldn't take him on a cycle lane on a road, so that leaves only the Ravensbourne track and the area at Marlowe Park. This restriction has meant that I haven't done much cycling as I usually am with my children. I used to cycle between Normanby and St. Clair with my youngest in a bike seat, but now he is too big for the seat, but too small to safely cycle in cycle lanes. There are very few places he can safely cycle. • The map you enclosed on cycle routes was good as I did not know it existed. I will use the Ravensbourne cycleway. • I bike to work often - a day does not go by where I have had to avoid being taken out by a bus/car/people getting out of parked cars. • Our kids very keen on cycling - but too young for on-road cycle paths - but footpaths good/although glass an issue on North Rd. Our bikes (adults) need overhaul but have used them to go to work in past - we need more footpaths with cycle lanes like we saw in German cities - where cars give way to those on paths and traffic lights had separate light for cyclists. We found German cities much more cycle friendly than Dunedin. They also had lots of separate cycle lanes like Ravensbourne-Maia which were wonderful as no threat from road traffic. • Attached additional comments (in an extended letter).
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Non-Cyclists	<ul style="list-style-type: none"> • I would cycle in Dunedin if one-way system had better cycle lanes (heavy traffic, big trucks, inconsiderate drivers a deterrent.) As far as I'm aware, there are no cycle lanes in Roslyn, Stuart St, or City Rd area. Excellent idea is have cycle racks on public transport for getting up the hills! Thanks for cycle map. Also, I believe that a cycleway Port Ch to Portobello would be very welcome for recreational cyclists including families. • For me to have any sympathy for the cyclists, I will need them to obey the same rules of the road as I obey when driving. Cyclists constantly disobey traffic lights and road signs and frequently ride down the one-way road on which I live against the flow of traffic. They are a great danger to themselves and to me. • If cyclists are going to travel on roads then the roads need to be wide enough for them & cars/traffic. Bike riders need to use lights (a lot do not seem to use them). Some ride in the middle of the road!! • Sorry, being 77 probably doesn't help your survey. • We could appreciate the weed control on the last part of Ravensbourne track be looked at - in parts we can no longer see the harbour because of high grass/weeds. Shrubs that were planted can no longer be seen among the weeds. Thanks. • There needs to be better education of other road users regarding consideration of cyclist safety - I think many car drivers think that cyclists are a nuisance. • Some sort of clear night marking on cycle lane. • For sustainability reasons I thoroughly support any improvements that foster safe cycling and more frequent cycling by more people. • It is good for cyclists that George St is now 30 km/hr speed limit. • Do not drive or walk or cycle, ill health. • Signage informing dog owners to clean up after dogs may help to make the Ravensbourne walkway a bit more enjoyable instead of having to keep looking at where the next dog turd is. Should dogs be on a lead as this is a public area? • Great to get surveys like these and have my say about our community facilities! • I would like to see more policing of the North Rd footpaths that threaten pedestrians that cyclist use instead of the road. • I have seen separate cycle tracks in European cities and felt much safer there. Our system of having them close to cars isn't safe for car drivers or cyclists. Couldn't we have an area where the footpath on one side of the road or one way system is used for pedestrians and on the other for cyclists to get them off the road. • Sorry this response doesn't provide any constructive suggestions. I do walk every day but use foot-paths - I would never walk on cycle tracks as too near to traffic. • I think parking buildings should move out of the central business area and link buses used to service the CBD. Cyclists who do not wear fluorogear should be prosecuted and unlit cycles at night confiscated. Dunedin driving is often discourteous - incentives and rewards could be used to improve driving behaviour and increase safety for cyclists thus increasing cycle use. • I write as a retired University teacher. I visit the student area often. Driving there esp. in winter and after dark is a hazardous business. Too many cyclists are ill-lit, do not sign and pay little attention to traffic signals. • I welcome more use of bicycles in and around the greater Dunedin area. Regrettably hill suburbs and distance make the use for more biking more often limiting i.e. unable to bike to work, but would love to be able to. • I will be purchasing a bike in the next two months so am keeping the cycle routes. Keen to be green and cutdown the carbon footprint. • Good luck - I hope to be a cyclist one day!
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