Appendices

Appendix A: Economic, Area and Block Description and Context

This appendix provides some further background context on the economic and real estate market in Vancouver.

The following capitalization rates, or cap rates, from Colliers International indicate that Vancouver is the most desirable retail market among all Canadian cities. Downtown Vancouver, which has primarily mixed-use buildings and where future developments will be mainly high-rises, is the most sought after real estate in Canada, with cap rates well below any other city in Canada[1]. The Downtown has primarily mixed-use buildings and high-rise future development sites and there are few *retail* cap rate statistics available for Downtown Vancouver. Investors in one or several small free standing shops are thus actually buying much more than just a few stores. This indicates that investment in Downtown Vancouver real estate has consistently yielded an excellent return. The chart from Colliers indicates that the moving trend is stable.

Table A-1 – Retail Cap Rates for Major Canadian Cities

RETAIL CAP RATES							
MARKET	REGIONAL / POWER		COMMUNITY		STRIP MALL		TREND
CANADIAN CITY	LOW	HIGH	LOW	HIGH	LOW	HIGH	
Vancouver	5.20%	5.70%	5.80%	6.30%	5.70%	6.20%	▶
Calgary	6.00%	6.25%	6.50%	7.00%	7.00%	7.50%	▶
Edmonton	6.25%	7.00%	7.00%	7.50%	7.00%	7.75%	▶
Toronto	5.75%	6.75%	6.75%	7.75%	6.25%	7.50%	▶
Ottawa	5.50%	6.00%	7.50%	8.00%	7.00%	7.50%	▶
Montréal	6.00%	7.00%	7.50%	8.50%	7.25%	8.25%	▶
Winnipeg	6.75%	7.25%	7.50%	8.00%	7.25%	7.75%	▶
Halifax	6.25%	7.50%	7.75%	8.75%	7.50%	8.25%	▶
Victoria	6.50%	7.00%	6.50%	7.00%	6.50%	7.00%	▶

Source: Colliers 2011, Q1

As illustrated by the Colliers downtown cap rate chart below, Downtown Vancouver also has the lowest office cap rates in Canada. Ownership of a downtown office building is difficult and expensive to secure. Demand far exceeds supply and values are high. Property values have appreciated significantly over the past 10 years and show no sign of decreasing or even stabilizing. Rather, there is indication that office building values will simply continue to rise with increasing rents. As illustrated by the chart, the difference

[1] The ratio between the net operating income produced by an asset and its capital cost. Properties that have high demand and/or low risk have cap rates in the low end of the range, while those that have high risk and/or low demand have high capitalization rates.

in cap rates between Class A and Class B buildings[2] is minimal, providing further evidence of a strong demand for office space.

Table A-2 – Downtown Office Cap Rates for Major Canadian Cities

DOWNTOWN OFFICE CAP RATES					
MARKET	A		B		TREND
CANADIAN CITY	LOW	HIGH	LOW	HIGH	
Vancouver	5.25%	5.50%	5.90%	6.20%	▶
Calgary	6.25%	6.75%	7.75%	9.00%	▶
Edmonton	6.40%	7.00%	8.00%	9.00%	▶
Toronto	5.75%	6.50%	6.75%	7.50%	▶
Ottawa	6.25%	6.75%	7.00%	7.50%	▶
Montréal	6.00%	7.00%	7.50%	8.00%	▶
Winnipeg	7.25%	7.75%	8.00%	8.75%	▶
Halifax	6.50%	7.50%	7.50%	8.00%	▶
Victoria	6.25%	6.50%	6.50%	6.75%	▶

Source: Colliers 2011, Q1

The graph below from Colliers again shows that office buildings in Downtown Vancouver are continually becoming more valuable year after year. This is illustrated by the ever lower cap rates through year end 2010.

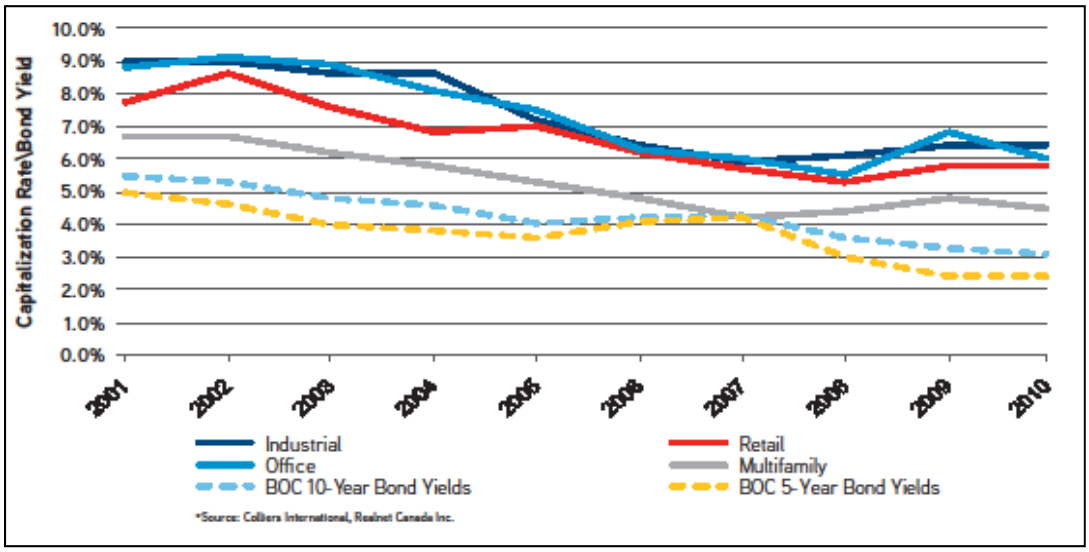


Figure A-1 – Average Capitalization Rates and Bond Yields, 2001-2010
Source: Colliers 2011

[2] According to the Building Owners and Managers Association (BOMA), Class A office buildings are "the most prestigious buildings competing for premier office users with rents above average for the area", while Class B office buildings compete for "a wide range of users with rents in the average range for the area".

The study area includes at least four distinct neighborhoods or districts within the downtown peninsula. The following chart provides a summary outline of each. In general, all of the areas are relatively vibrant and rapidly improving. With new development and as the downtown peninsula becomes "built out", the entire study area is expected to eventually become more like the CBD.

DOWNTOWN CORE

BOUNDARIES	North - Hastings Street South - Nelson Street East - Seymour Street West - Thurlow Street
THE AREA	The area includes the largest and most important buildings in downtown including the largest shopping mall and regional offices. Transit hub supporting multi-model transportation. The area also houses institutions such as the Art Gallery and numerous educational facilities. Dominated by office and commercial with some limited residential.
ACCESS AND VISIBILITY	Excellent regional access via transit or private vehicle. Congestion in the central hub, delays in travel times throughout business day. Rapid Transit, Bus, commuter rail, sea bus and recent addition of new North-South rapid transit line. Most areas have ample parking in structured parking lots.
SUPPORTING COMMERCIAL	Regional Shopping, Pacific Centre, Sears, The Bay, Holt Renfrew. High end fashion, premiere retail street.
RENTAL MARKET	Premium office and retail rents. Strong demand, able to support continuous tenancies despite economic downturn and other influences.
COMPETING DISTRICTS	Minimal competition for this premier area.
PROPOSED DEVELOPMENTS	Major development at peripheral ends as most of this area is built out. Office and retail will be developed as residential development is restricted in most of this area.

TRANSITION AREA SOUTH

BOUNDARIES	North - Nelson South - Davie East - Seymour Street West - Thurlow Street
THE AREA	The area includes residential, St. Paul's Hospital, Large & Medium sized Hotels, Churches, YMCA, film centre. Large walking commuter component from neighbouring West End.
ACCESS AND	Access by private vehicle, bus transit, pedestrian and cyclists.

VISIBILITY	Parking strained due to residential permitting to West, Hospital staff, parking restrictions, bike lanes.
SUPPORTING COMMERCIAL	Hotel guest service related businesses, residential services, and medical offices. Cafes, local drinking establishments, walking distance to entertainment district on Granville.
RENTAL MARKET	Moderate Office rents. Moderate Retail rents. Growing demand with few vacancies. Once the development sites here and in the Bridgehead area are complete all forms of customer traffic will increase in this area.
COMPETING DISTRICTS	Granville Entertainment District, Davie Village, Kitsilano, Upper Granville, Yaletown
PROPOSED DEVELOPMENTS	Major mixed use developments pending and the focus is on residential. Gas station adjacent hospital in enviro remediation period.

TRANSITION AREA EAST

BOUNDARIES	North - Hastings South - Nelson Street West - Seymour Street East - Beatty Street
THE AREA	The area is a transition zone between the east side and the urban core. Very large sites available for future development as an extension of the core. Large civic facilities: Library, Sports facilities, Performance Venues.
ACCESS AND VISIBILITY	Excellent regional access via transit or private vehicle. Main entrance to downtown from points east. Better access than the core for those coming in from the east. Ample parking in surface and structured parking lots.
SUPPORTING COMMERCIAL	Weak street front retail, proliferation of small, ethnic cafes. With new office towers, retail will improve, but remain convenience oriented.
RENTAL MARKET	Moderate Office rents. Moderate Retail Rents. Weak to moderate demand. Limited Supply but massive potential office supply.
COMPETING DISTRICTS	Close to Yaletown, bounded by Nelson St. Proximity to downtown eastside creates some negative influences Area improving rapidly.
PROPOSED DEVELOPMENTS	Massive redevelopment on major vacant development sites. Primarily office towers, but institutional uses also expected.

BRIDGE HEAD - SOUTH SIDE

BOUNDARIES	North - Davie Street South - Pacific East - Seymour Street West - Thurlow Street
THE AREA	The area includes mixed residential, office, medical, and mid sized hotels.
ACCESS AND VISIBILITY	Access by private vehicle, bus transit, pedestrian and cyclists. Granville and Burrard bridges walkable distance to Kitsilano neighbourhood, upper Granville. Granville & Burrard bridges main access points from South and South West. Parking strained due to residential permitting to West, parking restrictions, bike lanes.
SUPPORTING COMMERCIAL	Hotel guest service related businesses, residential services, and medical offices.
RENTAL MARKET	Lower Moderate Office rents. Lower Moderate Retail rents. Lower demand, some persistent vacancies. Some premises temporary only due to development
COMPETING DISTRICTS	Granville Entertainment District, Davie Street, Kitsilano, Upper Granville.
PROPOSED DEVELOPMENTS	Possible development sites nearest to Pacific Boulevard. Redevelopment at former Cecil Hotel/Granville bridge off ramp in process. Mostly residential/hotel will be developed within minimal office space.

Potential economic impact on future office buildings

In addition to assessing the potential economic impact on existing buildings and tenants there is also consideration future office buildings. The five blocks that have the potential to be impacted were mentioned in Section 4.4, while the following summarized tables show those blocks with no potential impact. In general most of the areas are already built out or so large as to be able to compensate or they are on a corner or they are proposed for residential uses.

Blocks with No Potential Impact on Development

100 DUNSMUIR ODD	1. Single building for entire block. Mid-rise office building with 2 restaurants. 2. No impact on development potential.
100 DUNSMUIR EVEN	1. Former bus terminal. Vacant, city owned block. Future retail and mid-rise office building. 2. No impact as not adjacent and future design will compensate.
200 DUNSMUIR ODD	1. Vancouver Community College. City owned block. Low-rise institutional. 2. No impact on development potential.
200 DUNSMUIR EVEN	1. Queen Elizabeth Theatre and Play house. City owned block. Low-rise institutional. 2. No impact on development potential.
300 DUNSMUIR ODD	1. Mid-rise office building. BC Hydro Head Office 2. No impact on development potential.
300 DUNSMUIR EVEN	1. Single Post office Building for entire block. Low-rise institutional. 2. No impact on development due to large size and design can compensate.
400 DUNSMUIR ODD	1. A City Park and the Former Seniors Centre Heritage building. 2. No impact on development potential.
400 DUNSMUIR EVEN	1. Catholic Church and office tower podium. Potential mid rise office development site 2. No impact on development potential due to large site size, design could compensate.
500 DUNSMUIR EVEN	1. Low-rise office building and Heritage Housing / Hostel. 2. Assembly potential for city block. Large scale and future design moderates any development impact.
700 DUNSMUIR ODD	1. High-rise office towers and high value retail, Pacific Centre Holt Renfrew. 2. No impact on development potential.
700 DUNSMUIR EVEN	1. High-rise office towers and high value retail, Pacific Centre Mall entrance and parkade exit. 2. No impact on development potential.
800 DUNSMUIR EVEN	1. Mid-rise office buildings with TD Financial services and café and fast food. 2. No impact on future development potential.

Blocks with No Potential Impact on Development

900 HORNBY ODD	1. Mid-rise and High rise residential tower with cafes, services, restaurant. 2. No impact on development potential.
900 HORNBY EVEN	1. Low-rise office building. Provincial government offices and Law Courts. 2. No impact. No development potential.
1000 HORNBY ODD	1. High-rise residential and Wall Centre Hotel with restaurants and services. 2. No impact on development potential.
1000 HORNBY EVEN	1. High-rise residential tower and High-rise office tower with restaurants and services. 2. No impact on development potential.
1100 HORNBY ODD	1. Mid-rise mixed use with restaurant, mixed use building including residential. 2. No impact as size and design can compensate. Large development site with dated buildings.
1100 HORNBY EVEN	1. Mid-rise and Low-rise office building and some vacant offices. 2. Future development potential but no development impact as design can compensate.
1200 HORNBY ODD	1. Vacant development site with 7-11. 2. Massive new residential towers with some office and retail proposed. Design can compensate.
1200 HORNBY EVEN	1. Mid-rise residential and Cascadia and Landis hotels. Dental, restaurants, camera store. 2. No impact on development potential for corner residential tower. Design can compensate.
1300 HORNBY ODD	1. Mid-rise residential in one very large building Anchor point office, restaurant, travel office, coffee. 2. No impact on development potential.
1300 HORNBY EVEN	1. Mid-rise residential with restaurants, hairdressers, apartments. 2. Development potential on corners not impacted as design can compensate

Blocks with No Potential Impact on Development

400 HORNBY ODD	1. Mid-rise corner office buildings with clothing and other retail. 2. No impact on development potential for these corner sites.
400 HORNBY EVEN	1. Mid-rise corner office buildings (one heritage) with retail and restaurants 2. No Impact on development potential for these corner sites
500 HORNBY ODD	1. Mid-rise office building. YWCA, La Soleil Hotel, small dated office building. 2. No impact on development potential.
600 HORNBY ODD	1. High-rise office buildings Park place and Cathedral square. Financial services and restaurant. 2. No impact on development potential.
600 HORNBY EVEN	1. High-rise office building HSBC and mid rise office building. Clothing, books, housewares, financial. 2. No impact on development potential.
700 HORNBY ODD	1. Mid-rise office building and Hotel Vancouver. Restaurants, cafes, clothing. 2. No impact on development potential.
700 HORNBY EVEN	1. Low-rise institutional building. City owned Heritage building Art gallery. 2. No impact on development potential.
800 HORNBY ODD	1. Low-rise office buildings and Wedgewood Hotel. Clothing, restaurants Starbucks. 2. No impact on development potential as access and visibility are maintained.
800 HORNBY EVEN	1. Low-rise office building. Provincial government offices. 2. No impact on development potential.

Appendix B: Business Survey Questions and Detailed Results

May / June 2011

Downtown Vancouver Separated Bike Lanes Study
Grade Level Businesses Survey

MUSTEL GROUP
MARKET RESEARCH

Introduction

- A partnership of the Vancouver Economic Development Commission along with the City of Vancouver and three key business associations (Downtown Vancouver Association, Downtown Vancouver Improvement Association, and The Vancouver Board of Trade) have joined together to commission a study of the economic impact of the downtown separated bike lanes. A series of surveys have been conducted as part of the economic impact study.
- This report presents the results of the grade-level business survey designed to understand the effect of the separated bike lanes on Hornby and Dunsmuir Street businesses.
- The survey was developed to collect information pertinent for the economic analysis and to enable comparison with parallel comparator streets.
- The original scope of the study was composed of grade-level businesses on the following streets:
  - Hornby Street (including 300 and 1300 blocks Burrard) and its comparator, Howe Street
  - Dunsmuir Street and its comparator, West Georgia
  - A few other off-lane businesses were later included in the scope of the study (at/near separated bike lane street intersections)
- A map of the study area is appended.

Methodology

- **Advance Notification:** Prior to start of the survey process, the Vancouver Economic Development Commission issued a news release and the partner business associations notified their members by email of the survey and workshops (documents appended). Notice of the survey was covered by local news media.
- **Sample Frame:** An initial phase of developing a complete sample frame involved an on-site walking tour of the study area.
  - Mustel Group staff recorded business name and address of each grade-level business and assigned, unique PIN numbers to all businesses in operation (eliminating empty premises or out of business establishments).
  - In total, 190 businesses were originally identified on the separated bike lane corridors and the comparator corridors. Subsequently, the study scope was expanded to include businesses along intersecting streets (at/near intersections). The final sample frame consisted of a total of 225 grade-level businesses.
- **Survey Distribution:** At time of the initial sample frame development process, Mustel Group staff personally hand-delivered the survey packet (questionnaire booklet and a post-paid mail return envelope in a larger envelope addressed to the Business Owner or Senior Manager). Survey title and study sponsors were printed on the outside envelope. (Copy of materials appended).
- Later hand-deliveries and emails were made as needed.
  - Follow-up hand deliveries were made if the business was closed at time of initial deliveries. Note, that if the business owner or senior manager was not present or available, an employee in charge was asked to pass the envelope to the owner/senior manager.
  - As the study progressed, if requests were made for another copy (e.g., eligible respondent did not receive package, package misplaced), these were also hand-delivered. Alternatively, if the respondent requested, emails were sent with the survey link and the unique PIN number.
  - Note, the unique PIN number ensured that each business only submitted one survey.

Methodology, cont'd.

- **Response Options:** Three ways to respond were provided—post-paid return mail, online survey with PIN numbers or by telephone (call in to Mustel Group including opportunity to request language assistance). Reminders further provided opportunity to receive emails with links or respond by phone.

- **Reminder Strategies to Encourage Response:**
  - One week post-delivery the partner-sponsor business associations reminded businesses in the study area. This identified some owners/managers who claimed non-receipt of the original survey package and others on intersecting streets in the expanded scope. Hand deliveries and emails were sent to 24 people.
  - Mustel Group conducted reminder telephone calls to non-responders over 14 days (May 27 to June 11).
  - Three or more calls were made attempting to directly contact eligible survey respondents. Where contact could not be made messages were left.
  - Those contacted were asked about receipt of the survey and if they planned to complete. They were offered to be sent an email with web link or to complete on the phone. This process resulted in 30 subsequent emails and 13 completed by phone.

- **Data Collection Dates:** May 18– June 12, 2011

- **Response Rates:** Survey response varied, averaging about 32-33%, a good response to a typical business survey with mail-in or online options. For the businesses potentially **most affected** (odd addresses on separated lane corridors) response rates were higher on Dunsmuir than on Hornby:
  - Hornby lane even side 32%
  - Dunsmuir lane odd side 47%
  - Detail on response rates and response method are appended.

- **Outcomes:**

	Re: Hornby	Re: Dunsmuir
Total Responders	53	24
Total Non-responders	104	44

Note that sample sizes in the charts that follow are small; use caution examining these results.

All results are shown in charts as actual frequencies or average values.

- **Questionnaire:** A copy is appended.

Methodology, cont'd.

- **Sampling Margins of Error:** Use of the actual survey results to calculate the effect of the separated bike lanes assumes that the survey results reflect the population as a whole (including non-responders).

  The statistical margin of sampling error for a random sample of businesses would be as follows:

Grade Level Businesses	Universe	Sample	Confidence Level*	
On lane	N	n	at 90%	at 95%
Dunsmuir	28	11	**20%**	**24%**
Hornby	100	32	**12%**	**15%**
Combined	128	43	**10%**	**12%**

***Confidence level:** If a random sample survey was repeated on the same population, the survey results would fall within the + or – margins (blue % above) 9 times out of 10 (for 90% confidence) and 19 times out of 20 (for 95% confidence).*

- **Study Limitations:** Note that the research was designed to be inclusive of all businesses in the scope of this study. Therefore a hybrid method was used consisting of mail, online and telephone to encourage response. However, the following should be noted when using the findings:
  - While telephone calls to non-responders attempted to mitigate non-response bias and resulted in some additional completions, it is still possible that the sample includes a higher proportion of businesses that experienced greater impact than found in the total population.
  - To a large degree, the information collected is based on the perceptions of business owners and managers. Despite their best intentions, this may or may not exactly reflect reality.

Summary

Responder Characteristics: The profile of the majority of grade-level survey responders as follows:

- Located in buildings with multiple tenants
- Under 5,000 square foot premises
- Rent their premises
- Under 10 employees
- Hornby on lanes—mix of business types with slightly more self-defining as food services and non-convenience retail but also other services
- Dunsmuir on lanes—noticeably more food services, but also other services
- Days of week—mostly weekday but over half also on weekends
- Hours of operation—both days and evenings (especially on Dunsmuir) vs. daytime only
- Aspects that help business:
  - Transit proximity—especially Dunsmuir
  - Office workers nearby—both especially Dunsmuir
  - Ample parking—especially Hornby

Responder Characteristics, cont'd:

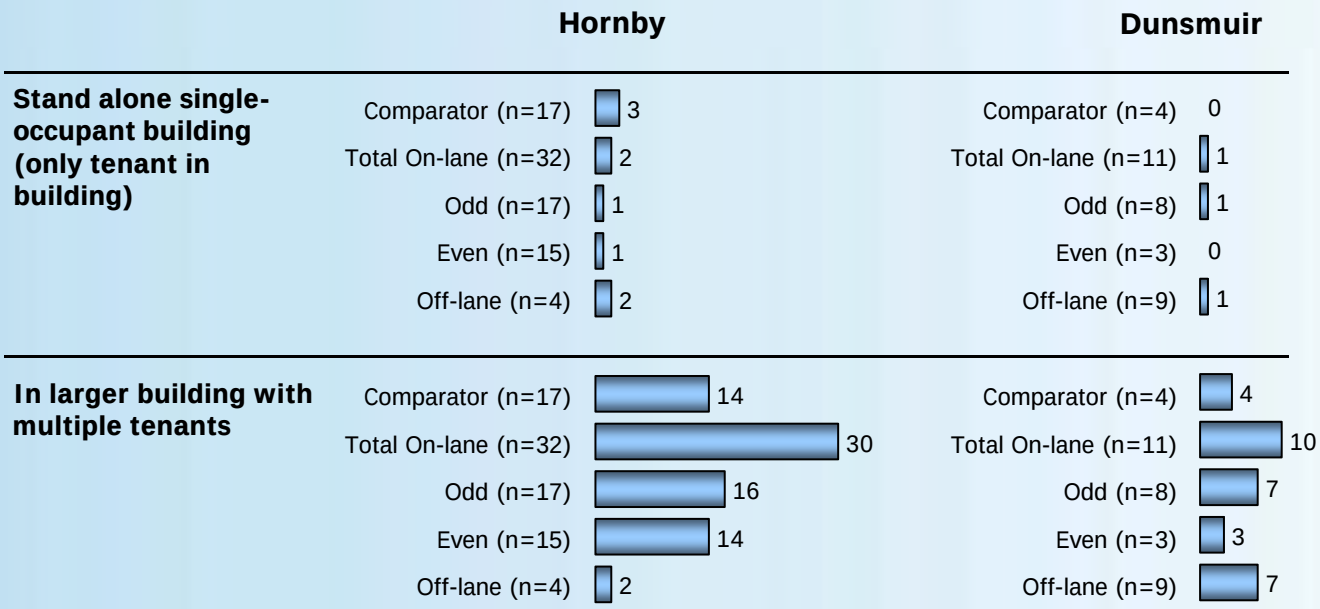
- Hornby customers: mix and some middle-aged focused, gender equal
- Dunsmuir customers: Age mix including some youth focused, gender equal
- General price point: medium predominates
- Mode of transportation:
  - Customers—car and walking then transit
  - Employees—transit and car
- Perceived business trend of area: more say 'getting worse' for business if on lanes but Dunsmuir more stable
- Over half of responders are sole business owners (on lane businesses)

Summary, cont'd.

Effect of Separated Bike Lanes:

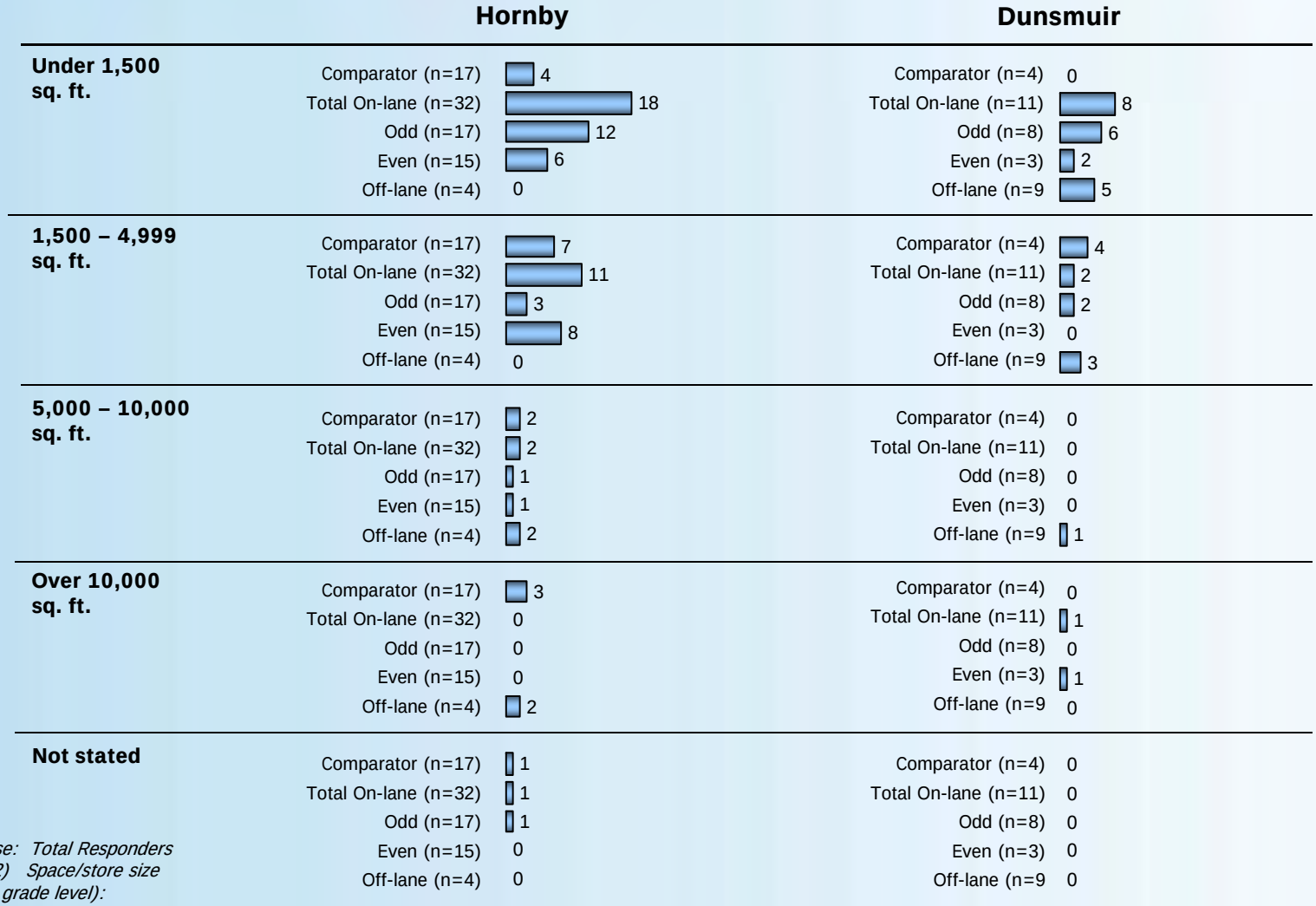
- Among responders, negative effect of bike lanes is reported as greater than general economy and recent tax changes.
- A majority say that the separated lanes have had some effect on their business.
- Businesses located on Hornby and Dunsmuir estimate the effect of the separated bike lanes on their sales and profits to be in the -8 to -11% range, on average.
  - Sales average change: -12% Hornby, -8% Dunsmuir
  - Profit average change: -11% Hornby, -8% Dunsmuir
- Note, an overall estimate of the separated bike lanes' economic effect will be made by the economic consultant's analysis of all study data and pertinent information gathered; that will go beyond the scope of this survey alone.
- Greatest negative effect on Hornby is parking, while on Dunsmuir effect on deliveries is the greatest complaint. On both streets parking, customer access, deliveries and visibility are all negatively affected according to almost half or more survey responders.
- Feedback from customers and staff about the bike lanes tends toward the negative (among survey responders), although some positive comments have been made as well.
- More parking is desired especially on Hornby and lane modifications to improve access especially on Dunsmuir
- Most are not planning to move to another location.

Type of Premises



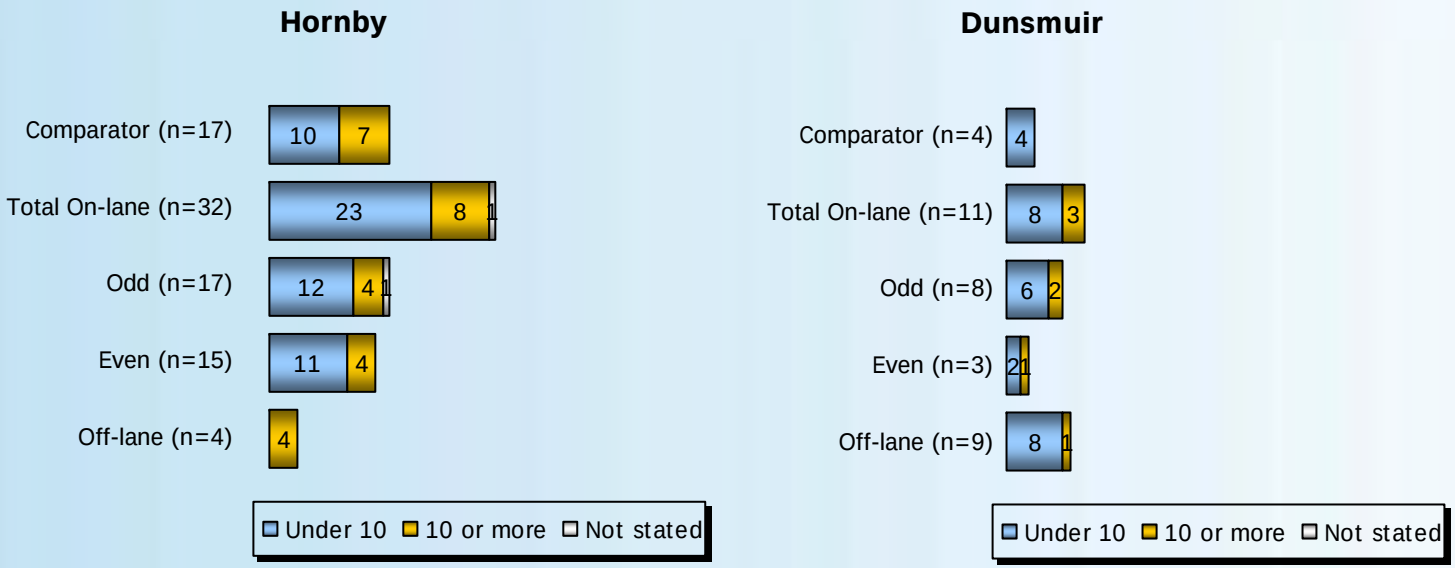
Base: Total Responders
Q.1) Type of premises:

Space / Store Size (at grade level)



Base: Total Responders
Q.2) Space/store size (at grade level):

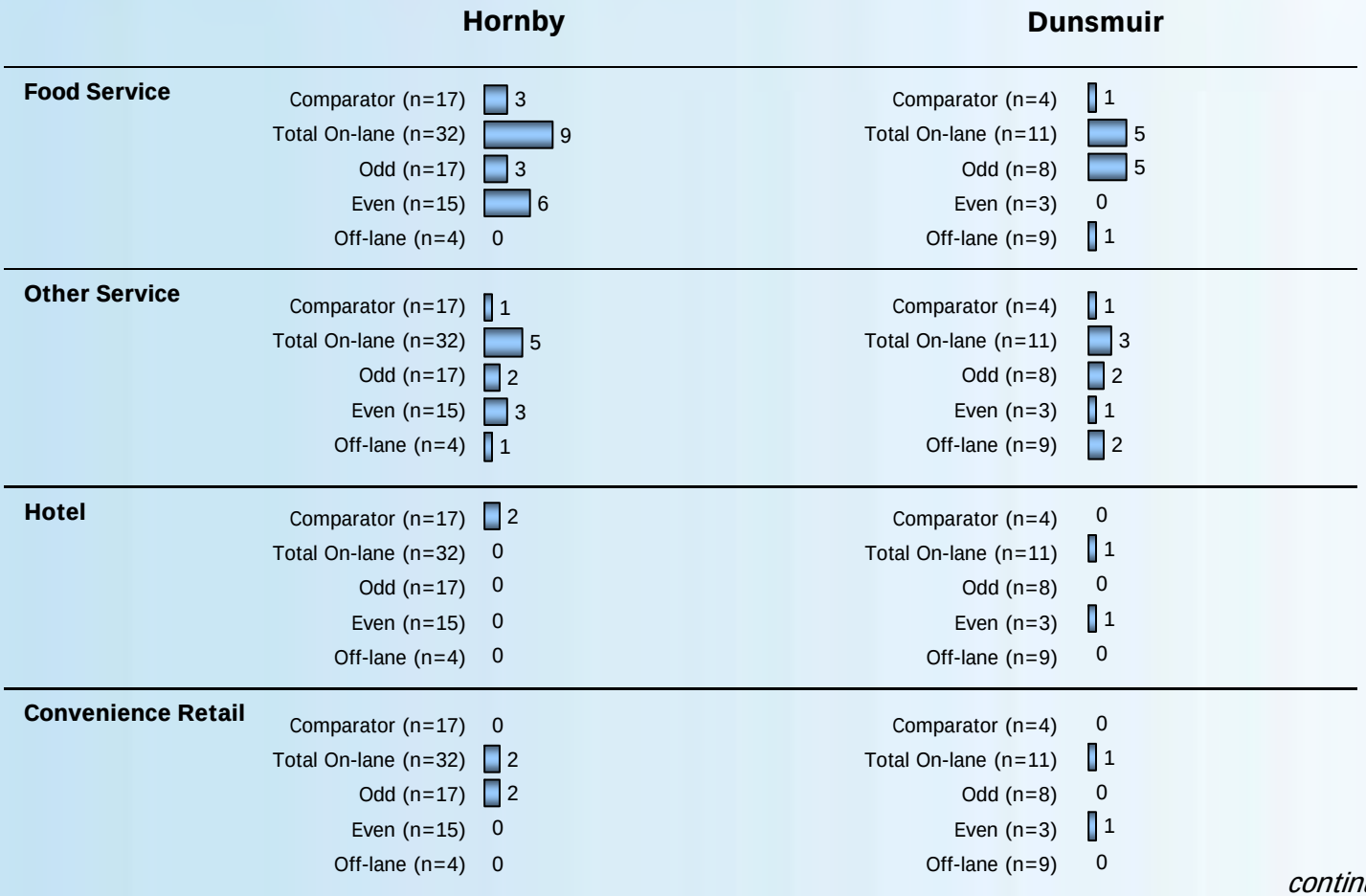
Number of Employees at Location (full-time & part-time)



Base: Total Responders

Q.3) Total number of employees at this location (both full-time & part-time):

Business Type



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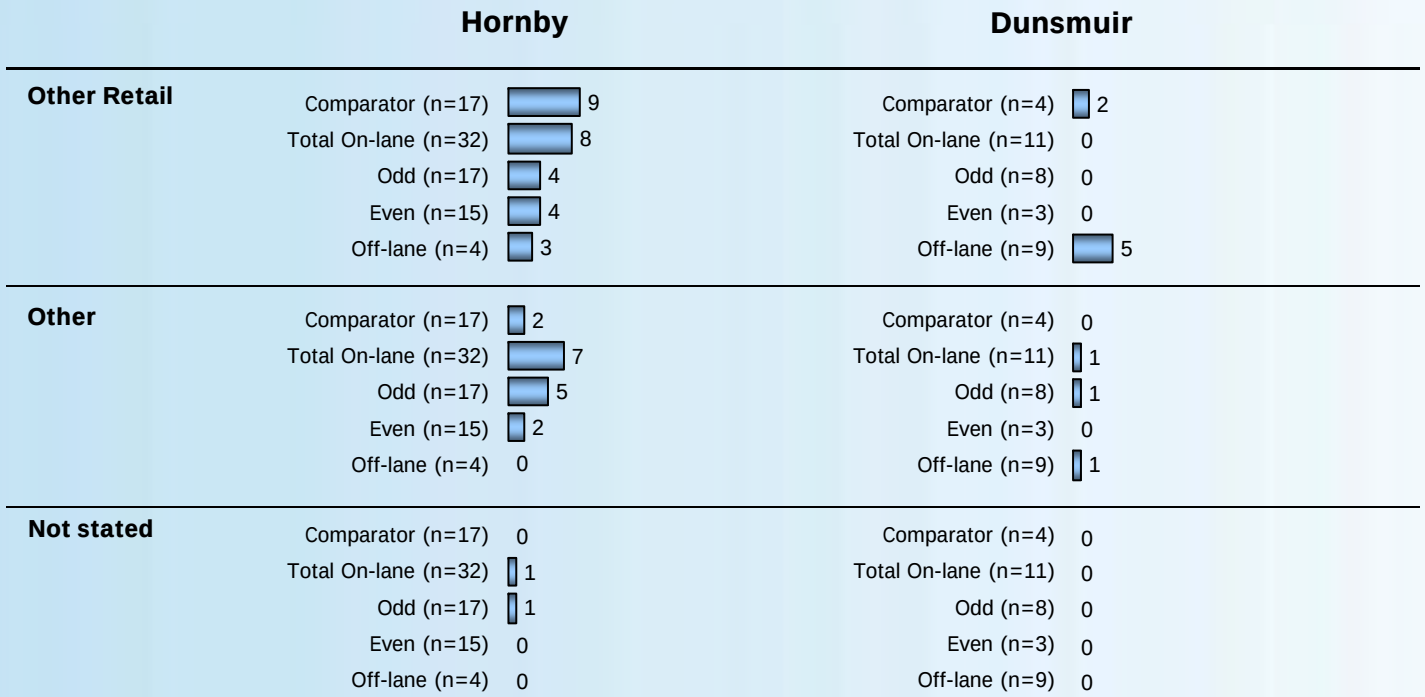
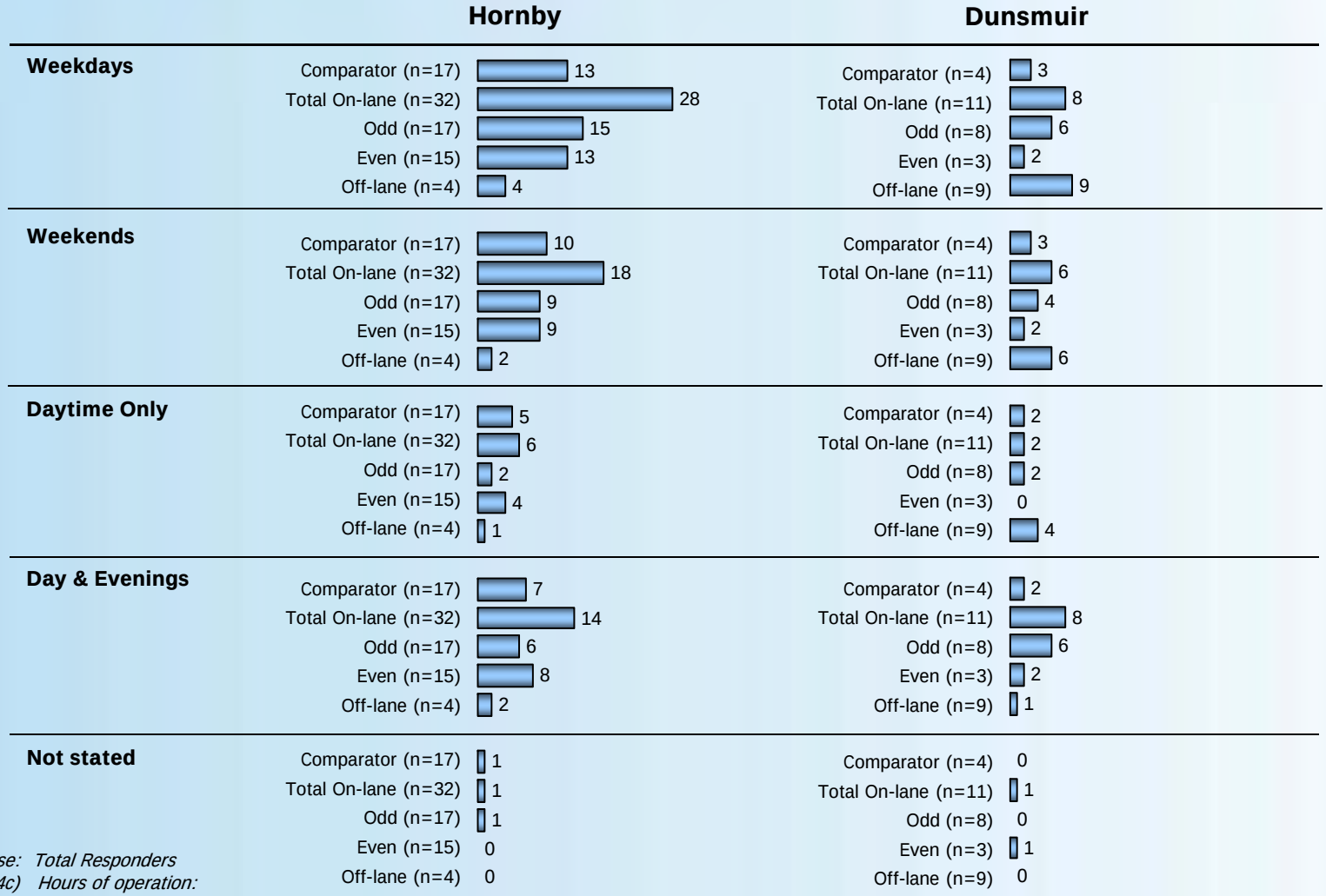
Base: Total Responders
Q.4) Business type: (self-classified)

Business Type (cont'd)



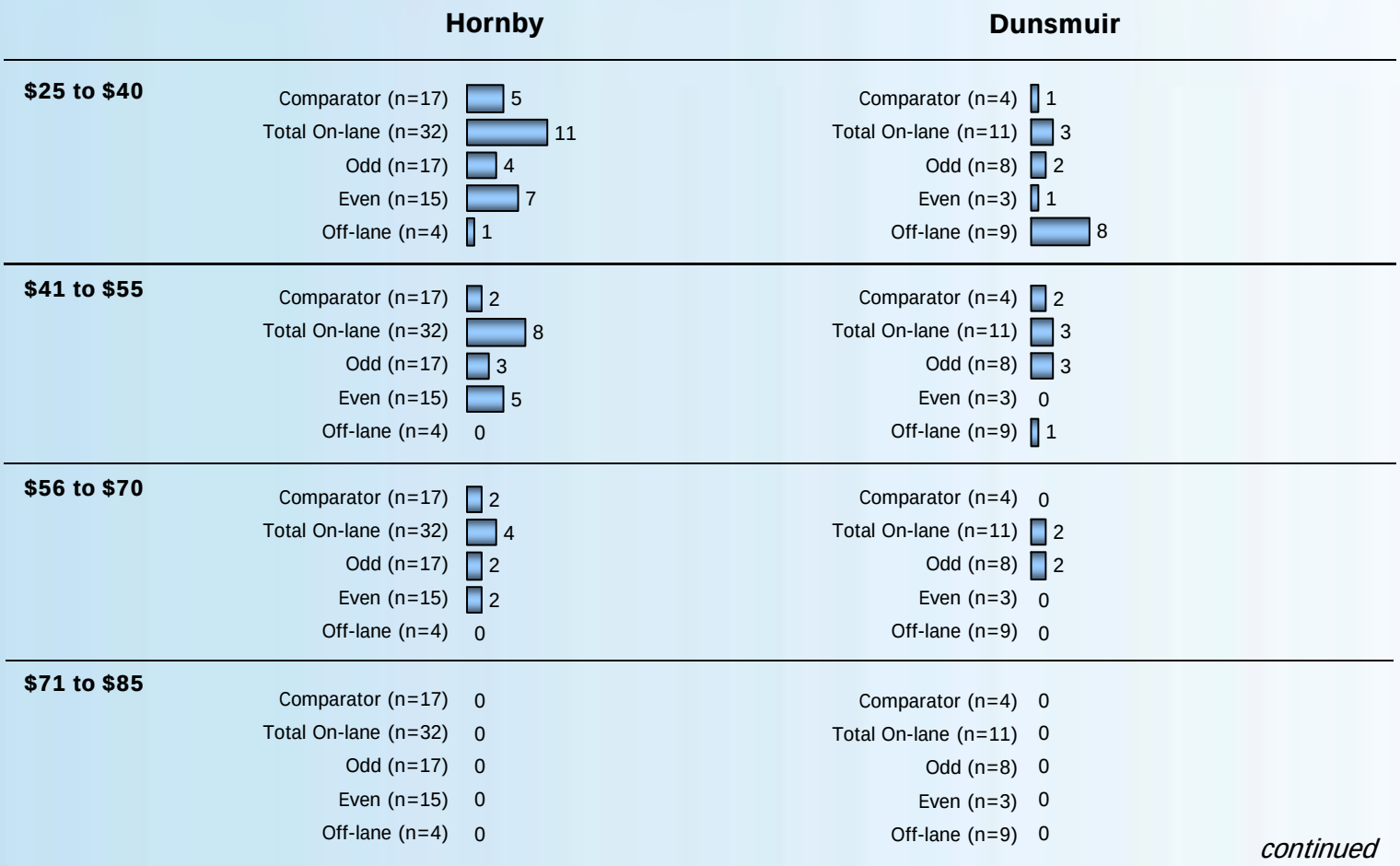
Base: Total Responders
Q.4) Business type: (self-classified)

Hours of Operation



Base: Total Responders
Q.4c) Hours of operation:

Approximate Net Rent Per Sq. Ft.



continued

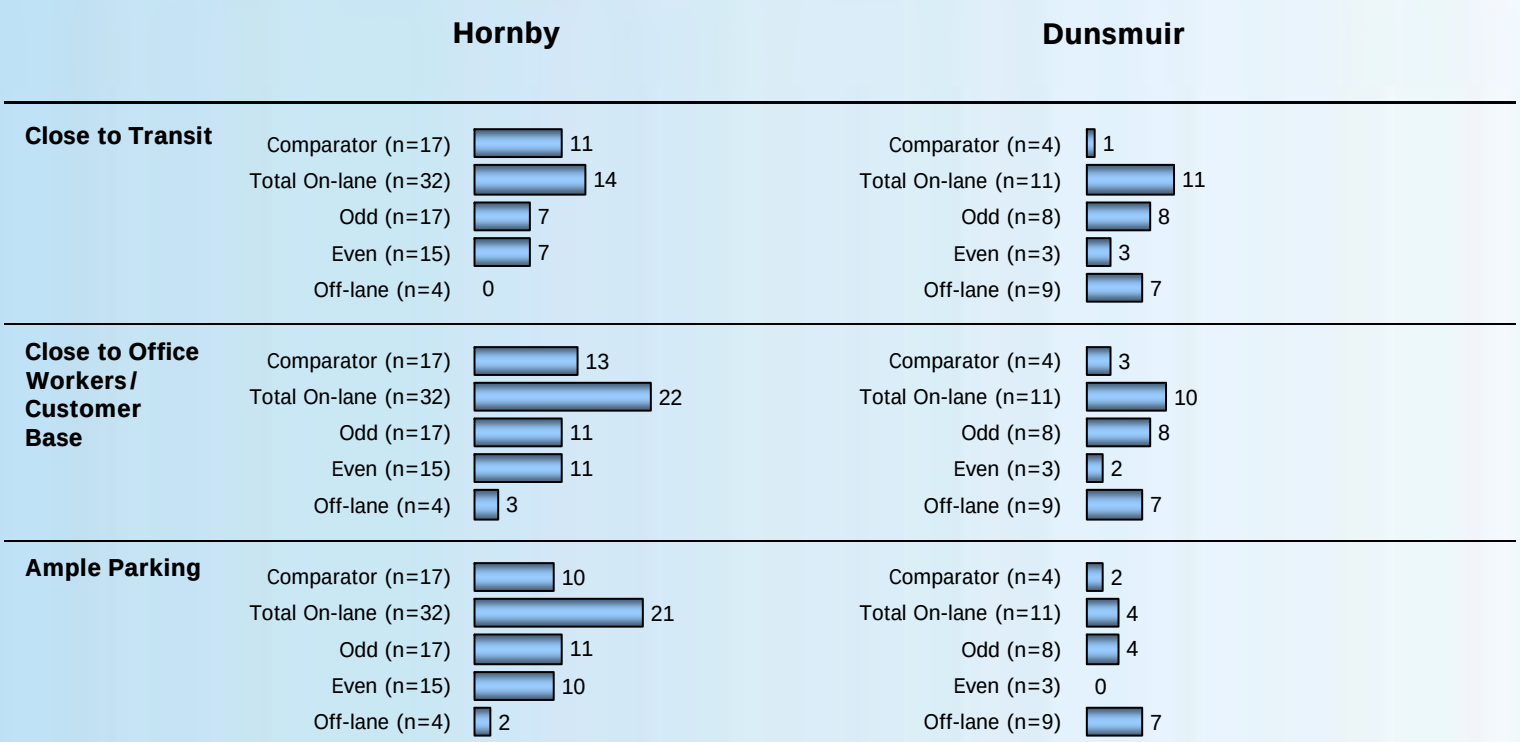
Base: Total Responders
Q.5) Approximate net rent per sq. ft.:

Approximate Net Rent Per Sq. Ft. (cont'd)

		Hornby		Dunsmuir
$86 to $100	Comparator (n=17)	1	Comparator (n=4)	0
	Total On-lane (n=32)	2	Total On-lane (n=11)	0
	Odd (n=17)	2	Odd (n=8)	0
	Even (n=15)	0	Even (n=3)	0
	Off-lane (n=4)	0	Off-lane (n=9)	0
Over $100	Comparator (n=17)	1	Comparator (n=4)	0
	Total On-lane (n=32)	1	Total On-lane (n=11)	0
	Odd (n=17)	1	Odd (n=8)	0
	Even (n=15)	0	Even (n=3)	0
	Off-lane (n=4)	2	Off-lane (n=9)	0
Owner of Premises (no rent)	Comparator (n=17)	4	Comparator (n=4)	0
	Total On-lane (n=32)	2	Total On-lane (n=11)	2
	Odd (n=17)	2	Odd (n=8)	0
	Even (n=15)	0	Even (n=3)	2
	Off-lane (n=4)	1	Off-lane (n=9)	0
Not stated	Comparator (n=17)	2	Comparator (n=4)	1
	Total On-lane (n=32)	4	Total On-lane (n=11)	1
	Odd (n=17)	3	Odd (n=8)	1
	Even (n=15)	1	Even (n=3)	0
	Off-lane (n=4)	0	Off-lane (n=9)	0

Q.5) Approximate net rent per sq. ft.:

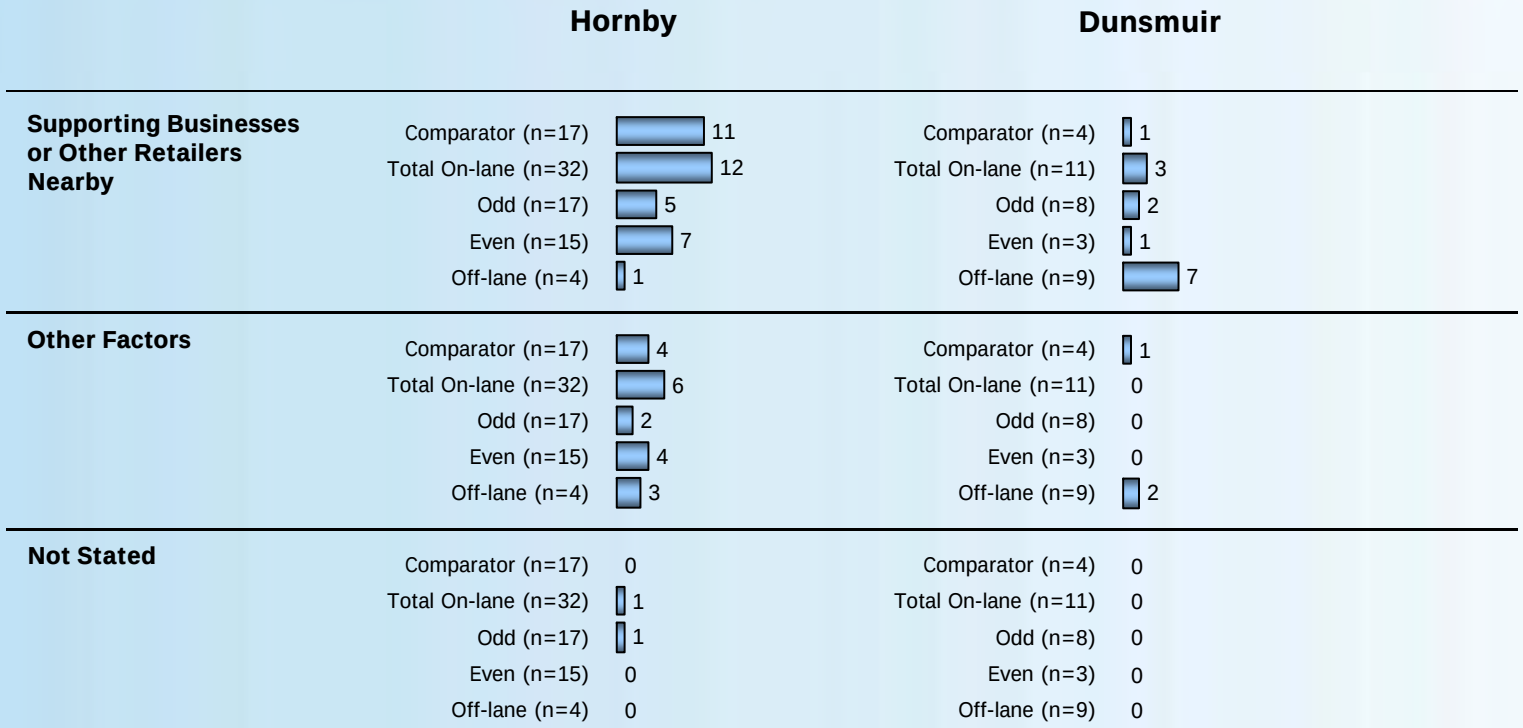
Aspects That Help Business (Aided)



Base: Total Responders
Q.6) Which, if any, of the following help your business?

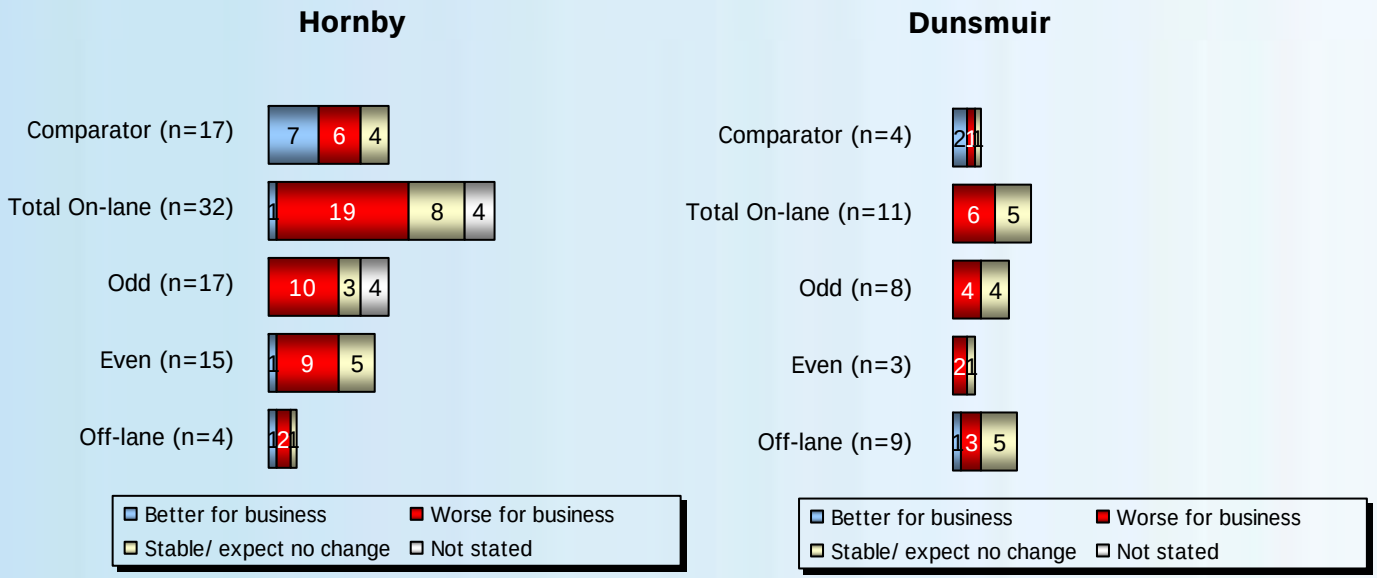
continued

Aspects That Help Business (Aided) cont'd



Base: Total Responders
Q.6) Which, if any, of the following help your business?

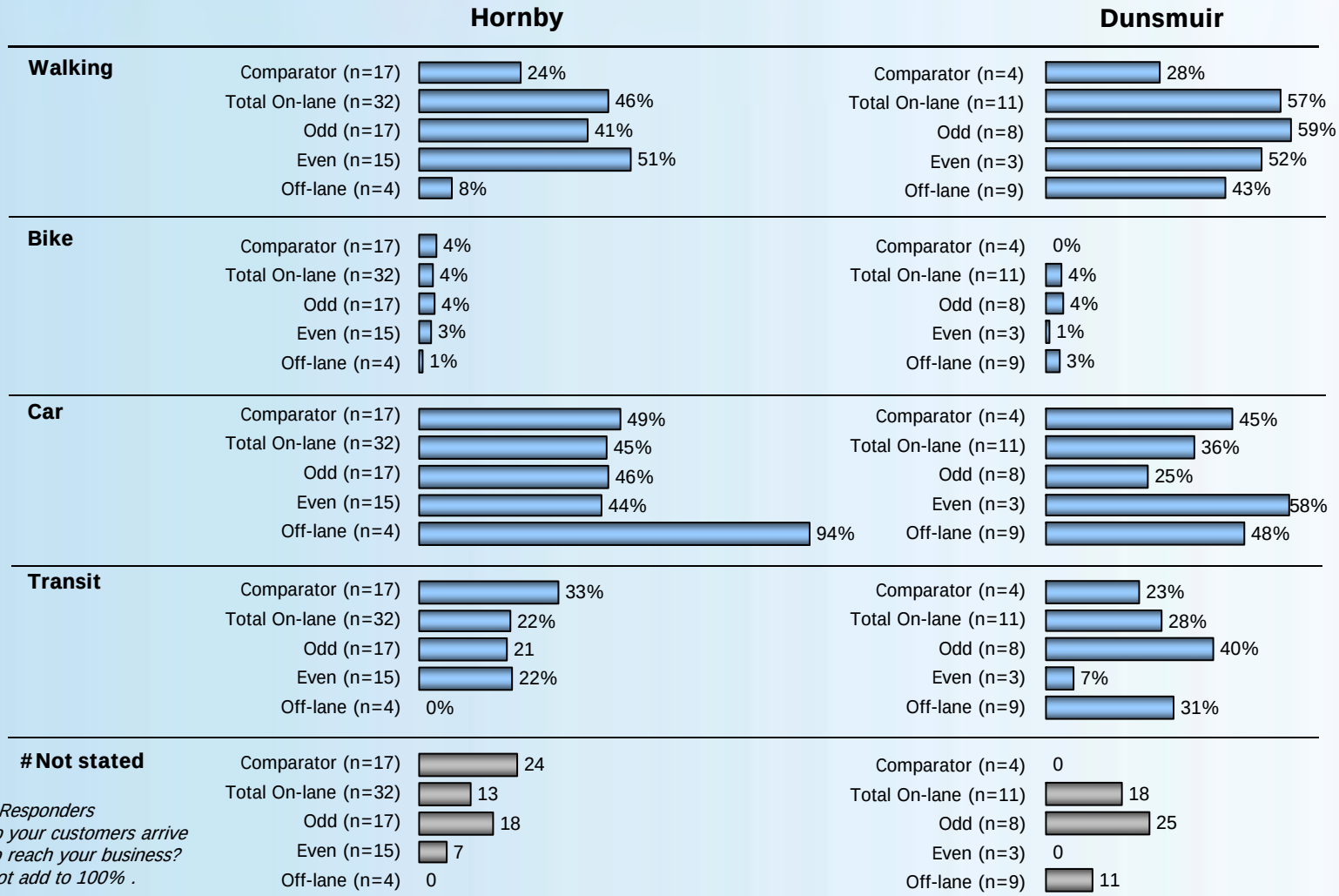
Perceived Trend of Geographic Area for Own Business



Base: Total Responders

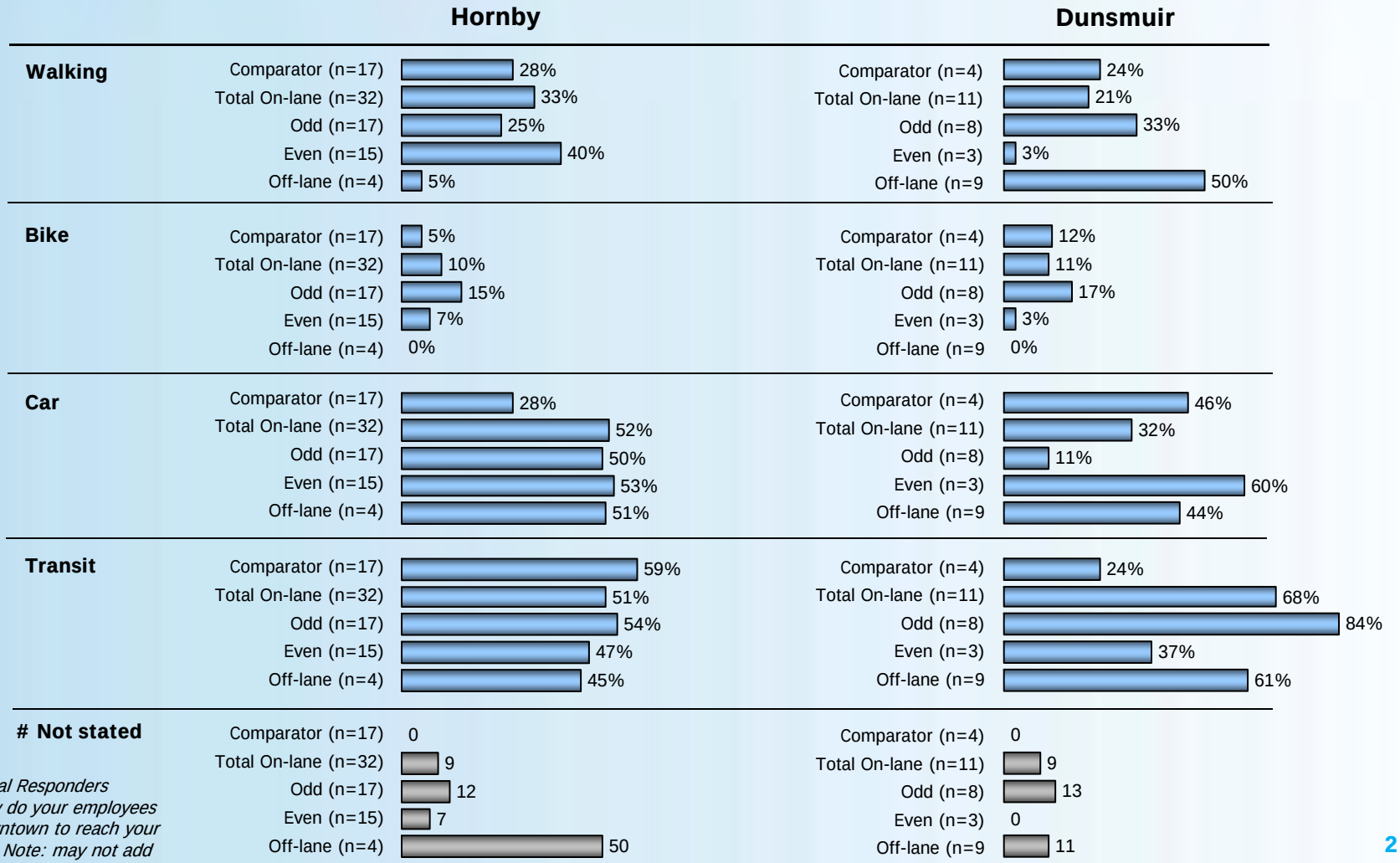
Q.7) In our opinion, is this geographic area generally getting: better/ worse/ no change for your business?

Customers' Transportation Modes to Business
(Average % of customer base)



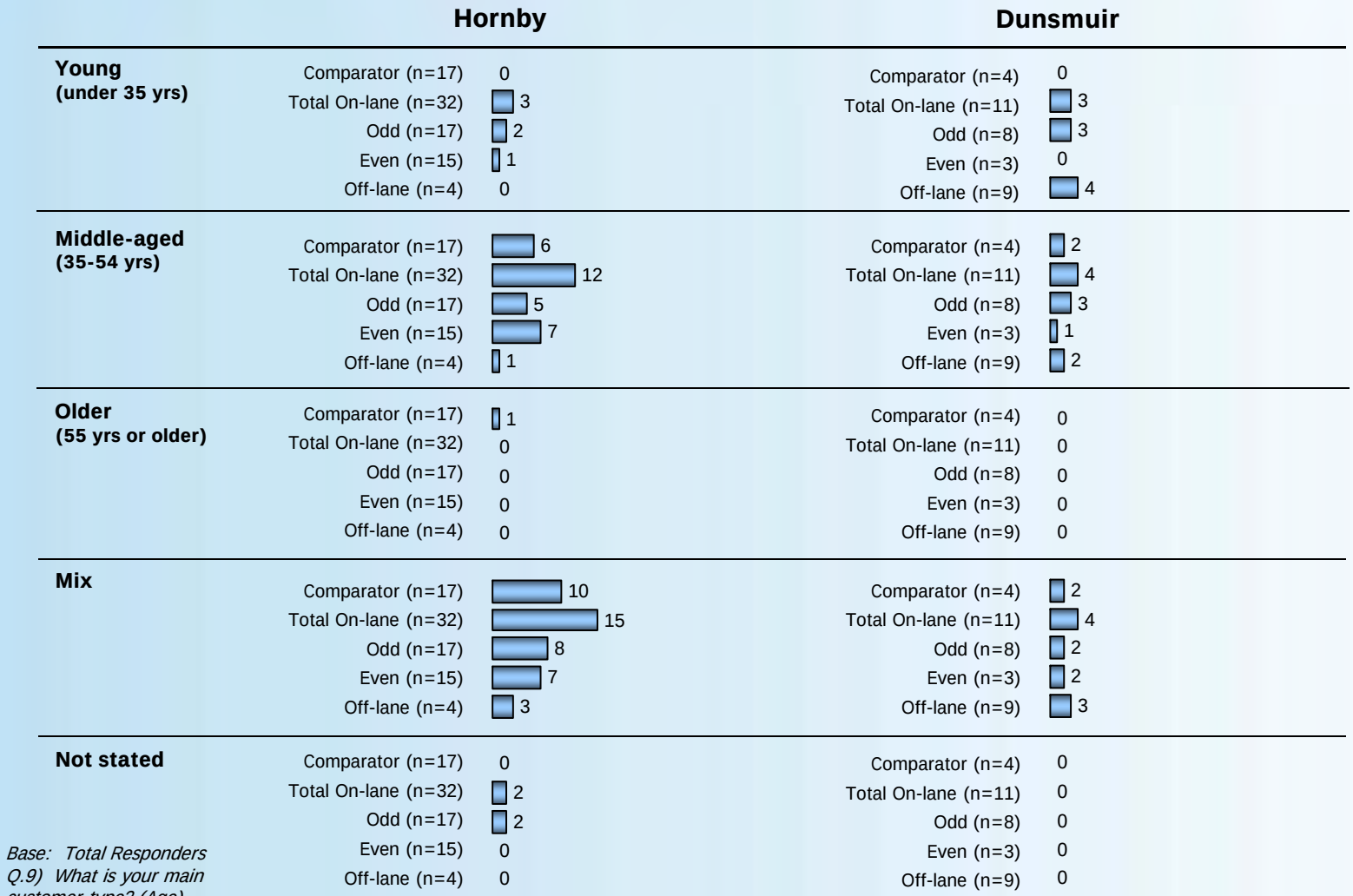
Base: Total Responders
Q.8a)How do your customers arrive downtown to reach your business?
Note: may not add to 100% .

Employees' Mode of Transportation to Business
(Average % of employee base)



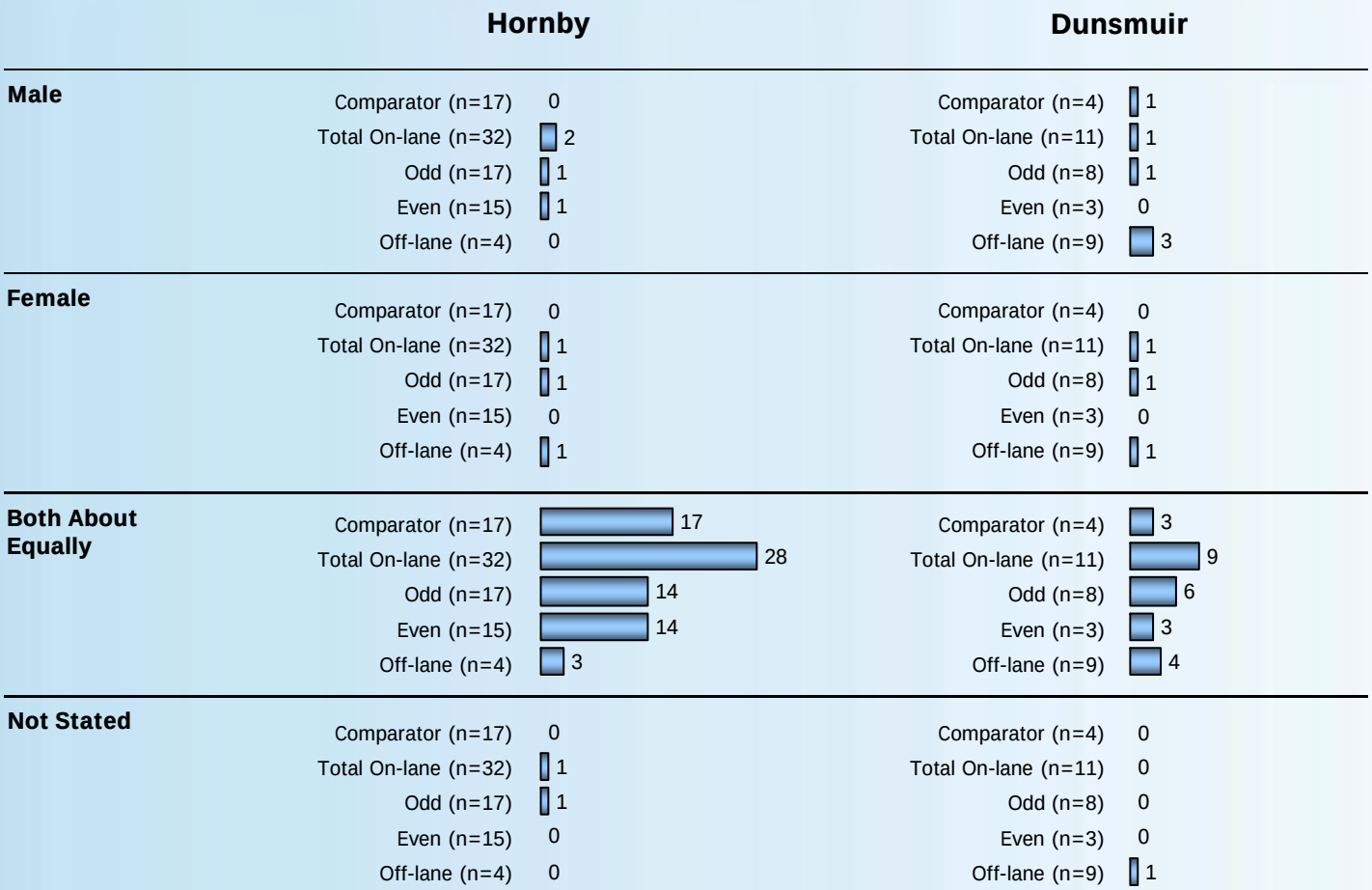
Base: Total Responders
Q.8b) How do your employees arrive downtown to reach your business? Note: may not add to 100%.

Age of Main Customer Type



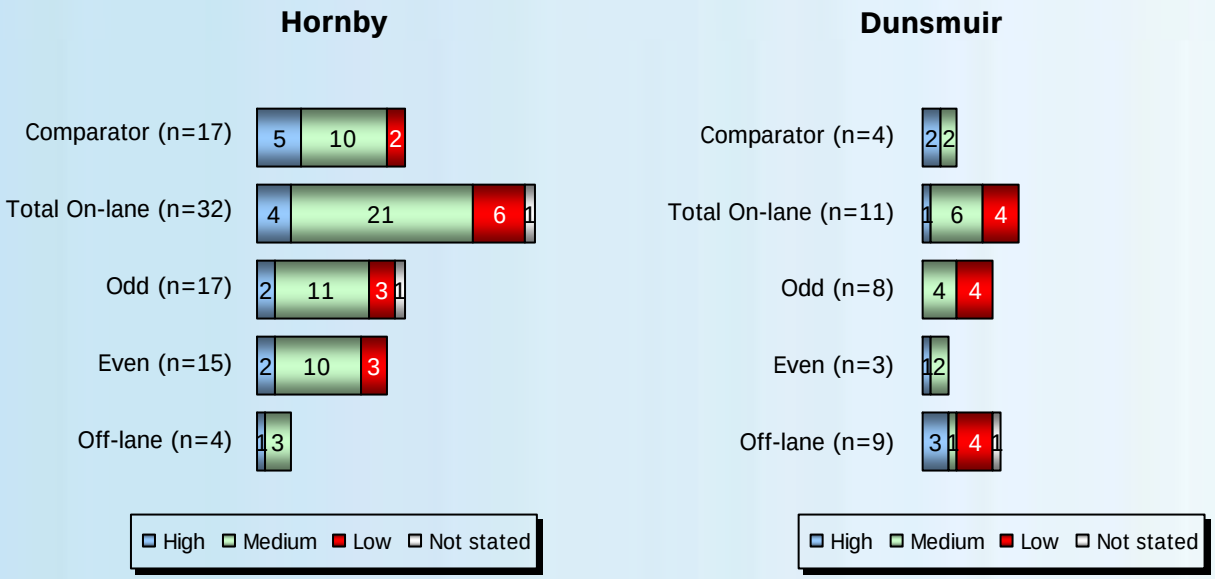
Base: Total Responders
Q.9) What is your main customer type? (Age)

Gender of Main Customer Type



Base: Total Responders
Q.9) What is your main customer type? (Gender)

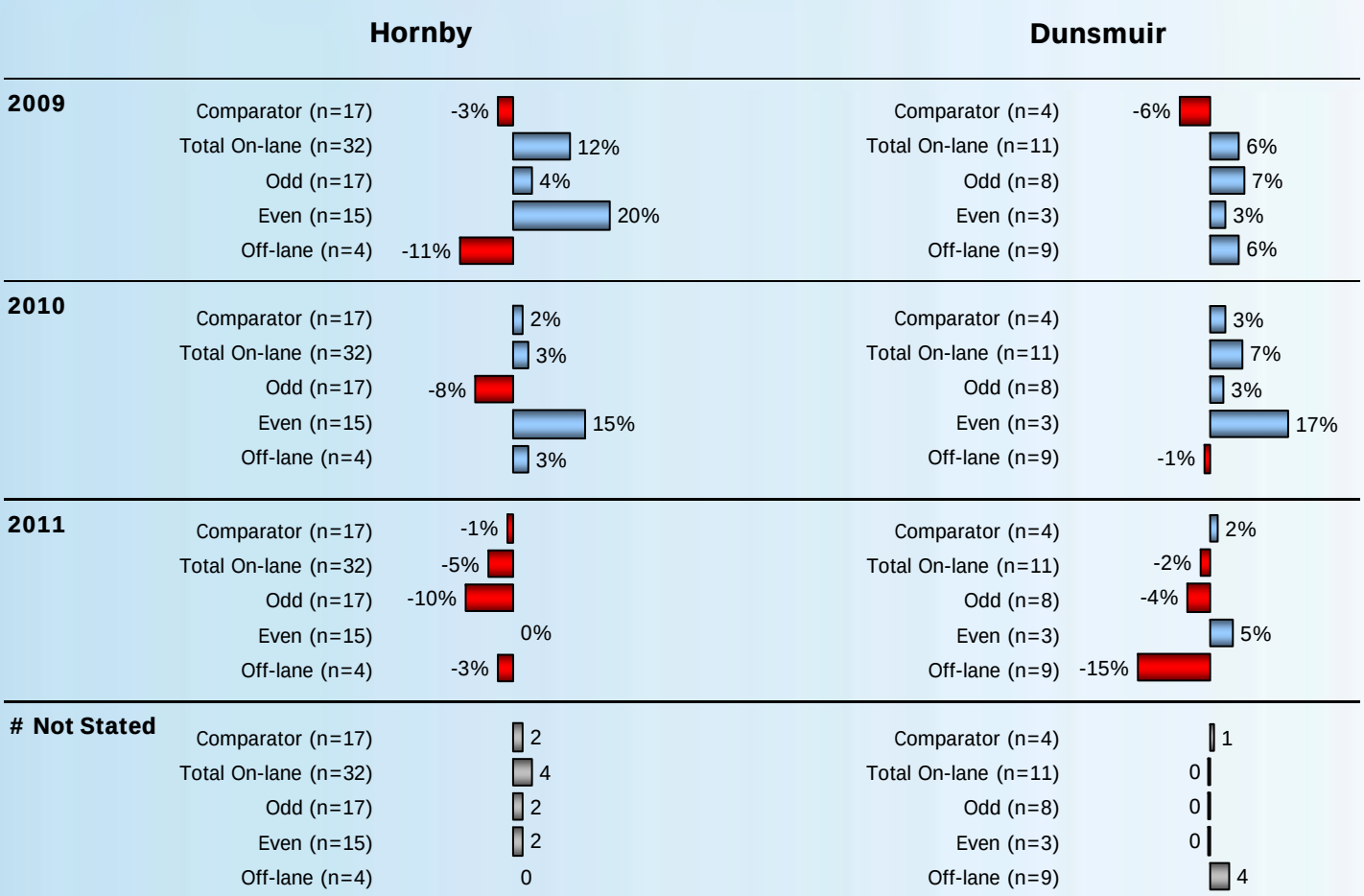
General Price Point of Merchandise or Service Provide



Base: Total Responders

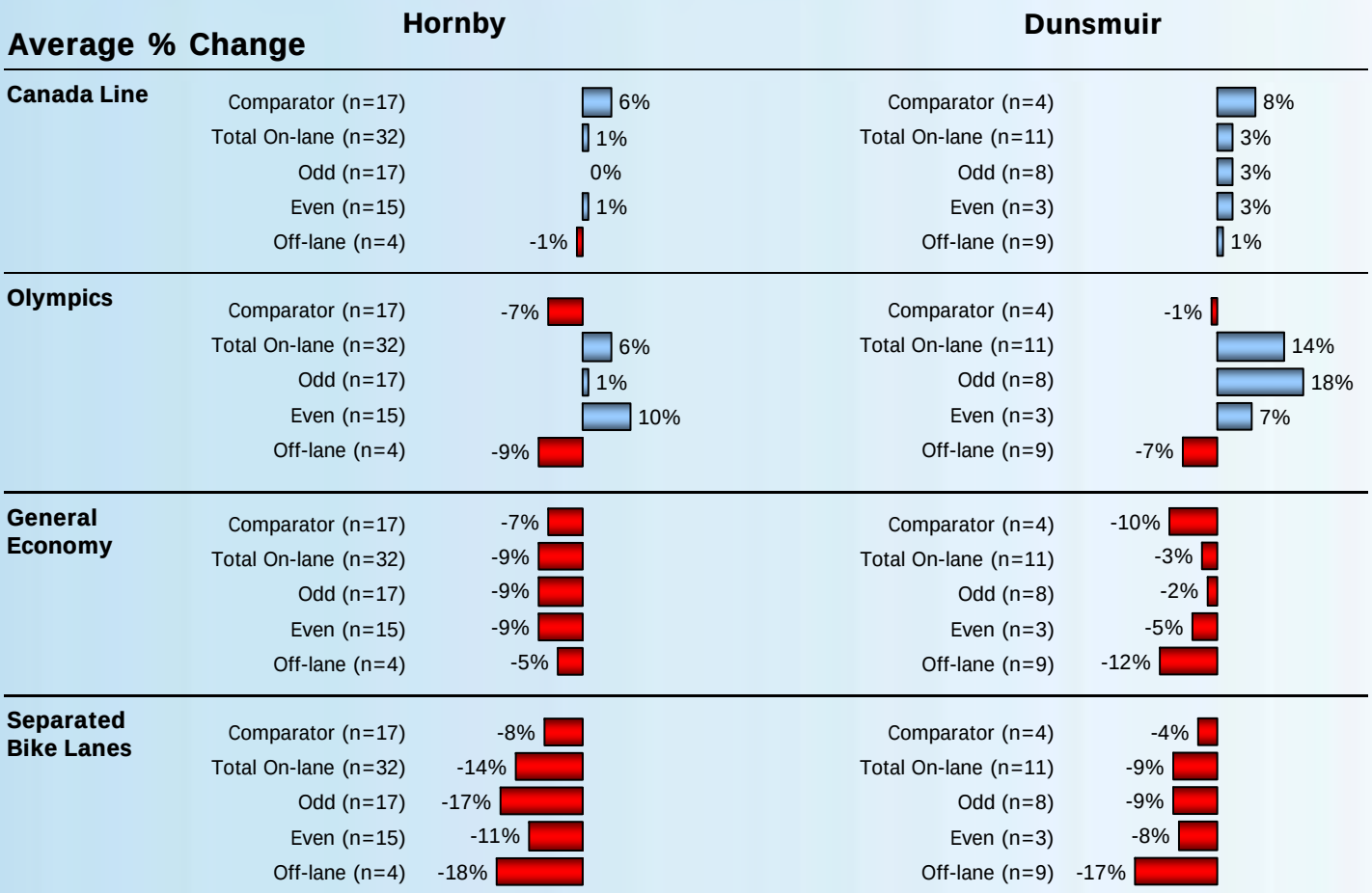
Q.10) What is the general price point of merchandise or service you provide?

Annual Average Gross % Change in Sales



Base: Total Responders
Q.11) On average. how have your gross sales changed annually in the past three years?

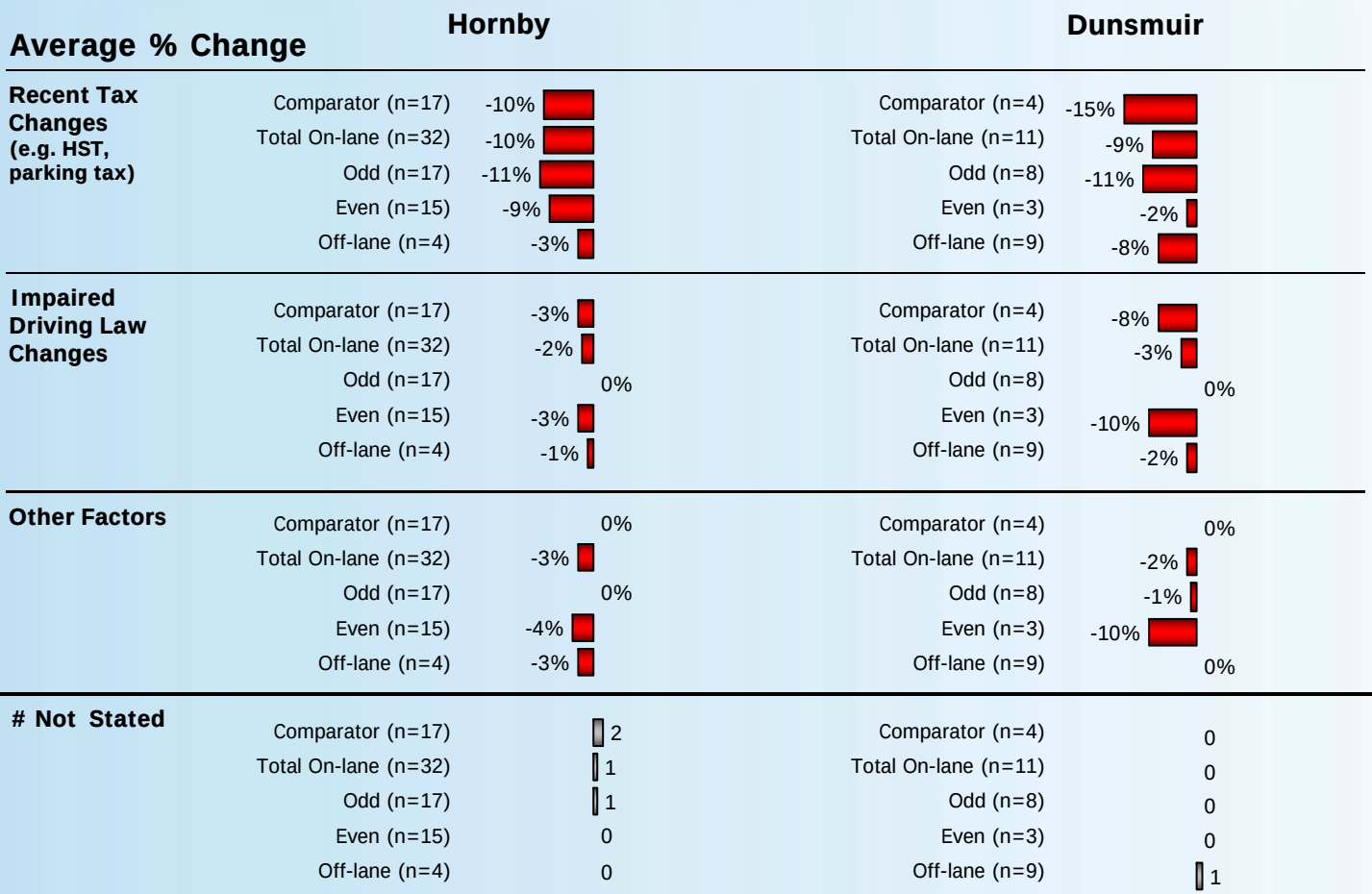
Level of Effect on Sales in Past Year



Base: Total Responders
Q.12) What level of effect, if any, have the following factors had on your sales in the past year?

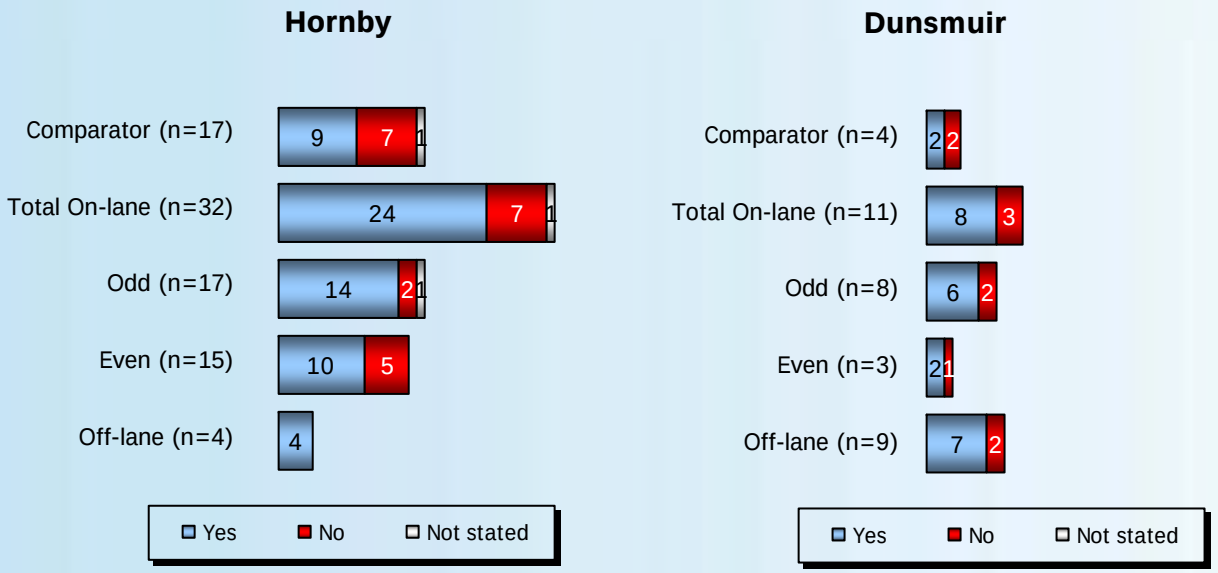
continued

Level of Effect on Sales in Past Year, cont'd



Q.12) What level of effect, if any, have the following factors had on your sales in the past year?

Any Separated Bike Lane Effect on Business in Past Year



Base: Total Responders

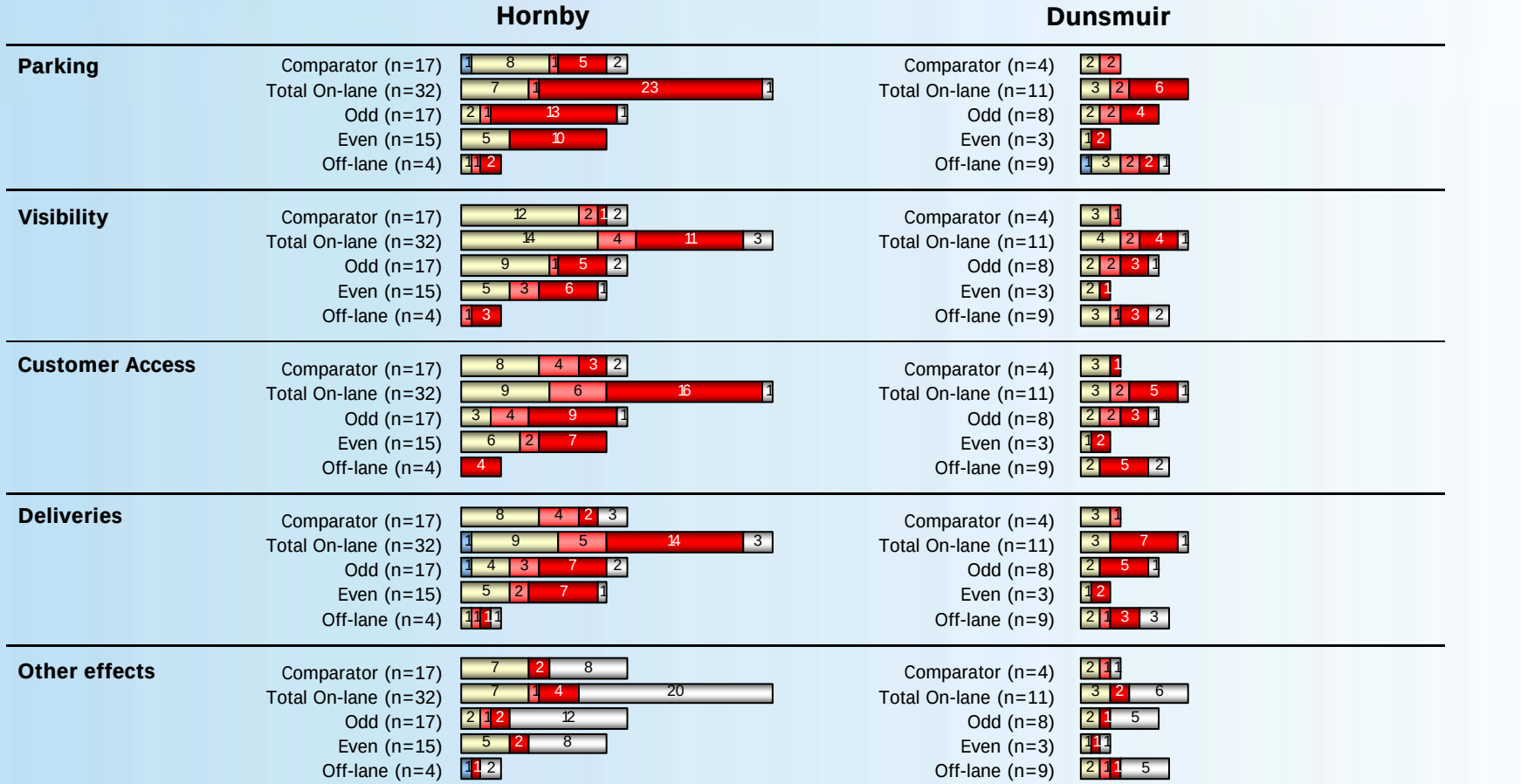
Q.13) Have the Hornby or Dunsmuir separated bike lanes had any effect on your business in the past year?

Separated Bike Lanes' Effect on Sales / Profit

Average % Change		Hornby		Dunsmuir
Sales	Comparator (n=17)	-8%	Comparator (n=4)	-5%
	Total On-lane (n=32)	-12%	Total On-lane (n=11)	-8%
	Odd (n=17)	-13%	Odd (n=8)	-10%
	Even (n=15)	-10%	Even (n=3)	-3%
	Off-lane (n=4)	-19%	Off-lane (n=9)	-11%
Profit	Comparator (n=17)	-9%	Comparator (n=4)	-5%
	Total On-lane (n=32)	-11%	Total On-lane (n=11)	-8%
	Odd (n=17)	-13%	Odd (n=8)	-10%
	Even (n=15)	-10%	Even (n=3)	-3%
	Off-lane (n=4)	-25%	Off-lane (n=9)	-13%
# Not Stated	Comparator (n=17)	4	Comparator (n=4)	0
	Total On-lane (n=32)	2	Total On-lane (n=11)	0
	Odd (n=17)	1	Odd (n=8)	0
	Even (n=15)	1	Even (n=3)	0
	Off-lane (n=4)	0	Off-lane (n=9)	2

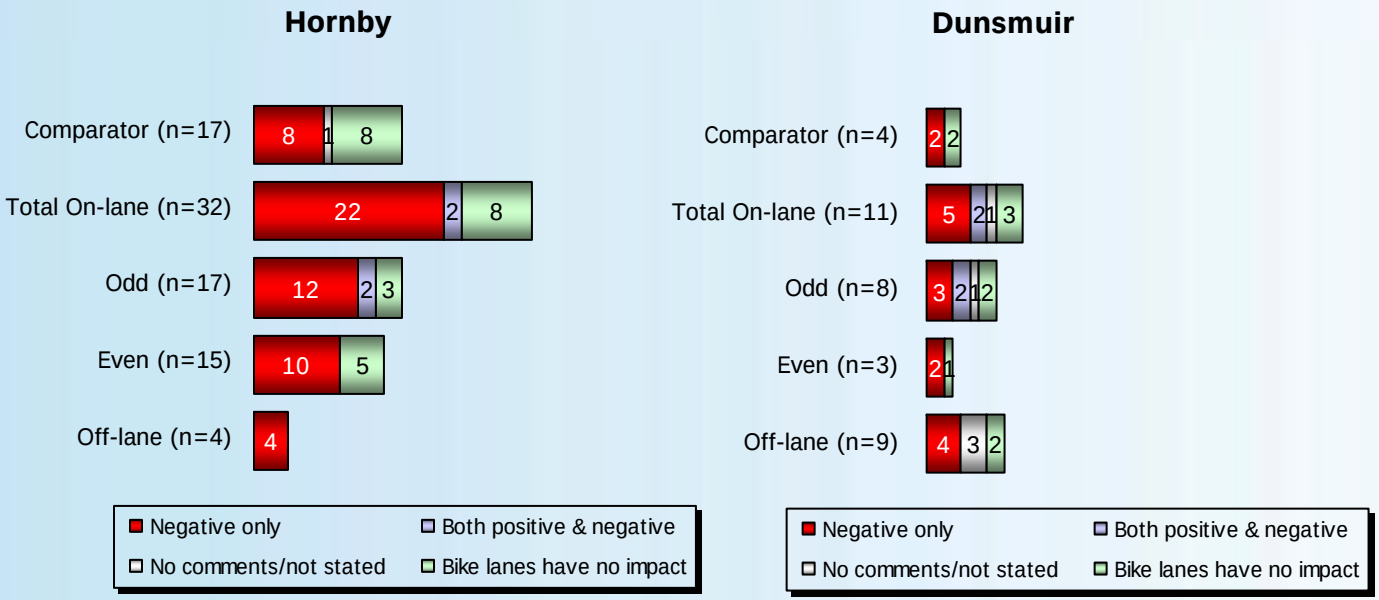
Base: Total Responders
Q.14) How much of an effect would you estimate the Hornby or Dunsmuir separate bike lanes alone have had on your business over the past year?

Bike Lane's Effect on Specific Factors



Base: Total Responders
Q.15) In the past year what level of effect, if any, did the Hornby or Dunsmuir separated bike lanes alone have on your business for each of the following factors?

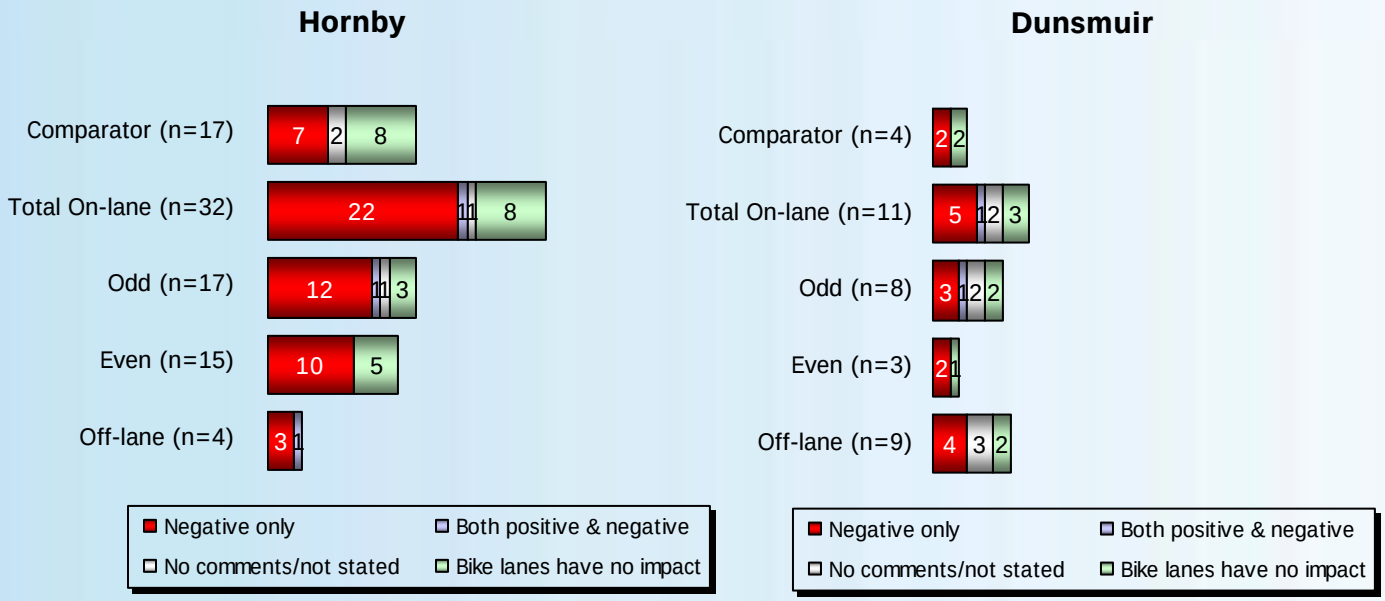
Customer Feedback in Past Year About Bike Lane



Base: Total Responders

Q.16a) What feedback, if any, have you had in the past year about the separated bike lanes from your customers:

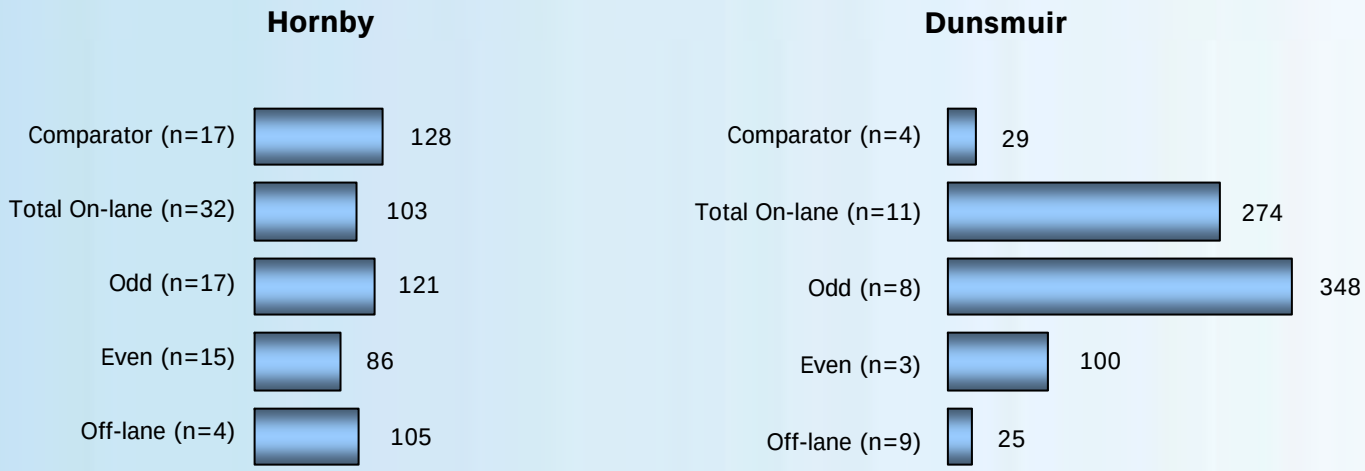
Employee Feedback in Past Year About Bike Lane



Base: Total Responders

Q.16b) What feedback, if any, have you had in the past year about the separated bike lanes from your employees:

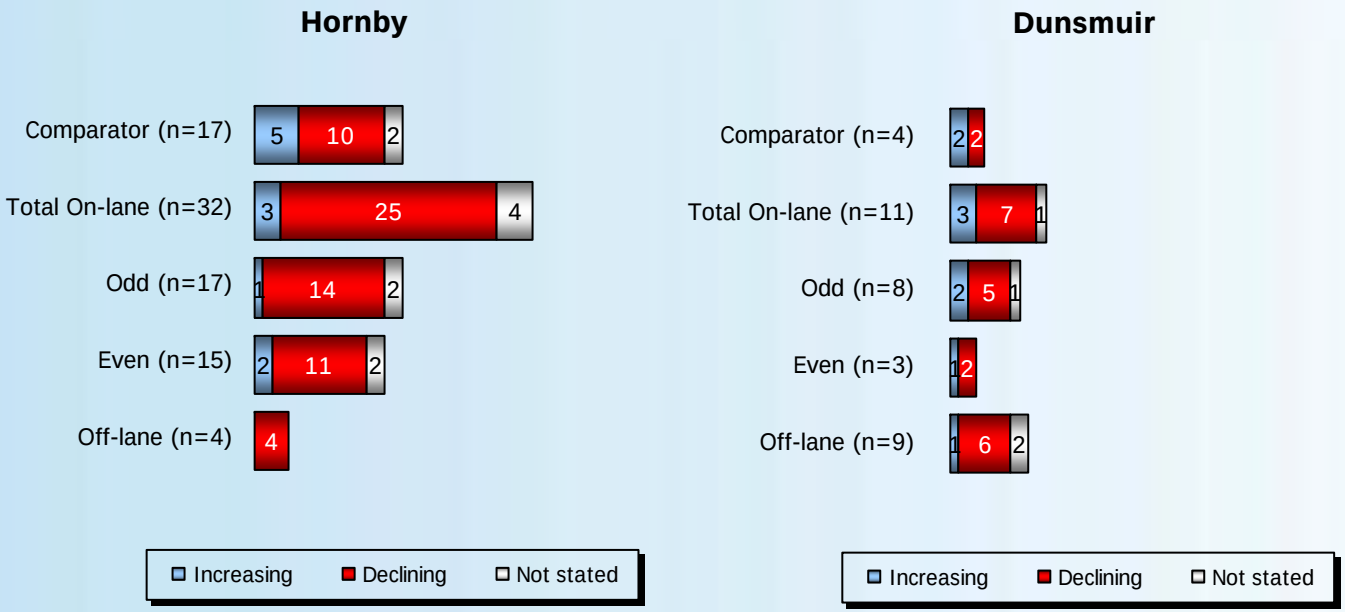
Average Number of Customers per Average Day



Base: Total Responders

Q.17) About how many customers come to your business at this location on an average day?

Daily Customer Volume Increasing / Declining



Base: Total Responders

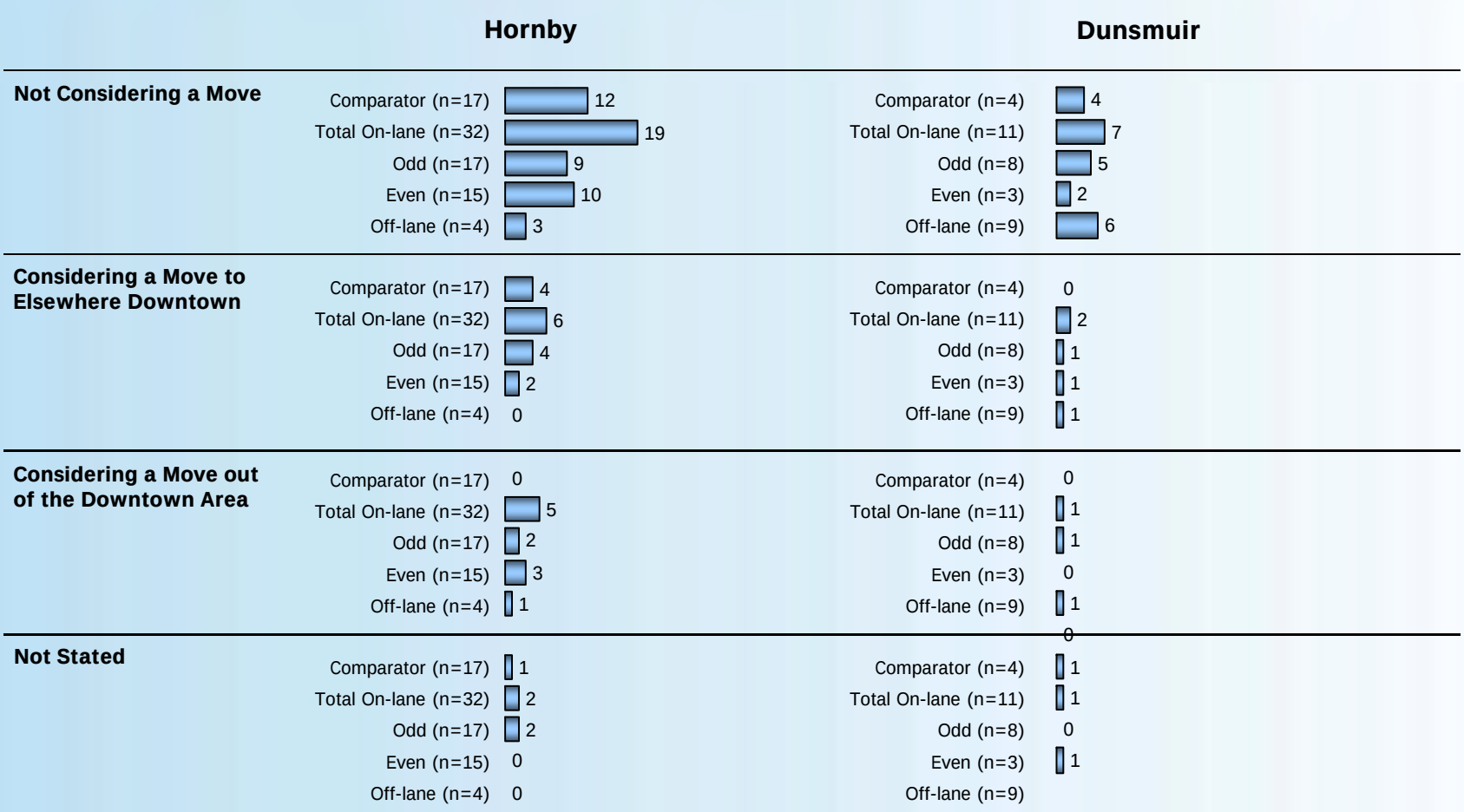
Q.18) Is this rate:

Infrastructure Changes That Could Improve Business (Aided)

	Hornby					Dunsmuir				
	Comparator (17)%	Total On-lane (32)	Odd (17)	Even (15)	Off-lane (4)	Comparator (4)	Total On-lane (11)	Odd (8)	Even (3)	Off-lane (9)
Road improvements	8	6	3	3	1	-	2	1	1	2
More parking nearby	14	24	14	10	1	2	6	4	2	7
Modify separated bike lanes to improve customer access	8	14	7	7	4	3	7	4	3	5
Modify separated bike lanes to improve delivery access	6	11	4	7	1	-	7	6	1	3
Modify separated bike lanes to increase visibility	3	6	3	3	3	-	5	3	2	7
Other suggestions	7	10	6	4	2	3	2	2	-	1
Not stated	1	2	1	1	-	-	2	2	-	1

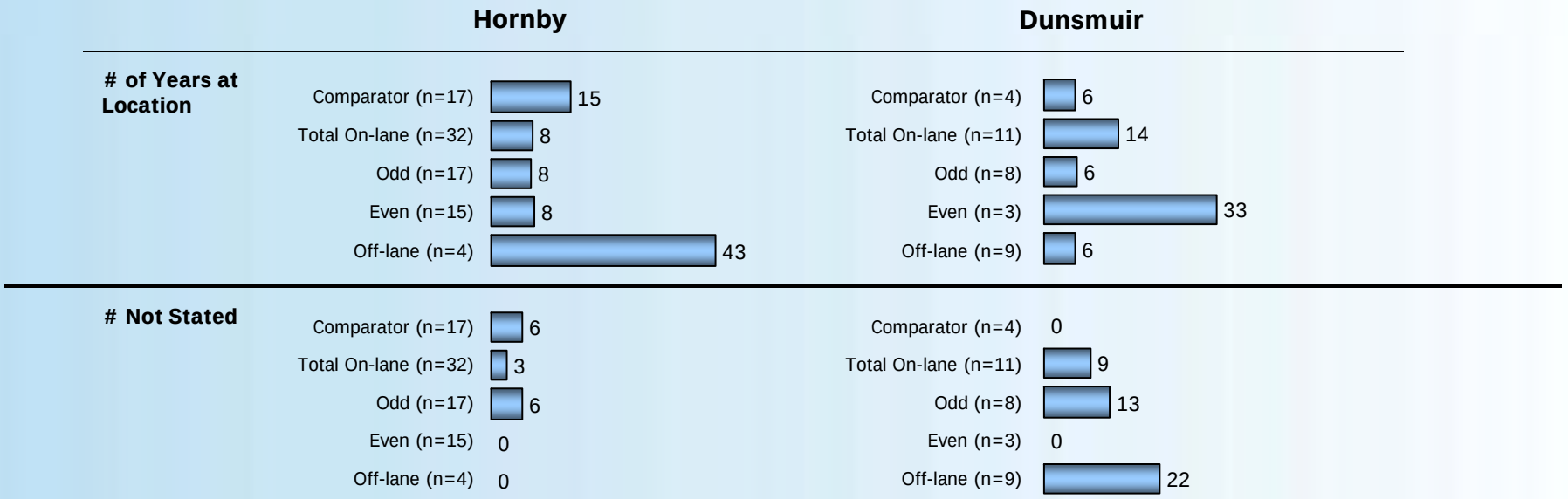
Base: Total Responders
Q.19) Which, if any, of the following infrastructure changes by the City could improve your business?

Consideration to Move Business Location



Base: Total Responders
Q.20a) Are you considering moving this business to another location and if so, where?

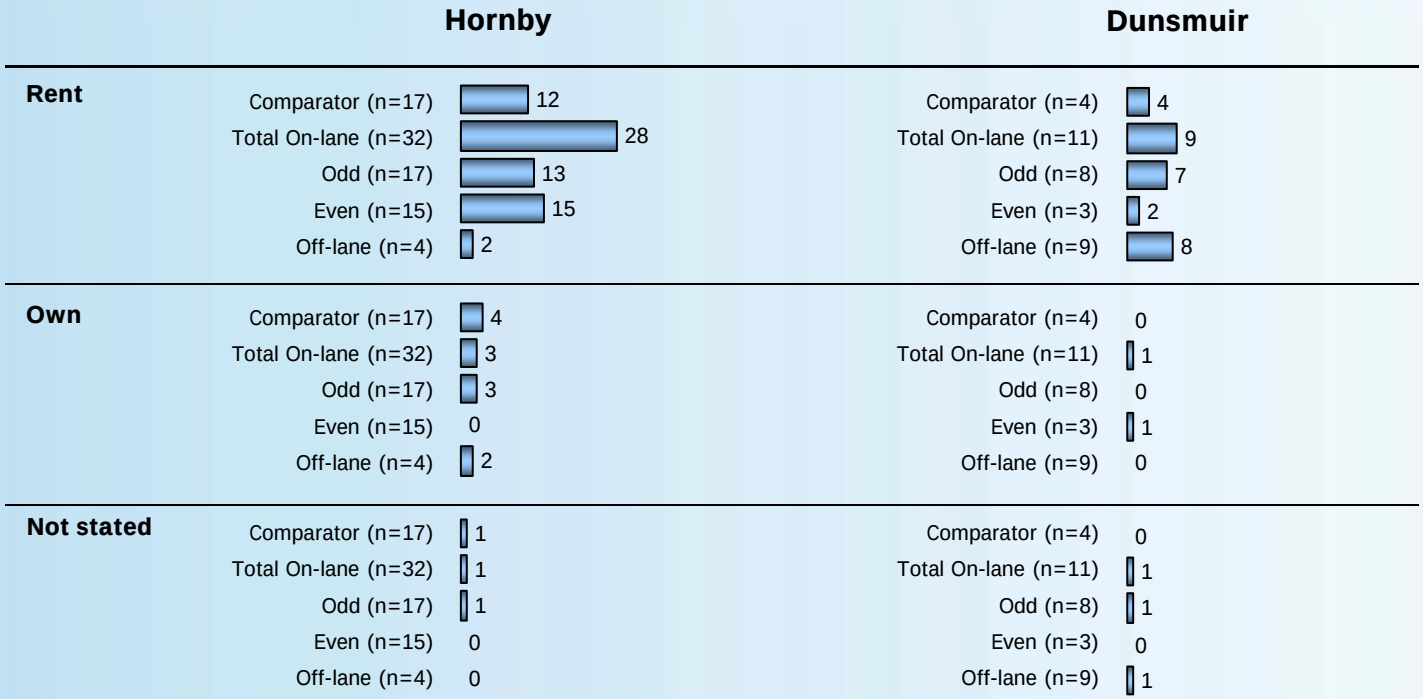
Average Number of Years at Current Location



Base: Total Responders

Q.23) # of years at this location

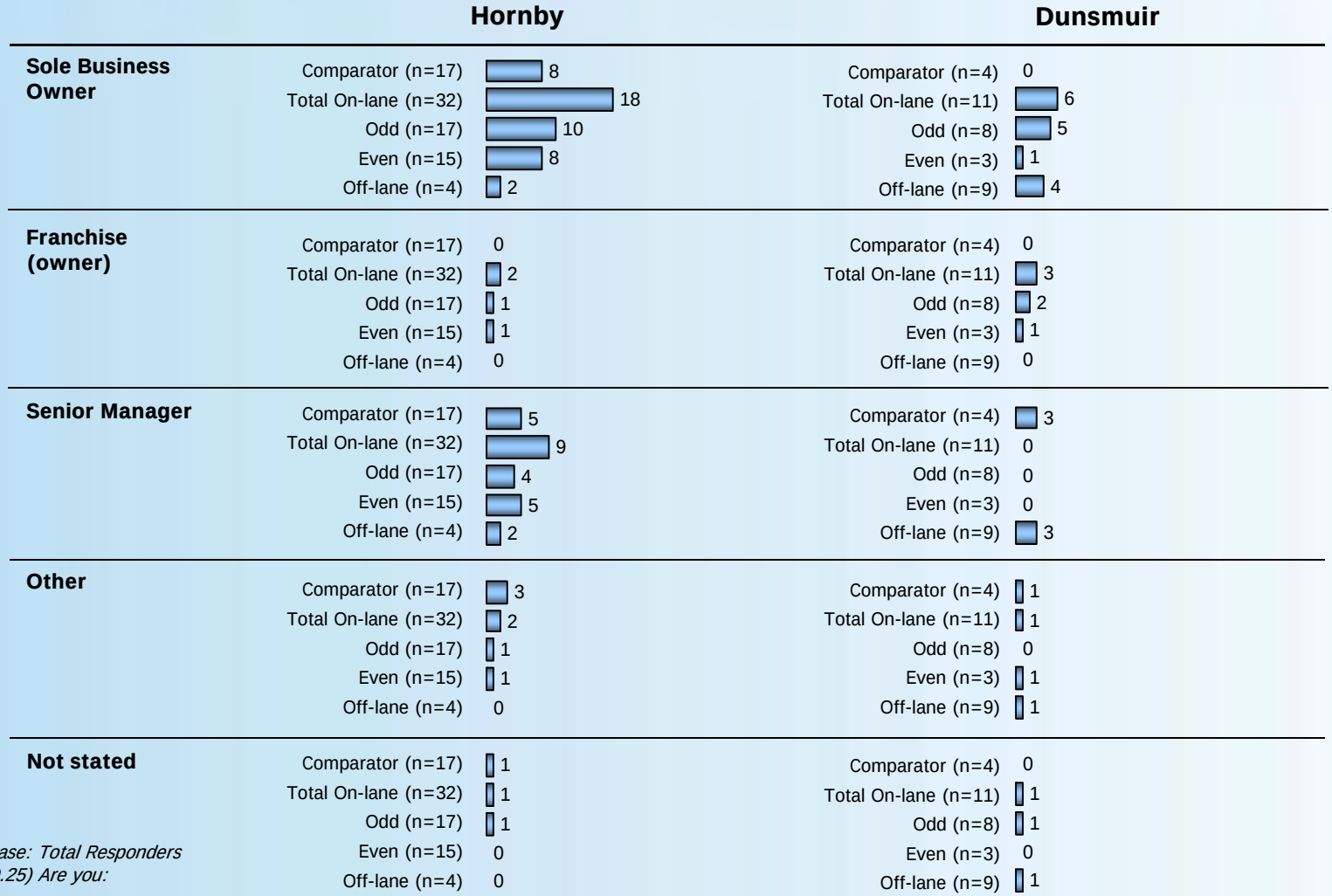
Premises or Building Tenure



Base: Total Responders

Q.24) Premises/building tenure:

Owner Type



Base: Total Responders
Q.25) Are you:

Appendices

- Questionnaire
- Survey Package Outer Envelope
- Study Area Map
- Advance Letter to Businesses
- News Release
- Response Rates Table
- Method of Completion Table
- Telephone Reminder Outcomes

MUSTEL GROUP
MARKET RESEARCH

Downtown Vancouver

Questionnaire

Grade-level Businesses Survey

A. Business Name_____

B. Business Address_____ Postal code: __ __ __ __ __ __

Introduction

- **Why we need your input to this important survey**
  The Vancouver Economic Development Commission (VEDC), in partnership with the City of Vancouver and key business associations (Downtown Vancouver Association, Downtown Vancouver Business Improvement Association and The Vancouver Board of Trade), is commissioning a **study of the effect on businesses of the introduction of separated bike lanes in downtown Vancouver**. This study will include multiple **opportunities for affected businesses, their employees and their customers to provide input**. This survey is an important part of the larger study.

  Through thorough and comprehensive gathering of facts, the true effects of the separated bike lanes on Hornby and Dunsmuir Streets will be known and understood. Only through your highly valued, honest contributions will impacts, mitigation strategies, benefits and issues be assessed properly and addressed fully by those able to make change if required.

- **We appreciate your time and effort** in gathering fact-based information and your best and most reasonable estimations in the absence of hard data. The integrity of the information you provide dictates the accuracy of the results and from those the most sensible solutions.

- **Your privacy is protected and confidentiality guaranteed**
  Mustel Group, a professional marketing research firm in BC for over 30 years and a Better Business Bureau member, is collecting the data. We are committed to maintaining strict confidentiality of your responses and under no circumstances will your identity be revealed to the study sponsors. Results will be reported only in aggregate format (no individuals would be identified). See www.mustelgroup.com for our privacy policy.

- **Response options**
  There are 3 ways to respond—please reply by May 25th.

  1) **Secure online web-survey** (hosted by Mustel Group):
     - Type this link into your Internet browser: **http://surveys.givingopinions.ca/s/ten/**
     - You will be asked to confirm your business address.

  2) By post-paid **mail** return envelope (enclosed in this package)

  3) By **telephone** – **if you require other language or assistance**, please leave a message for our call centre at 604-677-1084 with your name, your business name, phone # and the best time to reach you.

Thank you. Your input is essential and valued.

Main Survey

First, a few general questions about your premises and staffing <u>at this location</u>.
Please check one response for each of the following questions

1. Type of Premises
- ❍ 1. Stand alone single-occupant building (only tenant in building)
- ❍ 2. In larger building with multiple tenants

2. Space/ Store Size (at grade level)
- ❍ 1. Under 1,500 square feet
- ❍ 2. 1,500 to 4,999 square feet
- ❍ 3. 5,000 to 10,000 square feet
- ❍ 4. Over 10,000 square feet

3. Total Number of Employees <u>at this location</u> (both full-time + part-time)
- ❍ 1. Under 10 ❍ 2. 10 or more

4. Business type
- ❍ 1. Food Service
- ❍ 2. Other Service
- ❍ 3. Office type
- ❍ 4. Hotel
- ❍ 5. Convenience Retail
- ❍ 95. Other Retail (SPECIFY) _____
- ❍ 96. Other _____

4b) More specifically, what is your primary line of business? _____

4c) Hours of operation: *Check all that apply to your business*
❍ Weekdays ❍ Weekends ❍ Daytime only ❍ Evening only (5pm & later) ❍ Day & Evening

5. Approximate Net Rent Per Sq Ft. *Please check one*
- ❍ 1. $25 to $40
- ❍ 2. $41 to $55
- ❍ 3. $56 to $70
- ❍ 4. $71 to $85
- ❍ 5. $86 to $100
- ❍ 6. Over $100
- ❍ 9. OWNER OF PREMISES (i.e., no rent)

6. Which, if any, of the following help your business? *Please check all that apply*
- ❍ Close to transit
- ❍ Close to office workers/customer base
- ❍ Ample parking
- ❍ Supporting businesses or other retailers nearby
- ❍ Other factors (SPECIFY) _____

7. In your opinion, is this geographic area generally getting: *Please check one*
- ❍ 1. Better for your business →Just briefly, why? _____
- ❍ -1. Worse for your business →Just briefly, why? _____
- ❍ 0. Stable/ expect no change

8. How do your customers and employees arrive downtown to reach your business?

<u>Your customers (*add to 100%)*</u> *Please record your best estimate for each mode*

___ % Walking (Pedestrians) ___ % Bike ___ % Car ___ % Transit ❍ DON'T KNOW

<u>Your employees *(add to 100%)*</u>

___ % Walking (Pedestrians) ___ % Bike ___ % Car ___ % Transit ❍ DON'T KNOW

9. What is your **main** customer type? *Please answer age and gender.*

Age:
- ❍ 1. Young (under 35 years old)
- ❍ 2. Middle-aged (35-54 years old)
- ❍ 3. Older (55 years or older)
- ❍ 4. Mix

Gender:
- ❍ 1. Male
- ❍ 2. Female
- ❍ 3. Both about equally

10. What is the general Price Point of merchandise or service you provide? *Please check one*
- ❍ 3. High
- ❍ 2. Medium
- ❍ 1. Low

11. On average, how have your gross sales changed *annually* in the past 3 years?
Please record your best estimate (such as, +10% or -5%, etc.)

AVERAGE ANNUAL CHANGE for each year:

2009 _____% **2010** _____% **2011** _____%

12. What level of effect, if any, have the following factors had on your sales in the past year?
Please record your best estimate of the % change (such as, +10% or -5%, etc.)

a) Canada line	+____%	OR -____% change	OR	❍ NO EFFECT
b) Olympics	+____%	OR -____% change	OR	❍ NO EFFECT
c) General economy	+____%	OR -____% change	OR	❍ NO EFFECT
d) Separated bike lanes	+____%	OR -____% change	OR	❍ NO EFFECT
e) Recent tax changes (e.g., HST, Parking tax)	+____%	OR -____% change	OR	❍ NO EFFECT
f) Impaired driving law changes	+____%	OR -____% change	OR	❍ NO EFFECT
g) Other factors	+____%	OR -____% change	OR	❍ NO EFFECT

13. Have the **Hornby or Dunsmuir** separated bike lanes had any effect on your business in the past year?

❍ 1. YES → CONTINUE WITH **Q14** ❍ 2. NO → SKIP TO **Q17**

14. How much of an effect would you estimate the **Hornby or Dunsmuir** separated bike lanes ***alone*** have had on your business over the past year? *Please enter/write in the approximate % change*

On Sales: **+** ____% or **-**____% ❍ DON'T KNOW

On Profit: **+** ____% or **-**___% ❍ DON'T KNOW

15. In the past year what level of effect, if any, did the **Hornby or Dunsmuir** separated bike lanes ***alone*** have on your business for each of the following factors?

	Level of impact on your business					
	Very positive	A little positive	No effect	A little negative	Very negative	Don't know
a) Parking	❍2	❍1	❍0	❍-1	❍-2	❍
b) Visibility	❍2	❍1	❍0	❍-1	❍-2	❍
c) Customer access	❍2	❍1	❍0	❍-1	❍-2	❍
d) Deliveries	❍2	❍1	❍0	❍-1	❍-2	❍
e) Other effects *(please specify below & indicate effect level)*						
_____	❍2	❍1	❍0	❍-1	❍-2	❍
_____	❍2	❍1	❍0	❍-1	❍-2	❍

16. What feedback, if any, have you had in the past year about the separated bike lanes from …

Your customers:	❍ 1. Positive	❍ -1. Negative	❍ Both	❍ 0. No comments
Your employees:	❍ 1. Positive	❍ -1. Negative	❍ Both	❍ 0. No comments

Now some general questions about your business and future planning …

17. About how many customers come to your business at this location on an average day? # _____ (includes shoppers/browsers and purchasers)

18. Is this rate *(please check one)*: ❍ -1. declining or ❍ 1. increasing?

19. Which, if any, of the following infrastructure changes by the City could improve your business? *Please check any that apply.*

- ❍ Road improvements
- ❍ More parking nearby
- ❍ Modify separated bike lanes to improve customer access
- ❍ Modify separated bike lanes to improve delivery access
- ❍ Modify separated bike lanes to increase visibility
- ❍ Any other suggestions? *(please specify)*

_____

20. Are you considering moving this business to another location and if so, where?

- ❍ 1. Not considering a move
- ❍ 2. Considering a move to elsewhere Downtown
- ❍ 3. Considering a move out of the Downtown area

20b) IF YES: Why are you considering moving?

_____

21. We welcome any further comments or suggestions you may have about the topics of this survey.

_____

_____

_____

22. Due to the high importance of accurately understanding business effects in the Downtown core, would you be willing to share financial information with our lead researcher in a confidential follow-up telephone interview? Your confidentiality would be strictly protected, so that your identity is not revealed in the report to the study sponsors.

- ❍ YES, willing to do follow-up → Thank you! Please provide:
  Your phone # _____ and the best times of day to reach you:_____.
- ❍ NO

Basic Data

23. **# of years at this location:** _____ years

24. **Premises/Building Tenure:** ❍ 1. Rent ❍ 2. Own

25. **Are you:**

- ❍ 1. Sole business owner
- ❍ 2. Franchisee (owner)
- ❍ 3. Senior manager
- ❍ 96. Other specify _____

Again, thank you very much for your participation in this important survey and providing valuable input for Downtown City planners and your local business groups.

Important response requested for:

Downtown Vancouver Separated Bike Lanes Business Survey

Commissioned by:

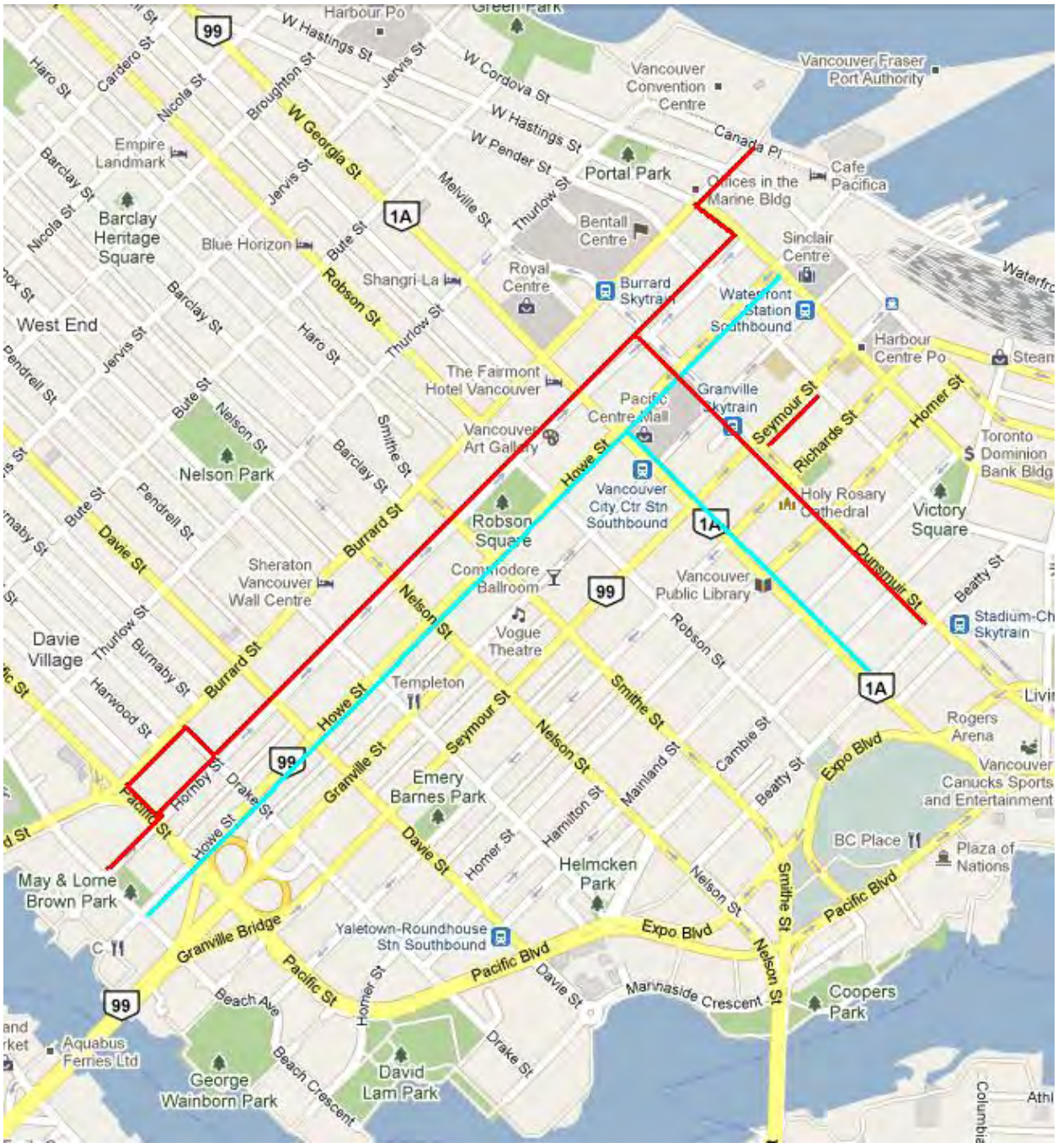
City of Vancouver
Downtown Vancouver Association
Downtown Vancouver Business Improvement Association
The Vancouver Board of Trade

To: Business Owner/Senior Manager

Please complete by May 25, 2011

Go Online to: http://surveys.givingopinions.ca/s/ten/

Your unique PIN #



———	Primary Affected Streets
———	Control Streets

Letter to Members of the Downtown Vancouver Association, the Downtown Vancouver Business Improvement Association (DVBIA) **and The Vancouver Board of Trade**

RE: Business impact study of separated bike lanes and opportunity to attend a workshop on Thursday, May 12 from 5:30 p.m. to 7 p.m.

The City of Vancouver committed to study the effect of the introduction of separated bike lanes on downtown businesses in October, 2010. Since then, as you are aware, strong concerns have been expressed, by business members of our organizations and in the media, about the economic impact on local businesses of the separated bike lanes along Dunsmuir and Hornby Sts.

To fulfill the City's commitment, a study has been commissioned by a partnership that includes our three organizations, as well as the City of Vancouver and the Vancouver Economic Development Commission (VEDC), which chairs the partnership. Through an RFP process, the partnership has chosen Stantec Consulting to conduct the study, in conjunction with Site Economics Ltd and Mustel Group Market Research.

The study will focus on the short and longer term effects of the new separated bike lanes on street level businesses, as well as on commercial property owners and on businesses located in the upper floors of commercial buildings. It will also make recommendations on ways to mitigate any negative economic impacts on businesses as a result of the introduction of the separated bike lanes. The study will also include an analysis of best practices in other cities that have reduced lanes available to vehicular traffic in order to accommodate separated bike lanes.

The study will include multiple opportunities for affected businesses, their employees and their customers to provide input on their experiences as a result of the new separated bike lanes. Surveys of street level and upper floor businesses will be conducted, as well as of commercial property owners. Similar surveys will be conducted on Howe and Georgia Sts for comparison purposes. There will be consultation workshops with a sample of businesses, intercept interviews of customers and a sample survey of Metro Vancouver residents. In addition, businesses and individuals can provide input through Stantec at the email address and telephone number below.

For the study to be as accurate and comprehensive as possible, it is important that as many Members as possible make every effort to participate in the surveys and register their experiences with the Stantec team.

One important opportunity for businesses to provide input to the study will be at a workshop next **Thursday, May 12, from 5:30pm to 7:00pm. The workshop will be held at Stantec's offices, 11th floor, 111 Dunsmuir Street. If you plan to attend, please inform Stantec in advance by emailing to** Iona.bonamis@stantec.com or calling 604-696-8052.

WE ENCOURAGE YOU TO ATTEND THIS WORKSHOP IF POSSIBLE.

All information provided to the study on individual businesses will be held in the strictest confidence by the consultants; only aggregated data will be provided to VEDC and its partners.

The study findings, conclusions and recommendations will be reported to City Council and made public in July, 2011. The consultants will continue to monitor the impact of the separated bike lanes on businesses through 2012.

For further information on the bike lane impacts study, please contact:

organization	*contact person*	*contact details*
Downtown Vancouver Association	Robert (Bob) Glass, President	604-331-6020 rkglass@macdevcorp.com
Downtown Vancouver Business Improvement Association	Charles Gauthier, Executive Director	604-685-7811, ext. 203 charles@downtownvancouver.net
Vancouver Board of Trade	Bernie Magnan, Assistant Managing Director and Chief Economist	604-640-5454 bmagnan@boardoftrade.com
Stantec	Iona Bonamis, Transit Planner	604-696-8052 Iona.bonamis@stantec.com

Media Release: Friday, May 8, 2011

Separated bike lanes study announced

Vancouver, B.C. -- The Vancouver Economic Development Commission (VEDC), on behalf of a partnership that also includes the City of Vancouver, the Downtown Vancouver Association, the Downtown Vancouver Business Improvement Association (DVBIA) and The Vancouver Board of Trade, has engaged Stantec Consulting Ltd to conduct a study of the effect on businesses of the introduction of separated bike lanes along Dunsmuir and Hornby Streets in downtown Vancouver. Stantec will be assisted by Site Economics Ltd and Mustel Group Market Research.

The study will focus on the short and longer term effects of the new separated bike lanes on street level businesses, as well as on commercial property owners and on businesses located in the upper floors of commercial buildings. It will also make recommendations on ways to mitigate any negative economic impacts on businesses as a result of the introduction of the separated bike lanes. The study will also include an analysis of best practices in other cities that have reduced lanes available to vehicular traffic in order to accommodate separated bike lanes.

The study will include multiple opportunities for affected businesses, their employees and their customers to provide input on their experiences as a result of the new separated bike lanes. Surveys of street level and upper floor businesses will be conducted, as well as of commercial property owners. Similar surveys will be conducted on Howe and Georgia Streets for comparison purposes. There will be consultation workshops with a sample of businesses, intercept interviews of customers and a sample survey of Metro Vancouver residents.

In addition, businesses and individuals can provide input by contacting Iona.bonamis@stantec.com or calling 604-696-8052. All information provided to the study on individual businesses will be held in the strictest confidence by the consultants; only aggregated data will be provided to VEDC and its partners.

The study findings, conclusions and recommendations will be reported to City Council and made public in July, 2011. The consultants will continue to monitor the effect of the separated bike lanes on businesses through 2012.

-30-

Contact: Jeff McDonald, Manager, Communications & Media
604-632-9668 or jmcdonald@vancouvereconomic.com

RESPONSE RATES TABLE

Grade-level businesses

	Total Frame	Responders	Response Rate
Hornby (incl. 300 and 1300 Burrard)			
Comparator (both sides)	51	17	33%
On-lane (Total)	100	32	32%
Odd side addresses	53	17	32%
Even side addresses	47	15	32%
Off-lane (both sides)	6	4	67%
	157	**53**	**34%**
Dunsmuir			
Comparator (both sides)	23	4	17%
On-lane (Total)	28	11	39%
Odd side addresses	17	8	47%
Even side addresses	11	3	27%
Off-lane (both sides)	17	9	53%
	68	**24**	**35%**

COMPLETION METHOD TABLE

Grade-level businesses

	Hornby	**Dunsmuir**	**Total**	**Completion**
	157	**68**	**225**	**Method**
Responders	53	24	77	*100%*
Online completion	*22*	*6*	*28*	*36%*
Mail-in completion	*28*	*8*	*36*	*47%*
Phone completion	*3*	*10*	*13*	*17%*
Non-responders	104	44	148	

Grade Level Business Survey -- Telephone Reminders to Non-responders

#	%	%	Call Outcomes
		2%	**Out of scope**
3	2%		wrong #/ missing phone #
		14%	**Non-participant**
11	7%		refused
11	7%		language problem
		36%	**Not contacted/ not reachable in study period**
5	3%		respondent away/occupied till after Hockey
22	14%		no answer/left message
28	18%		callback requested/ call later or specific time
		26%	**Planned/interested in completing**
13	8%		plan to
11	7%		email requested
5	3%		hand delivered
5	3%		emailed only (not dialed)
6	4%		forward to head office
		22%	**Total completed/ reported completed**
10	6%		phone complete full survey
7	5%		online complete
7	5%		mail complete
10	6%		phone complete partial (3 questions only)
154	**100%**		

Summary of non-responder call outcomes:

The call outcomes to non-responder grade level businesses indicate that about half of non-responders either did complete, planned to complete or at least showed some interest in participating in the survey. Over one third were not reachable in the study period. Seven percent of those contacted refused to participate and of those only two individuals mentioned a lack of confidence in the process, while almost half refused due to being new to the street/the business/management. A similar proportion were not conversant in the English language (Korean, Vietnamese, Arabic, Chinese were identified). Note, that all callback requests were made mutliple times (minimum three attempts or more).

Reasons for refusing to participate:

too new mgr./ only here for 2 wks
new manager/new staff
in between managers; owner runs another business
too new/only been her 3.5 months
new owner/took on last month
nothing will be done
City doesn't listen anyway
shut down [the business]
closed the store
policy not to do surveys
business is owned by hotel; hotel management will respond to survey

Appendix C: Owner Survey Questions and Detailed Results

May / June 2011

Downtown Vancouver Separated Bike Lanes Study
Commercial Property Owners & Property Managers Survey

MUSTEL GROUP
MARKET RESEARCH

Introduction

- A partnership of the Vancouver Economic Development Commission along with the City of Vancouver and three key business associations (Downtown Vancouver Association, Downtown Vancouver Improvement Association, and The Vancouver Board of Trade) have joined together to commission a study of the economic impact of the downtown separated bike lanes. A series of surveys have been conducted as part of the economic impact study.

- This report presents the results of the property owners and property managers survey designed to understand the effect of the separated bike lanes on Hornby and Dunsmuir Street businesses from this perspective.

- The survey was developed to collect information pertinent for the economic analysis and to parallel the design of grade-level business survey. The study design included both buildings on the separated bike lane corridors and those on comparator corridors.

- The original scope of the study was composed of property owners and property managers with buildings on the following streets:
  - Hornby Street (including 300 and 1300 blocks Burrard) and its comparator, Howe Street
  - Dunsmuir Street and its comparator, West Georgia

- A map of the study area is appended to this report.

Methodology

- **Advance Notification:** Prior to start of the survey process, the Vancouver Economic Development Commission issued a news release and the partner business associations notified their members by email of the survey and workshops (documents appended). The survey was well covered by local news.

- **Sample Frame:** A list of property owners for the study area was provided by the City of Vancouver, from the property tax database.

- This list was further enhanced and verified in several ways:
  - Mustel Group and study team's n-site walking tour of the study area, during which the grade-level business sample frame was developed.
  - Partner business associations review of the list
  - The economic consultant's knowledge of the area

- A total of 125 properties were identified as the sample frame, but this was reduced to 114 once the surveys were distributed and some listings were undeliverable.

- **Survey Distribution:** Survey packets were distributed by hand delivery to 87 building owners/property managers and by mail to 38.
  - The survey packet included a questionnaire booklet and a post-paid mail return envelope in a larger envelope addressed to the Landlord/Property Manager re: a specific commercial address. Survey title and study sponsors were printed on the outside envelope, as well as a unique PIN number for the online log-in. (Copy of materials appended).
  - Note, the unique PIN number ensured that only one survey was submitted for each property.

- **Response Options:** Three ways to respond were provided—post-paid return mail, online survey with PIN numbers or by telephone (call in to Mustel Group including opportunity to request language assistance). Reminders further provided opportunity to receive emails with links or to respond by phone.

Methodology, cont'd.

- **Reminder Strategies to Encourage Response:**
  - One week post-delivery the partner-sponsor business associations reminded member businesses in the study area by email; this included some property owners/ property managers who belonged to these associations.
  - Mustel Group conducted reminder telephone calls to non-responders for whom phone numbers were provided (June 9-14). Note that phone numbers and contact names were only available for about 30% of the sample frame.
  - Up to three calls were made attempting to contact eligible survey respondents. Where contact could not be made messages were left.
  - Those contacted were asked about receipt of survey and if they planned to complete. They were offered an email with web link or the option to complete on the phone. This process resulted in 2 subsequent emails and 3 completed by phone.
- **Data collection dates:** May 23 – June 14, 2011
- **Questionnaire:** A copy is appended.
- **Response rates:** The overall survey response rate was 25%, a fairly good response rate for a typical business survey with mail and online response options. However, the response rate was higher for the Dunsmuir than the Hornby properties that are potentially most affected (those adjacent to the separated lanes).
  - Hornby lane even side 17%
  - Dunsmuir lane odd side 30%
  - Full details on response rates and completion method are appended.
- **Outcomes:**

	Re: Hornby	Re: Dunsmuir
Total Responders	25	9
Total Non-responders	59	21

Note that sample sizes in the charts that follow are very small for the specific segments surveyed, e.g., on lane, comparator, off lane (n=5 to 13). Use extreme caution in examination of these results.

All results are shown in charts as actual frequencies or average values.

Methodology, cont'd.

- **Sampling Margins of Error:** Use of the actual survey results to calculate the effect of the separated bike lanes assumes that the survey results reflect the population as a whole (including non-responders).

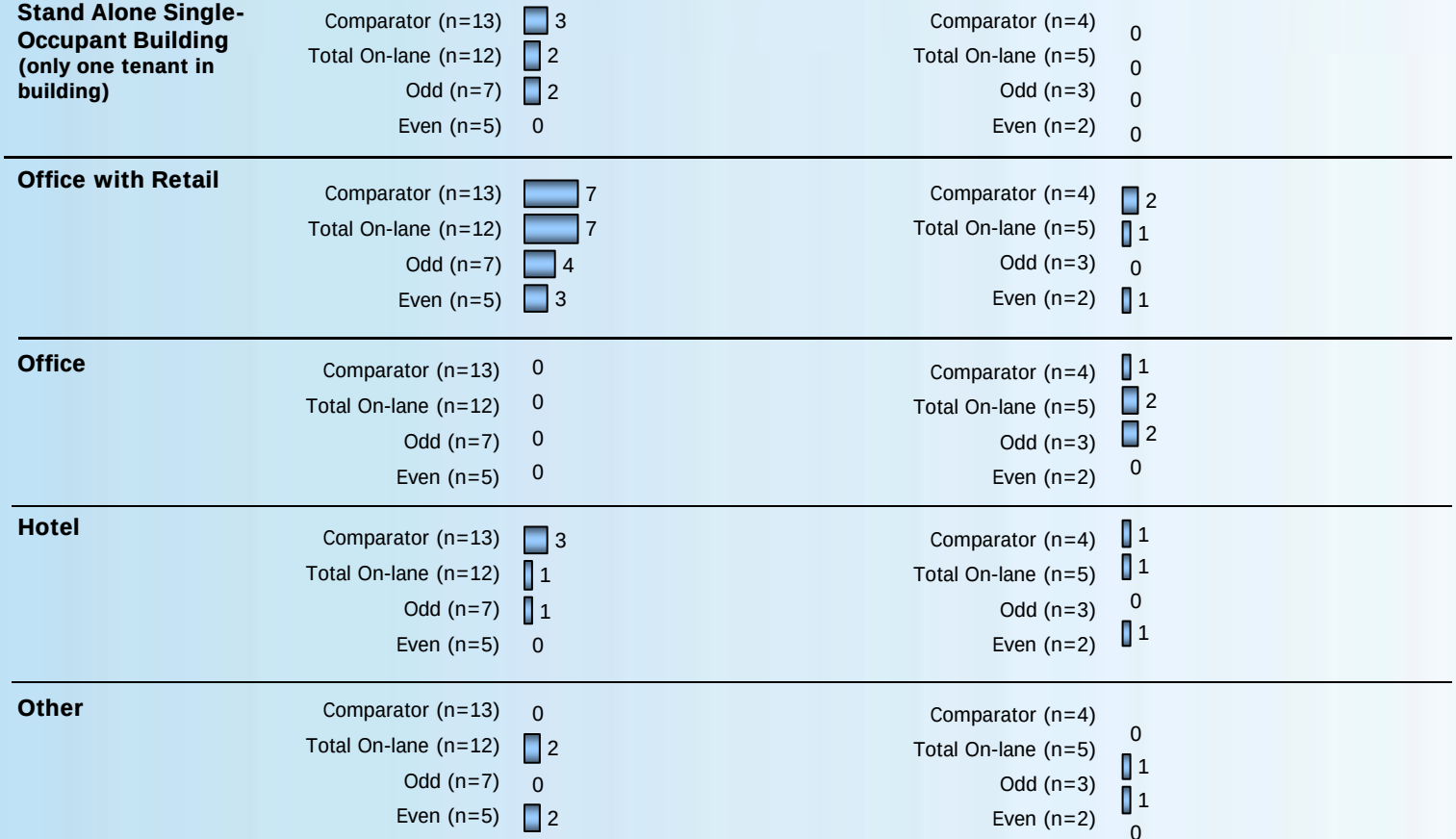
  The statistical margin of sampling error for a random sample would be as follows:

Property Owners / Property Managers	Universe	Sample	Confidence Level*	
On lane	N	n	at 90%	at 95%
Dunsmuir	17	5	**30%**	**36%**
Hornby	48	12	**21%**	**25%**
Combined	65	17	**17%**	**21%**

***Confidence level:** If a random sample survey was repeated on the same population, the survey results would fall within the + or – margins (blue % above) 9 times out of 10 (for 90% confidence) and 19 times out of 20 (for 95% confidence).*

- **Study Limitations:** Note that the research was designed so as to be inclusive of all businesses in the scope of this study, therefore a hybrid method was used consisting of mail, online and telephone to encourage response. However, the following should be noted when using the findings:
  - While telephone calls to non-responders attempted to mitigate non-response bias and resulted in some additional completions, it is possible that the sample includes a higher proportion of businesses that experienced greater impact than found in the total population.
  - To a large degree, the information collected is based on the perceptions of business owners and managers. Despite their best intentions, this may or may not exactly reflect reality.

Type of Building



Base: Total Responders
CAUTION: Very small sample sizes

Q.1) Type of building:

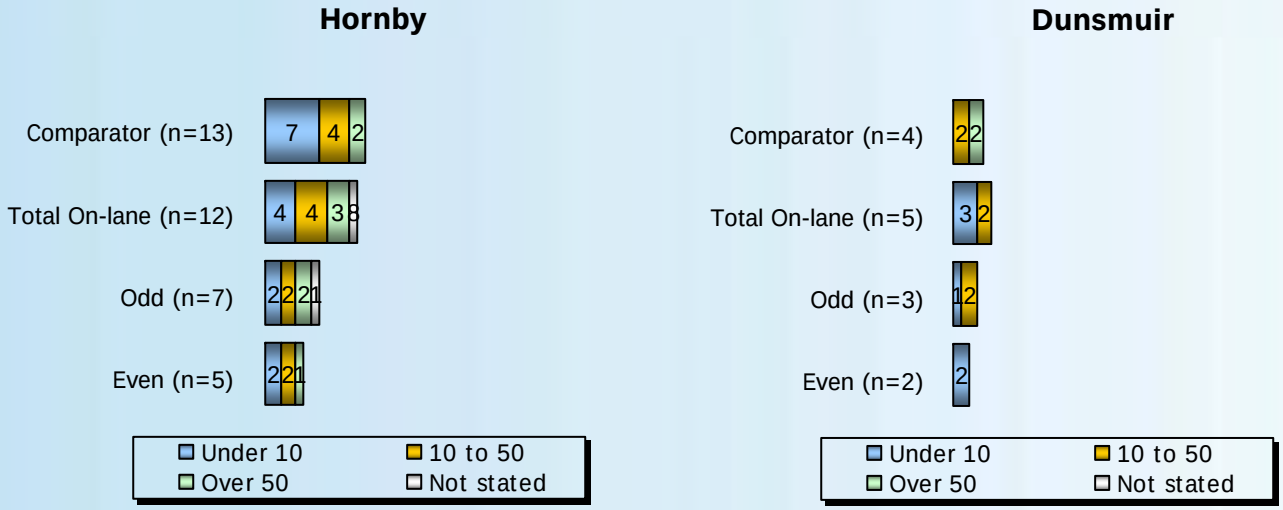
Building Height

	Hornby		Dunsmuir	
1 to 2 Stories	Comparator (n=13)	4	Comparator (n=4)	0
	Total On-lane (n=12)	2	Total On-lane (n=5)	0
	Odd (n=7)	2	Odd (n=3)	0
	Even (n=5)	0	Even (n=2)	0
3 to 10 Stories	Comparator (n=13)	4	Comparator (n=4)	1
	Total On-lane (n=12)	4	Total On-lane (n=5)	3
	Odd (n=7)	1	Odd (n=3)	1
	Even (n=5)	3	Even (n=2)	2
Over 10 Stories	Comparator (n=13)	5	Comparator (n=4)	3
	Total On-lane (n=12)	6	Total On-lane (n=5)	2
	Odd (n=7)	4	Odd (n=3)	2
	Even (n=5)	2	Even (n=2)	0

Base: Total Responders
CAUTION: Very small sample sizes

Q.2) Building height:

Number of Tenants



Base: Total Responders
CAUTION: Very small sample sizes

Q.3) Total of tenants.

Dominant Tenant Type

	Hornby		Dunsmuir	
Service	Comparator (n=13)	1	Comparator (n=4)	0
	Total On-lane (n=12)	1	Total On-lane (n=5)	1
	Odd (n=7)	0	Odd (n=3)	0
	Even (n=5)	1	Even (n=2)	1
General Office	Comparator (n=13)	5	Comparator (n=4)	2
	Total On-lane (n=12)	6	Total On-lane (n=5)	0
	Odd (n=7)	4	Odd (n=3)	0
	Even (n=5)	2	Even (n=2)	0
Legal	Comparator (n=13)	0	Comparator (n=4)	0
	Total On-lane (n=12)	1	Total On-lane (n=5)	1
	Odd (n=7)	0	Odd (n=3)	1
	Even (n=5)	1	Even (n=2)	0
Financial	Comparator (n=13)	1	Comparator (n=4)	1
	Total On-lane (n=12)	0	Total On-lane (n=5)	0
	Odd (n=7)	0	Odd (n=3)	0
	Even (n=5)	0	Even (n=2)	0
Hotel	Comparator (n=13)	4	Comparator (n=4)	1
	Total On-lane (n=12)	1	Total On-lane (n=5)	1
	Odd (n=7)	1	Odd (n=3)	0
	Even (n=5)	0	Even (n=3)	1
Other	Comparator (n=13)	2	Comparator (n=4)	0
	Total On-lane (n=12)	3	Total On-lane (n=5)	2
	Odd (n=7)	2	Odd (n=3)	2
	Even (n=5)	1	Even (n=2)	0

Base: Total Responders
CAUTION: Very small sample sizes
Q.4) Dominant tenant type:

Average Office Rent Per Sq. Ft.

		Hornby	Dunsmuir
$15 to $25	Comparator (n=13)	6	Comparator (n=4) 1
	Total On-lane (n=12)	5	Total On-lane (n=5) 1
	Odd (n=7)	1	Odd (n=3) 0
	Even (n=5)	4	Even (n=2) 1
$26 to $40	Comparator (n=13)	3	Comparator (n=4) 2
	Total On-lane (n=12)	3	Total On-lane (n=5) 2
	Odd (n=7)	3	Odd (n=3) 2
	Even (n=5)	0	Even (n=2) 0
I am Tenant and Owner of Premises (no rent)	Comparator (n=13)	1	Comparator (n=4) 0
	Total On-lane (n=12)	2	Total On-lane (n=5) 1
	Odd (n=7)	1	Odd (n=3) 1
	Even (n=5)	1	Even (n=2) 0
Office Not Applicable	Comparator (n=13)	1	Comparator (n=4) 1
	Total On-lane (n=12)	0	Total On-lane (n=5) 0
	Odd (n=7)	0	Odd (n=3) 0
	Even (n=5)	0	Even (n=2) 0
Not Stated	Comparator (n=13)	2	Comparator (n=4) 0
	Total On-lane (n=12)	2	Total On-lane (n=5) 1
	Odd (n=7)	2	Odd (n=3) 0
	Even (n=5)	0	Even (n=2) 1

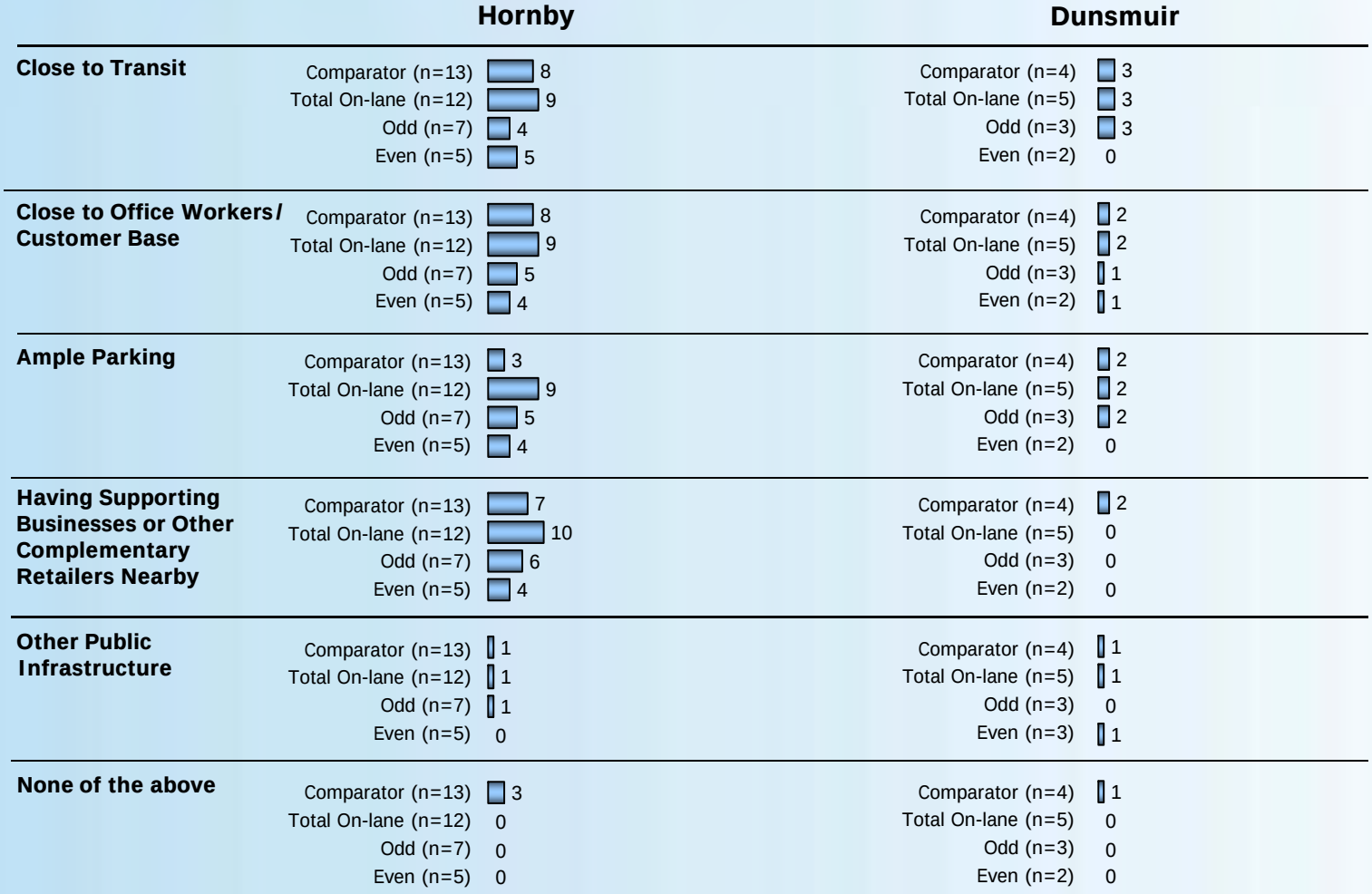
Base: Total Responders
CAUTION: Very small sample sizes
Q.5a) Office: approximate average net rent per sq. ft.

Average Retail Rent Per Sq. Ft.

		Hornby		Dunsmuir
$15 to $25	Comparator (n=13)	0	Comparator (n=4)	1
	Total On-lane (n=12)	2	Total On-lane (n=5)	0
	Odd (n=7)	2	Odd (n=3)	0
	Even (n=5)	0	Even (n=2)	0
$26 to $40	Comparator (n=13)	4	Comparator (n=4)	2
	Total On-lane (n=12)	3	Total On-lane (n=5)	1
	Odd (n=7)	2	Odd (n=3)	1
	Even (n=5)	1	Even (n=2)	0
$41 to $55	Comparator (n=13)	4	Comparator (n=4)	0
	Total On-lane (n=12)	4	Total On-lane (n=5)	1
	Odd (n=7)	1	Odd (n=3)	0
	Even (n=5)	3	Even (n=2)	1
$56 to $70	Comparator (n=13)	0	Comparator (n=4)	0
	Total On-lane (n=12)	1	Total On-lane (n=5)	0
	Odd (n=7)	1	Odd (n=3)	0
	Even (n=5)	0	Even (n=2)	0
I am Tenant and Owner of Premises (no rent)	Comparator (n=13)	1	Comparator (n=4)	0
	Total On-lane (n=12)	2	Total On-lane (n=5)	1
	Odd (n=7)	1	Odd (n=3)	0
	Even (n=5)	1	Even (n=2)	1
Retail not Applicable	Comparator (n=13)	0	Comparator (n=4)	0
	Total On-lane (n=12)	0	Total On-lane (n=5)	1
	Odd (n=7)	0	Odd (n=3)	1
	Even (n=5)	0	Even (n=2)	0
Not Stated	Comparator (n=13)	4	Comparator (n=4)	1
	Total On-lane (n=12)	0	Total On-lane (n=5)	1
	Odd (n=7)	0	Odd (n=3)	1
	Even (n=5)	0	Even (n=2)	0

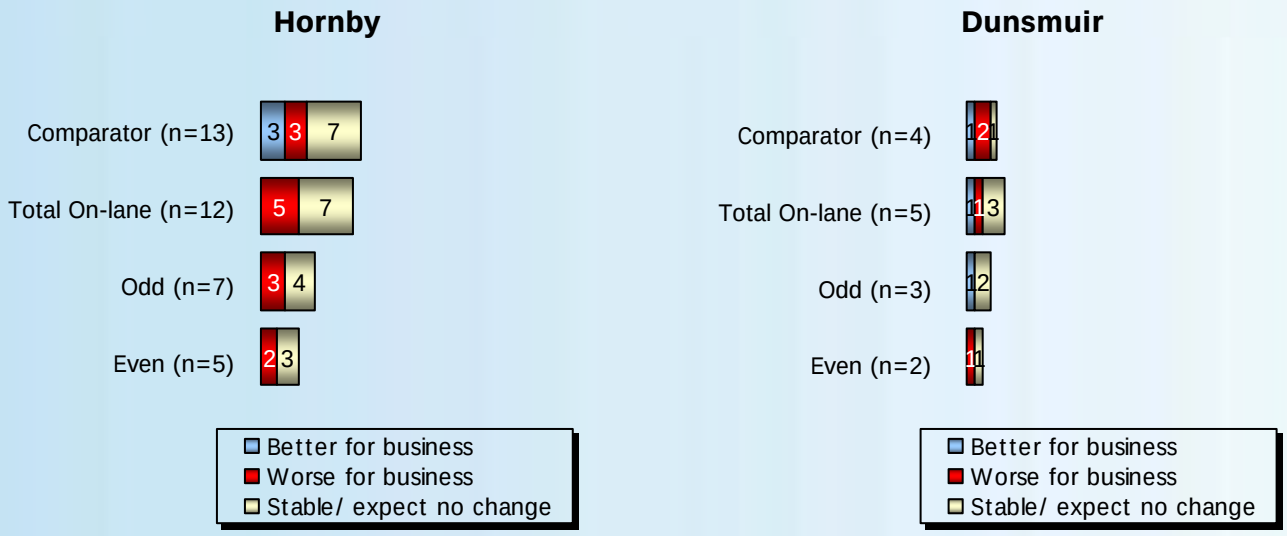
Base: Total Responders
CAUTION: Very small sample sizes
Q.5b) Retail: approximate average net rent per sq. ft.

Aspects That Help Create Demand for Building (Aided)



Base: Total Responders CAUTION: Very small sample sizes
Q.6) Which, if any, of the following helps create demand for your building?

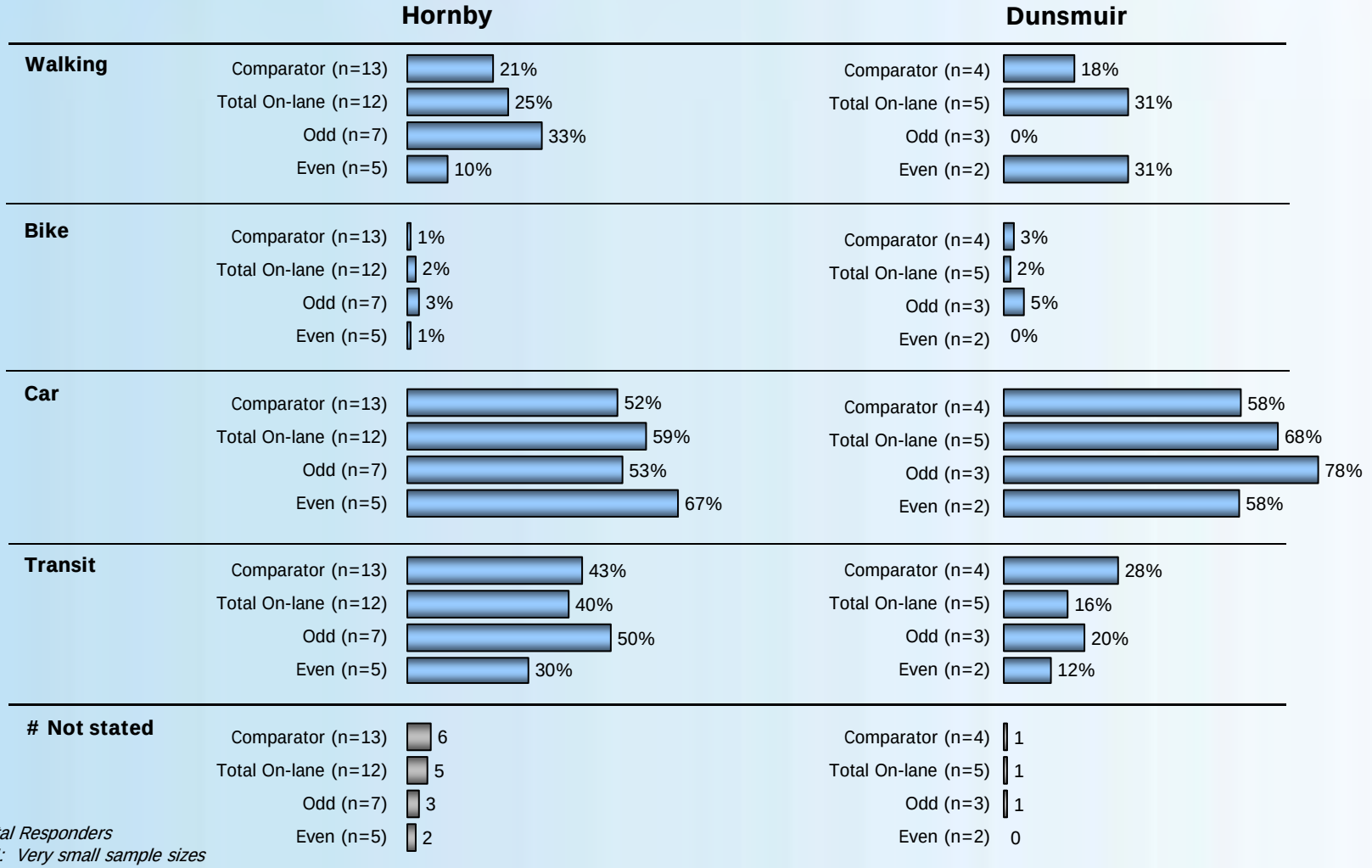
Perceived Trend of Geographic Area for Building Tenants



Base: Total Responders
CAUTION: Very small sample sizes

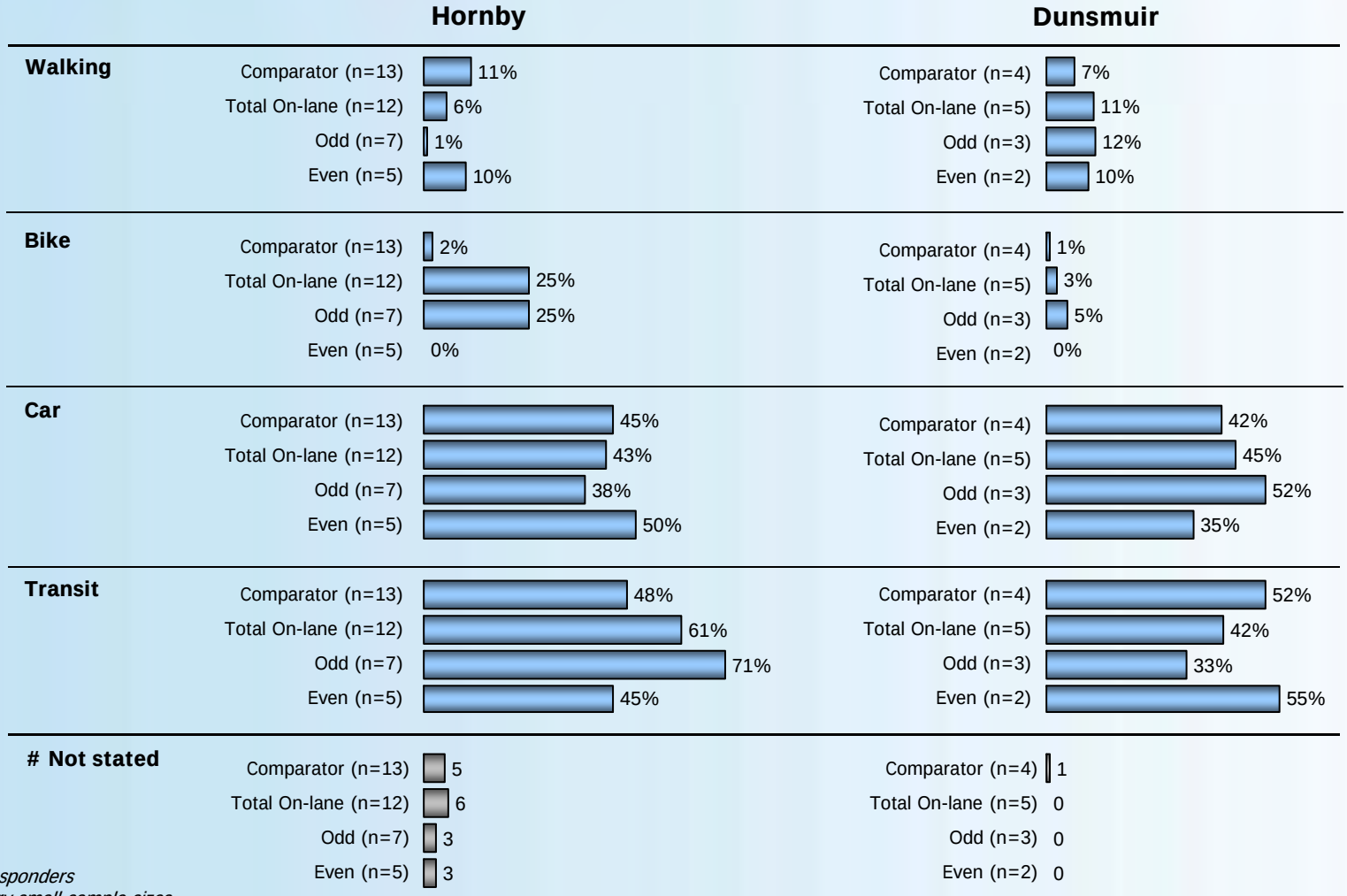
Q.7a) In your opinion, is this geographic area generally getting: better/worse/stable for businesses in your buiilding?

Tenants' Customers Mode of Transportation to Building
(Average % of customer base)



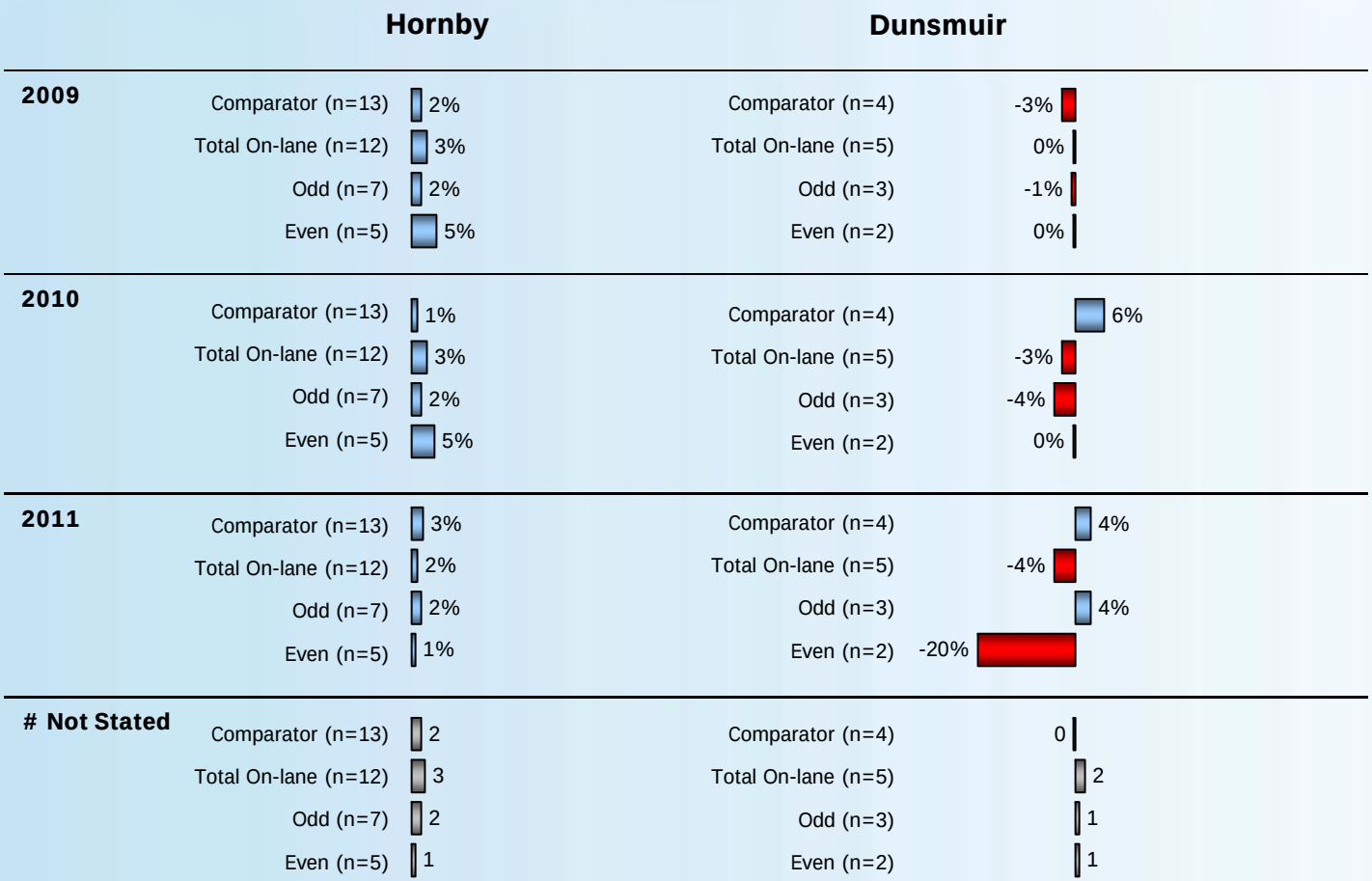
Base: Total Responders
CAUTION: Very small sample sizes
Q.8a) How do your tenants customers and their employees arrive downtown to reach your building (Customers). Note: may not add to 100% .

Tenants' Employees Mode of Transportation to Building
(Average % of employee base)



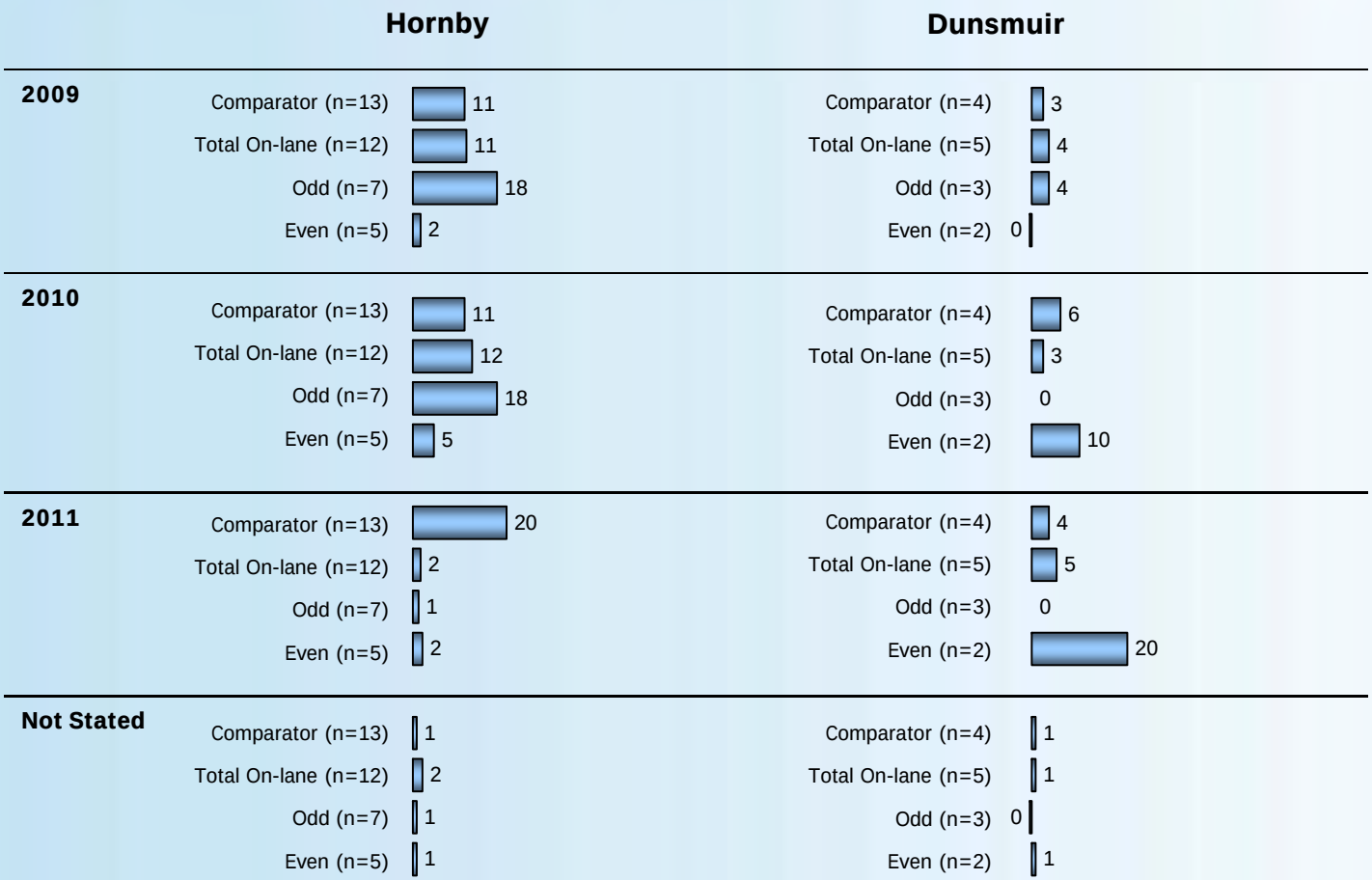
Base: Total Responders
CAUTION: Very small sample sizes
Q.8b)How do your tenants' customers and their employees arrive downtown to reach your building? (Employees) Note: may not add to 100%.

Annual Average Net Change in Rents



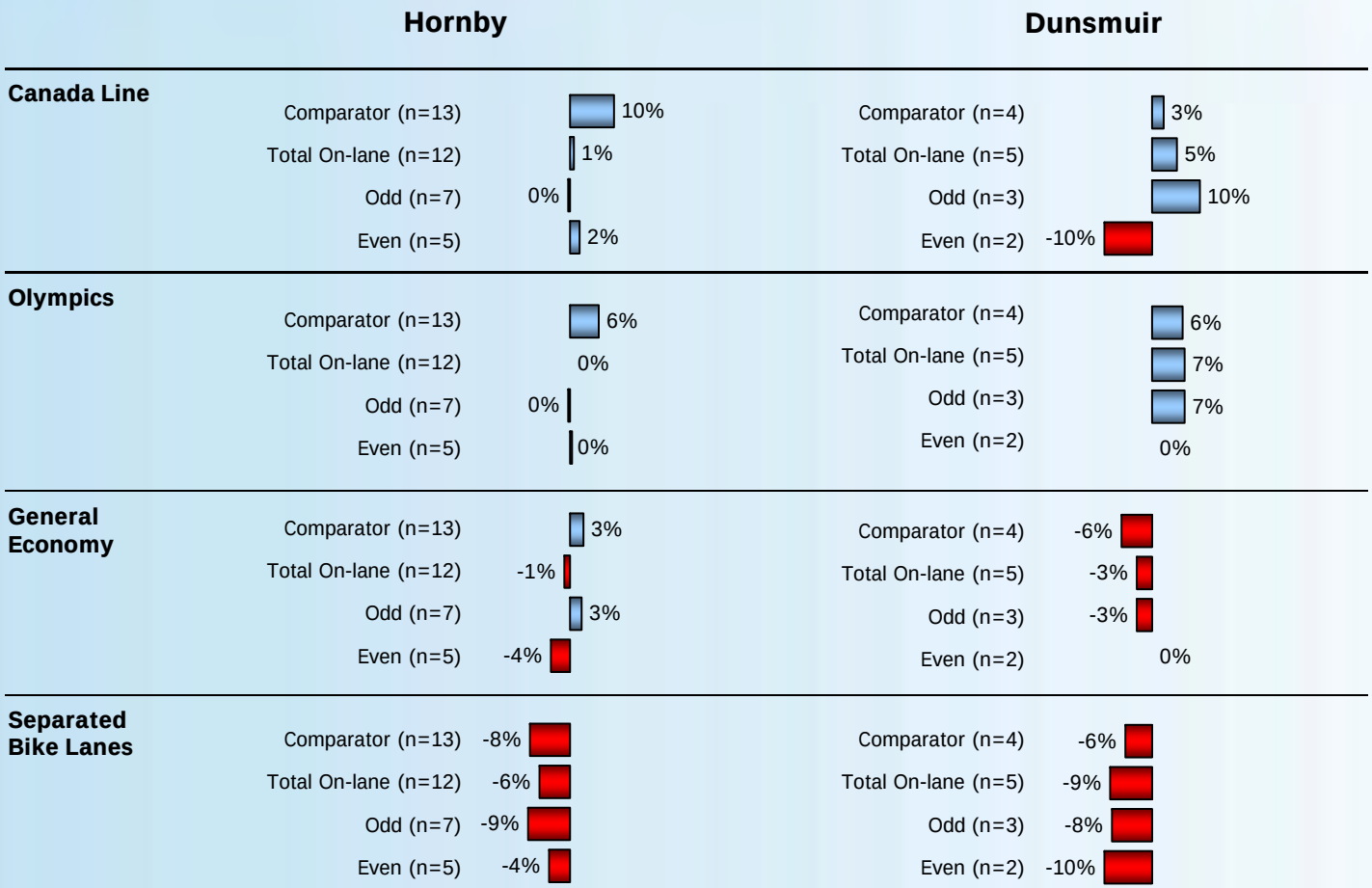
Base: Total Responders
CAUTION: Very small sample sizes
Q.9) On average. how have your net rents changed annually in the past three years?

Overall Vacancy Rate (Annual Averages)



Base: Total Responders
CAUTION: Very small sample sizes
Q.10) What is your building's overall vacancy rate in:

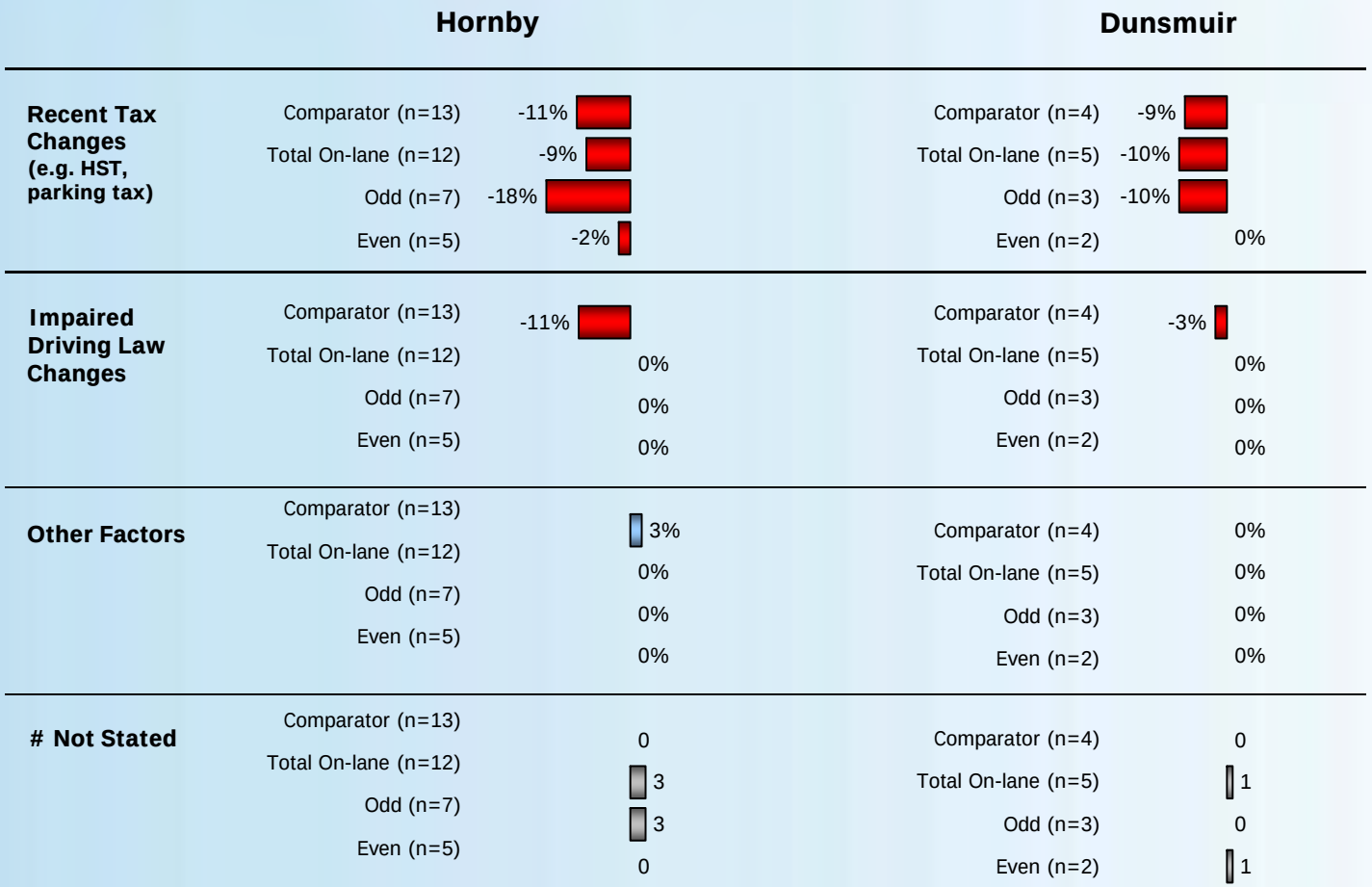
Specific Factors Effect on Leasing Efforts in Past Year



Base: Total Responders
CAUTION: Very small sample sizes
Q.12) What level of effect, if any, have the following factors had on your leasing efforts and your tenants businesses in the past year?

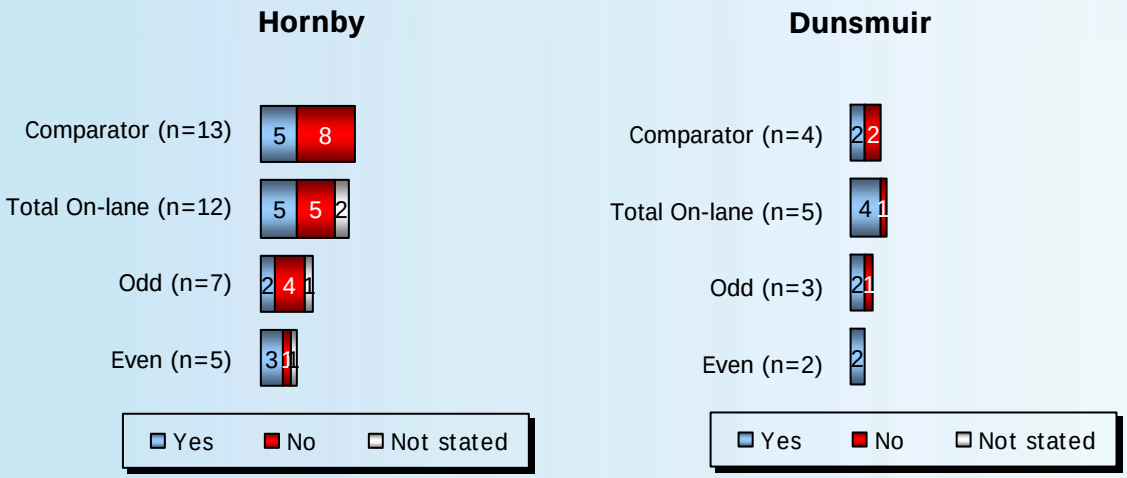
continued

Specific Factors' Effect on Leasing Efforts in Past Year (cont'd)



Base: Total Responders
CAUTION: Very small sample sizes
Q.12) What level of effect, if any, have the following factors had on your leasing efforts and your tenants businesses in the past year?

Any Separated Bike Lane Effect on Leasing Program in Past Year



Base: Total Responders
CAUTION: Very small sample sizes

Q.13) Have the Hornby or Dunsmuir separated bike lanes had any effect on your leasing program in the past year?

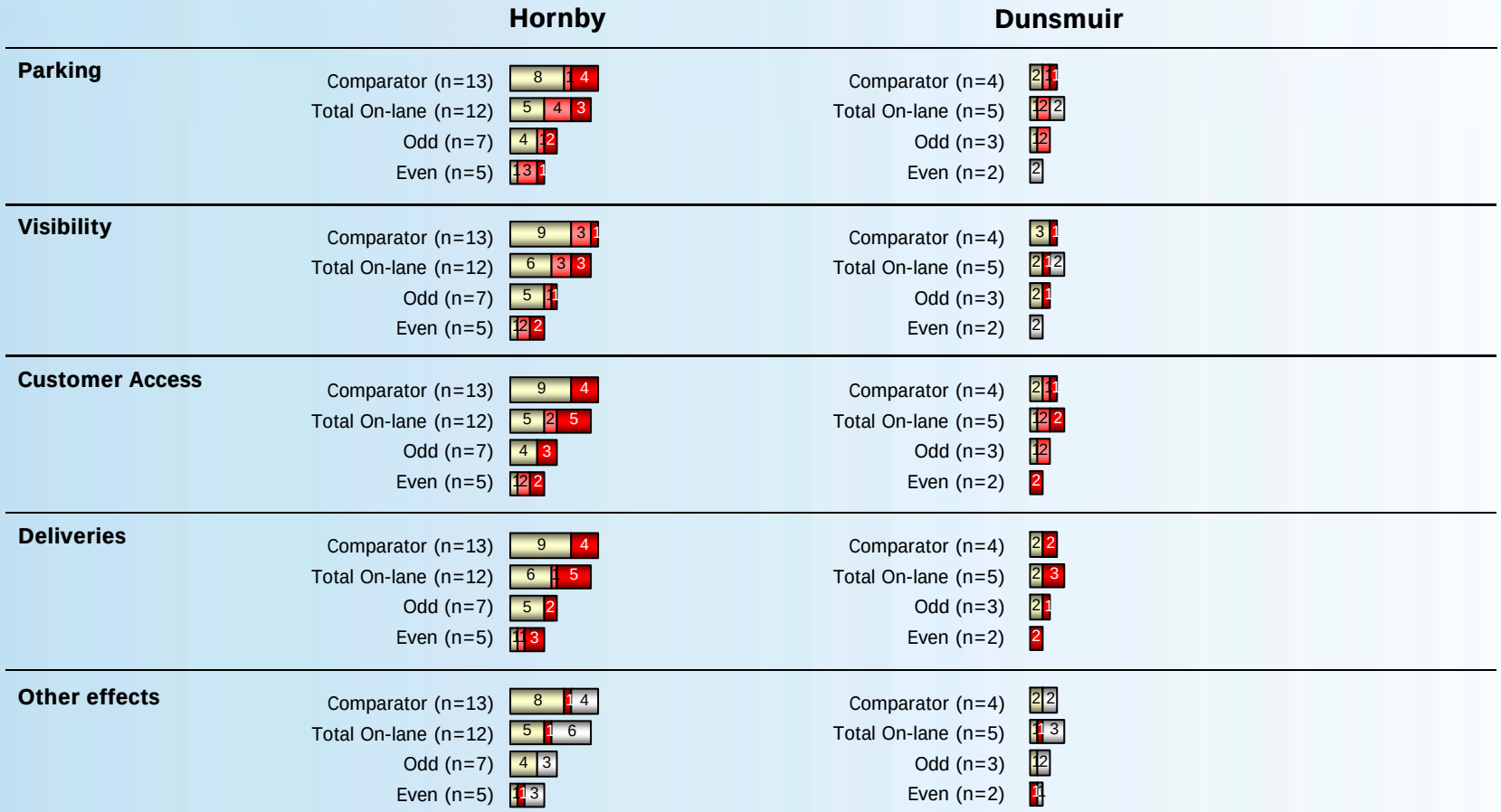
Bike Lane's Effect on Leasing Program or Tenants Businesses Over the Past Year (Average % change)

		Hornby		Dunsmuir
Sales	Comparator (n=13)	-5%	Comparator (n=4)	-8%
	Total On-lane (n=12)	-5%	Total On-lane (n=5)	-9%
	Odd (n=7)	-2%	Odd (n=3)	-8%
	Even (n=5)	-9%	Even (n=2)	-10%
Profit	Comparator (n=13)	-5%	Comparator (n=4)	-5%
	Total On-lane (n=12)	-6%	Total On-lane (n=5)	-10%
	Odd (n=7)	-3%	Odd (n=3)	-7%
	Even (n=5)	-9%	Even (n=2)	-20%
# Not Stated	Comparator (n=13)	1	Comparator (n=4)	0
	Total On-lane (n=12)	3	Total On-lane (n=5)	1
	Odd (n=7)	2	Odd (n=3)	0
	Even (n=5)	1	Even (n=2)	1

Base: Total Responders
CAUTION: Very small sample sizes

Q.14) How much of an effect would you estimate the Hornby or Dunsmuir separated bike lanes alone have had on your leasing program or tenants' businesses over the past year?

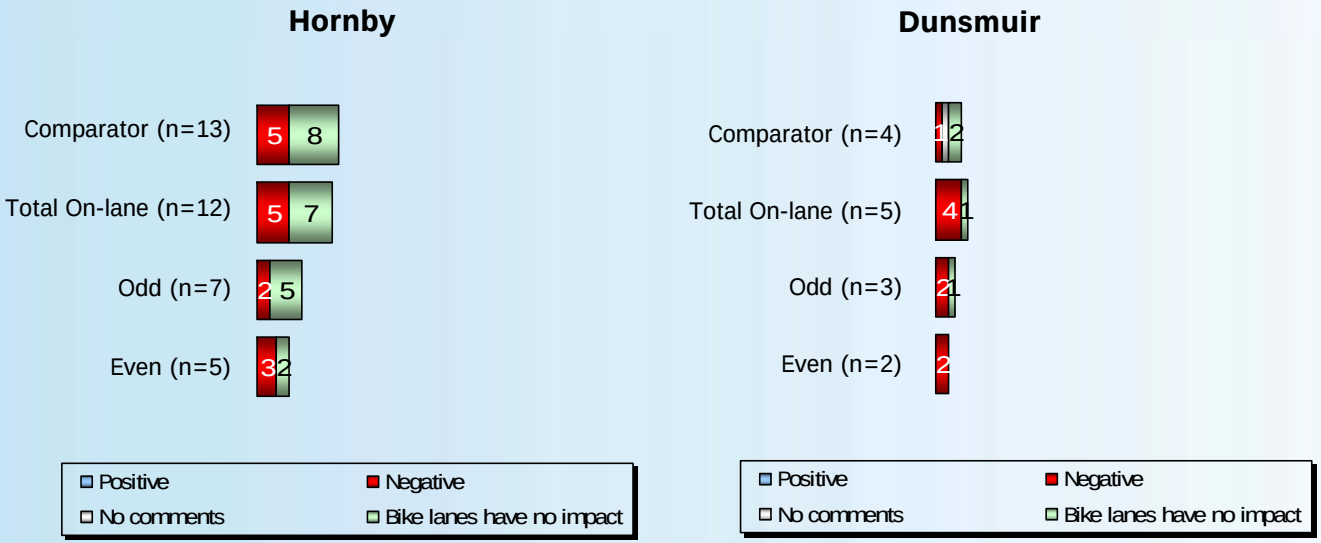
Separated Bike Lane's Effect on Specific Factors



Base: Total Responders
CAUTION: Very small sample sizes

Q.15) In the past year what level of effect, if any, did the Hornby or Dunsmuir separated bike lanes alone have on your building for each of the following factors?

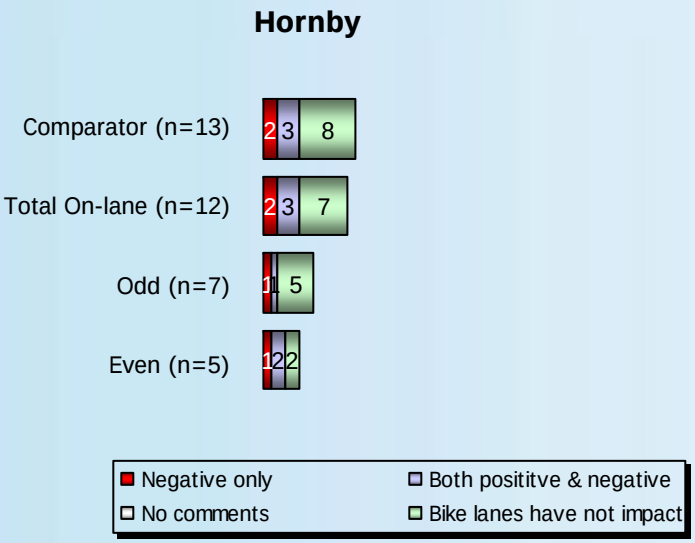
Feedback in Past Year About Bike Lane from Tenants

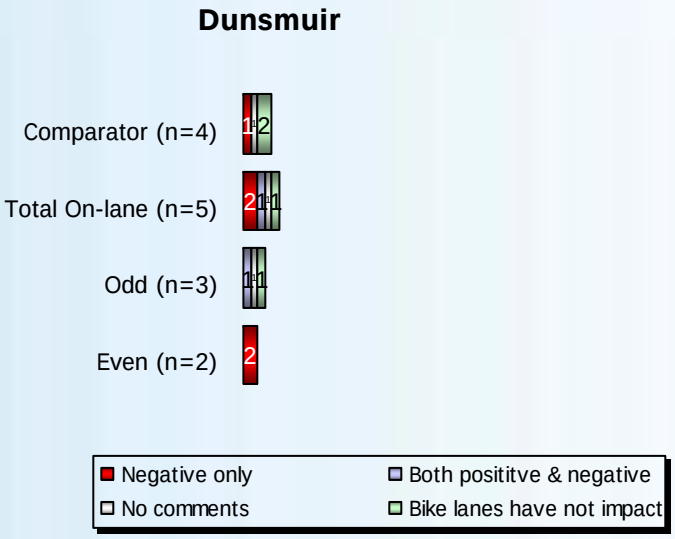


Base: Total Responders
CAUTION: Very small sample sizes

Q.16a) What feedback, if any, have you had in the past year about the Hornby or Dunsmuir separated bike lanes from ...

Feedback in Past Year About Bike Lane from Tenants' Employees

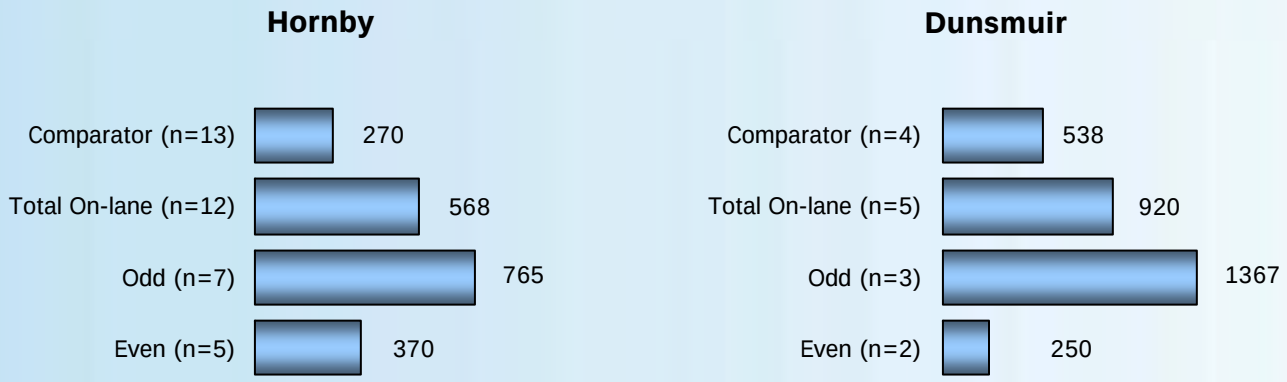




Base: Total Responders
CAUTION: Very small sample sizes

Q.16b) What feedback, if any, have you had in the past year about the Hornby or Dunsmuir separated bike lanes from ...

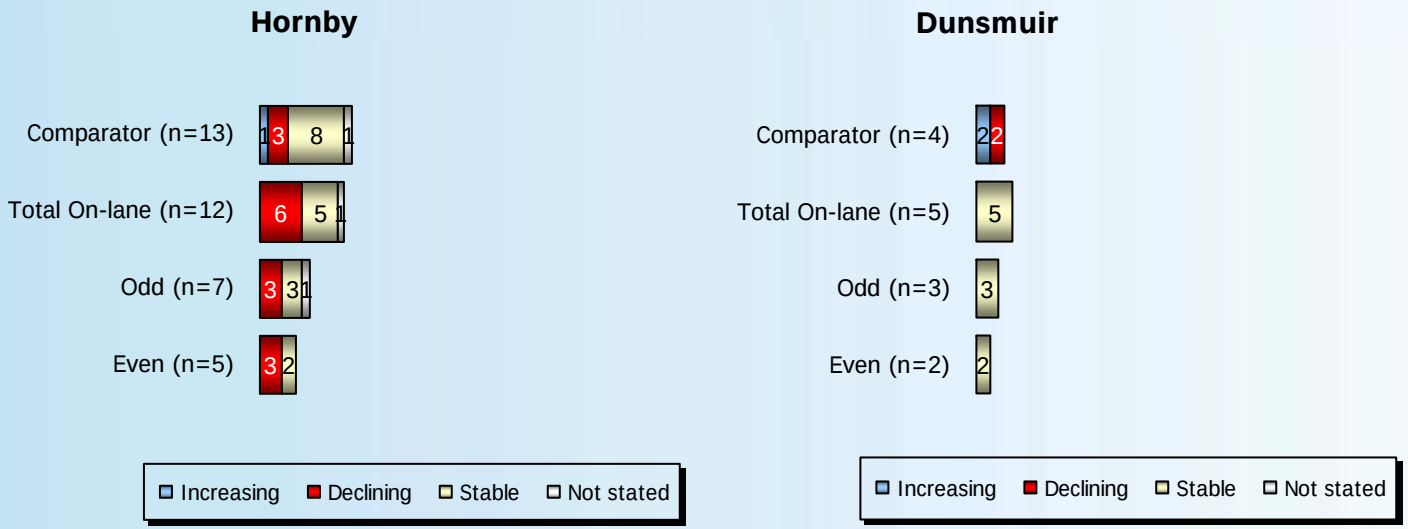
Average Number of People Entering Building Daily



Base: Total Responders
CAUTION: Very small sample sizes

Q.17) On average, how many people enter your building daily to do business?

Rate Compared to a Year Ago



Base: Total Responders
CAUTION: Very small sample sizes

Q.18) Compared to one year ago, is this rates this rate:

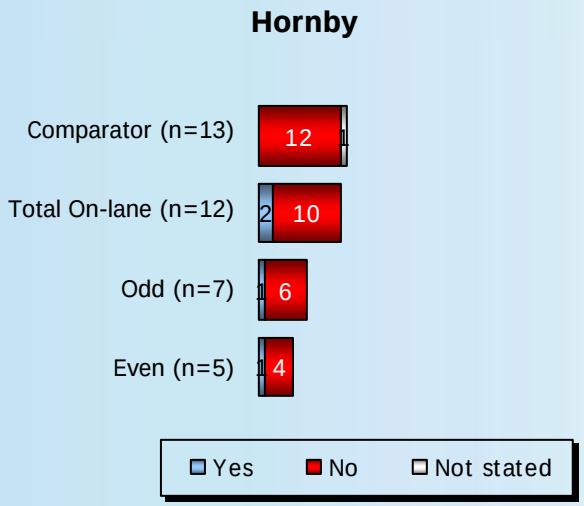
Infrastructure Changes That Could Improve Business

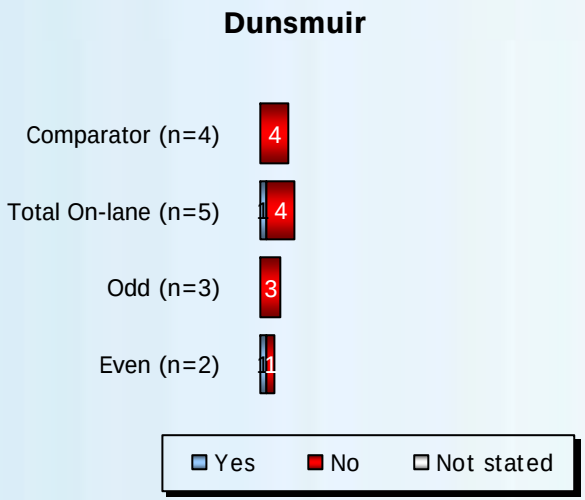
	Hornby				Dunsmuir			
	Comparator (13)	Total On-lane (12)	Odd (7)	Even (5)	Comparator (4)	Total On-lane (5)	Odd (3)	Even (2)
Road improvements	2	4	2	2	3	-	-	-
More parking nearby	5	9	6	3	3	1	1	-
Modify separated bike lanes to improve customer access	8	6	3	3	3	4	2	2
Modify separated bike lanes to improve delivery access	7	6	2	4	2	3	1	2
Modify separated bike lanes to increase visibility	5	7	3	4	1	2	2	-
Other suggestions	5	4	3	1	1	2	1	1
Not stated	1	-	-	-	-	-	-	-

Base: Total Responders
CAUTION: Very small sample sizes

Q.19) Which, if any, of the following infrastructure changes by the City could improve business for your building?

Consideration to Sell Building

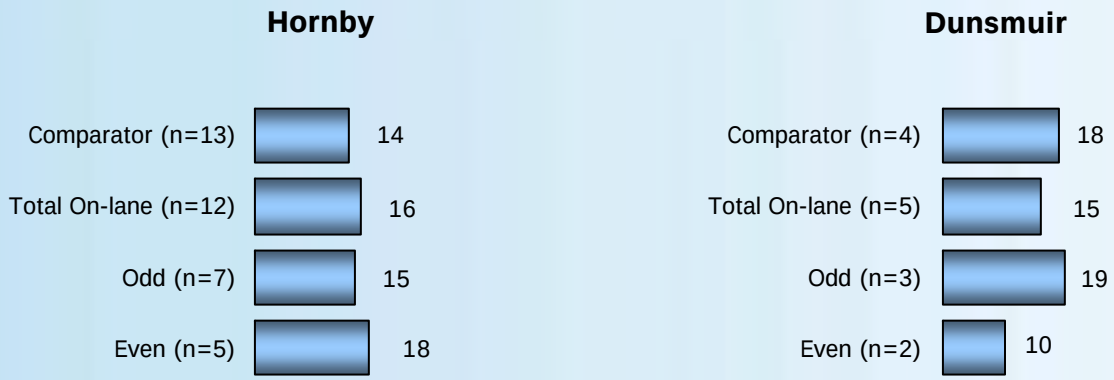




Base: Total Responders
CAUTION: Very small sample sizes

Q.20a) Are you considering selling your building?

Average Number of Years Owned This Location



Base: Total Responders
CAUTION: Very small sample sizes

Q.23) # of years that you have owned this location:

Appendices

- Questionnaire
- Survey Package Outer Envelope
- Study Area Map
- Advance Notice of Survey to Businesses
- News Release
- Response Rates Table
- Method of Completion Table
- Telephone Reminder Outcomes

MUSTEL GROUP
MARKET RESEARCH

Downtown Vancouver

Questionnaire

Commercial Property Owners Survey

Introduction

- **Why we need your input to this important survey**
  The Vancouver Economic Development Commission (VEDC), in partnership with the City of Vancouver and key business associations (Downtown Vancouver Association, Downtown Vancouver Business Improvement Association and The Vancouver Board of Trade), is commissioning a **study of the effect on businesses of the introduction of separated bike lanes in downtown Vancouver**. This study will include multiple **opportunities for affected businesses, their employees and their customers to provide input**. This survey is an important part of the larger study.

  Through thorough and comprehensive gathering of facts, the true effects of the separated bike lanes on Hornby and Dunsmuir Streets will be known and understood. Only through your highly valued, honest contributions will impacts, mitigation strategies, benefits and issues be assessed properly and addressed fully by those able to make change if required.

- **We appreciate your time and effort** in gathering fact-based information and your best and most reasonable estimations in the absence of hard data. The integrity of the information you provide dictates the accuracy of the results and from those the most sensible solutions.

- **Your privacy is protected and confidentiality guaranteed**
  Mustel Group, a professional marketing research firm in BC for over 30 years and a Better Business Bureau member, is collecting the data. We are committed to maintaining strict confidentiality of your responses and under no circumstances will your identity be revealed to the study sponsors. Results will be reported only in aggregate format (no individuals would be identified). See www.mustelgroup.com for our privacy policy.

- **Response options**
  There are 3 ways to respond—please reply **by May 31st**

  1) **Secure online web-survey** (hosted by Mustel Group):
     - Type this link into your Internet browser: http://surveys.givingopinions.ca/s/po/
     - Enter your unique PIN#:_____
     - You will be asked to confirm the relevant property address
  2) By **pre-paid mail** return envelope (enclosed in this package)
  3) By **telephone** – if you require some language or other assistance, please leave a message for our call centre at 604-677-1084 with your name, your business name, phone # and the best time to reach you.

Thank you. Your input is essential and valued.

A. Business Name_____

B. Property Owner's Address: _____

C. Building Address_____ Postal code: __ __ __ __ __ __

D. Respondent's Name: Mr./Ms./Mrs. _____

E. Are you the: ❍[1] Property owner or ❍[2] Property manager?

Main Survey

First, a few general questions about <u>this building</u> and its tenants.
Please check one response for each of the following questions

1. Type of Building
- ❍[1] Stand alone single-occupant building (only one tenant in building)
- ❍[2] Office with retail
- ❍[3] Office
- ❍[4] Hotel
- ❍[5] Institutional
- ❍[96] Other describe:_____

2. Building Height
❍[1] 1-2 stories ❍[2] 3 to 10 stories ❍[3] Over 10 stories

3. Number of tenants
❍[1] Under 10 ❍[2] 10 to 50 ❍[3] Over 50

4. Dominant tenant type
- ❍[1] Service
- ❍[2] General office
- ❍[3] Legal
- ❍[4] Financial
- ❍[5] Hotel
- ❍[96] Other (SPECIFY) _____

5. a) <u>OFFICE</u>: Approximate Average Net Rent Per Sq Ft.
- ❍[1] $15 to $25
- ❍[2] $26 to $40
- ❍[3] $41 to $55
- ❍[4] $56 to $70
- ❍[5] I AM TENANT <u>and</u> OWNER OF PREMISES (i.e., no rent)
- ❍[9] OFFICE NOT APPLICABLE

5. b) <u>RETAIL</u>: Approximate Average Net Rent Per Sq Ft
- ❍[1] $15 to $25
- ❍[2] $26 to $40
- ❍[3] $41 to $55
- ❍[4] $56 to $70
- ❍[5] I AM TENANT <u>and</u> OWNER OF PREMISES (i.e., no rent)
- ❍[9] RETAIL NOT APPLICABLE

6. Which, if any, of the following helps create demand for your building? *Please check all that apply*
- ❍ Close to transit
- ❍ Close to office workers /customer base
- ❍ Ample parking
- ❍ Having supporting businesses or other complementary retailers nearby
- ❍ Other public infrastructure (specify) _____
- ❍ NONE OF THE ABOVE

7. In your opinion, is business in this geographic area generally getting: *Please check one*
- ❍[1] Better for businesses in your building →Just briefly, why? _____
- ❍[-1] Worse for businesses in your building →Just briefly, why? _____
- ❍[0] Stable/ expect no change

8. How do your tenants' customers and their employees arrive downtown to reach your building?

Customers *(add to 100%)* *Your best estimate for each mode please.*

___ % Walking (Pedestrians) ___ % Bike ___ % Car ___ % Transit ❍[98] DON'T KNOW

Employees *(add to 100%)*

___ % Walking (Pedestrians) ___ % Bike ___ % Car ___ % Transit ❍[98] DON'T KNOW

9. On average, how have your net rents changed *annually* in the past 3 years?
Please record your best estimate (such as, +10% or -5%, etc.)

AVERAGE ANNUAL CHANGE for each year
2009 _____% **2010** _____% **2011** _____%

10. What was your building's overall **vacancy rate** in:
2009 _____% **2010** _____% **2011** _____%

12. What level of effect, if any, have the following factors had on your leasing efforts and your tenants' businesses in the past year? *Your best estimate of the % change (such as, +10% or -5%, etc.)*

a) Canada line	+____% OR -____% change	OR	❍ NO EFFECT
b) Olympics	+____% OR -____% change	OR	❍ NO EFFECT
c) General economy	+____% OR -____% change	OR	❍ NO EFFECT
d) Hornby or Dunsmuir separated bike lanes	+____% OR -____% change	OR	❍ NO EFFECT
e) Recent tax changes (e.g., HST, Parking tax)	+____% OR -____% change	OR	❍ NO EFFECT
f) Impaired driving law changes	+____% OR -____% change	OR	❍ NO EFFECT
g) Other factors	+____% OR -____% change	OR	❍ NO EFFECT

13. Have the Hornby or Dunsmuir separated bike lanes had any effect on your leasing program in the past year? ❍[1] YES → CONTINUE WITH Q14 ❍[2] NO → SKIP TO **Q17**

14. How much of an effect would you estimate the **Hornby or Dunsmuir** separated bike lanes ***alone*** have had on your leasing program or tenants' businesses over the past year? *Please enter/write in the approximate % change*

On Sales: **+** ___% or **-**___% ❍ DON'T KNOW
On Profit: **+** ___% or **-**___% ❍ DON'T KNOW

15. In the past year what level of effect, if any, did the **Hornby or Dunsmuir** separated bike lanes ***alone*** have on your building for each of the following factors

	Level of impact on your building					
	Very positive	A little positive	No effect	A little negative	Very negative	Don't know
a) Parking	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]
b) Visibility	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]
c) Customer access	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]
d) Deliveries	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]
e) Other impacts *(please specify below & indicate effect level)*						
_____	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]
_____	❍[2]	❍[1]	❍[0]	❍[-1]	❍[-2]	❍[99]

16. What feedback, if any, have you had in the past year about the **Hornby or Dunsmuir** separated bike lanes from …

Your tenants:	❍[1] Positive	❍[-1] Negative	❍[0] No comments
Your tenants' employees:	❍[1] Positive	❍[-1] Negative	❍[0] No comments

Now some general questions about your business and future planning …

17. On average, how many people enter your building daily to do business? *(Please record #)* ____

18. Compared to one year ago, is this rate *(please check one)*:
❍[-1] Declining ❍[1] Increasing ❍[0] Stable

19. Which, if any, of the following infrastructure changes by the City could improve business for your building? *Please check any that apply.*

- ❍ Road improvements
- ❍ More parking nearby
- ❍ Modify separated Hornby or Dunsmuir bike lanes to improve customer access
- ❍ Modify separated Hornby or Dunsmuir bike lanes to improve delivery access
- ❍ Modify separated Hornby or Dunsmuir bike lanes to increase visibility
- ❍ Any other suggestions? *(please specify)*

_____

20. Are you considering selling your building? ❍[1] YES ❍[2] NO

20b) IF YES: Why are you considering selling?

_____

21. We welcome any further comments or suggestions you may have about the topics of this survey.

_____

_____

_____

22. Due to the high importance of accurately understanding business effects in the Downtown core, would you be willing to share financial information with our lead researcher in a confidential follow-up telephone interview? **Your confidentiality would be strictly protected**, so that your identity is not revealed in the report to the study sponsors.

❍[1] YES, willing to do follow-up → Thank you! Please provide:

Your phone # _____ and the best times of day to reach you;_____

❍[2] NO

Basic Data

23. # of years that you have owned this location: ___ yrs

Thank you very much for your participation in this important survey and providing valuable input for Downtown City planners and your local business groups.

URGENT: Important response requested for

Downtown Vancouver Separated Bike Lanes Business Survey

Commissioned by:

City of Vancouver
Downtown Vancouver Association
Downtown Vancouver Business Improvement Association
The Vancouver Board of Trade

To: Landlord/Property Owner

(Regarding: Commercial Address)

ADDRESS

CITY, PROVINCE POSTCODE

Letter to Members of the Downtown Vancouver Association, the Downtown Vancouver Business Improvement Association (DVBIA) **and The Vancouver Board of Trade**

RE: Business impact study of separated bike lanes and opportunity to attend a workshop on Thursday, May 12 from 5:30 p.m. to 7 p.m.

The City of Vancouver committed to study the effect of the introduction of separated bike lanes on downtown businesses in October, 2010. Since then, as you are aware, strong concerns have been expressed, by business members of our organizations and in the media, about the economic impact on local businesses of the separated bike lanes along Dunsmuir and Hornby Sts.

To fulfill the City's commitment, a study has been commissioned by a partnership that includes our three organizations, as well as the City of Vancouver and the Vancouver Economic Development Commission (VEDC), which chairs the partnership. Through an RFP process, the partnership has chosen Stantec Consulting to conduct the study, in conjunction with Site Economics Ltd and Mustel Group Market Research.

The study will focus on the short and longer term effects of the new separated bike lanes on street level businesses, as well as on commercial property owners and on businesses located in the upper floors of commercial buildings. It will also make recommendations on ways to mitigate any negative economic impacts on businesses as a result of the introduction of the separated bike lanes. The study will also include an analysis of best practices in other cities that have reduced lanes available to vehicular traffic in order to accommodate separated bike lanes.

The study will include multiple opportunities for affected businesses, their employees and their customers to provide input on their experiences as a result of the new separated bike lanes. Surveys of street level and upper floor businesses will be conducted, as well as of commercial property owners. Similar surveys will be conducted on Howe and Georgia Sts for comparison purposes. There will be consultation workshops with a sample of businesses, intercept interviews of customers and a sample survey of Metro Vancouver residents. In addition, businesses and individuals can provide input through Stantec at the email address and telephone number below.

For the study to be as accurate and comprehensive as possible, it is important that as many Members as possible make every effort to participate in the surveys and register their experiences with the Stantec team.

One important opportunity for businesses to provide input to the study will be at a workshop next **Thursday, May 12, from 5:30pm to 7:00pm. The workshop will be held at Stantec's offices, 11th floor, 111 Dunsmuir Street. If you plan to attend, please inform Stantec in advance by emailing to** Iona.bonamis@stantec.com or calling 604-696-8052.

WE ENCOURAGE YOU TO ATTEND THIS WORKSHOP IF POSSIBLE.

All information provided to the study on individual businesses will be held in the strictest confidence by the consultants; only aggregated data will be provided to VEDC and its partners.

The study findings, conclusions and recommendations will be reported to City Council and made public in July, 2011. The consultants will continue to monitor the impact of the separated bike lanes on businesses through 2012.

For further information on the bike lane impacts study, please contact:

organization	*contact person*	*contact details*
Downtown Vancouver Association	Robert (Bob) Glass, President	604-331-6020 rkglass@macdevcorp.com
Downtown Vancouver Business Improvement Association	Charles Gauthier, Executive Director	604-685-7811, ext. 203 charles@downtownvancouver.net
Vancouver Board of Trade	Bernie Magnan, Assistant Managing Director and Chief Economist	604-640-5454 bmagnan@boardoftrade.com
Stantec	Iona Bonamis, Transit Planner	604-696-8052 Iona.bonamis@stantec.com

Media Release: Friday, May 8, 2011

Separated bike lanes study announced

Vancouver, B.C. -- The Vancouver Economic Development Commission (VEDC), on behalf of a partnership that also includes the City of Vancouver, the Downtown Vancouver Association, the Downtown Vancouver Business Improvement Association (DVBIA) and The Vancouver Board of Trade, has engaged Stantec Consulting Ltd to conduct a study of the effect on businesses of the introduction of separated bike lanes along Dunsmuir and Hornby Streets in downtown Vancouver. Stantec will be assisted by Site Economics Ltd and Mustel Group Market Research.

The study will focus on the short and longer term effects of the new separated bike lanes on street level businesses, as well as on commercial property owners and on businesses located in the upper floors of commercial buildings. It will also make recommendations on ways to mitigate any negative economic impacts on businesses as a result of the introduction of the separated bike lanes. The study will also include an analysis of best practices in other cities that have reduced lanes available to vehicular traffic in order to accommodate separated bike lanes.

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The study findings, conclusions and recommendations will be reported to City Council and made public in July, 2011. The consultants will continue to monitor the effect of the separated bike lanes on businesses through 2012.

-30-

Contact: Jeff McDonald, Manager, Communications & Media
604-632-9668 or jmcdonald@vancouvereconomic.com

RESPONSE RATES TABLE

	Property Owners/Managers		
	Total Frame	Responders	Response Rate
Hornby (incl. 300 and 1300 Burrard)			
Comparator (both sides)	36	13	36%
On-lane (Total)	48	12	25%
Odd side addresses	18	7	39%
Even side addresses	30	5	17%
	84	**25**	**30%**
Dunsmuir			
Comparator (both sides)	13	4	31%
On-lane (Total)	17	5	29%
Odd side addresses	10	3	30%
Even side addresses	7	2	29%
	30	**9**	**30%**

COMPLETION METHOD TABLE

	Property Owners/Managers			
	Hornby	**Dunsmuir**	**Total**	**Completion Method**
	84	30	114	
Responders	25	9	34	*100%*
Online completion	*10*	*5*	*15*	*44%*
Mail-in completion	*9*	*3*	*12*	*35%*
Phone completion	*6*	*1*	*7*	*21%*
Non-responders	59	21	80	

Property Owners/Property Managers Telephone Reminders to Non-responders

#	%	%	Call Outcomes
		29%	**Out of scope**
10	29%		wrong #
		11%	**Non-participant**
4	11%		refused
		40%	**Not contacted/ not reachable in study period**
14	40%		no answer/left message
		11%	**Planned/interested in completing**
2	6%		plan to
2	6%		email requested
		9%	**Total completed/ reported completed**
3	9%		phone complete full survey
35	**100%**		

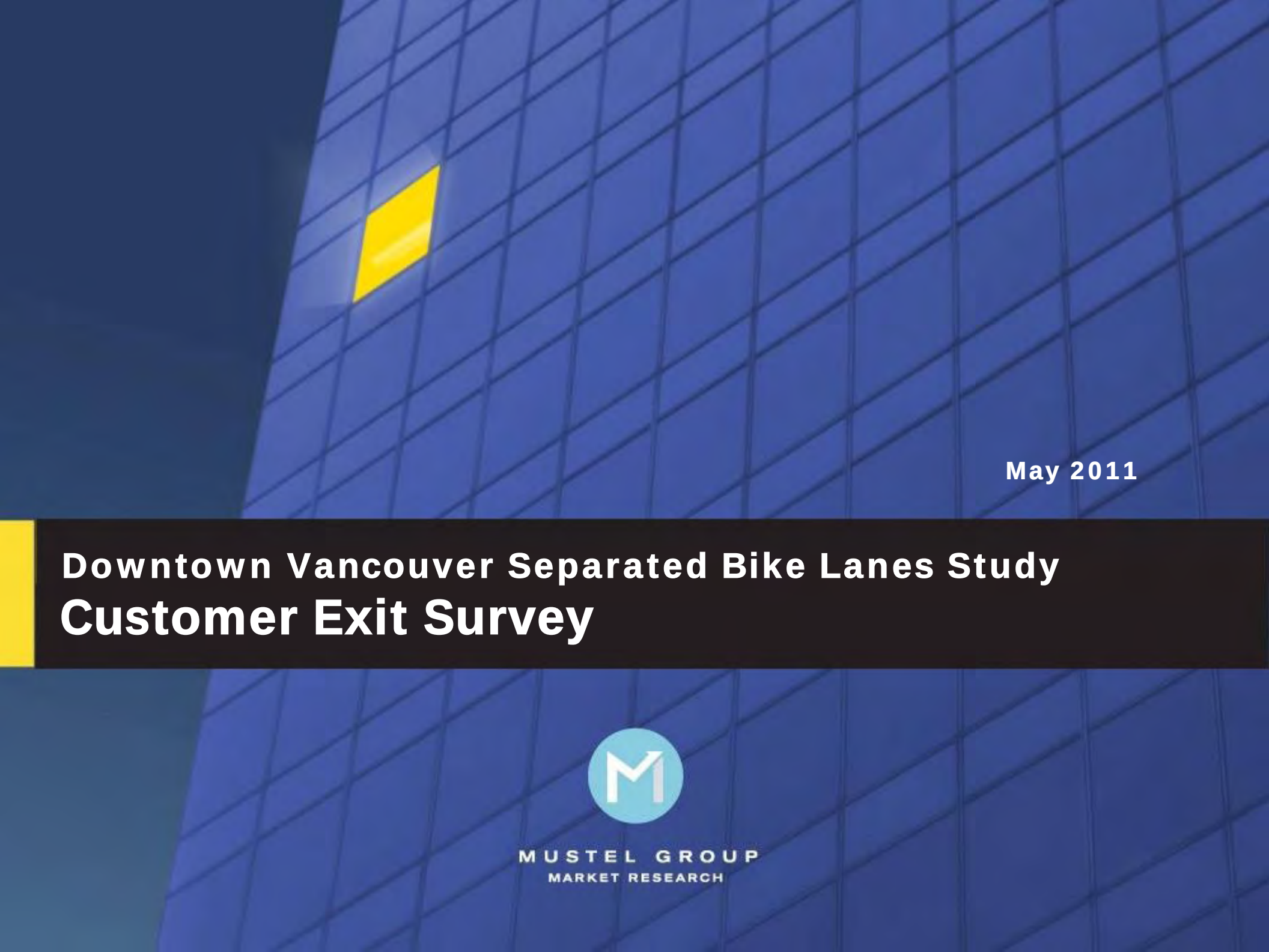
Summary of non-responder call outcomes:

Telephone contact information on the property owners and property managers was limited and out of date, as seen by the large proportion with no phone contact information and then among the telephone list provided a sizable proportion of wrong numbers/wrong contact info. The largest proportion of non-responders attempted was not reachable; this is an extremely difficult type of respondent to contact due to the executive level and the nature of work. Still, there were few refusals among those contacted--with two of the four refusals being the same person who owns/manages two buildings.

Reasons for refusing to participate:

General refusal to participate; does not want to be bothered (remove from list)

Appendix D: Customer Survey Questions and Detailed Results



May 2011

Downtown Vancouver Separated Bike Lanes Study
Customer Exit Survey

MUSTEL GROUP
MARKET RESEARCH

Introduction

- A partnership of the Vancouver Economic Development Commission along with the City of Vancouver and three key business associations (Downtown Vancouver Association, Downtown Vancouver Improvement Association, and The Vancouver Board of Trade) have joined together to commission a study of the economic impact of the downtown separated bike lanes. A series of surveys have been conducted as part of the economic impact study.

- This report presents the results of the customer exit survey designed to understand the effect of the separated bike lanes on customers patronizing grade level businesses on both Hornby and Dunsmuir Streets.

- In total 768 personal intercept interviews were conducted using the following methodology:
  - Personal interviewers intercepted customers exiting stores on Hornby and Dunsmuir Streets
    - 514 completed on Hornby Street
    - 254 completed on Dunsmuir Street
  - Random selection of respondents (approximately half male and half female, age distribution at random as encountered)
  - Location coverage: all blocks along the bike lane corridors
  - Field dates: May 24-30, 2011 (covering all days of the week)
  - Times covered: 9am to 8pm
  - Weekday/weekend coverage: 60% on weekdays and 40% on weekends

- The margin of sampling error for a simple random sample of 768 interviews is +/- 3.5 percentage points.

Summary

Current Visiting Patterns

- Hornby and Dunsmuir businesses are visited about 2 days in a average week, or about half of the days that customers patronize any downtown business.
- Transit is the most popular mode of travel, followed by walking and auto on both corridors.

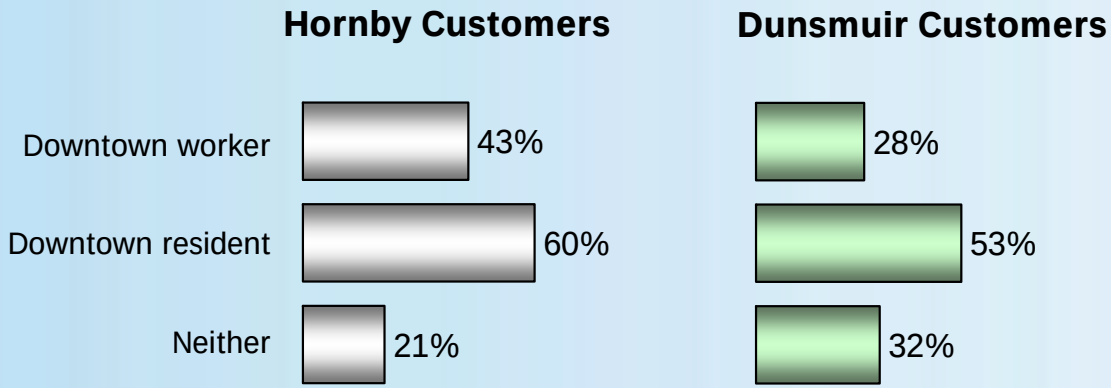
Perceived Change in Visiting Pattern

- The majority of street shoppers report no change in their frequency of visiting businesses on Hornby or Dunsmuir (over six-in-ten on both streets) compared to the year preceding the Olympics.
- Among the minority of customers who perceive a change ...
  - On Dunsmuir the proportion saying 'more often' outweighs 'less often' by about 2:1.
  - On Hornby customers are divided about equally in saying 'more often' and 'less often'. However, when later questioned specifically about the effect of the separated bike lane, the pattern is slightly different with somewhat more saying they shop/use businesses less often due to the lanes.

Effect of Separated Bike Lanes

- Awareness of the separated bike lanes is nearly universal among customers (96% on Hornby and 93% on Dunsmuir).
- On both streets the majority of customers have not changed their shopping or patronage of street businesses due to the separated bike lanes (76% Hornby and 79% Dunsmuir).
- On Hornby there is more evidence of shopping/ patronizing businesses less often due to the separated bike lanes (16% say less vs. 5% more often). On Dunsmuir the effect is less skewed but also toward a decline (12% less vs. 9% more often).
- When asked about ability to access the area, more customers on Hornby than on Dunsmuir remark about negative effects (38% vs. 26%) with the most common being traffic congestion, less parking, no turning and pedestrian safety. Positive effects are noted by about one-quarter of customers on both streets with a focus on benefits for cyclists (easier access, safer) but also being more pleasant for cyclists and pedestrians.

Visitor Category

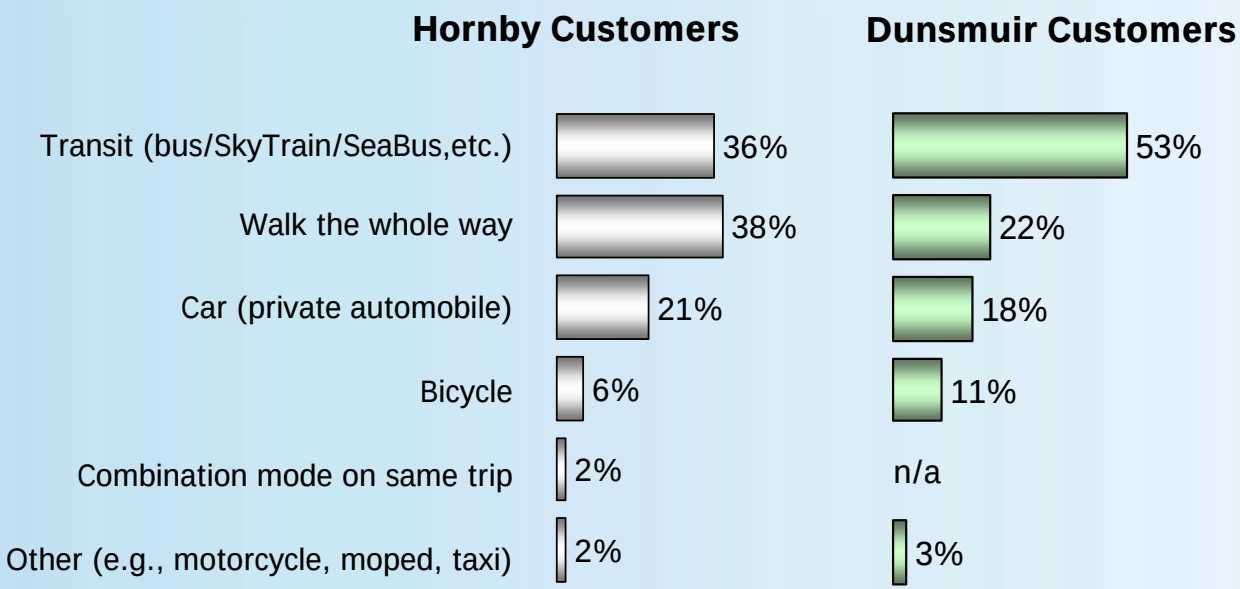


- The profile of customers on each street reveals that downtown residents are the predominant customer group.
- On Hornby more downtown workers were intercepted than on Dunsmuir.
- On Dunsmuir more than on Hornby have come downtown expressly for shopping or another non-work purpose (32% vs. 21%).

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.10) Are you a:

Usual Mode of Travel to Visit Downtown Businesses

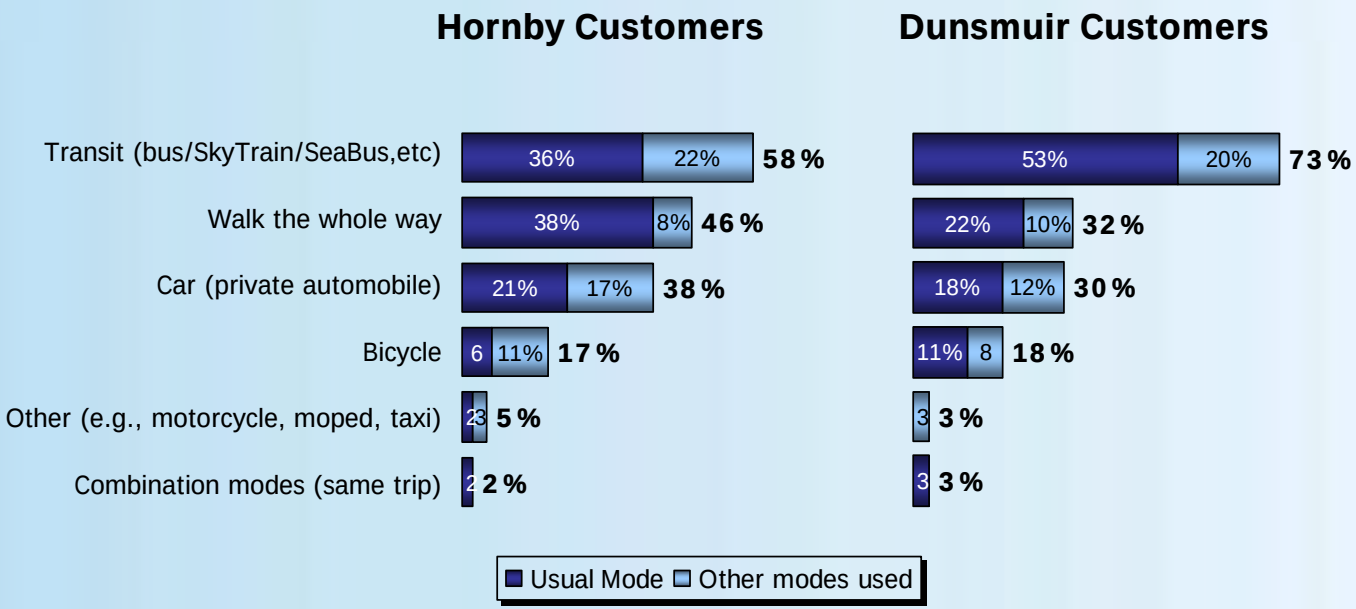


Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.5) What is your usual mode of travel to get downtown for shopping or patronizing any type of business?

- On Dunsmuir transit is the most popular usual method to get downtown for shopping and patronizing businesses.
- Hornby customers are divided about equally between taking transit and walking the whole way.
- On both streets about one-in-five typically travel to the area by private vehicle.
- Cycling appears to more common on Dunsmuir than on Hornby as the main mode of travel.

Modes of Travel to Visit Downtown Businesses

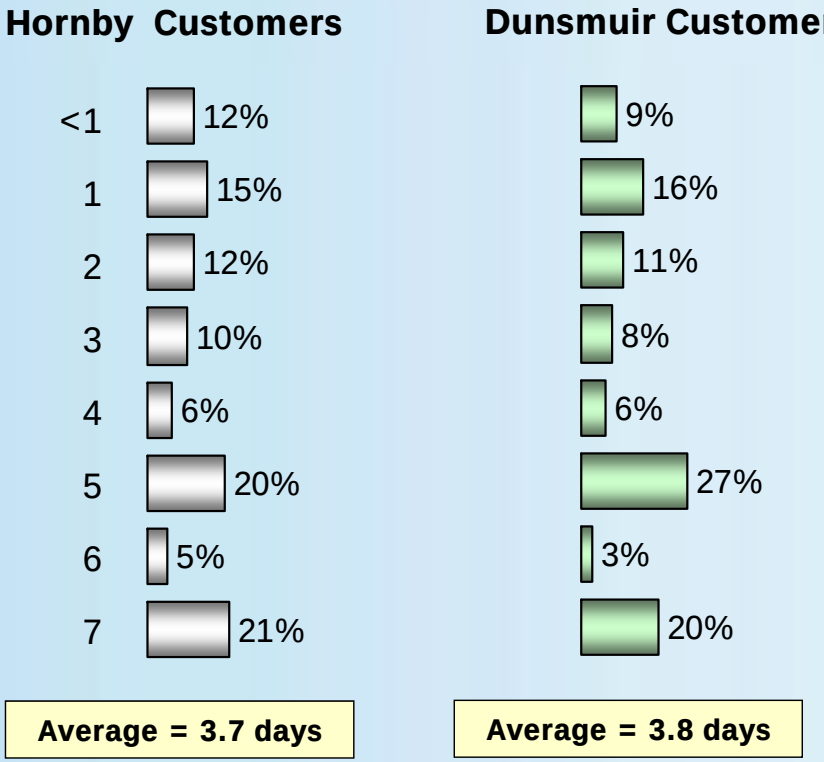


- When looking at all modes of transportation used regularly to get downtown for shopping or using businesses, overall, transit is the most popular method on both separated bike lane corridors.
- This is followed by walking and then private automobile among Hornby customers, but Dunsmuir customers use both equally.

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.6) Do you use any other modes regularly to get downtown for shopping or patronizing businesses?

Number of Days per Week Visit Any Downtown Businesses

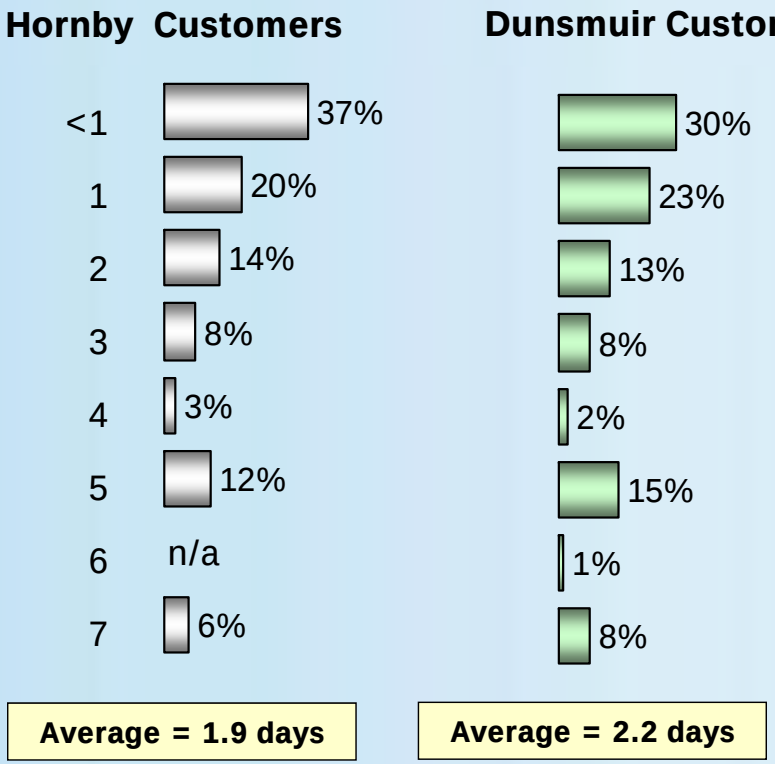


- On average, Hornby and Dunsmuir Street customers currently patronize or visit **any** downtown business almost 4 days in an average week.
- The frequency is similar among customers on both streets.

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.1A1) First of all, about how many days in an average week do you shop at or patronize any business in downtown Vancouver?

Number of Days per Week Visit Hornby / Dunsmuir Businesses



- The frequency of shopping or patronizing businesses on Hornby or Dunsmuir Streets is reported to be about 2 days a week, on average.
- Dunsmuir's frequency appears marginally higher than Hornby's, but not significantly so.
- On average, businesses on the bike lane streets are visited on at least half of the days that these customers are patronizing any downtown businesses.

% of Days Patronize Bike Lane Streets

- **Patronize Hornby = 51%** of all days visit downtown businesses
- **Patronize Dunsmuir** = **57%** of all days visit downtown businesses

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

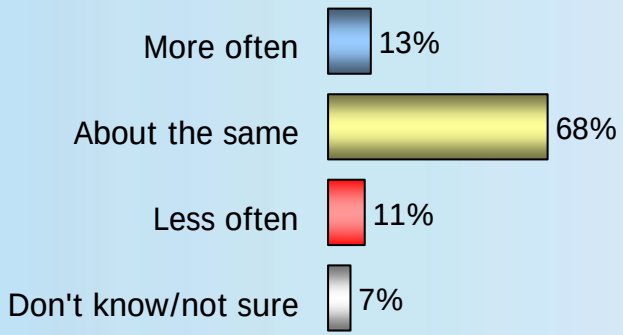
Q.1b1) And how many days in an average week do you shop at or patronize any business along Hornby or Dunsmuir Street?

Note: some customers do not visit in an 'average' week. these are categorized as <1.

Change in Shopping / Visiting Pattern to Hornby / Dunsmuir

Hornby Customers

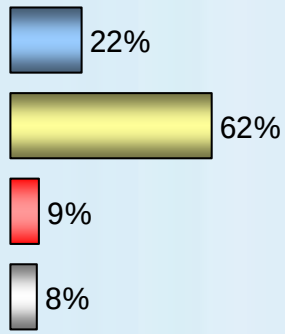
Since before Olympics:



Yearly Averages:
(per capita)

13 days MORE
9 days LESS

Dunsmuir Customers



Yearly Averages:
(per capita)

30 days MORE
7 days LESS

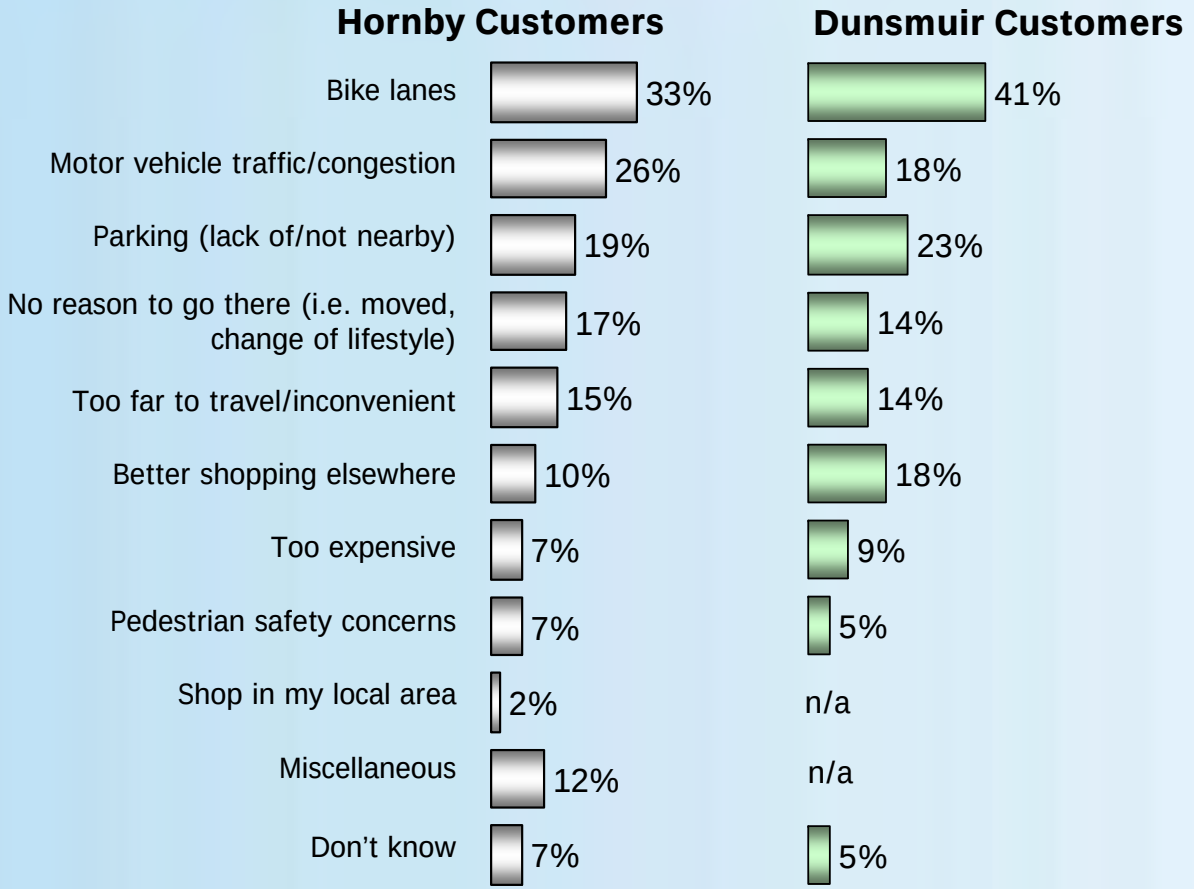
Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.2) On average, do you currently shop at or visit businesses along Hornby or Dunsmuir Street in Downtown Vancouver more often, less often or about the same as you did in the year before the Vancouver 2010 Olympics?

Q.3a) How much more? (Days/Year)
Q.3b) How much less (Days/Year)

- For the majority of shoppers the frequency of patronizing or visiting businesses on the bike lane streets is unchanged since before the 2010 Olympics.
- Among those who perceive a change, increased and decreased frequency is in balance for Hornby customers (13% more vs. 11% less).
- Among Dunsmuir customers, about twice as many perceive an increase than a decrease (22% more vs. 9% less).

Reasons for Visiting Less Often (Unaided)

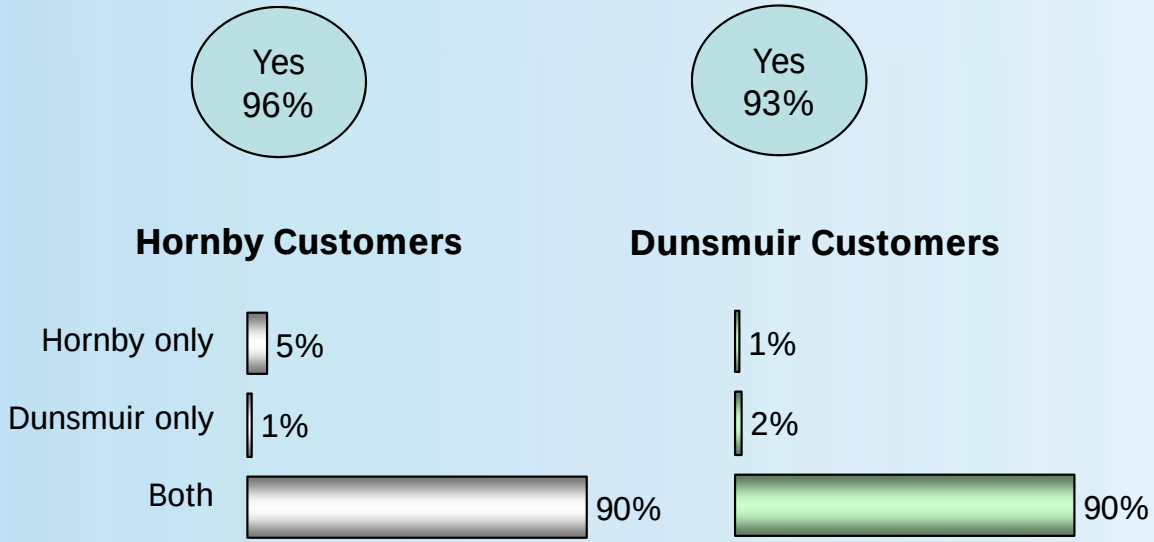


Base: Total visit businesses less often than in the year before the Olympics along Hornby (n=58), along Dunsmuir (n=22) CAUTION: small base size

Q.4) Why are you visiting businesses along [Hornby /Dunsmuir] Street less often?

- Among the small groups who say they are visiting Hornby or Dunsmuir shops less often, the bike lanes are the most commonly named reason for their reduced patronage compared to before the Olympics — ranging from about three- to four-in-ten of these customers saying, unprompted, that the bike lanes are the cause.
- Other complaints include traffic congestion, lack of parking and some mention of pedestrian safety.
- Other reasons for reduced patronage include change of lifestyle, too far/inconvenient, better or cheaper shopping elsewhere.

Awareness of Separated Bike Lanes

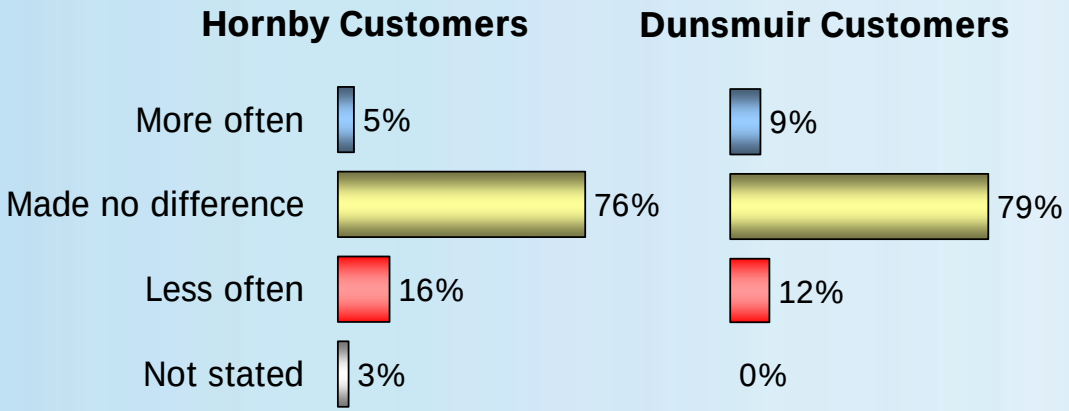


- Most customers on the bike lane corridors are aware of both downtown bike lane routes (90%).

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.7) Are you aware of the separated bike lanes on Hornby and Dunsmuir Streets in downtown Vancouver ?

Effect of Bike Lanes on Visits to Hornby / Dunsmuir Street



Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

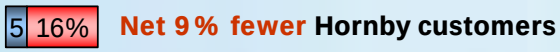
Q.8) Have the separated bike lanes caused you to shop or use businesses on Hornby or Dunsmuir Streets more often, less often or made no difference?

Note: Made no difference includes the small proportion unaware of the separated lanes.

- When asked directly if the bike lanes have affected patronage of businesses along Hornby or Dunsmuir, the majority of customers say the lanes have made no difference.
- Among those who are affected, on Hornby more customers say the bike lanes have caused a reduction in patronage than say it has increased their frequency of using these businesses (16% less vs. 5% more often).
- On Dunsmuir the effect is closer to being balanced (12% less and 9% more often).

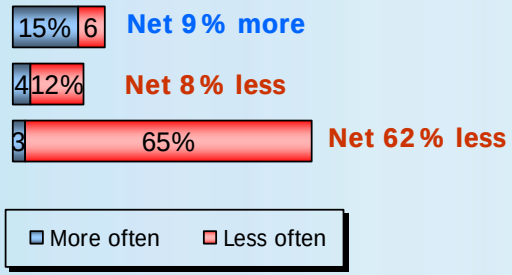
Isolating the Effect of Separated Bike Lanes on Change in Visits

Bike Lane Effect on HORNBY (Total customers)



Net 9% fewer Hornby customers

Since before Olympics:

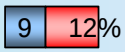


Net 9% more

Net 8% less

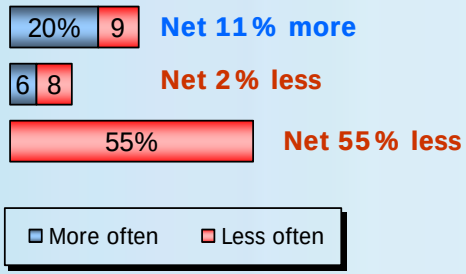
Net 62% less

Bike Lane Effect on DUNSMUIR (Total customers)



Net 3% fewer Dunsmuir customers

Since before Olympics:



Net 11% more

Net 2% less

Net 55% less

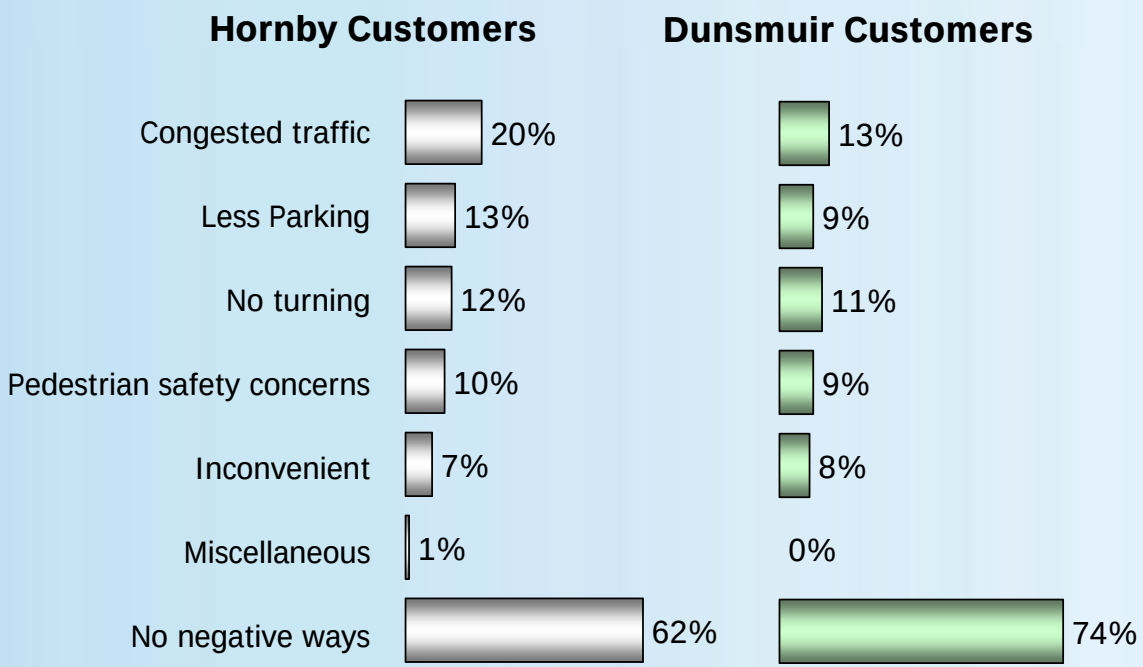
- Some customers have increased or decreased their frequency of visiting these streets **since the year before the Olympics,** while others experienced no change overall.
- But then when asked about their frequency since the separated bike lanes were implemented (i.e., the last 6 months), some customers report a further, sometimes different, effect on their visits.
- This chart illustrates the change caused by the separated bike lanes on each of 3 groups (increased/no change/decreased since before Olympics),

  resulting in a NET bike lane effect overall of 9% fewer customers on Hornby and 3% fewer customers on Dunsmuir.

Base: Total customers on Hornby (n=514, Dunsmuir (n=254)

Q.8) Have the separated bike lanes caused you to shop or use businesses on Hornby or Dunsmuir Streets more often, less often or made no difference?

Negative Effect of Bike Lanes on Access to Area



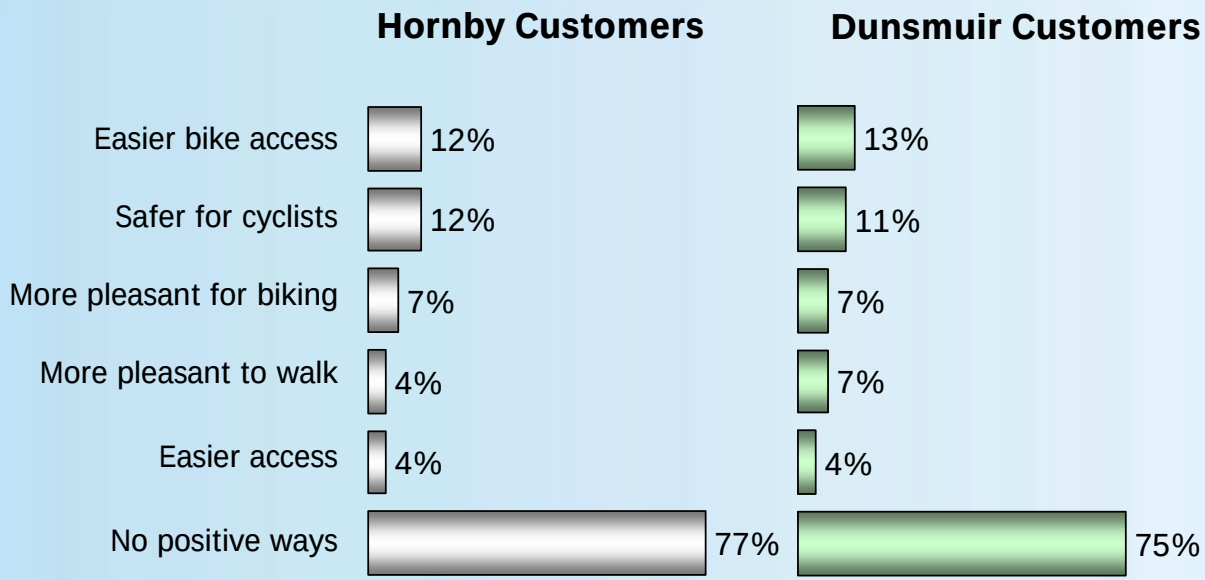
- Customers were also asked if the bike lanes have affected their ability to access the area. A majority have not experienced any negative impacts on both streets.
- But, Hornby customers are slightly more likely to report negatives which include congested traffic at the top of the list, followed by less parking, no turning and pedestrian safety concerns, as well as some citing 'inconvenience'. These same issues are noted for Dunsmuir but slightly fewer customers report any negative effects (26% v. 38% on Hornby).

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.9a) Have the separated bike lanes affected your ability to access the area in any negative ways?

Note: No negative ways includes the small proportion unaware of the separated lanes.

Positive Effect of Bike Lanes on Access to Area



- While most have not noticed a positive effect on their access to the area, about one-quarter customers on both streets personally have experienced positives in this regard.
- The most common positives include easier bike access and greater safety for cyclists. Some also find the area more pleasant for biking and for walking.

Base: Total Customers on Hornby (n=514), Dunsmuir (n=254)

Q.9b) Have the separated bike lanes affected your ability to access the area in any positive ways?

Note: No positive ways includes the small proportion unaware of the separated lanes.

Demographic Profile

	Total (768) %	Hornby (514) %	Dunsmuir (254) %
Gender			
Male	49	49	49
Female	48	48	49
Not stated	3	3	2
Age			
18 to 24	13	10	18
25 to 34	29	29	28
35 to 44	19	20	16
45 to 54	20	20	21
55 to 64	13	14	11
65+	6	5	6
Refused	1	1	1

Continued..

Demographic Profile

	Total (768) %	Hornby (514) %	Dunsmuir (254) %
Interview location			
400 block	2	3	2
500 block	9	13	20
600 block	4	6	59
700 block	9	14	13
800 block	12	19	6
900 block	12	17	-
1000 block	6	9	-
1100 block	3	4	-
1200 block	4	6	-
1300 block	4	5	-
1400 block	2	4	-

Questionnaire

MUSTEL GROUP
MARKET RESEARCH

Customer Exit Survey

Location: ❍[1] **Hornby Street** ____ Hundred Block
❍[2] **Dunsmuir Street** ____ Hundred Block

Date: _____ Time: _____ Interviewer: _____

INTRO: Hello, we are conducting a 3-minute survey for the City of Vancouver, the Vancouver Economic Development Commission and Downtown business associations (*IF ASKED: Downtown BIA, Downtown Vancouver Association DVA and The Vancouver Board of Trade). SHOW OFFICIAL LETTER, IF NEEDED*.

This survey is about **Downtown Vancouver**—that is, the core business and entertainment district on the Downtown Peninsula. (*IF ASKED: North of False Creek and west of Main Street*).

When answering our questions please think about **visiting businesses in Downtown Vancouver for any purposes <u>other than work</u>**, such as shopping, personal services, entertainment, dining, etc.
[*INTERVIEWER NOTE: exclude work and non-businesses such as library, community centre, YMCA]*

1 -a) About how many days in an average week do you shop at or patronize any business **in Downtown Vancouver?** IF UNSURE: What's your best guess?

Average week #_____ ➡ **IF ZERO, ASK:** How many times in the **past year?** #_____

1-b) And about how many days in an average week do you shop at or patronize any business **along [Hornby] / [Dunsmuir] Street** IF UNSURE: What's your best guess?

Average week #_____ ➡ **IF ZERO, ASK:** How many times in the **past year?** #_____

2 & 3. On average, do you shop at or visit businesses along **[Hornby] / [Dunsmuir]** Street in Downtown Vancouver more often, less often or about the same as you did in the year <u>before</u> the Vancouver 2010 Olympics?

❍[1] **<u>More</u>** often ➡ **ASK 3a)** About how much **more**? # days per week ___ *OR* # times past year ___

❍[2] **<u>Less</u>** often ➡ **ASK 3b)** About how much **less**? # days per week ___ *OR* # times past year ___

❍[3] About the same

❍[4] [DNR] NOT SURE

4. IF <u>LESS IN Q2</u>: Why are you visiting businesses along **[Hornby] / [Dunsmuir]** Street in Downtown Vancouver businesses **less** often? *DO NOT READ*.PROBE: Any other reasons?

❍[1] MOTOR VEHICLE TRAFFIC/CONGESTION
❍[2] PEDESTRIAN SAFETY CONCERNS
❍[3] BIKE LANES
❍[4] INCONVENIENT → *<u>PROBE FOR SPECIFICS</u>*
❍[5] BETTER SHOPPING ELSEWHERE
❍[6] PARKING (LACK OF/ NOT NEARBY)
❍[7] TOO EXPENSIVE
❍[8] OTHER (SPECIFY) _____

Turn over ➡

5. EVERYONE: What is your **usual mode** of travel to get Downtown for shopping or patronizing any type of business?

- ❍1 Walk the whole way (INCL. wheelchair)
- ❍2 Bicycle
- ❍3 Car (private automobile)
- ❍4 Transit (Bus/SkyTrain/SeaBus, etc.)
- ❍5 Other (such as motorcycle, moped, taxi, skateboards/roller blades, etc.)
- ❍6 Combination mode on same trip (SPECIFY)_____

6. Do you use any **other modes regularly** to get Downtown for shopping or patronizing businesses? If yes, which ones?

- ❍1 Walk the whole way (INCL. wheelchair)
- ❍2 Bicycle
- ❍3 Car (private automobile)
- ❍4 Transit (Bus/SkyTrain, SeaBus, etc.)
- ❍5 Other (e.g., motorcycle, moped, taxi, skateboards/roller blades etc.)
- ❍6 Combination mode on same trip (SPECIFY)_____

7. Are you aware of the separated bike lanes on Hornby and Dunsmuir Streets in Downtown Vancouver? *(MULTI OK)*

- ❍1 YES Hornby
- ❍2 YES Dunsmuir
- ❍3 NO, NEITHER → GO TO **Q10**

8. Have the separated bike lanes caused you to **shop or use businesses** on Hornby or Dunsmuir Streets more often, less often or made no difference? ❍1 More ❍2 Less ❍3 Made no difference

9. Have the separated bike lanes affected your **ability to access** the area in either positive or negative ways? *PROBE BOTH POS & NEG*

Any negative ways? *DO NOT READ LIST*

- ❍1 INCONVENIENT → PROBE: In what ways?
- ❍2 LESS PARKING
- ❍3 NO TURNING
- ❍4 CONGESTED TRAFFIC
- ❍5 PEDESTRIAN SAFETY CONCERNS
- ❍6 OTHER SPECIFY_____

_____

- ❍7 **NO NEGATIVE WAY**

Any positive ways? *DO NOT READ LIST*

- ❍8 EASIER ACCESS → PROBE: In what ways?
- ❍9 EASIER BIKE ACCESS
- ❍10 MORE PLEASANT TO WALK
- ❍11 MORE PLEASANT FOR BIKING
- ❍12 SAFER FOR CYCLISTS
- ❍13 OTHER SPECIFY_____

_____

- ❍14 **NO POSITIVE WAY**

10. EVERYONE: Are you a: READ (MULTIPLE OK)

- ❍1 Downtown resident?
- ❍2 Downtown worker?
- ❍3 Or neither?

11. Finally, into which of the following age groups may I place you:

- ❍1 Under 24 years
- ❍2 25-34 years
- ❍3 35-44 years
- ❍4 45-54 years
- ❍5 55-64 years
- ❍6 65 years or better?
- ❍7 REFUSED

12. GENDER (OBSERVE) ❍1 MALE ❍2 FEMALE

Thank you very much for your participation! ***INTERVIEWER: BE SURE TO RECORD HUNDRED BLOCK ON PAGE 1***

Appendix E: OMNIBUS Survey Questions and Detailed Results

May 2011

Downtown Vancouver Separated Bike Lanes Study
Metro Vancouver Omnibus Survey

MUSTEL GROUP
MARKET RESEARCH

Introduction

- A partnership of the Vancouver Economic Development Commission along with the City of Vancouver and three key business associations (Downtown Vancouver Association, Downtown Vancouver Improvement Association, and The Vancouver Board of Trade) have joined together to commission a study of the economic impact of the downtown separated bike lanes. A series of surveys have been conducted as part of the economic impact study.

- This report presents the results of the Metro Vancouver-wide residents survey designed to understand the effect of the separated bike lanes on patronage of businesses on both Hornby and Dunsmuir Streets.

- In total 500 random telephone interviews were conducted using Mustel Group's Metro Vancouver Omnibus survey. The Omnibus methodology is briefly as follows:
  - Random sampling of households across the region
  - Random selection of individual in household
  - Respondents: Metro Vancouver residents 18 years of age and over
  - Up to five calls per selected household/individual to minimize possible non-response bias
  - Matching sample to known census statistics on the basis of age, gender and region
  - Margin of sampling error: +/- 4.5 percentage points
  - Field dates: May 4-15, 2011

Summary

Current Visiting Patterns

- Most Metro Vancouver residents have visited downtown Vancouver in the past year with over half going to shop or visit a business on Hornby and Dunsmuir Streets. Reported per capita patronage of downtown businesses averages about 40 days in the past year and 14 days to Hornby and Dunsmuir businesses.

- Transit and auto are the main modes of transportation and are used about equally.

Perceived Change in Visiting Pattern

- Residents who have been to the area tend to report no change in their frequency of visiting businesses on Hornby or Dunsmuir (75%) compared to the year preceding the Olympics.
    - Among those who perceive a change, most now go 'less often' (16% vs. 6% 'more often'). Lack of parking and the bike lanes are cited by some among the reasons.

Effect of Separated Bike Lanes

- Awareness of the separated bike lanes is found among almost eight-in-ten residents and two-thirds aware of both routes.

- The majority of residents aware of the lanes have not changed their shopping habits on Hornby or Dunsmuir as a result of the separated lanes (80%).

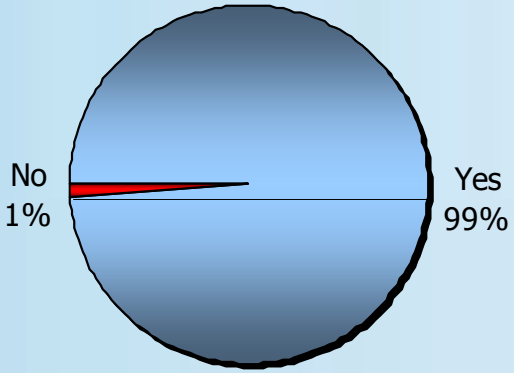
- However, among those who have made changes due to the lanes, these are most likely to be a reduction of visits to the area (16% vs. 4% going more often due to the bike lanes).

- When asked about their ability to access the area, about one-quarter of residents aware of the lanes have experienced no negatives and about one-in-five have experienced no positives.

- Negative effects focus on reduced parking and traffic congestion with some mention of no turning. Positive effects tend to note easier access for bicycles.

Ever Visited Downtown Vancouver

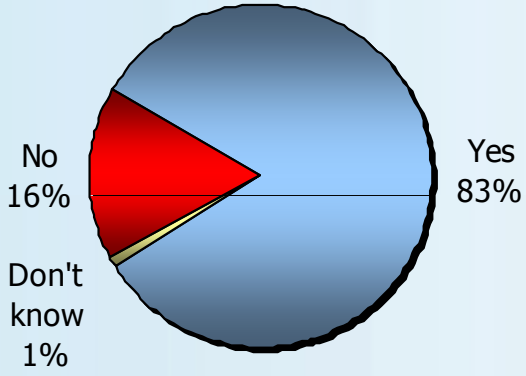
Downtown Vancouver



Base: (n=500)

Q.1A3) Have you ever been to downtown Vancouver ?

Hornby/Dunsmuir

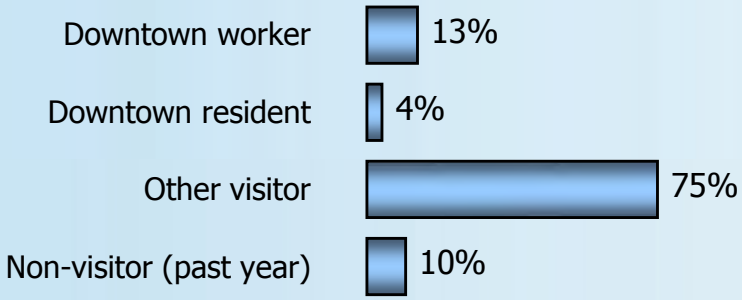


Base: (n=500)

Q.1B3) Have you ever been along Hornby or Dunsmuir Streets?

- Experience with downtown Vancouver is almost universal among Metro Vancouver residents (99%).
- The majority have also been to Hornby or Dunsmuir streets in the past.

Downtown Visitor Category

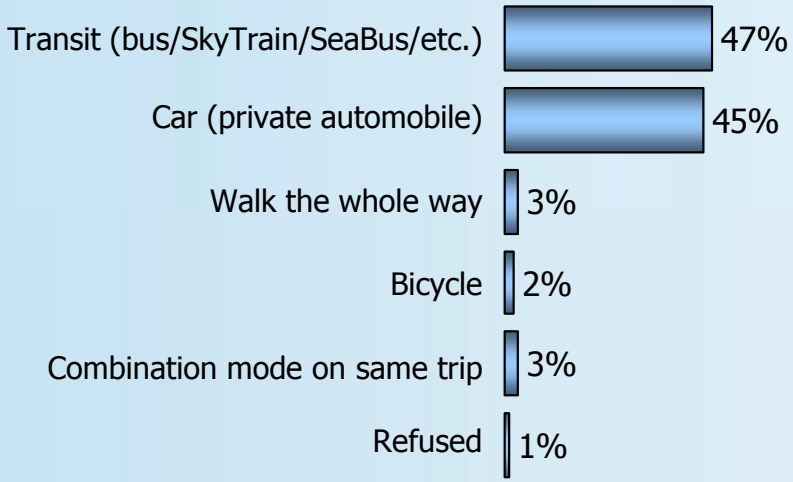


Base: Total (n=500)

Q.10) Are you a:

- Across the region most residents have been downtown in the past year.
- About 13% work downtown and 4% live downtown. Most visit the area for other reasons.

Usual Mode of Transportation to Downtown

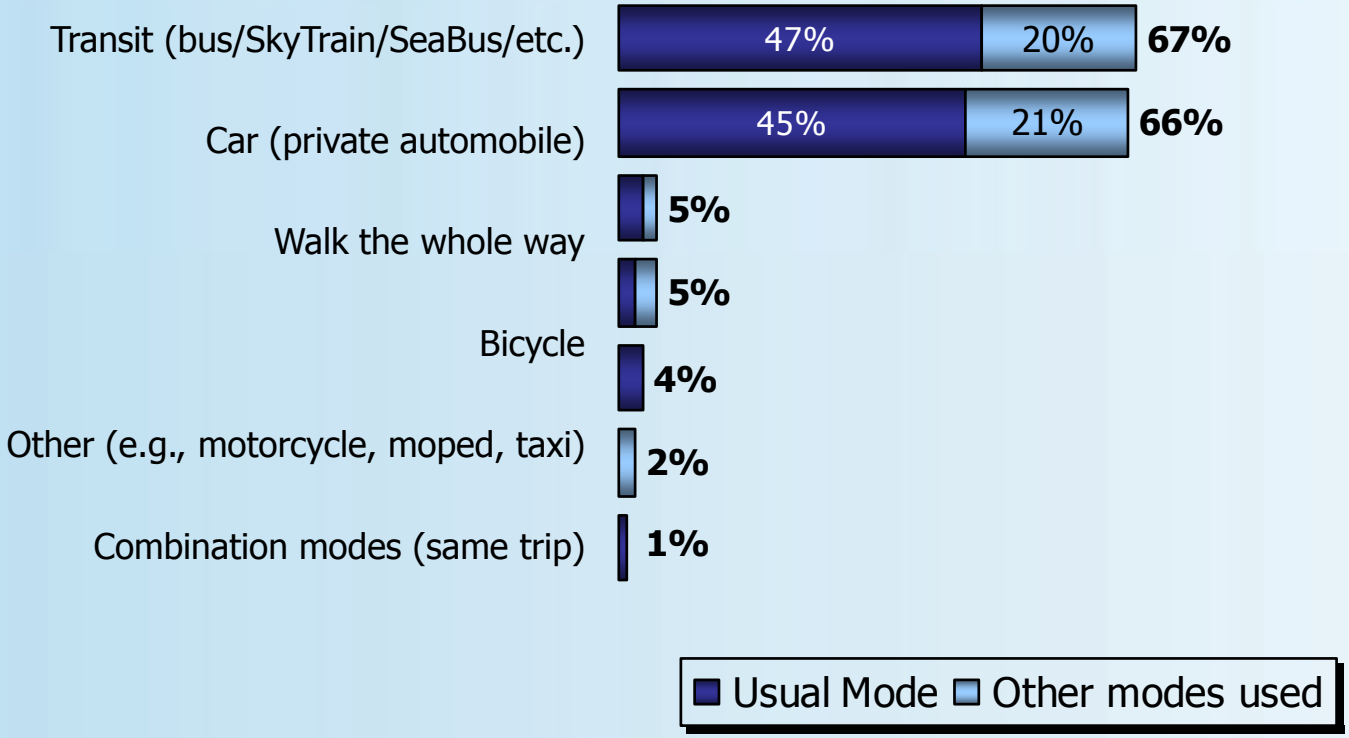


- Metro Vancouver residents typically travel downtown by either transit or private vehicle with both equally popular as the usual mode of choice.

Base: Total have ever gone to downtown Vancouver (n=496)

Q.5) What is your usual mode of travel to get downtown for shopping or patronizing any type of business?

Modes of Travel to Visit Downtown Businesses



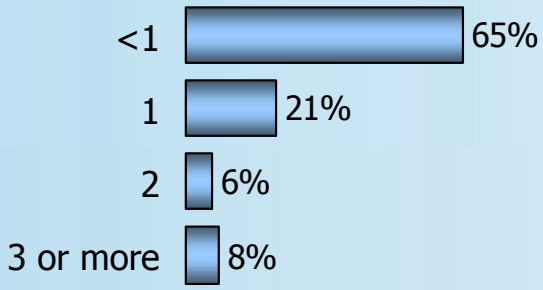
- When looking at all modes of transportation used to get downtown to shop or use businesses, transit and private auto compete about equally for popularity.
- Not surprisingly, other modes are not practical for most Metro Vancouver residents except those who live in the City of Vancouver.

Base: Total have ever gone to downtown Vancouver (n=496)

Q.5) What is your usual mode of travel to get downtown for shopping or patronizing any type of business?

Number of Visits to Downtown Businesses in Average Week

To Downtown Vancouver

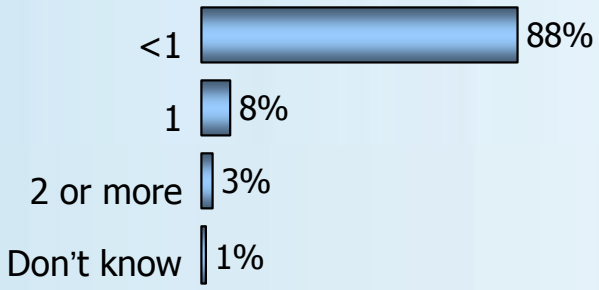


AVERAGES
Typical week: .7 days
Past year: 40 days

Base: Total (n=500)

Q.1A1) First of all, about how many days in an average week do you shop at or patronize any business in downtown Vancouver? IF NONE: Past year?

To Hornby/Dunsmuir



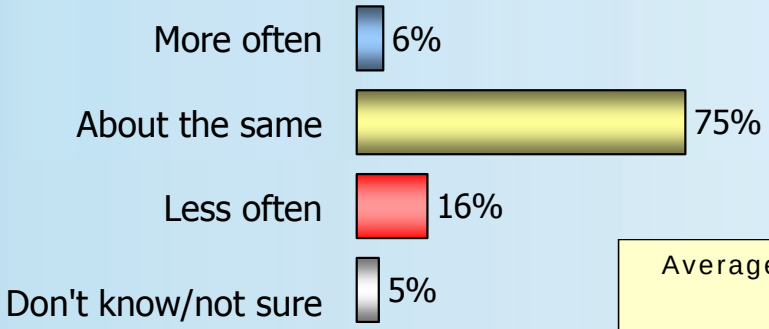
AVERAGES
Typical week: .2 days
Past year: 14 days

Base: Total (n=500)

Q.1B1) And how many days in an average week do you shop at or patronize any business along Hornby or Dunsmuir Street? IF NONE: Past year?

- On average, Metro Vancouver residents visit **downtown Vancouver** for shopping or patronizing businesses just under one day in an average week (.7 days), or about 40 days in the past year.
- They shopped or used businesses **on Hornby or Dunsmuir Streets**, on average, about 14 days in the past year.
- Over half of residents metro-wide have been to Hornby or Dunsmuir businesses in the past year (53%).

Perceived Change in Visiting Hornby/Dunsmuir Businesses



Average Change in # of Visits per Year	
More Often (Average):	.6 days
Less Often (Average):	-1.6 days

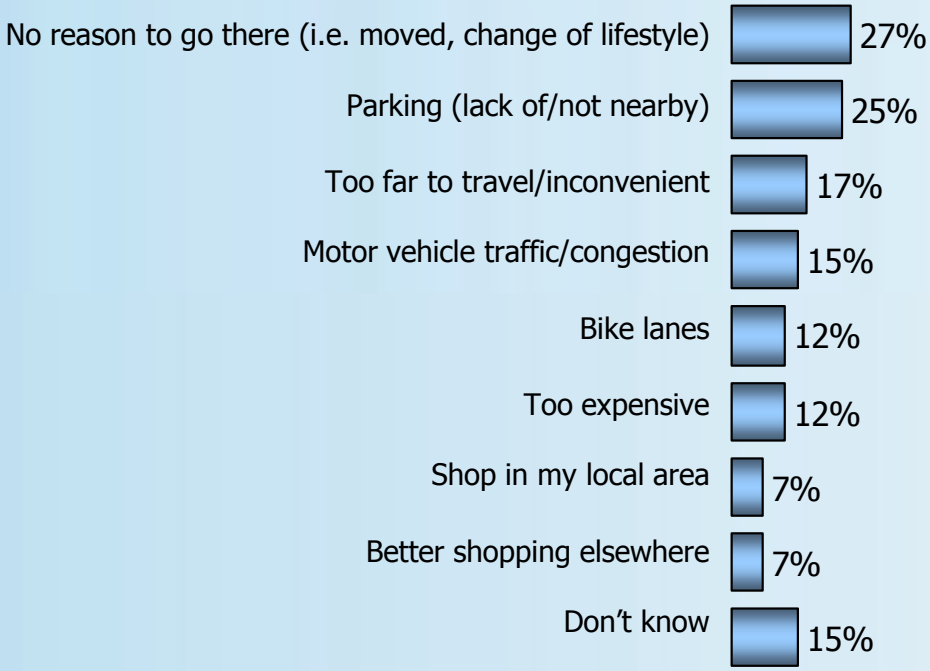
- Compared to before the year preceding the 2010 Olympics, the majority of Metro Vancouver residents who ever visit the Hornby/Dunsmuir area do not perceive a change in their visiting pattern (75%).
- However, among those who have noticed a change in their shopping and patronage of Hornby/Dunsmuir businesses, more are reporting a decline (16% vs. 6% saying they shop or visit these shops 'more often').

Base: Total ever been along Hornby or Dunsmuir Street (n=410)

Q.2) On Average, Do you currently shop at or visit businesses along Hornby or Dunsmuir Street in Downtown Vancouver more often, less often or about the same as you did in the year before the Vancouver 2010 Olympics?

Q.3a) How much more? (Days/Year)
Q.3b) How much less (Days/Year)

Reasons for Visiting Hornby/Dunsmuir Businesses Less Often

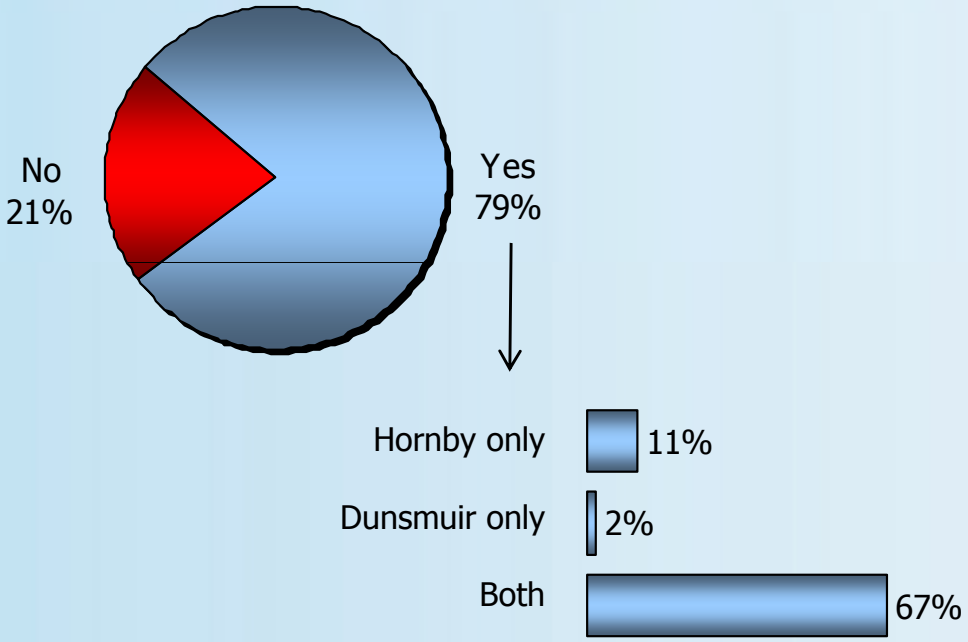


- Among the 16% of Metro residents who say they are visiting Hornby or Dunsmuir shops less often, parking is cited as one of the top factors, in addition to other comments about traffic congestion and the bike lanes.
- Another top reason for their reduced patronage, compared to before the Olympics, is a life-style or residence change, as well as being too far/inconvenient and shopping locally. Others comment on cost and better shopping elsewhere.

Base: Total visiting businesses along Hornby or Dunsmuir less often than in the year before the Olympics(n=67)

Q.4) Why are you visiting businesses along Hornby or Dunsmuir Street in Downtown Vancouver Businesses less often?

Awareness of Separated Bike Lanes Downtown

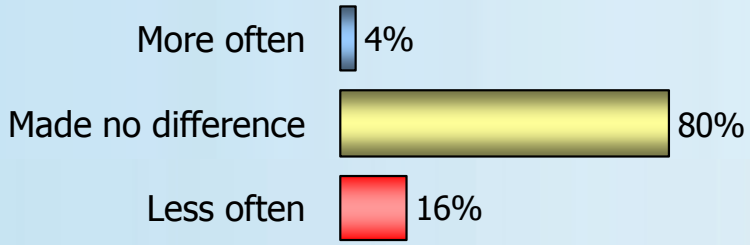


- A majority of Metro Vancouver residents are aware of the separated bike lanes in downtown Vancouver and most know of both the Hornby and Dunsmuir routes (67%).

Base: (n=500)

Q.7) Are you aware of the separated bike lanes on Hornby and Dunsmuir Streets in downtown Vancouver ?

Effect of Bike Lanes on Visits to Hornby/Dunsmuir Street

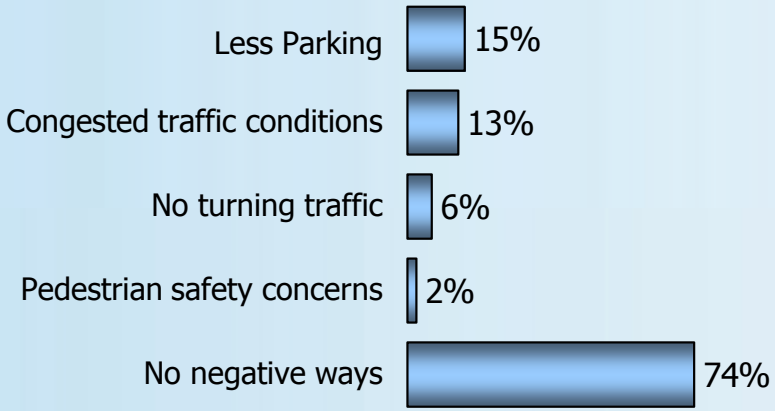


- Among those aware of the separated bike lanes, the majority have not changed their shopping or patronage patterns to businesses on these streets.
- However, of the remaining minority who have made some change due to the separated lanes, most are going less often (16% vs. 4% going more often).

Base: Total aware of bike lanes (n=401)

Q.8) Have the separated bike lanes caused you to shop or use businesses on Hornby or Dunsmuir Streets more often, less often or made no difference?

Negative Effect of Bike Lanes on Access to Area (Unaided)

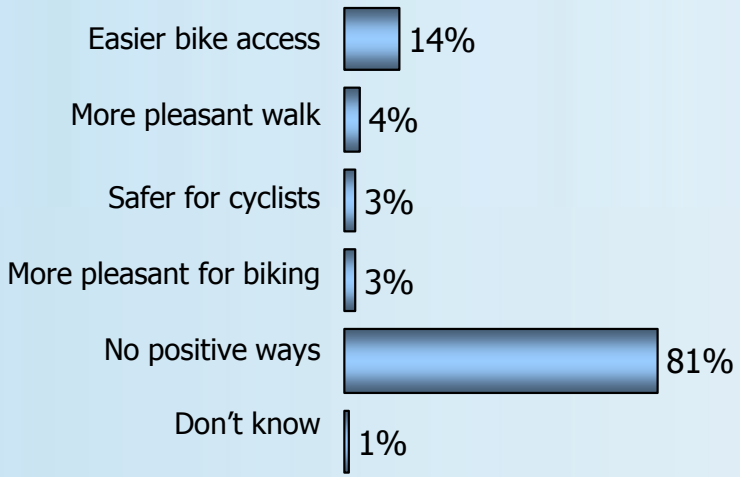


- A majority of Metro Vancouver residents say they have not experienced negative effects of the bike lanes in accessing the area on either street.
- But, those who do report negative effects point to less parking, no turning and pedestrian safety concerns.

Base: Total aware of the bike lanes (includes made no difference) (n=401)

Q.9a) Have the separated bike lanes affected your ability to access the area in any negative ways?

Positive Effect of Bike Lanes on Access to Area (Unaided)



- While a majority of residents have not noticed any positive effects in their ability to access the area, almost two-in-ten mention benefits.
- Easier bike access is the most common positive. A few others also mention more pleasant for walking, for cycling and greater safety for cyclists.

Base: Total aware of the bike lanes (includes made no difference) (n=401)

Q.9b) Have the separated bike lanes affected your ability to access the area in any positive ways?

Demographic Profile

	Total (500) %
Gender	
Male	48
Female	52
Age	
18 to 24	9
25 to 34	10
35 to 44	17
45 to 54	22
55 to 64	18
65+	24
Region	
Balance Vancouver	71
City of Vancouver	29

Questionnaire

MUSTEL GROUP
MARKET RESEARCH

Bike Lanes VEDC Partnership Section (Proprietary Questions)

Next we have some questions about **Downtown Vancouver**—that is, the core business and entertainment district on the Downtown Peninsula (*ONLY IF NEEDED: North of False Creek. IF NEEDED: North of the Burrard, Granville and Cambie Bridges and west of Main Street*).

We would like you to think about **visiting businesses in Downtown Vancouver for any purposes <u>other than work</u>**; this would include visits for shopping, personal services, entertainment, dining, etc.
[*INTERVIEWER NOTE: exclude work and non-businesses such as library, community centre, YMCA*]

1 -a) First of all, about how many days in an average week do you shop at or patronize any business **in Downtown Vancouver?** **#_____**

IF 0" IN AVERAGE WEEK, ASK: How many times in the past year? #_____

IF 0" IN PAST YEAR, ASK: Have you ever been to Downtown Vancouver? ❍ YES ❍ NO

1 -b) *IF BEEN TO DT VANCOUVER IN PAST WEEK, ASK:* About how many days in an average week do you shop at or patronize any business **along Hornby or Dunsmuir Streets?** **#_____**

IF HORNBY/DUNSMUIR = 0 IN AVERAGE WEEK: About how many times in the past year did you shop at or patronize any business **along Hornby or Dunsmuir Streets**? #_____

IF EVER BEEN DT or IF HORNBY/DUNSMUIR = 0" IN PAST YEAR: Have you ever been along Hornby or Dunsmuir Streets? ❍ YES ❍ NO

2 & 3. On average, do you currently shop at or visit businesses along Hornby or Dunsmuir Street in Downtown Vancouver more often, less often or about the same as you did in the year <u>before</u> the Vancouver 2010 Olympics?

- ❍ **<u>More</u>** often→ **3a)** About how much more? # visits per year ___ OR # days per week ___
- ❍ **<u>Less</u>** often → **3b)** About how much less? # visits per year ___ OR # days per week ___
- ❍ About the same
- ❍ [DNR] NOT SURE

4. IF <u>LESS IN Q2</u>: Why are you visiting businesses along Hornby or Dunsmuir Street in Downtown Vancouver businesses **less** often? *DO NOT READ*.PROBE: Any other reasons?
IF SAYS 'INCONVENIENT' → *<u>PROBE FOR SPECIFICS</u>*

- ❍ MOTOR VEHICLE TRAFFIC/CONGESTION
- ❍ PEDESTRIAN SAFETY CONCERNS
- ❍ BIKE LANES
- ❍ BETTER SHOPPING ELSEWHERE
- ❍ PARKING (LACK OF/ NOT NEARBY)
- ❍ TOO EXPENSIVE
- ❍ OTHER (SPECIFY) _____

IF ZERO TIMES DOWNTOWN IN PAST YEAR → SKIP TO Q7

5. What is your **usual mode** of travel to get Downtown for shopping or patronizing any type of business?

- ❍ Walk the whole way (INCL. wheelchair)
- ❍ Bicycle
- ❍ Car (private automobile)
- ❍ Transit (Bus/SkyTrain/SeaBus, etc.)
- ❍ Other (such as motorcycle, moped, taxi, skateboards/roller blades, etc.)
- ❍ Combination mode on same trip (SPECIFY)_____

6. Do you use any **other modes regularly** to get Downtown for shopping or patronizing businesses? If yes, which ones?

- ❍ Walk the whole way (INCL. wheelchair)
- ❍ Bicycle
- ❍ Car (private automobile)
- ❍ Transit (Bus/SkyTrain, SeaBus, etc.)
- ❍ Other (e.g., motorcycle, moped, taxi, skateboards/roller blades etc.)
- ❍ Combination mode on same trip (SPECIFY)_____

7. **EVERYONE:** Are you aware of the separated bike lanes on Hornby and Dunsmuir Streets in Downtown Vancouver? *(MULTI OK)*

- ❍ YES Hornby
- ❍ YES Dunsmuir
- ❍ NO, NEITHER → GO TO **Q10**

8. Have the separated bike lanes caused you to **shop or use businesses** on Hornby or Dunsmuir Streets more often, less often or made no difference? ❍ More ❍ Less ❍ Made no difference

9. Have the separated bike lanes affected your **ability to access** the area in either positive or negative ways? *PROBE BOTH POS & NEG*

Any negative ways? *DO NOT READ LIST*

- ❍ INCONVENIENT → PROBE: In what ways?
- ❍ LESS PARKING
- ❍ NO TURNING
- ❍ CONGESTED TRAFFIC
- ❍ PEDESTRIAN SAFETY CONCERNS
- ❍ OTHER SPECIFY _____
  _____
- ❍ **NO NEGATIVE WAY**

Any positive ways? *DO NOT READ LIST*

- ❍ EASIER ACCESS → PROBE: In what ways?
- ❍ EASIER BIKE ACCESS
- ❍ MORE PLEASANT TO WALK
- ❍ MORE PLEASANT FOR BIKING
- ❍ SAFER FOR CYCLISTS
- ❍ OTHER SPECIFY_____
  _____
- ❍ **NO POSITIVE WAY**

10. **EVERYONE:** Are you a: READ (MULTIPLE OK)

- ❍ (IN OMNI ONLY ASK IF 'CITY OF VANCOUVER' RESIDENT) Downtown resident?
- ❍ Downtown worker?
- ❍ NEITHER

BASIC DATA included with OMNIBUS (age, gender, municipality/region)

Appendix F: Upper Floor Tenants' Employee Survey Questions and Detailed Results

May 2011

Downtown Vancouver Separated Bike Lane Study
Upper Level Tenant Survey

MUSTEL GROUP
MARKET RESEARCH

Introduction

- A partnership of the Vancouver Economic Development Commission along with the City of Vancouver and three key business associations (Downtown Vancouver Association, Downtown Vancouver Improvement Association, and The Vancouver Board of Trade) have joined together to commission a study of the economic impact of the downtown separated bike lanes. A series of surveys have been conducted as part of the economic impact study.

- This report presents the results of the upper level tenants survey designed to understand the effect of the separated bike lanes on patronage of businesses on both Hornby and Dunsmuir Streets.

- In total 557 interviews were conducted to gather input from employees in four selected buildings (chosen as representative of building types in the area and representing the bike lane corridor and comparative off bike lane streets). The following methodology was used:
  - Locations: In elevator lobbies or mezzanine level
    - 341 completions on bike lane: 777 Hornby (small) and 885 West Georgia (large)
    - 216 completions off bike lane: 808 Nelson (small) and 700 West Georgia (large)
  - Approached random selection of respondents (gender balanced, ages random as encountered)
  - Field dates: May 18-21, 2011
  - Times covered: 8:30am to 4:30pm
  - Prize draw incentives offered to encourage response and completion

Summary

Current Patterns

- Upper level building tenants tend to either drive themselves to work or use transit. Cycling is rarely the main mode but 10-20% of these tenants have cycled to work in the past.

Awareness

- Awareness of the separated bike lanes is nearly universal among these downtown workers (96% on Hornby and 93% on Dunsmuir).

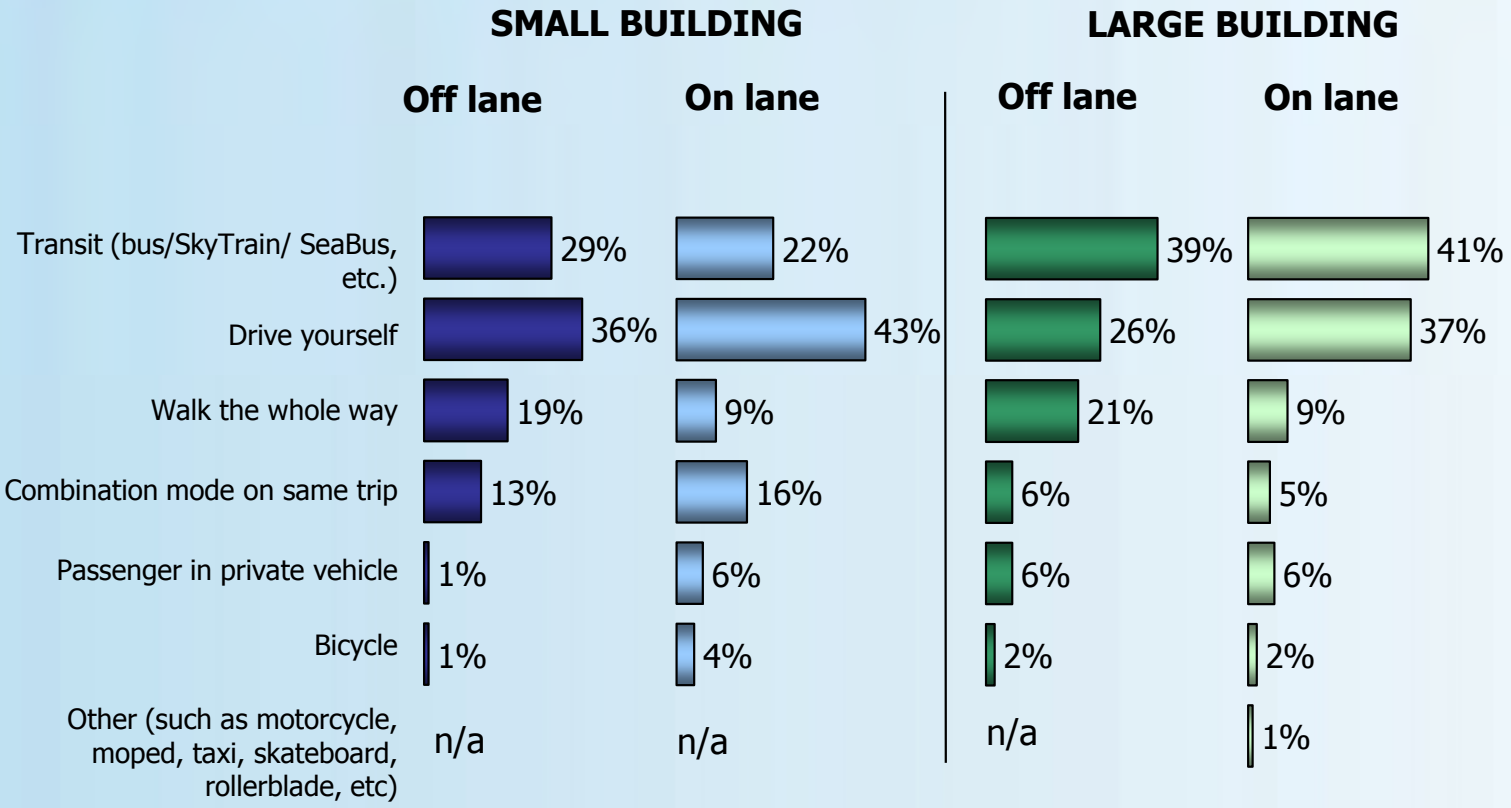
Effect of Separated Bike Lanes

- Overall the effect of the separated bike lanes on commuting to work is felt most by those in the on-lane buildings, as expected.
- Over half of these tenants say that the lanes have had an effect on their commute.
- Affected tenants report more impact in terms of longer commute times and worse access to the building.

Future Use of Separated Bike Lanes

- The majority of tenants do not expect to use the separated bike lanes in the future.
- However, interest is in the range of 10-20% with building size more of a factor than being on lane or off lane—twice as much interest is seen in the smaller buildings.
- Opinion about having separated bike lanes in general tends to be negative among these on lane building tenants—with dislike reaching almost six-in-ten and with four-in-ten saying 'dislike a lot'.
- Nevertheless, tenants in the off-lane buildings are more divided between liking, not liking and being neutral on the matter of separated lanes.

Typical Mode of Travel for Commuting to Work



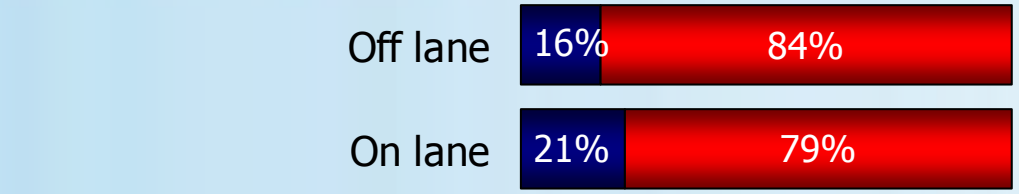
- Building employees appear to use both transit and driving themselves as their typical commuting mode. Transit is likely used more when there is close proximity of rapid transit (as with the larger buildings).
- Walking is used more for commuting to the off lane buildings than the on lane.
- Very few report cycling as the main mode.

Base: Small building Off lane (n=75), On lane (n=86); Large building Off lane (n=141), On lane (n=255)

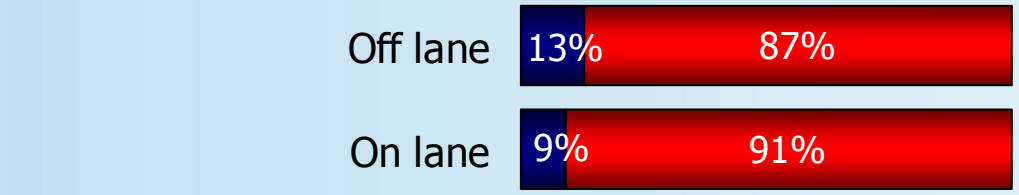
Q.1) How do you typically travel to work at this building?

Ever Cycle to Work

SMALL BUILDING



LARGE BUILDING

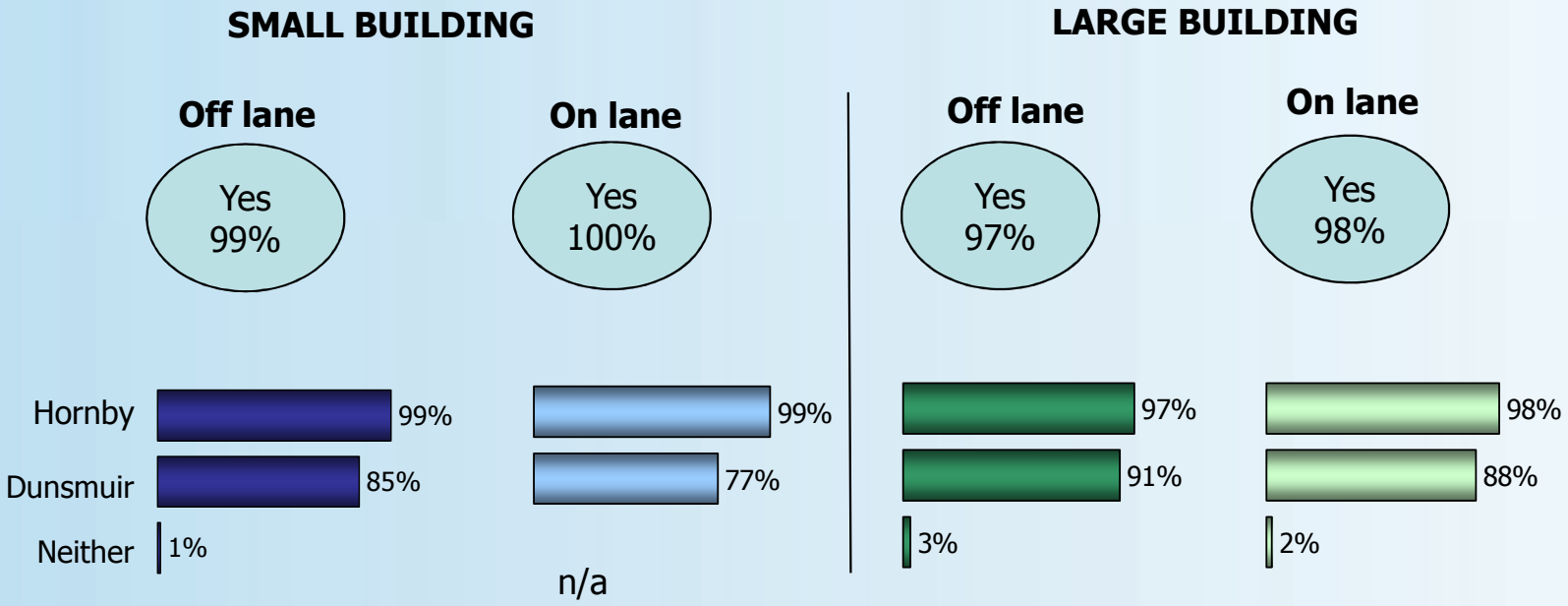


- Nevertheless, from 10-20% of building tenants do cycle to work on occasion.
- Among those who do ever cycle, almost half say they do so at least weekly.
- Most, however, cycle seasonally rather than year-round.

Base: Small building Off lane (n=75), On lane (n=86); Large building Off lane (n=141), On lane (n=255)

Q.2a) Do you ever cycle to work?

Awareness of Bike Lanes



- Awareness of the separated bike lanes is nearly universal (97-100%).
- Awareness of the separated lane on Hornby lane is higher than for the Dunsmuir lane.

Base: Small building Off lane (n=75), On lane (n=86); Large building Off lane (n=141), On lane (n=255)

Q.3) Are you aware of the separated bike lanes on Hornby or Dunsmuir Streets?

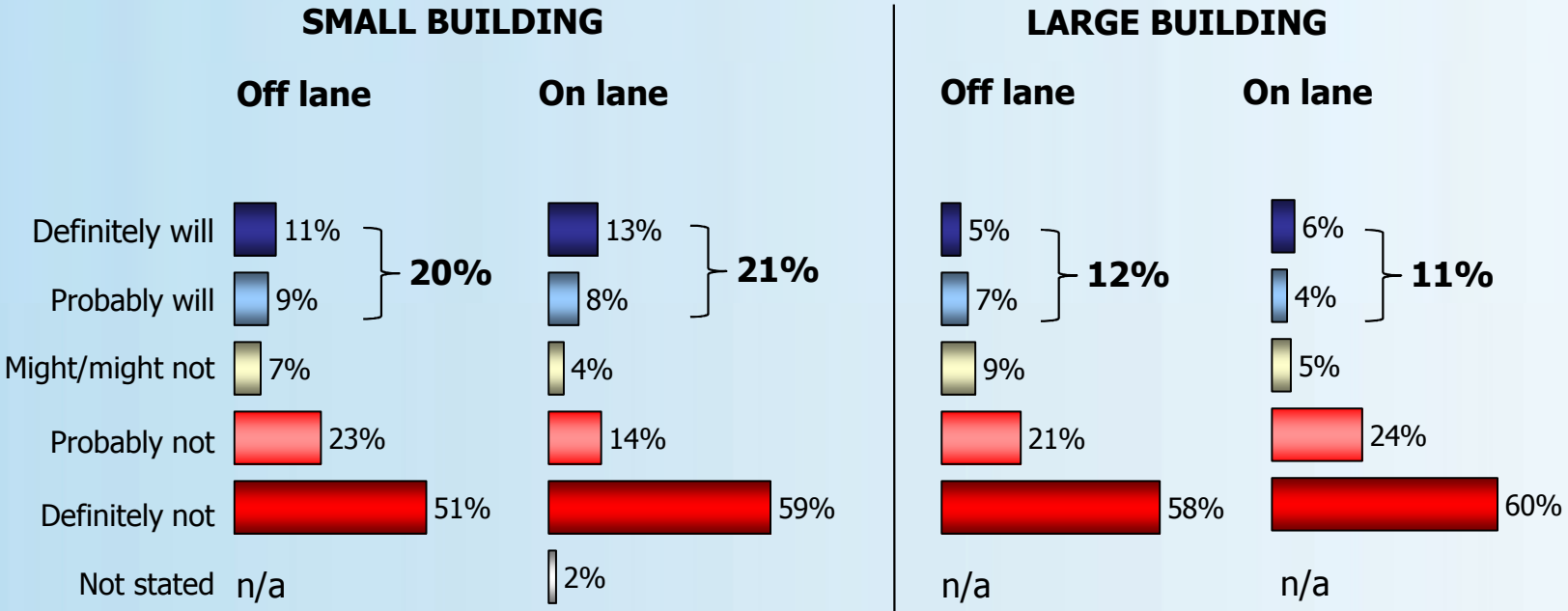
Separated Bike Lanes Effect on Commute

	SMALL BUILDING		LARGE BUILDING	
	Off lane: 808 Nelson (75) %	On lane: 777 Hornby (86) %	Off lane: 700 Georgia (141) %	On lane: 885 Georgia (255) %
No impact on my commute to work	**51**	**42**	**69**	**45**
Commute time shorter by about:	**5**	**6**	**2**	**1**
Under 5 min	3	2	1	-
5-10 min	1	2	1	<1
Not specified	1	1	-	1
Commute time longer by about:	**26**	**48**	**18**	**35**
Under 5 min	8	5	3	10
5-10 min	12	20	10	18
10-15 min	5	21	4	6
Not specified	-	2	2	-
Ease of access to building				
Better	3	5	2	1
Worse	15	31	12	31

Q.4) How, if at all, have the separated bike lanes affected your commute?

- Effect of the separated lanes is seen more on tenants of on lane buildings. They report more impact in terms of longer commute times and worse access to the building.
- Some effect is noted by over half in the on lane buildings (55-58% vs. 31-49% in the off lane buildings chosen).
- Most who experience an effect say their commute is longer (overall tending toward the 5-10 minute range, but longer for some of those in 777 Hornby).
- In terms of ease of access to the building, among those who report on this aspect, the majority says 'worse access'.

Likelihood of Using Bike Lanes in Future

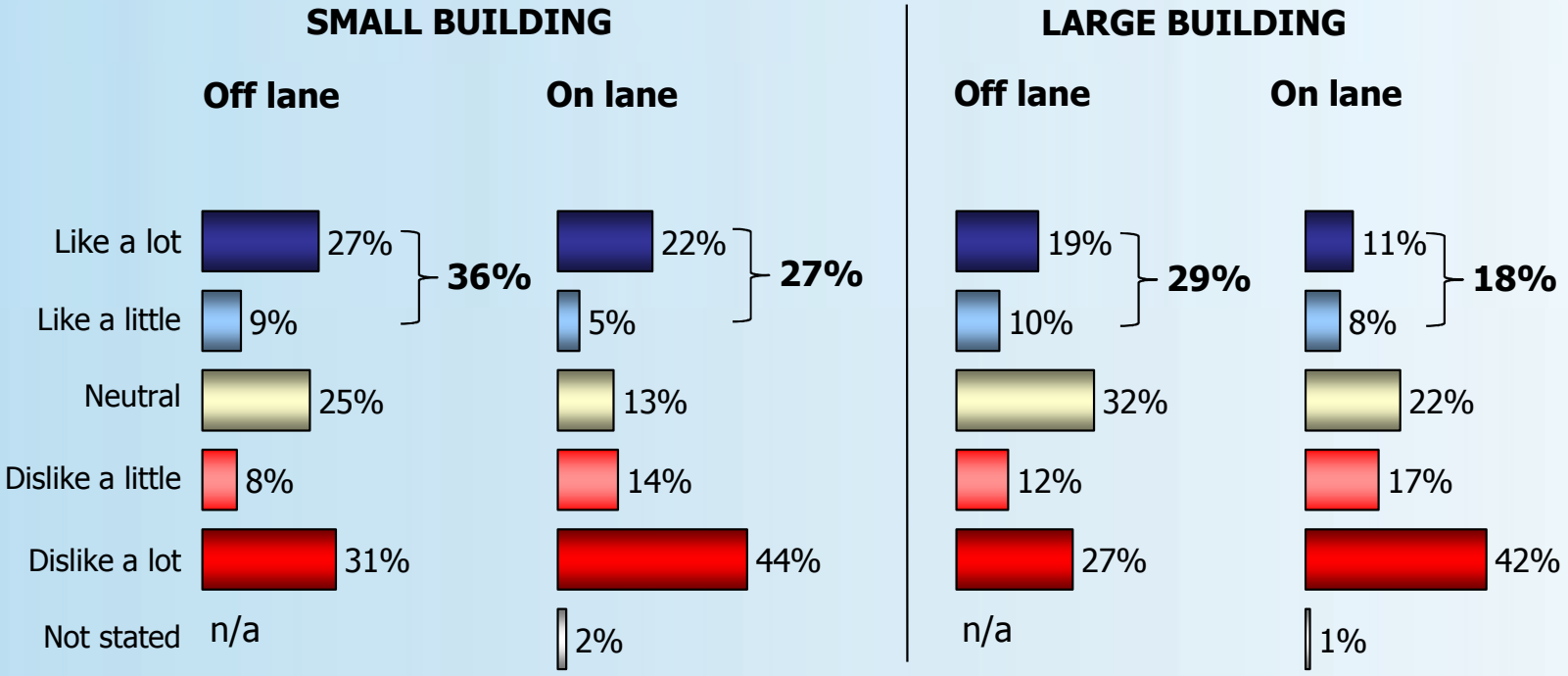


- While the majority of tenants do not expect to use the separated bike lanes in the future, interest seems to vary more by building size than on lane/off lane factors—twice as much interest is seen in the smaller buildings (20-21% vs. 11-12% in the larger buildings).

Base: Small building Off lane (n=75), On lane (n=86); Large building Off lane (n=141), On lane (n=255)

Q.5) How likely are you to cycle to work in the future using the separated bike lanes?

Like or Dislike Separated Bike Lane



- In terms of attitude toward having separated bike lanes in general, these on-lane building tenants tend to dislike them (58-59%) with in the range of four-in-ten saying 'dislike a lot'.
- In the off-lane buildings opinions are more divided between liking, not liking and being neutral on the separated lanes.

Base: Small building Off lane (n=75), On lane (n=86); Large building Off lane (n=141), On lane (n=255)

Q.6) Do you like or dislike having separated bike lanes on Hornby and Dunsmuir?

Demographic Profile

	SMALL BUILDING		LARGE BUILDING	
	Off lane: 808 Nelson (75) %	On lane: 777 Hornby (86) %	Off lane: 700 Georgia (141) %	On lane: 885 Georgia (255) %
Gender				
Male	45	42	50	51
Female	53	58	50	40
Not stated	1	-	-	-
Age				
18 to 24	4	1	6	7
25 to 34	27	24	27	26
35 to 54	45	48	50	51
55 year or over	24	24	16	15
Rather not say	-	2	1	1
Residence				
Downtown Vancouver	24	19	26	19
Other City of Vancouver	36	51	24	41
Other municipality	36	27	48	37
Not stated	4	4	3	3

Questionnaire

MUSTEL GROUP
MARKET RESEARCH

ONLY EMPLOYEES OF BUSINESSES IN THIS BUILDING ARE ELIGIBLE.

A. Building Address_____ Postal code: __ __ __ __ __ __

B. Date: _____

Introduction & Instructions

- **Why participate**
  The Vancouver Economic Development Commission (VEDC), in partnership with the City of Vancouver and key business associations (Downtown Vancouver Association, Downtown Vancouver Business Improvement Association and The Vancouver Board of Trade), is commissioning a **study of the effect on businesses of the introduction of separated bike lanes in downtown Vancouver**. This study will include multiple **opportunities for affected businesses, their employees and their customers to provide input**. This survey is an important part of the larger study.

- **Your privacy is protected and confidentiality guaranteed**
  Mustel Group, a professional marketing research firm in BC for over 30 years and a Better Business Bureau member, is collecting the data. We are committed to maintaining strict confidentiality of your responses and under no circumstances will your identity be revealed to the study sponsors. Results will be reported only in aggregate format (no individuals would be identified). See www.mustelgroup.com for our privacy policy.

- **To encourage response**
  Mustel Group will be holding a **prize draw** for those who complete surveys. If you choose to enter the draw, you will have a chance to win **$200 cash**.

- **Please complete and return to our onsite interviewing staff** in the building lobby **today** (830 am to 430 pm).

Please turn over to complete the survey ➡

Thank you from the Mustel Group Study Team!

Main Survey

1. How do you typically travel to work at this building? *Check one used most often*

- ❍ Drive yourself
- ❍ Passenger in private vehicle
- ❍ Walk the whole way
- ❍ Bicycle
- ❍ Transit (Bus/SkyTrain/ SeaBus/ etc.) + walk, if applicable
- ❍ Other (motorcycle, moped, taxi, skateboard/ rollerblade, etc.)
- ❍ Combination mode on same trip _____

2. Do you ever cycle to work?

❍ NO ❍ YES ➡

a) How often? ❍ Daily ❍ Weekly ❍ Less often

b) And, is that: ❍ Seasonally OR ❍ Year-round?

3. Are you aware of the separated bike lanes on Hornby or Dunsmuir Streets?

- ❍ YES on Hornby
- ❍ YES on Dunsmuir
- ❍ NO, not aware of either →IF NO TO BOTH, SKIP TO **Q5**

4. How, if at all, have the separated bike lanes affected your commute?

- ❍ No impact on my commute to work
- ❍ Commute time **shorter** by about: ➡ ❍ Under 5 min ❍ 5-10 min ❍ 10-15 min
- ❍ Commute time **longer** by about: ➡ ❍ Under 5 min ❍ 5-10 min ❍ 10-15 min
- ❍ Ease of access to building: ➡ ❍ Better or ❍ Worse?
- ❍ Other commuting effect—either positive or negative (please specify): _____

_____

_____

5. How likely are you to cycle to work in future using the separated bike lanes?

❍ Definitely will ❍ Probably will ❍ Might or might not ❍ Probably not ❍ Definitely not

6. Do you like or dislike having separated bike lanes on Hornby and Dunsmuir?

❍ Like a lot ❍ Like a little ❍ Neutral ❍ Dislike a little ❍ Dislike a lot

7. We welcome any other comments or suggestions you may have about the separated bike lanes in Downtown Vancouver:

_____

_____

Basic Data

8. Your gender: ❍ Male ❍ Female

9. Your age: ❍ Under 24 years ❍ 25-34 years ❍ 35-54 years ❍ 55 years or over ❍ Rather not say

10. Your residence: ❍ Downtown Vancouver ❍ Other City of Vancouver ❍ Other municipality

11. At which business and on which floor in this building do you work?

Business name: _____ Floor: _____

12. If you wish to enter the prize draw, please provide:

Your name: _____ Your phone #: _____

Prize draw winner will be contacted by phone.

Thank you very much for your participation in this important survey and providing valuable input for Downtown City planners and local business groups.

Appendix G: Open Online Survey Results

Commuter

[A] Do you regularly commute to Downtown Vancouver for work or own a business there?

Response	Chart	Percentage	Count
Yes		100%	437
No		0%	0
		Total Responses	**437**

How do you typically travel to work, that is, the mode used most of the way on the same trip?

Response	Chart	Percentage	Count
Drive yourself		11%	46
Passenger in private vehicle		1%	3
Walk the whole way		6%	26
Bicycle		61%	268
Transit (Bus/SkyTrain/ SeaBus/ etc.) + walk, if applicable		18%	80
Other (motorcycle, moped, taxi, skateboard/ rollerblade, etc.)		0%	2
Combination of modes used on the same trip		3%	11
		Total Responses	**436**

[E2a] Do you ever cycle to work?

Response	Chart	Percentage	Count
Yes		83%	361
No		17%	76
		Total Responses	**437**

[E2b] How often?

Response	Chart	Percentage	Count
Daily		70%	253
Weekly		22%	79
Less often		8%	29
		Total Responses	**361**

[E2c] And, is that:

Response	Chart	Percentage	Count
Seasonally		26%	92
Year-round		74%	268
		Total Responses	**360**

[E3a] Are you aware of the separated bike lanes on Hornby or Dunsmuir Streets?

Response	Chart	Percentage	Count
YES on Hornby		97%	424
YES on Dunsmuir		97%	422
NO, not aware of either		0%	2
		Total Responses	**437**

[E3b] If you use the Hornby or Dunsmuir bike lanes, do you ever stop and shop on either of these streets?

Response	Chart	Percentage	Count
Yes		52%	227
No		26%	115
DO NOT USE THEM		21%	93
		Total Responses	**435**

[E4a] How, if at all, have the separated bike lanes affected your commute?

Response	Chart	Percentage	Count
No impact on my commute to work		19%	82
Shorter commute time		37%	160
Longer commute time		15%	64
Ease of access to building is better		33%	142
Ease of access to building is worse		11%	46
Other positive commuting effect		66%	286
Other negative commuting effect		13%	58
		Total Responses	**435**

[E4b] How much shorter is your commute as a result of the separated bike lanes?

Response	Chart	Percentage	Count
Under 5 min		39%	63
5-10 min		49%	79
10-15 min		8%	12
15 min or more		4%	6
		Total Responses	**160**

[E4c] How much longer is your commute as a result of the separated bike lanes?

Response	Chart	Percentage	Count
Under 5 min		36%	23
5-10 min		30%	19
10-15 min		19%	12
15 min or more		16%	10
		Total Responses	**64**

How likely are you to cycle to work in future using the separated bike lanes?

Response	Chart	Percentage	Count
Definitely will		67%	293
Probably will		6%	27
Might or might not		7%	31
Probably not		8%	35
Definitely not		12%	51
		Total Responses	**437**

Do you like or dislike having separated bike lanes on Hornby and Dunsmuir?

Response	Chart	Percentage	Count
Like a lot		73%	320
Like a little		5%	20
Neutral		6%	28
Dislike a little		4%	18
Dislike a lot		12%	51
		Total Responses	**437**

Your gender:

Response	Chart	Percentage	Count
Male		53%	231
Female		46%	199
Prefer not to say		2%	7
		Total Responses	**437**

Your age:

Response	Chart	Percentage	Count
Under 24 years		4%	19
25-34 years		34%	147
35-44 years		32%	142

45-54 years		16%	70
55-64 years		11%	48
65 years or over		2%	7
Rather not say		1%	4
		Total Responses	**437**

Your residence:

Response	Chart	Percentage	Count
Downtown Vancouver		23%	100
Other City of Vancouver		58%	255
Other municipality		19%	82
		Total Responses	**437**

We welcome any other comments or suggestions you may have about the separated bike lanes in Downtown Vancouver:

The 290 response(s) to this question can be found in the appendix.

Appendix

We welcome any other comments or suggestions you may have about the separated bike lanes in Downtown Vancouver: |

#	Response
1.	These lanes are making it easier for me to convince my friends and family to ride downtown as well. They make me feel like I can stop and use the shops and services without having to navigate car traffic to pull over, and I don't have to worry about being doored by parked car doors opening, so I get to look around, enjoy my ride, and see what shops and activities are happening.
2.	Every major street should have one
3.	The separated lanes make me feel a lot safer, especially coming over the Dunsmuir Viaduct.
4.	I have driven, taken transit and rode my bike in downtown Vancouver. My observations after the introductions of the separated bike lanes are as follows: (1) Bike lane on the Burrard Street bridge has been an excellent addition and has not had significant impact on traffic. (2) Bike lanes on other streets, such as Hornby, has not caused significant traffic issues and has very much improved the safety for riders, and encouraged more people to ride who would have been afraid to brave riding downtown. I would honestly be surprised if businesses are impacted by addition of the bike lanes on their street. I find that the additional lanes are well designed, parking is still available and I have not (when I drive) changed any of my routes or plans due to them. The only issues I have with the new bike lanes is that both riders and vehicles do not follow the dedicated lights. In some places the bikes are suppose to stop, and cars can not turn right unless the bike lane has a red light, but this is not happening enough. Somehow both riders and drivers needs to open their eyes and follow the rules, as everything will flow more smoothly and safety will be maintained.
5.	Straighten out the path at Strathcona Liner park at Hawkes and Union and give the cars the stop sign. That's a sketchy intersection on a bike if you are coming down the hill with any speed. Also the intersection at Union and Gore needs a light. Also, I should clarify something, I said on the survey that the bike lanes make my commute longer but it is not the actual bike lanes, it's the route to get to them. If I start at my house I have to ride up Victoria to Adanac to get to the bike route instead of just riding down Powell and through Gastown, then up towards the Dunsmuir bike route, then to the Hornby bike route.
6.	Bike lanes on Hornby are very dangerous for pedestrians. i used to use this to walk to office and some services on Howe requiring me to crossl The bikers are not following road rules and are zooming through intersections against lights. The bikes going in the opposite direction of the traffic are particularly off-setting for a pedestrian not looking in the opposite direction of the one-way traffic. Sometimes I have to use parking on Hornby because I am hauling supplies/equipment to/from my office and now I can't get close. The few spaces left are in high demand. There is no stop-off in front of my building on Hornby since it has been taken away. When I am using Hornby to go to/from in vehicle (which I have to use periodically carrying equipment) I am delayed a lot more now. My clients are also delayed due to the slow traffic movement and confusion on right turns - they don't want to come to my office. The loss of a lane and parking plus the poor behaviour of

	cyclist on Hornby is affecting my daily business life and my personal safety.
7.	They are great!
8.	Give back the eastern sidewalk to pedestrians on Burrard bridge. Bicyclists are fairweather politicos who think they own every inch of transportation space in the city. Get them off the seawall & sidewalks. They belong with cars and busses and should be insured & legislated as such.
9.	I switched fron car to bike 10 years ago. Best decision I ever made to lessen my carbon footpring and reduce health concerns
10.	The main issue is safety, and that has greatly improved with the installation of the separated lanes. Car driovers need to be trained on the use of red lights. Most are violating the "no right turn on red", and otherwise are not yielding to cyclists when making a right turn over the bike lane. Initially, there were some city workers educating drivers and cyclists on the use of the bike lanes. I think that now a program of surveillance and fining drivers should be implemented to prevent this dangerous practice by motorists. This "right hook" is a common occurrence whether there are bike lanes or not. I am otherwise a big fan of the bike lanes.
11.	Build more!
12.	The really big draw for me of the lanes is the access to shopping on and near Dunsmuir. The Hornby lane isn't that useful to me most days, but I will definitely ride a bit out of the way to use it as if I have a north-south trip to take that's more than 3-4 blocks in length.
13.	The bike lanes make driving in the downtown core a real challenge. As someone who drives irregularily, I have found the bike lanes make it difficult to navigate the core. As a cyclist, I find myself on other main roads more so than Dunsmiur and Howe. When I am biking there, I find cars have such poor visibility in the intersection due to the planter boxes, that I feel less safe. I feel more comfortable with traditional one way bike lanes.
14.	I fully support the implementation of Hornby and Dunsmuir separated bike lanes, and also the creation of more separated bike lanes throughout Vancouver for ease of use and safety for both cyclists and pedestrians.
15.	I've been riding my bike in the city since the 1970s, and these two lanes, along with the Burrard Bridge lanes, have made cycling downtown safe and practical. I used to have close calls almost every day, but still cycled. Now it's a rare week where I have to react to avoid an accident.
16.	Even walking on these streets is more pleasant now. Traffic is calmer, quieter, less polluting. Now the whole way to work is via bike lanes for me - mostly separated!
17.	My partner and I both use the bike lanes to ride to and from our business each day and for deliveries and pick ups. We value the protected bike lanes and use them in all weather, including rain, and at night. The bike lanes were part of the reason we opened a retail store where we did, because we are cyclists and wanted to be somewhere where we could ride safely to work each day. I really value the bike lanes and appreciate them when I am carrying large packages on my bike.
18.	Many business owners don't realize that people who cycle to downtown destinations may not look like cyclists. Some of them say cyclists never patronize their business, but this isn't true. They see a patron wearing a suit and don't realize that patron cycled downtown

	and changed into their work clothes before going out for lunch or shopping.
19.	I think they make biking safer - the dunsmuir viaduct is especially great - I will bring my family cycling downtown now that we can get through the city - I still see a lot of cars turning right on hornby and seymour off dunsmuir. I've never been on the Hornby bike lanes. I have stopped at the restaurants on dunsmuir cycling - I rarely did when I drove since I couldnt park out front anyways but now can with a bike
20.	Separated bike lanes are great!
21.	More separated lanes are needed throughout downtown to allow safe access to all destinations. Better connections to the West End are needed as well.
22.	The only bad thing about the lanes is how hard it can be as a cyclist to to turn left onto cross-streets.
23.	Separated bike lanes have opened up a section of downtown that I used to avoid. Do more shopping there now and use other services more frequently than I used to.
24.	I love them. Please keep them also add more to other streets in Vancouver. They really build community and I love sharing them with other people.
25.	It has made my commute more relaxed and conflict-free. I commute and go for lunch daily along Dunsmuir, and have used Hornby recreationally when cycling the seawall. It has been great to explore the cafes and restaurants on that street as well. And, in my experience, the new planted barriers improve the pedestrian and customer experience of these streets.
26.	While not perfect, the separated bike lanes in Downtown Vancouver are, in my opinion, a really positive thing. And even though my primary reason for using them is for commuting to/from work, I know that they have increased my likelihood of travelling Downtown for pleasure and shopping. It is easier for me to access shopping with the lanes and increased bike parking. I feel safer and the ride is more enjoyable. Streets with less cars and more people on foot are inviting to me, and I will spend more time in an area like this than one full of cars. I understand the concerns of some businesses, but I know that other cities that have improved their cycling infrastructure with things like separated bike lanes have found mostly positive outcomes. Areas that railed against the lanes were soon asking for the infrastructure in their areas. I think Vancouver needs to be patient. It may take a little time to see the positive outcomes, but I'm certain they will be there. We don't have the space to expand for increased numbers of cars. By improving neighbourhoods for pedestrian and cycling access we can accommodate more people and build vibrant, welcoming neighbourhoods rather than areas where cars are simply passing through or are developed as parking lots. Reduced air and noise pollution are just one of the benefits. Safer streets are another. Thank you.
27.	You didn't ask about comfort. Yes my commute is longer but it's because I add a couple of blocks to make sure I get onto the separated lanes. They're soooo much nicer than the ridiculously dangerous door-zone lanes you've painted elsewhere. But you really have to work on the intersections. It's not at all obvious where to position yourself to turn.
28.	well done! It's a relief not to be sideswiped by cars or buses on the ride from work. The separated lanes are especially beneficial for new cyclists not accustomed to riding alongside aggressive drivers.

29.	The separated bike lane is the single worst idea I have ever seen from any city council that Vancouver has ever had. What it has accomplished is simply to steer cyclists who were already cycling downtown onto the bike lanes, it has not encouraged people to cycle to work. The side effect of the bike lanes is that businesses are being decimated. For businesses that are on the affected streets, parking has been taken away, access is close to impossible and customers are taking their business elsewhere. Not only have the bike lanes hurt business, they have hurt the environment. How ironic! The Dunsmuir bike lane removed a third lane of traffic from what was already a busy street. Now, especially during busy times, Dunsmuir is almost a parking lot with cars spewing exhaust gasses while they idle. This line up goes all the way down the Georgia viaduct and almost into Chinatown. Also, because of the elimination of many right turns, cars are forced to drive 2, 3 and sometimes 5 extra blocks to get to their destination further contributing to the erosion of the environment. Another factor that no one has seemed to consider is safety. I'm sure everyone has seen the video of the fire truck that wasn't able to make a left turn onto Dunsmuir off of Seymour street. The other day I witnessed an ambulance trying to make it down Dunsmuir street with it's lights & sirens on trying to get to an emergency. This ambulance was stuck and hopefully this didn't cause anyone harm but when every second counts, we cannot afford to have safety vehicles impeded like that. Another factor that no one considered was the majority rule. The majority of people who work and/or live in downtown DO NOT use bicycles to commute. Yes a very small part of the population does but the majority do not. I'm shocked that a council would approve such drastic changes to the city's landscape with so much negative impact on businesses and individuals simply to appease a tiny portion of the population. If the city was really concerned about the environment (which seems to be the justification for these bike lanes) they would increase public transportation.
30.	i own a tim Horton's franchise on 607 Dunsmuir st and 947 Hornby st.since the inception of the bike lanes these locations have seen a huge decrease in sales and customer traffic.deliveries have become more complicated,take longer,and the delivery vehicles are generally ticketed,making it more expensive.the bike lanes are a barrier to my business,making it inconvenient for existing customers and impossible to grow my sales.I have several other locations in the d/t core which are seeing modest increases in sales ,however the locations on the bike lanes are decreasing.canda post is leaving the d/t ,I believe the bike lane is responsible(1700 customers gone).Not everyone will use bikes and rapid transit to arrive in the d/t,there are very few office towers d/t and most of my business is students and residents,anyone arriving d/t by auto will have a negative experience. PLEASE DO NOT TEAR DOWN THE DUNSMUIR AND GEORGIA VIADUCTS.
31.	Access to 500 block Hornby too limited, and thus difficult
32.	We need more!
33.	I`d love to see both lanes on the Burrard Bridge vehicle deck so there`s room to pass on the slopes and I don`t have to share with pedestrians who don`t want to cross the street.
34.	Cycling to my work is far safer now thanks to the bike lanes, I really appreciate that!
35.	Best thing that has happened to the city in the 10 years I have been working & living here. Real forward-thinking action, has made my commute SO much safer, I am less afraid of being hit every single day now. Very very grateful for the lanes!!
36.	Keep up the good work. It upsets me when the bike lanes get bad mouthed. We need to be thinking forward to the next twenty years or so, and these are just a small step in the right

	direction. The City could do a better job in pointing out to irate drivers that the roads aren't paid for by their road taxes/insurance, and in fact paid by everyone's city taxes. The City could also maybe persuade the Vancouver Police to stop staking out the bike lanes to give out helmet tickets while ignoring speeding drivers taking illegal turns across the bike lane... just a minor gripe, but it irks me.. btw the helmet law is going to kill the upcoming bike share. we really need to figure out some kind of exemption.. Like I said keep on with the good work..
37.	Why would you use Mustel Group to do your survey? The way they treat their employees is terrible!
38.	They are a great addition to our community. I love especially that there are now some bike traffic signals, which can only make things safer and smoother. I feel safer cycling downtown than I used to, especially now that I'm middle-aged.
39.	Main St next please!!
40.	The bike paths are great - I would never have bicycled to work if they weren't in place, because bicycling on the road is quite dangerous. It is also great to see Vancouver following European cities (for example, Amsterdam) in reducing car space in the city gradually over time in exchange for more alternative transportation space. Providing the necessary infrastructure is the best way to get people to switch transportation modes.
41.	Thank you for doing a survey. I would probably advice to do a proof-read by someone else before doing a survey though. The survey that a little messy. It's not hard to do a survey, but this one is not a class A. Look on the web for examples and do a little bit a brain storming. The questions was someone important, but the answer where redundant. Per example: when you like if you like the bike lanes you don't need to do a positive and negative of everything. Plus I think their is enough research on the subject that indicate that by having pedestrian and cycling zones in front of business street, it definitely help the business. People that enjoy the walk on a location, will definitely have easier access to the shop and will discover new places. And if someone is driving, the will have to find a parking every time they want to go in a store... and will most likely not go more than within the block they park their car. One thing I can tell you that would make cyclist life easier when going in shops : more parking and might be days with valet parking (busy long weekend, special events...). Having at least one or two bike rack on each block and on each side of the road make cyclist life easier.
42.	I support separated bike lanes as I am a survivor of a parked car door opening accident on Robson St. by the VPL. Could you consider a separated bike lane on Robson from Seymour to Beatty ? Thanks.
43.	They have tied up traffic horribly downtown and have really made a mess of things. Even on a non rainy day they do not get much use. Really bad planning went into these lanes and even though I am for improving bike safety you have made a mess out of things so far.
44.	I have changed my commute and am now aware of businesses that I didn't know about before, but am now likely to shop at.
45.	I love the new bike lanes as it makes for a safer ride downtown.
46.	the bike lanes are a great idea but more planning is needed. i used to use the burrard street bridge every day and now it takes 25-30 to cross the bridge in rush hour and its hard not to be pissed off when you are in stand still traffic and only one biker is using the

	lane. also vancouver rains all the time so on 65% of the days no one is using the bike lanes. i think it would have been nice to create something like the canada line bridge in richmond where the bike lane is attached under neath. i like the idea of making vancouver more bike friendly but a lot more planning is needed to statify both bikers and traffic commuters.
47.	The lanes make riding to work and to shop (which I now do via bike because of the lanes) SAFE, as drivers of vehicles do not give cyclists due care and attention. One vehicle /bad driver can cause a bad accident to someone on a bike, even though not all drivers are bad. The lanes also provide more parking for bikes and prevent cyclists from getting "doored" which means hitting the car door as it opens too late to brake. The lanes have OPENED up downtown to cyclists and today, for example, I am shopping at Sears and going for lunch on Dunsmuir by bike. I think some shops have to earn more business by making themselves a bike friendly destination, and promoting themselves as such. We always don't want to ride to Granville Island, we are looking for more places to ride to on off-work days. Also, I fear that businesses blame bike lanes for a perceived lack of business, when there is a recession going on and people are starting to shop less anyhow. Make your place more bike friendly and provide something that people want to buy, and see the cyclists appear!!
48.	I like not having to play leap frog with cars and buses. The one I'm most likely to use is the Dunsmuir one but to access it I have to go down Main Street (I live on East 5th close to Main Street). Most of the people and buses on Main consider it a highway and are not friendly to bicyclists. Buses especially seem to take pleasure in passing and cutting us off. The result is that I always end up using Quebec where there is lots of room for everyone, then I cut over to Pender past Tinsel town. On Pender I only have a couple of blocks to play leap frog with the traffic until I reach Granville where I work.
49.	I support bike lanes without barrier seperation but with extensive public education and strict law enforcement for all road users and pedestrians.
50.	I think the bike lanes are a good way to encourage bicycle commuting, especially for those that do not routinely bicycle to work. I think even the negative publicity helps to raise awareness that an alternative to the car is needed in a livable city.
51.	There should be more separated bike lanes. Making the city more bike-friendly is great progress.
52.	It's great! Safer! I feel we can reduce the amount of polution and even the traffic jams. Great Great great! Thumbs Up!
53.	Seperate bike lanes make for a much safer commute. Since using the bike lanes, I have not been taken off my bike downtown; in the two years before using them, I was taken down twice.
54.	If it wasn't for the Dunsmuir separate bike lane, I would not bike to work at all as I don't feel safe cycling with buses and cars on Pender St. Cycling between parked cars and traffic (with lines on the road), doesn't feel safe either as cars often pull in or out right in front of me or drive in the bike lane, or parked cars open their doors without looking which can be dangerous to cyclists. THANK YOU for the separated bike lanes!
55.	I pay taxes to subsidize roads and vehicles, so why shouldn't safer and more convenient bike lanes be subsidized too?
56.	Thank you for the separated bike lanes. This is the future.

57.	The separated lanes encourage me to do more shopping downtown, rather than in my own neighbourhood, as it is convenient to my workplace (I can go on my lunch break). I feel safer cycling downtown and naturally shop at stores along the bike path as that is most convenient.
58.	I feel much safer riding in these lanes than compared to bike lanes that are not separated. So far I havent had any close calls with drivers. I try to use the separated bike lanes as much as possible due to saftey reasons.
59.	Loving the separated bike lanes. While I know that nothing is 100% "safe", I find them much safer than riding in the streets, which I have been doing now for many years!
60.	My safety is regularly compromised by ignorant, careless, and selfish cyclists (not all, but many); I walk along the Hornby bike lane every work day, and also cross the Dunsmuir lane - nothwithstanding the lack of use I see at most times, I have observed that many cyclists use the bike lanes only when it is convenient to them - e.g. had a cyclist ride past me ON THE SIDEWALK (where it is illegal to ride a bike) on the east side of Hornby in the block before (south of) Georgia - he was turning left onto Georgia and, if he had been using the bike lane, would have had to wait for the signal - so instead of having to wait, like all law-abiding citizens, at the light, he broke the law, rode on the sidewalk, and put pedestrians at risk to save himself a minute or two. Not the way the bike lanes were touted to be used. Now that the city has spent so many millions building them, cyclists should be heavily fined for inapproprate use of the roads and sidewalks. It is, after all, the law - let's enforce it for everyone, not just drivers.
61.	I am extremely surprised there is no question about the increased danger from having 2 way bike lanes on one-way streets. Drivers have not, and do not, look to bikes coming from the driver's left. The problem is particular acute when a driver is exiting the Robson Square parkade on the north east corner at Hornby. However, all exits are extremely dangerous and lull bikers into a false sense of security. There is also an increased danger of crashes with pedestrians. I have also noticed an increased level of aggression by drivers towards bikers, having been "nudged" off the road on two occasions, as well as being subject to verbal abuse. Another major problem is the congestion created on Dunsmuir. Cars back up regularly. On Christmas Eve 2010, this problem presented itself: an ambulance used the bike lane as an emergency lane. If I had been farther advanced on my eastward travels, I would have had to make a split second decision to ditch into traffice or to cross in front of an emergency vehicle travelling at 60 km per hour. Not a good choice. Another extreme safety hazard is the curving of the car lanes at Hornby and Georgia and at Cordova and Burrard. These lanes are extremely poorly lit (no reflective markings) and I have seen numerous cars enter the wrong lane when entering the intersection. The bike lane at Hastings and at Burrad from Cordova is absolutely ill-conceived. If you wanted to do one thing to discourage commuting, implementing lanes in that fashion would be it. I have noticed absolutely no effort by the City to monitor other bike traffic downtown. In my 20 years of biking Pender Street, I do not recall any traffic counting measures, and there certainly have been none since the bike lanes were introduced. I would be pleased to discuss these issues (or others) and do not require anonimity, particularly given the safety issues which I believe have been glossed over by the City. Max Weder 604 643-6370 mweder@davis.ca
62.	Thank you. I feel more safe riding in the bike lanes. I hope to ride to work lots this season. I used to have to ride into downtown on Pender which is scary and dangerous in many

	sections, especially adjacent to Victory Park
63.	Love them! Makes my commute so much less stressful.
64.	The separated bike lanes have extended my cycling season. I used to be a seasonal cyclist because I found it challenging to cycle in the winter because I felt unsafe. I was concerned that cars would not see me in the rain. The separated bike lane provides me with a feeling of safety. The separated bike lanes also provide a separation from pedestrians. Pedestrians are less likely to jay walk in front of me now, which is great! Having moved back from Ottawa (within the last year) I want to say that is a pure delight to be able to move through Vancouver, including across the Burrard Street bridge, with such ease. I urge the City to keep the separated bike lanes.
65.	I think that they are a fabulous idea, well planned and I also think that the businesses who are now complaining A/ will find their businesses coming back to them if their business is actually worth it B/ should be innovating to adapt to a new transportation framework that is inclusive Thank you and go greenest city!!
66.	Having the lanes make my commute safer and more enjoyable. The downtown dividers really assist in putting both the cyclist and the driver at ease. I know many others who would ride their bikes if there were more of these dividing lanes. I also hope to see more bike lanes in my area – North Vancouver, near Capilano Mall. Unfortunately, when riding home from downtown, the bike lane ends shortly after coming off the bridge and my ride becomes a lot scarier, especially at night. I could see this putting some people off of riding their bikes but with more lanes, this would only encourage individuals to ride. Additionally, we all know how crazy traffic is over the Lions Gate, if there were better lanes before and after the bridge, I believe this could help some of the congestion. I don't think the results would be instant, even in the downtown core, but with time I'm sure we'd see a difference. Lastly, it's nice to see Vancouver stand up and make this city more environmentally friendly!!
67.	The lanes are very helpful for me and other users. I came into town in the mid-morning a few weeks ago and spoke to a women about 75 years old. I ask her how she liked the Hornby bike lane and she was very enthusiastic about the safety aspect and she said she used it regularity. I know a number of YWCA members who use the lane. All agree that it is good facility but some of the better cyclist think that is slower than the previous shallow lines.
68.	Keep them! More people are biking now. I was on the route the other day and 20 people on bikes were lined up at the light.
69.	Amazing! Keep up the good work! I feel much safer.
70.	Makes the ride across the city easy and safe. Love it.
71.	Safety is greatly increased by the separated lanes.
72.	I feel safe on the streets for the first time in my life. Thank you for there bike lanes.
73.	I love the lanes, particularly Dunsmuir. However, one aspect of it that is a negative is the right hand turn restrictions, often drivers insist on turning right when they should not and this makes riding through lights a bit tentative, that and when riding eastbound on Dunsmuir, you really need to be aware (and it will be great when drivers are too!) of vehicles turning right into the intersection in front of you. I recognize that a car will always win in a collsion between cyclists and cars so I try to ride respectfully and predictably.

	Maintaining these lanes will hopefully increase awareness of drivers to the cyclists that are out there; rain or shine. I appreciate the amount of work that the City of Vancouver does to make the city friendly to bicycles.
74.	Since the Dunsmuir was opened to cycles, I haven't had to drive my car downtown. In addition, I only have to bus downtown for about three weeks of the year now, and then only on the days when the City uses road salt.
75.	The lanes are great - I feel safe. I also drive a truck for my job and feel safer driving when cyclists have their own space on the road.
76.	Anything that makes cycling safer downtown is positive!
77.	The main reason I like the lanes, my "other positive effect," is that they are so much more comfortable and welcoming to riders. I really feel safer knowing that I have my own space on the road, and I appreciate the extra bike parking and planters. Overall, I think they're a great addition to our streetscape and definitely use them to get into town on a regular basis.
78.	Typically I choose my routes for safety and ease of cycling ie lower gradient, however, where they coincide I always take the bike routes. also, the more people cycling, the better for all cyclists. Although I do not typically use the busonesses along the Hornby or Dunsmuir bike lanes I always use the businesses along other bike routes.
79.	The separated bike lanes are great! I can also take my family safely downtown by bike - all times of the day; which we now do often. This was not so before there were separated bike lanes. We had to stick to the Sea Wall lanes only. The separated bike lanes open the downtown core to bikes - so we now are able to shop and eat there when biking. I had many, many near misses on the Pender shared bike lanes with taxi's, tow trucks being aggressive in shared bike lanes (not sure they were even supposed to be there - thought it was bus and bike only). Also cars would dodge in and out of bike lanes to get around left turning cars with little regard for bikes. I had to stop commuting on Pender eventually since I was certain I was going to get hurt or killed - after too many near misses. I am now once again commuting by bike downtown - more safely than ever. Well done!
80.	I now avoid any streets with bike lanes along with any merchants or services unfortunate enough to be located on such streets.
81.	Really like how the Dunsmuir bike lane has freed up the pedestrian walk way because I often walk to work over the Dunsmuir viaduct. Before it was hard for pedestrians to compete with cyclists in the narrow walkway.
82.	Keep them.
83.	I love the bike lanes. I take Main Street from about 2nd ave to the viaduct every day and when I start biking on the viaduct which leads to Dunsmuir I feel so much safer than I do on Main St. It is important that bikers are given space. Biking is such an incredible mode of transportation - it takes me a shorter amount of time to get to work than some of my coworkers that take public transportation or drive and I get exercise and feel great by the time I get to work. I love how I can hop off my bike and go to the post office or grab a coffee before arriving at work. It is one of my favourite things about moving to Vancouver from Toronto. I am very happy that the City of Vancouver put these bike lanes in. It makes the city much more conducive to biking and will help encourage those to bike who may have been too scared to bike on busy downtown streets before. Thanks for putting this survey

	out!
84.	No comments, execpt that the lanes make cycling downtown much safer.
85.	Despite the protests from motorists, I would argue that these same folks have never used the bike lanes that are also there for their service. As a daily cyclist I feel much safer using the lanes and have witnessed a steady growth of use as the weather improves. I applaud the city for this initiative and hope that over time it will encourage more cycling through the downtown core.
86.	The bike lanes are a fantastic addition to vancouver, as I know many who would have riden in the past, but were intimidated by traffic, and now do ride due to separated lanes. Anything that gets more cars off the streets and gets people more active.
87.	Separated bike lanes make it feel much safer to ride a bike downtown. You feel protected from cars and can ride more calmly. It also slows down traffic beside stores (instead of having high speed cars right next to the sidewalk) making you feel more comfortable as a pedestrian and more likely to stop at the shops there.
88.	We need more separated bike lanes in Downtown.
89.	They encourage cycling and make people feel safe. It brings a better sense of community and fun for all ages in the city.
90.	Because I often bike with my infant daughter (in a bike seat) the separated bike lanes are a must for me bringing my bike downtown. Prior to the separated lanes, I would not have felt safe having her on my bike coming through downtown traffic.
91.	I believe that we should encourage cars, bikes and pedestrians to share the road, and follow the rules! Having separated bike lanes does not effect my commute because I never did use those streets in the first place. I am a believer that bike routes are a valuable part of our roadways, but I have never had a problem with a shared lane, and the painted designation of the lane was adequate for my commutes. I have cycled to work for about 20 years.
92.	I really appreciate having the bike lanes and other bike infrastructure in Vancouver. It is superior to other cities/municipalities, offering bike commuters a safe, healthy, and green alternative mode of transportation. Thank you City of Vancouver for being a leader in encouraging cycling in Vancouver, while meeting the needs of other users.
93.	Please keep building separated bike lanes. There also needs to be an East-West connection between Stanley Park/Denman and Hornby. Please!!
94.	The lanes need legal reinforcement to prevent cars from illegally turning in to bike lanes or stopping in the lanes while trying to merge into traffic. Motorists need training in cycling safety!
95.	The #1 reason I love the lanes is safety.
96.	The bike lanes make it safer... always.
97.	I love these bike lanes! It makes me feel way more safe travelling through the busy downtown. Can we do all of 10th Avenue across the whole length of the city next? Thanks!
98.	Fantastic! Get the Biki's like Montreal

99.	I think they are a great addition. I use them every day that I ride. They are a minor hassle when I take my car, not enough to overshadow the increased safety for cyclists. Keep them open, make more of them.
100.	I only commute on my bike downtown because of the seperated lanes. I feel it is too dangerous to bike with or in traffic. I would then drive, park outside of chinatown and walk to work from there. I love the lanes - please keep them and make some pedestrian only streets too!!
101.	I don't use them for my commute, but I often use them for other rides when I go through downtown. If I lived where they came into "play" on my commute I would definitely use them. I commute from North Vancouver over the Lions Gate.
102.	Right turns by cars/trucks seem to be a safety issue sometimes. Was almost hit last week by a driver who turned right without slowing down and stopping while I was going straigt also on a green light. Heard about a bike accident on the same day with this very same issue.
103.	The bike lanes likely make for a slightly slower ride north on Hornby. It also means that I can't move to the west lane to turn onto Smithe, but that is a small point. My biggest concern is that the bike lanes significantly enhance the risk of collisions with pedestrians. Some cyclists will speed up to beat a light. And there is no margin of error when a pedestrian steps into the street/bike lane. There are going to be some bad collisions if there haven't been already. But the bike lanes and especially the Dunsmuir lane across the viaduct greatly reduce vehicle contact and that is a good thing. It took a lot of guts for the City to build infrastructure for cyclists and I commend the Mayor. Its not perfect, but on balance, its an improvement.
104.	Bike lanes are great - they make my ride to and from work much safer and more appealing. With bike lanes, my route has shifted to using Hornby and Dunsmuir more so I am now more aware of and likely to stop to shop at businesses on those streets.
105.	Since the separated lanes went in, my wife and I tend to use Hornby and Dunsmuir more regularly than other streets. I also use businesses on or near these streets more frequently. E.g.: Wicked Cafe, VAG, VanCity, Mink, street food vans, Panz, Sushi01, Il Giardino, SFU, London Drugs, Fairmont bar, and others.
106.	They make the most efficient, healthy and environmentally sound mode of transport much safer.
107.	Thanks for this opportunity. I am 62, and live downtown. I have not owned a car since 1992. I walk, use transit, use the occasional Modo car share, take the odd taxi and bike all the time. The separated bike lanes are wonderful, and have broadened my shopping habits. I shop more along Hornby but now I can also safely, and quickly, bike over to Kitsilano or The Drive. The city beyond downtown is now so much more accessible and I set out without hesitation. I can only assume that the reverse is also true, and other cyclists find downtown easier to get to. Irrational criticism of the lanes has been very disappointing. I often talk to visitors to Vancouver and what seems to impress them most is the Canada Line service from YVR and the bike lanes across downtown. I totally support the separated bike lanes. Thank you.
108.	A good start to creating a NETWORK of separated bike routes! Very forward thinking. How about elevated bike expressways? Good luck with the funding on that one, though.

	Maybe some really progressive sponsor? One can dream...
109.	Painted lines on Burrard (HOV NB and bike lane SB) work just fine for me. Too much trouble to go over to Hornby - would make commute longer. Personally I like separated bike lanes but none exist on the routes I use - would have to go out of my way to use them.
110.	keep up the good work!
111.	Thank you so much for making my commute safer! I've recently returned to Vancouver after having lived in Montreal and I'm gearing up to get back to cycle commuting full time beginning with Bike to Work Week.
112.	I was cycling to work before the separated lanes went in, however, I found the lanes have made cycling downtown a much more pleasant experience and as a result I now ride to meetings and other non commute trips that I previously would have taken a cab or walked to.
113.	They are great, mainly because they remove the nervousness I have about cycling in traffic that isn't always too deferential to cyclists. I am proud of my city (i.e. the Mayor and Council) for their steadfastness in making this happen. I have cycled to work (mainly May-October, bus in the rainy months) for the past two years. I am a Senior Manager in a Public Sector agency.
114.	These lanes make biking downtown feel much safer and also have made it easier to come downtown on weekends with my spouse and bike around casually on our tandem when otherwise we might stick to the burbs. We live in Port Coquitlam.
115.	Please keep building more separated bike lanes. Before these lanes, the commute was very dangerous and slow, and dirty (having to breath in a lot more smog.) There are separate lanes for pedestrians (called sidewalks), separate lanes for cars (called roads), therefore separate lanes for cyclists are only the logical thing to do for safety. I have been a daily bike commuter for over 30 years (I commuted from N.Van to UBC when I was 18). Bicycle commuting is here to stay. Build the necessary infrastructure for the safety of all users: pedestrian, drivers, and cyclists.
116.	The bike lanes make me feel safe & I have a very predictable commute (traffic, route, etc). In a car, I would have to pay for parking & wait in traffic.
117.	thank you! they're great! More!
118.	The higher degree of cyclist safety through separation, increased ease of access into and out of the downtown core, positive impact on driver/pedestrian awareness of cyclists and overall more encouraging atmosphere for new riders is a very positive aspect of the bike lanes. As a weekly commuter I ride FROM downtown to my job in south Vancouver using the Hornby bikelane along the way, thus the postal code I gave at the start of the survey (my work postal code), but my home postal code is: V6G1H6.
119.	Cars continue to turn right with impunity, in front of cyclists. The lights on Dunsmuir do not line up with the speed of cyclists, or for cyclists going east-bound. I am a speedy cyclist, and I cannot get through more than one light at a time on my way back to East Van for my commute home because the lights are timed for vehicular traffic going downtown.
120.	The new traffic lights made specifically for the bike lanes were a bit confusing at first. I have seen them cause confusion in other cyclists as well, resulting in negative interactions with drivers (specifically when it is a drivers turn to turn right accross the bike lane).

	Perhaps improved signage could help curb this issue. Cyclists need to understand that they have their own traffic light that they have to adhear to. Otherwise, great job! The bike lanes provide an excellent way to travel with less stress in the downtown core.
121.	Constantly concerned about cars making turns on red lights and pulling out of laneways without checking both directions. Heading southbound on Hornby, you hit every light red due to no light synchronization. Rode the Dunsmuir bike lane eastbound only once and liked it.
122.	The trend of increased bicycle ridership in Vancouver is an unmistakeable reality. I know that there are a number of downtown businesses opposed to the new separated bike lanes, but don't see their arguments as being well-founded. There is still PLENTY of vehicle parking available downtown, and a change in shoppers' attitude around the new habit of walking a few blocks from parking stall to store will take a while -- change takes time to digest. The positive change that businesses will realize from increased ridership, and subsequent sales, will also take time to reveal itself, but the businesses will ultimately be happy that they gave it the time it deserves. It's too early to remove the trial lanes that the City invested in; the lanes, the cyclists and the businesses they frequent deserve more time together.
123.	The bike lanes make it easy for me to meet clients all over the city without taking taxis. My staff are now encouraged to bring bikes to our office and meet clients via bike.
124.	Given the climate and rain fall, the bike lanes are not practical and a complete waste of money.
125.	Separate bike line creates more pollution from increased idle traffic. Also makes car right turn way more dangerous since bikers think they are safe and are not careful. I've seen many accidents on my way to work since the bike lanes were installed.
126.	They just add a bit of awkwardness to a few turns the create a bit more waiting, but it's not a massive deal.
127.	Find another way to have bike lanes without taking away an entire lane on ANY bridge. Bike riders on city streets must carry insurance. Police riders compliance with rules of the road, ticket & fine offenders and seize the bike of repeat offenders for 30 days.
128.	When I am biking, I feel much safer using the separated bike lanes.
129.	Hate them!
130.	Each of these questions should be posed for each bike lane individually. Based on my home and work location, I have distinctly different answers. However it's a great format if you want skewed results. I like the safety of the bike lanes. I feel that the location of the bike lane on Hornby could of served more cyclists and a wider selection of bike routes had it not been so far west. Right now the areas it serves (kits to the westend) is quite limited to what it could be.
131.	The positive aspect of the lanes is that I don't have to worry about cyclists as much. The negative aspect is the increased congestion on Hornby, particularly with drivers turning left on Smithe and Robson.
132.	The traffic lights on Hornby are too restrictive for both bikes and cars. As a one way bike lane on Hornby the lights worked fine. We are being way too cautious with the restricted turning just because it is a two way bike lane. Change this and I will be much happier.

133.	Bike lanes are great. I started commuting via bicycle this year because of the lanes and wish I had started much sooner.
134.	I don't use the lanes because they aren't on my way to or from places where I choose to go. But I believe that bikes belong on the road with all other vehicles. Cars and bikes need to learn how to share the road. Separating the two does little or nothing to help with this. The Georgia St. bike lanes on the other hand are extremely good and useful - as are the other non-separated bike lanes across the city. Keep up the program in this respect - but separated bike lanes are a bit of a lighting rod. It's not that they are a bad thing, per se, but in my experience, all they've accomplished to date is to get motorists to dislike cyclists.
135.	Love them. I'm both a cyclist and a driver and I think they helping the downtown core immensely by reducing yhr number of cars and encouraging cyclists who may have been intimidated of bikin downtown.
136.	No more bike lanes!
137.	I think separated lanes are the future - walking, transit and biking should be considered as much as car use...
138.	Love the lanes just need to find the best route to access them from around tinsel town area and I'll be set!
139.	I think they are great! I feel much safer on the Burrard St bridge since the divided bike lanes were put in place. The flower beds on the dividers are a nice touch.
140.	Love them! Totally a move in the right direction! Next step, residential organic waste collection (like Toronto...)
141.	The separated bike lanes are very comforting and helpful to me. I find myself going downtown more often -- on my day off, for shopping or going to restaurants. I hardly ever did that before the separated bike lanes. I used to only go downtown for work before. Downtown drivers can be very aggressive, or they are distracted, or they are tourists, and it helps to have a separation. I remember years ago before my partner and I switched to bikes, we hated going downtown to do errands in the car -- we could never find parking anywhere. The separated bike lanes make it so much less stressful to do my downtown errands by bike, and I don't have to worry about parking. I also don't have to worry about being downtown after dark -- I used be nervous riding in the dark but the separated bike lanes make me feel confident and protected. Now I sometimes linger after work for drinks with my friends or dinner or whatnot. My partner has started to ride to work on his own -- he never used to do that unless it was a special occasion -- like Bike to Work week. And sometimes he drops by to pick me up from work so we can bike home together. I think this means he likes the new lanes too :)
142.	keep em'
143.	I see families using the bike lanes now which would have never happened prior to them being in place. I see a big challenge for the debate is to change the language from cyclists and drivers to shifting towards inclusivity. We are all people that make choices and these choices can change and don't define us permanently. People ride bikes. People drive cars...and will make the switch when given the opportunity. Keep up the great work!
144.	I use them every day and for the most part they are great. Two problems though... 1. The timing of the lights heading south on Hornby is really bad. I'm not sure if it's possible to fix because you're going against traffic, but you essentially stop at every light. I've

	intentionally slowed down enough to time it so I don't have to stop and it's works out to basically jogging pace. 2. The traffic signals are great, but still on a daily basis, cars screw up and nearly hit a cyclist. Not sure of the solution, but cars are too accustom to making a right turn on a red light I suppose.
145.	THey are great, keep expanding them!
146.	It has complicated access to and parking for our office and increased traffic congestion and emissions on the major access routes for downtown. Are these increased emissions balanced by the people using the lanes? I walk to work every day, and I do not see that many people using them. Also, I am upset that the lanes were installed in a permanent way without any public consultation or trial to assess their impact.
147.	Bike lanes make me feel safer. On routes without bike lanes I am blocking traffic and cars come *very* close. I think bike lanes are more optimal than cyclists taking a lane of traffic (and ICBC advocates cyclists to take a whole lane if there is no shoulder)
148.	Congratulations on making the difficult choice and taking the correct course of action in face of vehement opposition -- Vancouver needs to be brought into the 21st century, and attitudes must change. Sometimes you *do* have to force the horse to drink, when you know it will die of thirst otherwise.
149.	Pedestrians on one-way streets don't seem to know that the bike lanes on those streets are two-way. They step out against the light because they don't see CARS coming. We need some way to educate them and remind them to look both ways, even though cars are only going one way.
150.	Forward-thinking
151.	The bike lanes have made my ride to work much safer. They have improved the cityscape (the flower boxes along Horny are beautiful)
152.	I feel much safer biking in the bike lanes than on the streets with cars. I love how Vancouver is finally starting to catch up with Toronto in terms of bike lanes.
153.	cars require roads, pedestrians require side-walks and bikes require bike lines....
154.	SAFETY is always a positive aspect with separated bike lanes
155.	I appreciate the feeling of safety and a better connection to my community I get from biking on the bike lanes
156.	Big buses (transit, tour buses) and taxis, which are often being driven aggressively and erratically, make cycling on many regular downtown streets very stressful and quite unsafe. I make more 'pleasure' trips in and around downtown to buy things or go to events and restaurants when I know a route (such as a separated lane) isn't going to add to my stress or endanger my person. Otherwise, I rely on the bus or SkyTrain to get in and out, and having to ride those is not overly appealing -- I'd rather stay home!
157.	The connection from the Burrard Street bridge to Yaletown is awkward. The best route for minimizing elevation differences is along Pacific, but the bike lanes there are not complete and quite dangerous in places where bikes have to merge back with traffic. The separated bike lanes on Hornby and Dunsmuir do little to help this problem.
158.	It would be greatly appreciated if the pedestrians were more aware of the bike lanes and look before they step into the bike lane and or not stand in the bike lanes. I have had some

	close calls. Burrard bike lane is awesome, no more fear of being knocked off the sidewalk and into traffic. Thank you so much for all your work Cycling is oneway to reduce your carbon footprint.....rubberside down:)and have fun.
159.	They are awesome. Put more in.
160.	They are a huge improvement! Bike lanes (with just the line) are okay, but a lot of them are in the "car door" area, and cars don't always respect them. I feel **a lot** safer in the separated lanes.
161.	I use the Dunsmuir lane on a daily basis and find that, together with the lane on the Viaduct, it makes my commute much simpler and a bit more relaxed, as at least some of the safety concerns (being doored or being cut off by cars accessing parking) are at least partially allayed. I also shop along the route (mostly restaurants or bars), but would likely eat elsewhere were my route different. It's a lot easier to access retail as a pedestrian or cyclist downtown, than as a driver, and from observation, it seems as though most shoppers, at least for the last bit of their trip, are pedestrians. While these separate lanes wouldn't be appropriate on every downtown street, they do a very good job of extending the system of bike routes from the rest of the city into the core.
162.	I think they are fantastic and they've done a great job beautifying the city streets, slowing down traffic and increasing the overall appeal of downtown Vancouver. The bike lanes coupled with the Olympics have increased the use of public transit by downtown workers and less vehicle traffic downtown is welcomed. The reality is that vehicle traffic does not account for more use of downtown businesses. People account for an increased use of downtown businesses. As long as the entry and exit of people from downtown Vancouver is made easier businesses will see an increase in traffic. I look forward to more use of public transit such as light rail in to and out of downtown Vancouver.
163.	They should be removed, thlough I doubt that they were ever intended to be "temporary". Another case of politicians misleading the public
164.	they interfere with the ability of cars to turn right at previously accessible right turns. I believe cyclists need to be treated as vehicles on the road, be subject to the rules of the road, be prosecuted for riding on sidewalks, for blocking intersections, for failing to have lights and for being rude and aggressive. They do not need special bike lanes and the cost and allocation of space is ridiculous when one compares the traffic counts. And I imagine that the loss of parking space is having a profound impact on the street side businesses. As it has been well documented that street business depends on accessible and available parking spaces.Cities like Christchurch NZ and Amsterdam seem to manage their bikes just fine - I spent my entire youth from 7 to 20 biking around Christchurch without so much as a single bike lane - and I was subject to six monthly inspections by the Police to ensure my bike had brakes, lights and was road worthy - and you would be prosecuted if you rode on a sidewalk or didn't follow the traffic instructions.
165.	The positioning of the bike lane on Dunsmuir does not allow you to turn right on a red, and the vehicles on Dunsmuir are backed up so you cannot turn right even when I have a green light, it takes forever to get to work, so I have now changed my route to avoid Dunsmuir. Bike lanes are great and I love them when biking but not when driving. If there were more bike lanes like in Edmonton I would bike every day to work all year round.
166.	The bioke lanes make me feel significantly safer and have increased the number of times per week I ride downtown. I ride downtown to shop at Pacific Centre and would not have

	done so before the lanes we put in place.
167.	These are great. I do not understand the resistance to the separated bike lanes since parking is still allowed. I am looking forward to when Vancouver finally develops the same attitude towards bikes as they have in those other forward-thinking places in Europe and Scandinavia.
168.	It's such a fabulous thing. What a great way to not only help our planet but also our health by promoting less driving in our daily lives.
169.	Fabulous job. thanks for doing this. I am having out of town guests who will bring their bikes to Vancouver and we will for sure shop downtown because of the bike lanes.
170.	The Hornby bike lanes actually have little effect on travel time other than having to change lanes several times between Davie and Cordova. The Dunsmuir lanes do have a negative affect on travel. ie: the 211 and 210 buses now using the Main/Pender route.
171.	The bike lanes are useless. Makes me laugh to think we have improved air quality in this city when the lanes have slowed traffic to a crawl. They are really poorly thought out with no right turns being the worst thing you can possibly do. That and the fact that bike riders are so stupid they can't read words like dismount, do not ride on the sidewalks and STOP.
172.	The main problem with the bike lanes is that they are under-used, while creating congestion for buses, pedestrians and cars. Why not just have everyone share the road? it is a much more flexible system not favouring one group over another.
173.	The bike lanes are awesome, when you are going in the right direction (the direction of the cars) when going against the traffic, the traffic lights make it not so enjoyable, as on Howe at least you are stopped at every set, and on Dunsmuir you are stopped every 2nd set.
174.	I've cycled into downtown from North Van before and after the separated bike lanes and I feel infinitely more safe riding now than ever before! LOVE the separated bike lanes!!
175.	As someone who has commuted on Dunsmuir before and after the introduction of the bike lanes, I can attest to having seen a noticeable increase in bike traffic along that route.
176.	They've made a huge difference in my time to commute and also has caused me to no longer be forced to do unlawful things to get to where I go. Therefore these new separated lanes has changed my cycling behaviour. The "outlaw" days are over. In my opinion I'd like to see, at least eventually, a few more of them downtown. Another North/South one in the West End and another East/West one maybe Yaletown to English Bay area. Also it would be nice to have something to get from Stanley Park to Hornby that's protected or at least calmed and with a gradual slope.
177.	I really support the separated bike lanes. I especially like being able to ride south on Hornby in a separated lane as opposed to heading south on the painted bike lane on Burrard which never felt very safe to me - being between the buses and the other traffic! Motorists will adjust to the changes and as a small business owner in downtown I support making Downtown more 'liveable' by reducing vehicular traffic
178.	Use Gas Taxes to fund roads and bridges not transit and bike lanes. I'm a driver paying a tax associated to driving and its getting used elsewhere. Elsewhere that negitively impacts anyones commute to downtown by vehicle.
179.	I feel so much better traveling in protected bike lane, we really need a bike lane on beach ave from aquatic center to stanley park. from my apartment I see the road and can tell you

	there is a huge increase in bikes on beach ave. the seawall path is good but when you are commuting home you want a direct line on beach ave. Take out one lane of parked cars. and make two way bike path on beach ave. When i bike over to chinatown or tinseltown I connect all the bike paths. there needs to be another two way bike path on other side of granville street. Perhaps improve on richard str. or other one way bike path going north... forgot name of str. I was very upset to headline in courier paper this week, It said Bike Lane Pain..and not even a question mark. Very disappointed by Courier and mike howell who wrote article.
180.	For Hornby, signage and lighting could both be improved. The green paint used on the Dunsmuir bike lane works well and makes it really clear where the lane is. The Hornby lane is more confusing with some kinks and use of the green paint would help before cyclists and pedestrians know where they should be and avoid confilcts and accidents. Added lighting would also help especially in the darker monrths. Would lighting outing the cycle path be practical and also attractive? I was surprised when I first used the Hornby bike lane that there aaears to be no signage at all indicating how to get on the Burrard bike lane. I knew that the Hornby bike lane was supposed to hook about to the Burrard lane and looked for it and completely missed the turnoff the first three times I used the lane. The turn off at Drake is odd and hard to navigate which might be hard to change but signage could help.
181.	love the bike lanes. Benefit isn't necessarily shorter commute time, but SAFETY! More greenery to beautify them will make Hornby a fantastic street with atmosphere. Let's improve the vibe on the street so bike lanes become a positive factor for all.
182.	The lanes have a huge impact on safety. Not only are bikers benefiting, but so are pedestrians. There is no reason that vehicles should be paramount over all other forms of commuting.
183.	The traffic lights on Hornby for those turning are confusing for divers and bikers. They should be changed to turn arrows.
184.	I'm a frequent cyclist in the downtown area and my views are... 1. The Hornby bike lane isn't used much; Granville Corridor is more logical without much expense to the city; otherwise Thurlow is best...get rid of one lane of parking and it doesn't affect business as much; residents park in the alleys anyway! 2. bike lanes are frequently used ONLY during business days, business hours; 3. Cyclists in the downtown area are generally all weather cyclists. 4. but am also a driver and find it frustrating about the non-right turns at various intersections. 5. from both perspectives, additional signage is really confusing and should go back to the "old normal" ways. 6. in intersections, cyclists should behave as pedestrians and be aware of their surroundings ie slow down!! 7. distributers and suppliers should use alleys to drop off their products AND be considerate of the neighborhood AND not block others.
185.	we need more of them!
186.	I think the separated bike lanes make it safer for both drivers and bikers. I personally feel more inclined to bike to work knowing that I have a bike lane. I think the separated bike lanes are great; however, as long as there is a "designated" bike lane, I feel more confident riding my bike to work.
187.	They only impact commuting if you live/work on/near the routes. I commute from Burnaby to West end and its more convenient (quieter and quicker) to use Beach, Pacific

	and then get onto Adanac bike route. If any of these became designated bike lanes then I would definitely use them. I do use the Granville Street bridge lane and think that this is very beneficial for cyclists and is well used.
188.	Thank you for providing these lanes. It takes courage and patience to wrest people from their cars to make these necessary, long-term, sustainable changes. Keep up the good work.
189.	I am very happy about the bike lanes and I resent the complaints about them which are based on the assumption that cars should have unlimited, exclusively convenient use of public roads. I drive AND bike and I pay property taxes. I want to use the roads that our city builds and maintains with those taxes for driving AND biking. I don't see why only one kind of transportation - cars - should be assumed to have primary rights to the roads, and should not face any delays or restrictions. That is an old-fashioned, out-dated idea at a time when gas is expensive, governments are in debt and increased car use in the downtown core hurts our environment and public spaces. Finally, for those business owners who remain short-sighted, when I bike, I spend more time noticing the people and businesses around me. And, I am MORE likely to spend time and $$$ after work in downtown bars, shops and restaurants now that I bike on the bike lanes, since parking is so expensive and the liquor laws so harsh....
190.	As an owner of a home on the West side of Vancouver I have experienced first hand the frustration associated with increased commute times and traffic snares caused by cyclists. This is related to both the Burrard Bridge lane closure debacle; the increased bike traffic on Burrard and bike lanes on both Hornby and Dunsmuir.
191.	The separated bike lanes are a great way for a variety of people to commute to work and for shopping, errands, and recreation in downtown Vancouver. They are also attractive and are a great asset to the City for visitors. This weekend, my 65-year old mother, who does not regularly ride a bike, was visiting from out of town, and we used the bike lanes to see the city, to shop, and to access cafe's and restaurants as well. She was very pleased with the safety and ease they provided to access the downtown, while providing a memorable and enjoyable experience. I use the bike lanes every day on my commute to and from work, and often stop to do errands along the way.
192.	More of them. B/c of where I work and live I don't use them to commute. However, I use them when I shop or dine downtown. I favour places close to the good bike routes that include the separated bike lanes.
193.	I did not bike that much to work until the bike lanes came about and I feel so much safer riding around in the City. THANK-YOU for implementing them!
194.	I feel safer in the protected bike lanes. Sometimes I use Burrard instead of Hornby. Hornby seems to have more traffic lights? -- especially right turn ones that can slow down the commute.
195.	We need to protect cyclist. Seperated bike lanes are a start to prevent cars from opening doors, cuttting off or otherwise interfering with bikes. Need to also prevent unauthorised use of bike lanes by skateboarders, pedestrians, scooters
196.	There are other issues than just time that should be considered with the separated lanes - such as safety for cyclers.
197.	I started commuting on my bicycle because of the creation of separated bicycle lanes. It

	makes my commute much safer.
198.	The separated lanes have increased my feeling of safety and my willingness to ride my bike downtown. I commuted to work by bike before, but I often walked my bike within the downtown core because I felt unsafe sharing busy downtown streets with heavy car traffic. When going downtown for social events, I often avoided cycling before the separated lanes went in, but now I usually ride my bike. I feel that the separated lanes will make a lot of occasional/recreational cyclists consider using their bikes on a more regular basis in the downtown area--especially those cyclists who may be less experienced with urban cycling.
199.	Signage at building exits advising drivers to not block the dedicated bike lanes while exiting would be nice; there is no way to go around them while in the dedicated lanes.
200.	I think separate bike lanes are a great idea for the entire Downtown core. I believe most impact to business happens during construction, not once the lanes are in effect. It would be great to have similar setup along trails like the Central Valley Greenway - Having to breath diesel fuel exhaust almost defeats the purpose of having the trail...!
201.	The bike lanes are very poorly thought out. That and the fact most bike riders are very rude and don't know the rules of the road make them a bad choice to keep. Anyone who lives/works downtown has noticed the air quality is much worse with the bike lanes because the cars are taking so much longer to get any where. Perhaps right turn lights for cars would help but at the moment things are a mess.
202.	Big difference for me in the new bike lanes is the sense of safety I have riding along Dunsmuir viaduct, and along streets into downtown.
203.	I think the installation of separated bike lanes are a good investment in making downtown Vancouver livable for those who live or work there and visitors. This investments had been well over-due and I would like the separated bike lanes to become permanent features of Hornby and Dunsmuir streets.
204.	I wish they were wider, especially as more novice cyclists and tourists begin using them in seasonal weather.
205.	Vancouver needs more separate bike lanes downtown so that a sufficient number of safety lanes are available to make bike commuting an obvious and obviously safer option for bike commuting than the current few separated lanes.
206.	I don't shop downtown because I won't lock my bike in public. I've had two bikes stolen downtown in 5 years.
207.	Great so far - would like to see more of them.
208.	Judging from my European background separated bikelanes have been overdue for a while. It's a good start as it is, just the linkage within the city cycling network is insufficient- at the east end of Dunsmuir you get dumped into traffic. It would be important to link the Dunsmuir corridor esspecially with Cambie bridge.
209.	Best thing to happen in the city in a long time. Hope the dinosaurs learn to survive the future. Go Green!!!
210.	One suggestion: for example on Hornby just south of pender there is a parking garage and motorists are used to only looking left when they emerge from the garage as it a one-way street going North...I almost got smoked there since I was travelling south. Perhaps a

	"heads-up for cyclists travelling both directions" sign would be great for motorists as they leave the parking garage?
211.	Since the Dunsmuir opened, I have stopped driving my car into downtown. Since the Hornby opened, I've started using it to travel to Kitsilano. I've also started traversing downtown between Downtown East Side and Kitsilano instead of bypassing via 2/6/4th Avenues.
212.	I love them, but it is unfortunate that so many vehicles often block them. Eg. Cycling home along Expo blvd just past Costco, the cars want to turn right on Cambie, and they just sit there, blocking the bike lane. I'm stuck! I also think that bells on bikes should be mandatory because bikes often pass me quite recklessly with no bell ring.
213.	I love using the bike-lanes they have reopened areas of down town Vancouver to me, as these areas were dominated by too much car traffic to try cycling for the fun of it. Therefore I had tended not to go.
214.	makes it really easy to access downtown destinations with added confidence. also having a clear demarkation between other traffic and bicycles provides clarity to all and less points of friction between cars and cyclists
215.	It would be great to see the Dunsmuir bike lane extended further west right to Stanley Park. This would enable a totally separated bike infrastructure coming in from all main routes into downtown, which would do a lot to make everyone feel safe riding a bike there. Thanks for the improvements ... they make a world of difference to lots of cyclists.
216.	I like the separated bike lanes. What is dangerous are the unseparated lanes such as on 16 th Ave, Main Street where the lane literally disappears and reappears. It gives false security to both cyclists and drivers. Not enought leeway for opening car doors in most unseparated lanes
217.	Hornby should be a one way bike lane and one way lane on Richards.
218.	Having bike lanes is not so good for business. 'cause of bad economy business is not running good and having bike lanes made even worse, there is no parking spaces (after bike lanes).
219.	I think that it will take a while for people to change their habits and start using the bike lanes. But that once they do it will be the new gold standard and people will not want to go back to the way it was.
220.	The lanes also legitimize cycling in the eyes of drivers. I have spoke to others who started riding because they felt secure because of the separate lanes. I frequent businesses along the bicycle routes both because they are on my way but also because they deserve our support.
221.	Lanes on Hornby affect our home. We cannot get a taxi, have a moving truck or find parking anywhere near our apartment. Drake St lane is USELESS! and makes traveling by bike more difficult. Traffic is more congested at Nelson and Georgia as the red right turn lights do not allow very many cars to go through. Some drivers are still confused with the lights and stop even though the light is green to go straight, more confusion and potential dangerous driving situations. Bike couriers can not get out of the bike lanes to deliver materials as there are too many flower boxes separating the lanes. Hornby lane built too fast without enough consultation to residents and businesses in the area. Would have been better to build the lane on the right side of Howe street. Less driveways / business

	entrances and no residential access needed.
222.	Please don't listen to the greedy businesses on hornby or the other nimby people who want the bike lanes gone. I was cycling on hornby the other day down south by davie st, and i saw there was a lane of parking on both sides of the street! If cars want traffic to flow better, get rid of on-street parking on busy streets. Bike lanes help people commute safely. Yay vancouver!
223.	Not sure I like them 2-way - could be dangerous in the direction opposite normal traffic flow. Also, turning onto other streets (e.g., to get on Burrard Bridge) is tricky. The bike lanes could also be wider.
224.	The bike lanes have made it safe and enjoyable to maintain a healthy lifestyle. If the bike lane on Hornby was not there, I would not bike, as biking on Burrard is dangerous. It opens up cycling to everyone, young and old, and we should all be able to enjoy that luxury. The bike lane would have no effect on the businesses - the parking is still there and they are still just as accessible. I believe people are already getting used to it. Thank you for the bike lanes!
225.	Motorized vehicles should not be allowed to use the bike lanes ie scooters.
226.	they are great. we need more of them. The space to lock bikes is excellent. The decrease in risk of drivers hitting cyclists is excellent. The landscaping adds a nice touch to the character of downtown. I purposely choose to work in a downtown office BECAUSE of the ease of cycling here (though I had other offers to work in richmond, burnaby, north van) The real scourge of downtown business is the price of parking - the empires of Impark & others gouge drivers. Also some more park and ride lots around the Burnaby & vancouver skytrain stations would help local businesses.
227.	They make cycling downtown much safer. I imagine it also makes bikes less of a thing to worry about for drivers. Also makes running errands around downtown easier and faster; I do some quick shopping during my (short!) lunch break now, where I never used to do that before.
228.	I am SO grateful for the Viaduct bike lane. That was a very dangerous place to cycle during my commute to work. THANK YOU for making it a safer ride and much less stressful.
229.	They are the safest travel routes for cyclists, and a huge improvement. I strongly hope they are not taken away.
230.	Dunsmuir is useful for commuting. Hornby is definitely slow for commuting. I use Burrard painted lanes instead.
231.	I feel a lot safer now, and I love the bicycle traffic lights. Is there a way to remind pedestrians to look BOTH ways before crossing though? They often only look in the direction that vehicle traffic is coming from, but don't expect bike traffic to be two-ways.
232.	I notice a lot more traffic congestion. All that extra carbon monoxide thanks to worsening traffic congestion (thanks to the bike lanes) is adversly affecting my walking.
233.	Cyclists should learn to stop for pedestrians and learn to be less aggressive and give the same respect to pedestrians and other vehicles sharing the road. Sometimes they ride as though everyone should be giving way to them, including zipping closely near people.
234.	Post speed limits

235.	The main reason I like them is that I feel safer!
236.	Please don't take away the bike lanes. They make my bike ride safer and easier.
237.	Contrary to the negative and misinformed reporting in Vancouver news outlets on the subject, I always find many people using the bike lanes on Dunsmuir and Hornby, for recreational, work commute and shopping purposes.
238.	I feel more safe, it's more pleasant, collegial, faster.
239.	Does Vancouver hire Traffic Engineers? These lanes seem like they are on the wrong streets....It would be better to have a second bike lane on the east side of Burrard that CONNECTED DIRECTLY with the bridge. The zig zag on drake is very inefficient for a cyclist and confusing for motorists. Bicycles move at a speed that is much closer to vehicles than pedestrians. I greatly appreciate the effort though.
240.	Dunsmuir used to be a very accessible route for vehicles, the bike lane has significantly screwed that up. Hornby not as much. Thurlow used to be a great way to get out of downtown but that was screwed up without a bike lane. Burrard bridge actually works reasonably well.
241.	make the public more aware of how to use separated bike lanes.....this includes drivers, pedestrians and cyclists!
242.	Better signage is required to move cyclists off nasrrow busy streets, to less busy streets with bike lanes.
243.	Give cyclists advance green signals to reduce conflict with car traffic when they are turning. Alternatively, give car traffic turning advance green signals.
244.	The only fear I have of using the separated bike lanes is that many drivers are unfamiliar with them. For example, on Hornby Street and Georgia, many drivers are still turning right on a red light (even though there are clear signs indicating No Right Turn on Red). I have a friend who was cycling and in an accident because of cars whipping right through the bike lanes
245.	Love them! Need more routes West to East farther south than Dunsmuir.
246.	Great asset to our City.
247.	The only separated bike lanes you mention are Hornby and Dunsmuir but no mention of the separated Burrard Bridge. I totally in favour of having the burrard bridge lane separated. Clearer signs need to be posted on the south side (into downtown) that pedestrians are not allowed to use it. I have seen many people walk across and cause/almost cause accidents.
248.	I began commuting by bike to downtown last month and really enjoy the separated bike lanes. I feel much more secure downtown.
249.	- commute home from work is only longer because the traffic light timing is HORRIBLE when going against the flow of traffic - would be great if this could be adjusted a bit - intersection of Hornby and Drake is not properly set up for cyclists traveling southbound trying to turn west onto Drake - overall separated lanes feel safer to ride in than riding on Burrard used to be
250.	as a former avid cyclist, i am excited to see downtown become safer for cyclists. saftey is

	the primary reason that i stopped cycling to work several years ago. i have experienced one accident at no fault of mine with no way i could have anticipated it. in addition, i have encountered almost daily close calls at the fault of drivers of autos. seperated lanes are wonderful and i have been considering taking up my commute again!
251.	Concept is good, but there are hardly ever any cyclists on Hornby or Dunsmuir, and deleting a lane on a busy street, deleting on-street parking, prohibiting right turns and implementing confusing street lights and signals far exceeds the minimal benefit to the few cyclists.
252.	I think the separated bike lanes are a fantastic idea -as they do tend to keep cyclists off the sidewalks -and when I do see a cyclist on the sidewalk I am able to point at the bike lane and say to them 'get off the sidewalk' nothing irritates me more than cyclists on the sidewalk -and I think the creation of the bike lanes has helped immensely with this issue - despite the fact that there are still inconsiderate stubborn cyclists who for some reason still think they can cycle on the sidewalk. I live and work on Hornby St. and praise the bike lanes.
253.	Generally I support the separate bike lanes throughout the city. However, I believe that before the city creates new bike lanes, it must study the traffic patterns of the area thoroughly and come up with reasonable alternatives for vehicles. The uncontrollable traffic caused by the new bike lanes on Hornby and Dunsmuir makes everyone suffer including pedestrians. I often find myself quite uneasy to walk through the insanity caused by cars, motorcycles and bikes around Hornby and Dunsmuir during rush hours.
254.	Separated bike lanes have made travelling around Downtown Vancouver much more difficult, time-consuming, and frustrating. Access to buildings is impaired, buses are affected, pedestrians also. It's a very bad idea.
255.	Cyclists do not adhere to traffic laws or bike lane signals. We really should ticket them as you would a car and driver.
256.	Cyclists seem to feel they have the right of way and are very aggressive with pedestrians such as shouting and honking. In front of the Art Gallery, I often have to cross the lane to get to the drop-off/loading area, and cyclists should give pedestrian the right of way rather than coming at them at high speeds. It's very scary as a pedestrian.
257.	The segregated bike lanes are such a positive change to the transportation system in Vancouver. We need more of them, also in North Vancouver.
258.	It just does not seem practical to me that a significant number of people will ever comute regularly to work by bicylcle to justify this endeavour...especially in the poor weather months.
259.	The bike lane, while admirable in theory is a total waste of resources. I walk by/ across the bikelane on hornby @ robson at least 6 times a day. (arriving, leaving, 2x @lunch, 2x@coffee+ other times for external meetings) At least 50% of the time there is no one on it. When there is someone on it, 9 times out of 10 it is a bike courrier. So it's been great for package delivery times. It has actually become a joke in our office to come in and say, "hey! I just saw someone on the bikelane." I know the mayor likes it, but let's face it, Vancouver rains too much to make biking practical. There are also no shower facilities in most offices, and i can think of fewer unpleasent things than sitting in a meeting with someone who smells like BO. As for bike security, the city is full of bike thieves I have had a bike stolen and have 7 friends I know of who have had their bike stolen. If you want

	people to have bikes why not try something like the rental bikes all over the city like they have in DC? People actually use them there and they didn't have to waste million$ in tax dollars to try to get people to start riding bikes. As for traffic, the bike lanes have created a virtual standstill along hornby with cars wanting to turn right onto Georgia during working hours, and then at rush hour it creates a log jam for those wanting to turn left. Meanwhile, for the evening rush North Shore commuters have now resorted to taking Denman street as opposed to going through downtown to get to the Lions gate. As a result Denman is a parking lot from Georgia to Davie every afternoon. This has made the #5 bus completely unreliable with waits up to 20 mins on some occasions and overcrowding to the point where the bus just drives right by. All those ideling cars are surely creating more polution than the dozen or so people actually using the bikelane everyday. My guess is most of the people using the bike lane were already biking to work already. I guess it's already built, so doesn't make much difference now though, but on the whole it has been an epic faliure.
260.	What I have noticed most is the bikers do not look at the signal lights. Many times I have seen very near misses as pedestrians are crossing the street and a bike goes flying through.
261.	I really appreciate the bike lanes because they make me feel MUCH safer when biking in the city
262.	I don't actually bike to work but I think they're great. I would be much more likely to bike in future and feel safer.
263.	I find the Hornby bike lane a bit cumbersome with lights and traffic in both directions. I actually often use another route other than Hornby even though it's my direct access... I think they should consider moving it over to Thurlow.
264.	Bike lanes are a move forward to a greener city. I do think that transit should consider offering MORE bike space on trains & buses for those who might wish to cycle once in the city. We need more secured parking for bikes and improved signage to alert pedestrians that there is a bike lane to consider when crossing the street.
265.	Details of access and egress to some buildings and parkades not yet well thought out. Current solutions are often quite dangerous to pedestrians and others. Rudeness and entitlement of some bikers quite offensive.
266.	There is serious safety issue for bikers when vechiles exit from the underground parking lot at Robson Squre onto Hornby Street. This I believe is an accident in the making!
267.	Traffic congestions because of these separate bike lanes that are scarcely used, especially in rainy winter. A lot of people working downtown do not afford to come in the office perspirated, dirty from the bike usage. A nuisance for most of the people to the benefit of a few.
268.	I appreciate and understand the initative, but I think it could have been implemented better. It shouldn't have taken several months of construction during which cars, bikes, and pedestrians were all at great inconvenience along Hornby. The signage is poor and confusing, resulting in many collisions and near-collisions, especially since many bikers ignore traffic lights and right-of-ways. Finally, it seems like the bike lanes have very little usage so far (although the summer has not begun yet) compared to the negative impact on traffic and parking for local businesses.
269.	When I cycle I like the lanes. They're safer when it comes to having to share a lane but I

	find drivers are less educated and will block the lane on a right hand turn while waiting for pedestrians. I am also a tax payer and I think that we spent far too much money on this. I would have road my bike to work anyways. I also really, really dislike Gregor. That is all.
270.	I think the bike lanes are great in principle and I would love to see more people riding their bikes to work, but I do find that when I have to drive downtown, it is very confusing now. The traffic lights are confusing with multiple ones at each intersection (one set for the left lanes, one set for the right etc) and I've witnessed drivers run red lights, mostly because they appear confused about what they are to do. I also find that the lanes create increased traffic congestion downtown, so that makes it less pleasant for my walking commute (though I do realize the point is to get people out of their cars).
271.	My commute actually is to drop off and/or pick up my wife from UBC Robson Square. On a pick up I usually have a young child with me. At the same time the bike lane on Hornby went in, the City of Vancouver added a parking meter to the handicapped spot outside the Art Gallery. The charge is exhorbitant and punitive, at $6 per hour, which I now must pay as I cannot send my child alone to fetch her mother. I find this move by the City to be beyond hypocritical, especially given their public stands re being green and removing barriers to the disabled. I must drive my wife because of her odd hours and because transit to/from the North Shore, outside commuting times is totally inadequate, which involves 3 buses and 1.5 hours. I'm okay with the bike lanes in general, but this policy matched by other changes (meters), is harmful to some.
272.	I like the planterns in Hornby street diving the lane from the vehicle lane - definitely has improved the looks of the neighbourhood.
273.	I like the idea of supporting cycling but the problem for me is mainly as a pedestrian. The bike lanes have introduced another separate flow of traffic that I have to be mindful of and I've had the experience of witnesssing and being involved in several close calls with cyclists. One problem area has been on Hornby directly in front of the Art Gallery entrance. I witnessed a group of female colleagues being shouted at and almost run down by a cyclist who yelled that he had the right of way even while these women were moving across what were clearly white pedestrian markings across the bike lane. Moreover, many cyclists don't actually obey the separate traffic signals meant for them and simply go through an intersection when it suits them. This is clearly not all cyclists but there is a hard-core element in the cycling community who take an adversarial approach to cars and pedestrians when they ride downtown. I've never once seen these people called out by police. It's because of them that pedestrians have to be extra wary about the new separated bike lanes, and the new set of traffic flow they must deal with.
274.	The bike lanes on Hornby Street have made using that street more difficult and have increased the congestion, in addition to negatively impacting the businesses. I understand the need for bike lanes, however, there were other solutions and options, rather than Hornby Street. For example, along Granville Street or it has been suggested that a biking network through the various alleyways in Vancouver would have also worked. While the lanes are advertised as a pilot project, the expense to implement and the appearance of permanent curbs, implies this is not a pilot. There was little or no consultation process and outlined solutions to negative impacts on traffic flow have been ineffective. The etiquette of the cyclists themselves is atrocious. They do not follow the lights and are not considerate of pedestrians in the least. Cyclists seem to feel and are treated as the most important group on the road. People are encouraged to take public transit, and those who do are not given the same courtesy. The lane has also seriously affected the parking exit

	from UBC Robson Square. No allowances have been made with alternate exits to mitigate this impact on students, staff and other visitors to UBC and Robson Square. Other major world cities have successfully integrated the use of bikes with vehicle and pedestrian traffic without separated bike lanes and pandering to one particular lobby group.
275.	Exiting from the Robson Square Complex on Hornby Street is extremely difficult given that one has to cross the bike lane right at the lights. On numerous occassions only 1 vehicle can exit the complex per light change. This has caused numerous confrontations with drivers and cyclists. The situation also presents a security concern to the Sheriff's who are only able to remove prisoners from the courthouse via this exit.
276.	In Amsterdam there is a clear correlation between the type of business and the dominant mode of travel on any given street. That took time to evolve but can't happen without steps to create streets that are friendly to those who are not driving. Businesses can cater to the person who isn't flying by in a car on their way to somewhere else. Many seem to choose not to. Many do not understand that non-car owners have $5-10,000 more to spend. Instead they alienate those potential customers. In any case we need to have far more of these kinds of lanes to create a true network.
277.	Prior to the bike lanes I would have to weave and lane split to get through heavy traffic on Dunsmuir St on the way to work, and on Georgia St and viaduct on the way home. I would commonly jump red lights to get in front of traffic and into the middle of a lane, although I'd be in the same situation of lane splitting at the next long line of cars waiting for the next light. My rule was less than 5 cars and I wait in the lane, more and I'd push to the front. I had many negative interactions with drivers as a result of these behaviours, although I felt they were necessary at the time. I feel the bike lanes are much safer, and encourage better cyclist behaviour, although they are not necessarily faster than riding with traffic. I now wait at lights as a rule, and go out of my way to ride the separated lanes. The bike corrals also make it very easy to stop and pop into shops on the way to or from work.
278.	Huge thanks to those who had the courage to push for the bike lanes and see it through despite a vocal minority of motorists and business owners. The vast majority of motorist criticism can be dismissed as outdated "car entitlement". These motorists can still drive at will in all other downtown streets; the single divided path through downtown is a small, insignificant piece of roadway which has mimimal impact on motorists. In contrast, the positive effect on safety and willingness to cycle is likely going to turn out to be huge.
279.	build more! i feel so much safer biking to work with the new separated bike lanes. great on the city to drive positive change, even if it is not popular change. the lanes are saving people from injury, creating more incentives for people to choose sustainable transportation methods, and changing the culture of commuting in vancouver for the better!
280.	I noted that I never stop and shop at places while I'm commuting in the separated bike lane -- that's b/c I'm commuting. I've noticed businesses that I hadn't before (including signage and window ads) that have made me return during non-commutes to shop there. I wonder how many drivers stop mid-commute to shop.
281.	Awesome - keep building more!!
282.	The challenge as a pedestrian at Robson and Hornby is that people concentrate on the light changing but a bike will suddenly fly by at the last minute - a bit unnerving - is there a way to get bikes ot slow down here? Driving along Hornby turning right onto Davie - it is such

	a sharp 90 degree angle that the driver can not see if a bike is approaching - plus bikes don't slow down and don't realize we can't see them. Could you make the turn safer by letting cars curve around somewhat to see if there is a bike?
283.	Although I am not impacted by the bike lanes on a regular basis, I have been impacted from time to time when driving downtown on the weekend. I am surprised at the congestion that has resulted since installing the lanes. I think better planning should have taken this into account. Also, we have under utilized alleys that could have been incorpoarted. Given all the rain in Vancouver maybe we will never have the crtical mass necessary to dedicate such large portions of our road way to cycling lanes or maybe we are just slow to get on board.
284.	love the idea for the commuters that are timid of traffic
285.	It's much safer and you can ride faster. Non-cyclist don't realize that cycle commuters also want to get to work as fast and efficiently as possible. We don't want to unecessarily worry about hazards such as cars cutting or squeezing you our or pedestrians stepping in front of you because they are not aware that cyclist are commuting on the road. Cycle commuters now have to learn to pace and pass other cyclist safely in the bike lane as the density of ridership increases with awareness and the coming of good weather.
286.	more public consultation before the bike lanes were finalized would have been useful
287.	They make my commuting so much more safer. Those lane are necessary for the bike community. More bikes. less cars more fresh air
288.	The bike lanes are a stroke of genius. I have commuted for years and was tired of either having to go around downtown or risk my life on the streets. The lanes are safe and civilized and super convenient. It's nice that the City of Vancouver is starting to realize biking as a form of real transportation, not just a leisure activity. I love them and all of those fat drivers who complain are just being narrow minded.
289.	It's a great program showing great success. Definitely encouraged me to bike to work.
290.	I'm sufficiently confident in traffic that I didn't feel a need for separated bike lanes, but I am very happy that they exist as they encourage those less confident in traffic to cycle. The "other positive commuting effect" that I selected re: my use of the separated bike lanes is that it makes my commute from work to home more pleasant because I take the hornby bike lanes south instead of the burrard bike lane.

Appendix H: Stakeholder Workshop Summary

Stakeholder Workshop Notes
May 12, 2011

1. Study Background and Context:

- This study has been commissioned by the **Vancouver Economic Development Commission, City of Vancouver, Downtown Vancouver Association, The Vancouver Board of Trade, and the Downtown Vancouver Business Improvement Association.** All of these organizations have been extensively involved in the project, including in the development of the survey instruments.
- The **Stantec-led consulting team, which includes Site Economics and the Mustel Group,** was chosen due to their extensive experience in transportation planning and in analyzing the economic impacts of transportation changes on businesses. The Mustel Group is also a well-recognized, reputable market research firm that has conducted many similar surveys.
- This study is focused only on the **economic impacts** of the Dunsmuir and Hornby separated bike lanes. There are also many **other factors that have impacted businesses** over the last several years, including:
    - The 2008-2009 economic downturn in Canada;
    - Increased parking rates due to the introduction of the HST in July 2010 and the 14% tax increase for off-street paid parking implemented by TransLink;
    - Road closures and access changes due to the 2010 Winter Olympics;
    - The opening of the Canada Line rapid transit system in August 2009;
    - The fuel tax increase of January 2010[3];
    - Downtown construction that has affected traffic patterns
    - Filming activity in the downtown core;
    - The re-introduction of buses on Granville St.; and
    - Stricter impaired driving rules.
- This study aims to **isolate the impact of the separated bike lanes** from these other factors by **comparing Dunsmuir to West Georgia and Hornby from Howe**.
- A question was asked about the difficulty of separating the impact of the separated bike lanes from other impacts. **Response:** While acknowledging the challenge, the comparison between corridors with separated bike lanes and those without should enable a reasonably accurate assessment to be made of the impacts attributed to the separated bike lanes.
- Another question was asked about whether or not it is reasonable to determine the true economic impacts of the separated bike lanes given that they have only been installed for a short period of time. **Response:** The project team recognizes that this study is just a snapshot in time and will be mainly looking at the short-term effects of the separated bike lanes. The longer term effects will not be determined by the study.
- A comment was made that the bike lanes are not used very much, given that Vancouver receives a lot of rain. **Response:** For the month of April 2011, which was a rainy month, the bicycle counts for Hornby showed an average of 1150 bicycles per day.

[3] In January, 2010 the fuel tax levied by TransLink increased from 12 cents to 15 cents per litre, resulting in an increase of the total provincial motor fuel tax from 23.5 cents to 24 cents per litre. Source: http://www.sbr.gov.bc.ca/documents_library/notices/Notice_of_Fuel_Tax_Changes_and_Inventory_Requirements.pdf

- The **City of Vancouver welcomes other questions and comments** related to the separated bike lanes that are **outside the scope of this study**, and **can meet with individuals** in a separate venue to answer their questions.
- Timeline: The study began in late April, and the surveys have just begun. The study will be completed by the end of June, and the results will be presented to Council in July.
- This study is part of a broader analysis of the separated bike lanes and related issues that City staff will be looking at and reporting to Council on.
- Opportunities to provide comments on **other transportation aspects in downtown and** throughout the city will be provided by the City of Vancouver **Transportation Plan** consultation process beginning in mid May.

2. Study Approach:
   - Overview:
     a) First Stakeholder Workshop - Today
     b) Examine experiences of other cities with separated bike lanes
     c) Traffic analysis – block-by-block
     d) Surveys – started today, to be completed by end of May
     e) Follow-up interviews with businesses and property owners to collect financial information
     f) Isolate separated bike lanes impacts from other factors (e.g. increase in parking taxes)
     g) Second stakeholder workshop (present preliminary findings) – mid-June
     h) Identify mitigation strategies

3. Surveys:
   - These are the **main tools that will be used to determine the economic impact** of the separated bike lanes. The surveys that are being conducted include the following:
     a) Business survey – these have been handed out to about half of the street- level businesses along the impacted corridors (Dunsmuir, Hornby, the 500 blocks of Howe and Seymour, Burrard between Drake and the bridge and between W. Hastings and Canada Place, W. Hastings between Hornby and Burrard). The other half will be receiving the surveys in the next few days.
     b) Property owner/property survey – all property owners/managers of commercial properties located along Dunsmuir, Hornby, Howe, and W. Georgia will be receiving a survey via email or mail.
     c) Customer survey – this survey will be done on the street along the impacted corridors. Customers will be intercepted as they exit businesses along these areas.
     d) Metro-wide OMNIBUS survey – this survey will be done via telephone and will help capture the views of residents who are no longer visiting the impacted corridors.
     e) Upper floor tenants' employee survey
        1. This will be an intercept survey of employees as they are entering the building in the morning.
        2. A sample of buildings has been selected for this survey. These buildings include:
           - HSBC NE corner Georgia and Hornby
           - 700 w Georgia TD Tower SE corner Georgia and Howe (Cadillac Fairview)
           - 777 Hornby NW corner Robson and Hornby
           - 808 Nelson
           - It was also suggested by several workshop participants that 885 Dunsmuir be included. The project team will take this into consideration when finalizing the list of buildings to survey.
           - It was explained that it is not necessary to survey all upper floor tenants, as the concerns and impacts are less localized than those of the street-level businesses. The main impact will be the employees' access to the offices. This approach is also often used in the industry.

  - The impact of the separated bike lanes on clients of upper floor tenants are being captured in the property owner survey.
- **To protect the integrity of the customer and OMNIBUS surveys and to avoid bias, respondents will be selected randomly.**
- Several respondents asked if they could view the surveys. **Response:** The surveys will be made available to the workshop participants for their review.
- Some workshop participants also requested that they be able to complete the survey even if they do not fall within one of the groups described above. A few others requested copies of the customer survey so that they can hand them out to their customers. **Response:** This should be possible, but these results will have to be analyzed separately from the random surveys so that the results are not biased.
- A question was asked about how the project team will be able to verify whether or not the reported economic impacts are indeed true. **Response**: The project team will be conducting follow-up interviews with all businesses that report significant impacts and will request financial documentation. All of the information will be treated confidentially.

3. Evaluation Criteria:
   - Below is a draft list of **key evaluation criteria** that has been developed for the study to determine whether or not the separated bike lanes have had a negative or positive economic impact on businesses.

     Important Note: The survey questions actually include many more indicators (e.g. access, visibility, and parking) than those listed below. While important, these other indicators ultimately all influence the *key primary criteria* listed below. For example, while the surveys ask businesses to comment on the impact of the separated bike lanes on access and parking, both of these factors ultimately impact change in sales and profit.

     Draft Key Evaluation Criteria:
     - % change in sales in comparison to the comparator areas
     - % change in profit in comparison to the comparator areas
     - Change in access by employees
     - % change in net rent in comparison to the comparator areas
     - % change in vacancy rate in comparison to the comparator areas
     - Change in time to drive through the affected corridors or make turns-delays in minutes
     - Impact on deliveries
     - Perception on whether business in the geographic area is getting better or worse
     - Change in # of employees

   - Participants were asked to comment on these criteria and to suggest additional key criteria the project team should consider. Suggestions included the following:
     - Hours of operation
     - Schedule change
     - Access*
     - Parking*
     - Loading/Unloading*
     - Business opportunities provided by the bike lanes
     - Savings achieved by the bike lanes
     - Time to travel through the affected corridors by <u>all</u> modes
     - Ability to make right-hand turns on Dunsmuir

     *Deemed by the participants to be more important impacts to measure
   - These suggestions will be reviewed by the project team to determine if they are appropriate *key primary evaluation criteria.*

- It was also noted that downtown businesses are in a very tight market. Therefore, it may be difficult to determine if there has been a change in rent or vacancy rate due to the separated bike lanes.

4. Potential outcomes:
   - These may include the following, depending on the results of the study
     - Changes to traffic flow patterns
     - New marketing strategies to target cyclists identified
     - Consolidating or streamlining any confusing signage that may be present
     - Additional signage provided
     - Redesign or removal of all or portions of the bike lanes

5. Next Steps:
   - Street-level businesses and property owners/managers of buildings located along the impacted corridors are strongly encouraged to complete the surveys and to encourage their neighbours to complete the survey.
   - As there was not enough time to go through the workshop discussion questions, participants were strongly encouraged to complete the workshop feedback form (see below), which includes the discussion questions. The completed form can be faxed or emailed to Iona Bonamis (604-696-8100 or iona.bonamis@stantec.com).

Vancouver Separated Bike Lanes Economic Impact Study
Stakeholder Workshop

May 12, 2011

Feedback Form

(Please fax this form back to Stantec at 604-696-8100, or e-mail it to iona.bonamis@stantec.com – Attention: Iona Bonamis)

Comments on separated bike lane study

1. How have the separated bike lanes impacted your business/property, in terms of:
   - Access (by customers and employees)
   - Visibility
   - Loading/Deliveries

2. When you consider all the other factors that have impacted your business/property over the last couple of years, how significant are impacts of the separated bike lanes?

3. What, if any, mitigation measures have you tried to implement to address any negative or positive impacts of the separated bike lanes on:
   - Access (by customers and employees)
   - Visibility
   - Loading/Deliveries

Please Turn Over →

4. Other Questions/Comments

Comments on workshop

5. What do you find most useful in this workshop?

6. What could have been improved in this workshop?

Thank you!

Appendix I: Stakeholder Interviews on Mitigation

These interviews were carried out over the telephone and through email. Responses to the questions are summaries only, and these notes do not reflect the full range of topics discussed in the interviews. This is in part to protect the identity of the respondents and to focus this appendix on the issue of mitigation.

It should also be noted that there was originally going to be a workshop to discuss mitigation options, but due to a low response to the initial invitation, one-on-one interviews were held with those who expressed interest, instead.

1. Business Owner #1

Q1. What business impacts have you experienced?

A 50-70% reduction in walk-in traffic.

Q2. How have the separated bike lanes contributed to that impact?

The loss of the right turn onto Seymour from Dunsmuir has reduced access to my store, and longer travel times between Richards and Seymour mean it takes longer to get to my store. Furthermore, there is more congestion throughout Downtown as a result of the bicycle lanes (e.g. there are now backups getting on the Georgia viaduct in Chinatown; there was not this issue before). Many customers to my business are from the North Shore, and the traffic changes brought about by the separated bike lanes have made it more difficult for them to access the business site. Vehicle access is critical because the business operates in such a way that customers need to get to the store, experience the product for themselves, and drive away with their purchased products.

When people call in and ask where my business is located, potential customers seem disappointed by the answer because they do not want to deal with the separated bicycle lanes. Potential customers express their sympathy to me for having a business located on a separated bicycle lane. Customers to my business are generally between 20 and 60 years old, have household incomes of about $250,000, and do not cycle.

Q3. What actions have you taken? Have these been successful?

My sales staff now go out more often, but this has resulted in higher transportation costs to the business in the form of time and fuel. The store also has some parking spaces in a parking structure on Richards for staff, and these are occasionally made available to customers. More has been spent on advertising.

Q4. What measures has the city taken?

Nothing.

Q5. What measures should the city take?

The City should focus on producing biking facilities like the Seawall, which are safe and completely separated from traffic and for which there are compatible businesses nearby. The separated bike lanes should be removed from Downtown streets. There are other ways to help the environment, such as promoting smartcars and transit.

2. Business Owner #2

Q1. What business impacts have you experienced?

Fewer customers.

Q2. How have the separated lanes contributed to that impact?

The loss of a right turn from Dunsmuir onto Hornby has limited access to my store. Customers are more likely to get lost and give up trying to find my store. Customers come in complaining about the separated bike lanes, and no customers have said anything positive about them. The separated bike lane and the associated traffic changes have made my block, as well others, islands in the middle of Downtown. It is very difficult to access.

80% of my business comes through referrals or repeat business, and I may be losing these clients due to the extra hassle involved in getting to my store. My clients are coming from all over (not just Downtown) so many are driving.

Deliveries are more difficult and may require suppliers to haul heavy goods longer distances or park illegally.

No bikers are using my store.

Q3. What actions have you taken to mitigate? Have these been successful?

If I was younger, I would relocate my business. Now I am just waiting for my lease to end. I just hope I can stay in business until then.

Q4. What measures has the City taken?

The City helped merchants on Granville with advertising, but I have limited faith in the ability of advertising to help my sales.

Q5. What measures should the City take?

Take away planters so parking can be placed on the street. Take out the bicycle lanes.
The City could also bring back the right turn signal onto Hornby from Dunsmuir (and give it a sufficiently long green phase), although this would evidently cost $0.5 million. I do not think Council would approve this or the removal of any planters. I cannot understand why Council is able to approve $1.3 million for extra police for a hockey game for one night and not $0.5 million for something that would bring about permanent benefits.

As for the process by which the survey was carried out, I thought the letters and surveys should have been hand-delivered as is done when filming is done on the street.

3. Business Owner #3

Q1. What business impacts have you experienced?

10% fewer regular customers (but no stated change to the one-off customers)

Q2. How have the separated lanes contributed to that impact?

The main issue that I face with the bike lanes is related to access to the parkade. The parkade only has the one entrance/exit and as such the bike lane causes stress to the parkers who park at the site. The main impact at this site has occurred with the monthly parkers as they must enter/exit the site everyday and sometimes more than once each day.

Q3. What actions have you taken to mitigate? Have these been successful?

We have added signage on the awnings. We have added a mirror and strobe lights to assist exiting. We have added a Windmaster sign advertising monthly parking. These items have helped with our daily parkers and have made exiting safer. However it hasn't stopped the loss of monthly parkers.

Q4. What measures has the City taken?

Nothing. I did contact them and they said that bikes have the right-of-way and the only that was planned was to add green paint to the bike lane area to inform bikes of the crossing hazard. That was offered a month after the bike lane went in and it still hasn't occurred.

Q5. What measures should the City take?

The city could paint the ground as promised and install two speed bumps for the bikes on both sides of the entrance to slow down the bikes as this is what causes great concern for the parkers.

Appendix J: Other Comments from the Public

The following comments have been taken directly from the messages conveyed to the project team via email or through the telephone. No edits have been made to these comments.

General Public

Comment #1:

I heard that you're doing the above study. I don't know if you want input from people who come all the way from Maple Ridge, but here's mine.

My husband has to go to Vancouver downtown frequently for business. It's way too far for him to bike all the way, and public transit just doesn't work for him, since most often he has several stops. So he mounts the bike on his car, parks somewhere outside downtown Vancouver and bikes the rest. He's not the most confident of riders, having grown up in Hong Kong. He didn't learn how to bike until he was in his twenties. So I think the bike lanes downtown are fantastic. It enables (/forces?) him to get some exercise, which - as a workaholic - he rarely takes the time to do. And I don't need to worry about him having to compete with cars for space on the road. When he visits the downtown, most often he meets his business relations at restaurants or coffee shops.

I grew up in the Netherlands myself, and I was always used to going anywhere by bike since I was able as a kid to venture out on my own. I have seen as an adult the difference cycling can make, having had the opportunity to compare communities in North America that are mostly car dependent with any community in the Netherlands, where - after several decades of focussing on road infrastructure for cars after WW-II, until the early seventies - the authorities came to the realization that cycling deserved way more attention. Even now, they keep looking for more opportunities to get more people on their bikes.

The funny thing is, with all the money being spent in Holland (approx. $40 per person per year), and all the space dedicated to bicycles, nobody's opposed! Most people who drive also bike. Many people who bike also drive. They understand each other's difficulties.

Here in North America, businesses often seem to fight tooth and nail to avoid getting bike lanes on their street, afraid they're going to lose business. In the Netherlands, businesses located on car-free (but bike-accessible) streets are lucky to have such a prime location. These are the streets where you'll see the most people. There are many such streets in the Netherlands. I'm not a shopper at all, but when our family is in the Netherlands, we love to bike and walk around on those streets and shop. Even my 20 year old son likes going shopping, or biking to the market and shop there, and, knowing him, that's amazing!

Here in Maple Ridge, many people who like to ride their bikes - but who are not prepared to risk their lives by doing so - are looking with envy to what's happening in Vancouver. Our family is hoping to be able to move to Vancouver within a few years, and I'm definitely going to be among the cyclists riding the downtown bike lanes on a regular basis!

Way to go Vancouver!

Comment #2:

I would like to put my opinion in regarding the bike lane. I think in overall, the bike lanes r a good idea bc it helps the environment. However, the locations where the bike lanes r placed is a real isue in vancouver. My office faces the corner of dunsmuir and hornby. Ever since the bike lanes were placed on dunsmuir and subsequently hornby, I believe my productivity level has gone down by 20 percent. Everyday I hear

lots of continuous honking, lots of profanity uttered and see many illigal right turns made onto hornby. I am surprise a fight hasn't broke out at that corner or an accident hasn't occured yet. Downtown vancouver is already a very busy place with limited options in travel (many one way streets). Sure the bike lane may reduce some cars on the road, but the amount of cars idling on the road because of the reduction in the number of lanes, and idling at the intersections where u can only turn on a green arrow has increased dramatically. I don't understand how that justify a bike lane that is suppose to over all reduce emissions from vehicles. In addition, people drive downtown for a reason, bc they r in a business suit conducting business and need to get from one client to another, not to leisurely bike to take in the view. I think the bike lane has made downtown vancouver a less than ideal place for businesses to grow and for visitors as many people are generally lwft disgruntled due to their daily loss in business or commute. Also, bikers in vancouver do not follow general road sense. They break the law with no consequence but us drivers have to deal with icbc. If u want the bike lane to be accepted, make them pay insurance! Who is going to pay for the dent that is made on my car because a biker ran a red light? Until those rules are put into place there is no point trying to force a society to accept the bike lane.

That is my view. I am environmentally conscious, but I question how the bike lane really adds to the benefit of the environment at this point.

Comment #3
Just wanted to drop a quick note about the bike lanes in downtown Vancouver. New traffic patterns which make driving downtown take four times as long to get anywhere during peak commute hours are retarded for the amount of people using the lanes. I also think that the lanes are a good idea - Just in a city where it does not rain eight to ten months of the year.

Comment #4

I am a big supporter of the bike lanes.

Comment #5:

There does not need to be two bike lanes. It is a waste of money, all the concrete and the yellow lights for bike lanes. One bike lane is enough. That’s what they have in Europe. It gives enough room for vehicles to pass.

Comment #6

I am writing to you as a private citizen, as well as an Executive Member of the Kits Point Resident’s Association. It **WAS** exactly 4 minutes from Kits Point to downtown via Hornby.

With the installation of the bike lanes, many people in our neighbourhood avoid going downtown to do anything. Our shopping and dining patterns have drastically changed and they do not involve patronizing downtown business attractions. It is unsafe and very stressful to drive anywhere downtown now. Right hand turn lanes have been eliminated, and right turn only lights are not adhered to by the cyclists. Parking rates are also prohibitive. Taking the bus is not an option because by the time it reaches Cornwall and Cypress (last bus stop before downtown) many times the buses are full. What is particularly annoying about the bike lanes is they are virtually empty – even on a sunny day. As well, cyclists are not made to adhere to the rules of the road, including wearing helmets.

I am sure you have heard all of the above too many times before, but I thought I would add our point of view as we are outside of the downtown core.

Comment #7

We live in east vancouver and use the Adanac bike route to reach downtown. Until the bike separated bike lanes were installed we were reluctant to cycle downtown with our son. Although we wear high-vis clothing and have plenty of lights, the complexity of the traffic downtown made us uneasy about his safety.
However since the bike lanes have been installed we have been able to bring him downtown with us for shopping trips or as part of a trip to stanley park. The bike lanes feel much safer, and mean that we don't need to worry about cars except at the intersections.
Using the separated bike lane definitely makes downtown trips possible for us now. It means that we can make use of the malls and restaurants downtown which is definitly a benefit for us.

Comment #8

To get to work, I have to go down Davie down a back lane, where there are often large garbage trucks. You have to back up as they back up, and find a place to turn around. It's very difficult.
I also find it difficult to turn onto Drake from Burrard because there is a lot of traffic coming off the Burrard Bridge.
Hornby is also very narrow. A driver can roll down their window and touch the car next to them.

Comment #9

I live in Strathcona and cycle downtown and back almost everyday. Sometimes twice a day. I presently work from home but used to work between Cambie and Main near Broadway and would cycle there and back daily.

I used to get to downtown by going down Keefer to Carrall and then along the Seawall to Helmcken, through a condo parking entrance area, along a pedestrian crosswalk, through a small park, through a parking lot (but they put up a chain so I later went along a raised pedestrian ramp,) then up Helmcken to Burrard.

This was the best way that I could figure out to get where I wanted to go without putting myself in danger or taking a long time. Doing it that way though I did several things that would possibly be frowned on; going through a pedestrian crosswalk that wasn't designated for bikes as well, going along a pedestrian ramp, through a park that didn't have a bike lane, etc. Back then I didn't think much of it, feeling that I was doing my best to not bother anyone else the best I could considering the lack of anywhere else to go. Now I no longer am forced by the lack of infrastructure to behave in a way that's unlawful or bothering others.

My usual shopping areas before were Davie street, Chinatown and Commercial Drive. I rarely went to the Northern part of downtown. When I would it would be through Gastown then along the Seawall. Sometimes I would go down Pender but because of the buses it wasn't nice. I only did Pender if I had no choice. Now with the Dunsmuir and Hornby separated bike lanes, I no longer take Helmcken. I can get to Davie and Burrard in ten minutes. It used to take 20 to 25 minutes. It has changed where I go for coffee. I used to meet friends for coffee in the afternoons at Melriches or Starbucks on Davie street but now I meet them at Caffe Artigiano on Hornby. With the outdoor patio it's a great people watching place. The coffee is really good.

Before I rarely went into Pacific Centre Mall, now I do because it's convenient and they have bike parking. I just go down Dunsmuir to Granville, park there and enter the mall. I mostly go to Sears and the Apple store but sometimes the foodcourt to eat. So basically that coffee shop and some stores in the Pacific Centre mall now have me as a customer solely because of the two new separated bike lanes.

Just a few notes on the design. (I realize your study is only on the affects on businesses and not on the design of the lanes.) I think there is some minor tweaking needed to improve things for all the users of the streets involved. The advance turn signals on Hornby work very well I find. Motorists have come to love them as it also means they can turn without waiting for the pedestrians to cross. I think they could put some advanced right turn signals on Dunsmuir to allow right turns by cars. I see them making illegal right turns anyway so might as well provide an official time for it. Also I find that in early morning, like 1 am there is sometimes a delivery truck right in the Dunsmuir bike lane. Maybe they can be given a place to park to make their deliveries or they could allow the lane to be used in certain nightime hours for deliver truck parking if there is nowhere else.

I think there needs to be serious discussion on widening the Burrard Bridge side paths while keeping it's heritage look. The old style railing can be recreated further out allowing pedestrians on both sides and bike lanes and returning the car lane taken by this trial. The did some great stuff with the Lion's Gate bridge and it looks the same as before yet is safer for all users.

I see a missed opportunity for businesses on the East side of Hornby between Nelson and Robson. It could be a row of trendy coffee shops and restaurants with outdoor tables. It has some sun exposure and is along a nice strip with trees and a very wide sidewalk. On a sunny day it's very pleasant underneath the dappled light of the trees there yet nobody is taking advantage of it. When biking by it's easy to stop in on places on a whim. It would be good for shops such as bakeries, convenience stores, coffee shops, postal outlets, delicatessens, pizza slice plces, etc.

Thanks for listening and doing this study.

Comment #10

I just wanted to put in my two cents worth about the Courier article on bike lanes. I have lived in Vancouver mostly all my life so that makes it 60 years. I know myself and a lot of others feel Gregor Robertson is ruining our city with unnecessary bike lanes (ex. Hornby Street, Burrard and others) that is catered to the mostly 30 year old male bike rider. I have seen very few use these lanes, especially in the winter, and as well it is dangerous...try turning right on Hornby and Georgia and you'll see what I mean. How many of these bikers own a driver's license? Many do not know the rules of the road or they choose to ignore them...they are rude and self righteous with lack of regard for anyone else, they feel somehow they are better because they are not the big bad cars ruining the environment. How many have to get their kids to school, sporting events, doctors appointments etc? How many pay property taxes? Case in point...Angus Drive was designated as a bike lane which was fine but now they have barricaded off Angus and 4lst so you can only turn right. So the people who live there and pay high property taxes can't get out of their street without driving down other narrower streets in neighbouring streets. Why? So the bikers don't have to stop??? Not only is it ugly but totally unnecessary. To me it is making life for other people a nightmare and it's not going to make these people, the elderly, the mom's with kids, etc. go out and start biking instead. We live in Canada, not Europe, not China, our landscape is spread out. So why all this attention and money to a handful of bikers?? Improve the transit system, increase traffic awareness, and stop pitting the drivers and bikers against each other. Have a bike lane that is shown like

the seawall but stop making barricades that make it a nightmare for everyone else. Not all of us have the luxury of riding a bike.

Businesses

Comment #1

I operated a retail insurance agency at 1387 Hornby Street for 20 years and was involved in the original bike lane changes. My current office has to deal with access to our staff and client parking. Your definition of the corridor is far too narrow.

Comment #2

Hi there – see below. I know this must be a pain but so's the back-up down Dunsmuir now (our parkade exits mid-block on Dunsmuir between Granville and Howe) – I bet out of every few cars, one turns right onto Hornby where there is clearly a no-turn sign. There are now only two lanes on Dunsmuir going West but the left lane is for left turns only….
Anyway – said my 2-bits – good luck (but note it would be great to have police on Hornby to start ticketing those right-turners….

Comment #3

Regarding the study of the downtown bicycle lanes:

I am the owner of a business downtown, one block from the separated Dunsmuir bike lane.

I am in complete support of the lanes and am in favour of Vancouver joining the growing list of forward-looking cities of the world. I'm concerned that fear mongers will exaggerate or even fabricate negative experiences regarding their businesses based purely on ideology. The level of vitriol spouted by many merchants during the establishment of these lanes leaves me to believe that objectivity will be sorely lacking and mainly those opposed will make their views known.

Unfortunately the lanes provided so far are inadequate to create a fully functional network and will likely fall short of attracting enough cyclists in the short term. New York City, among many others, has been far more bold in their approach, closing or severely narrowing key roadways to create an inviting pedestrian realm.

http://www.streetfilms.org/complete-streets-its-about-more-than-just-bike-lanes/

City roadways are public property and should not be viewed as the domain of the car, sacrificing livability and safety for the movement of the most cars possible. Many businesses would benefit from an inviting environment that encourages people to linger.

The disastrous Pender bike/bus lanes are a prime example of how not to improve facilities for cyclists and the general public. Motorists routinely ignore the restricted lanes and the police have entirely failed to enforce these infractions. Only barrier separated lanes will keep cyclists safe from the intrusion of motor vehicles. And only barrier separated lanes will add a reliable buffer between motor vehicles and pedestrians on our notoriously narrow sidewalks. It is common to see more pedestrians jammed on our cluttered sidewalks than inefficient motorists beside them hogging giant swaths of expensive real estate, unencumbered by trees, utility poles, garbage cans, sandwich boards, bus stop shelters, transit kiosks, food vendors, bathrooms, parking meters, street signage, fire hydrants, newspaper boxes, benches, bicycle racks...

It is time to put motorists on a diet and free up more space for pedestrians and cyclists. It's time to see if an inviting public realm will encourage people to stay longer and take advantage of downtown's offerings. It's time to see if encouraging people to sit isolated in metal boxes swooshing through town has actually offered our businesses any advantage.

Realistically it is too soon to do an evaluation of these lanes. It takes time for business patterns to show themselves. In Amsterdam pedestrian friendly shops line the pedestrian streets, bike friendly shops line the bike friendly streets and muffler shops and gas bars are found on the few streets which cater primarily to motor vehicles. This morphing of the street-business environment can take decades but it can't happen without bold steps to create better environments for all the users of our downtown public spaces. I appreciate that our current council has taken the first baby steps.

Comment #4

Needless to say, I have hardly recovered from the effects of the restrictions placed on traffic on Hornby that almost destroyed my long established business. I've moved to a smaller warehouse situation in the Marpole area. I was by Pacific and Hornby earlier today and, again, am overwhelmed by the traffic that backs up on Pacific in both directions...the number of vehicles in the traffic jam does little to convince me that these bicycle lanes in any way contribute to the lessening of our pollution.....when you consider that thousands of vehicles cannot turn south on Hornby and must go 2 addition blocks, including along that park on Beach...I would suggest that the pollution caused by these traffic restrictions is far greater than any reduction supposedly created by more cyclists.
I want you to see this blurb in this week's NY Times...our daughter lives there and we are always interested in what's happening in New York....this is from the weekly 'Metro Diary'...

A SIGN OF SPRING
ON THE UPPER WEST SIDE
Report from an urban hiker
Who's been scanning the streets in vain:
Today, I observed a biker
Making use of the bicycle lane.
Jeffrey Kindley

Again, I suggest that 'someone' talk to the operators of the two businesses at the south foot of Hornby Street (Prego Coffee Shop & 888 Market) to hear of the impact of the traffic changes on their family owned businesses. Neither of these owners are in a position to become involved in this issue, however, it is important to remember that not only is vehicle traffic severely restricted, no pedestrians are suppose to walk on the east side of the Burrard bridge (then, walk down Hornby Street to False Creek).

Comment #5

OK... we are on Georgia and Granville. The bike lanes have changed working here dramatically for the better. But that is outside the scope.
I hope if people cite traffic congestion on Dunsmuir they look to The Shore Club that insists on keeping their valet parking before they blame the bike lanes.
My only other thought is a Vancouver city planning issue broadly: How many feet between buildings is typically available in our downtown core? It always has felt very narrow to me. In this space, we must fit:
-sidewalks
-bus access

-paper stands
-light poles
-electricity boxes
-bus stops
-cars
-pullout parking
-parking
-bikes

The question is whether the four feet for the bike lanes and 1/2 foot clearance on pedestrian side and looks like about a foot on driver side with the boxes is a socially optimal amount, for now.
You are optimizing a constrained area for the public good... not the good of people who got to build buildings in the first place.
Just a thought.

Comment #6

As a communications consultant, I am extremely disappointed with the lack of public consultation with the implementation of the Hornby St. bike lane "pilot" project. Not only is it impacting my access on Hornby, but it prohibits my westbound access to Burrard St. from Drake and it eliminates my ability and my clients' ability to make right hand turns onto Helmecken. This council seems to be arrogant in not reaching out to business and residents about transportation plans.

It's interesting, not only did the City not consult adequately, but it didn't even provide correct public information about the bike lane plans and the impact that it would have on Drake Street; which not only impacts my business, but my access to the Toyota dealership and other services downtown.

Appendix K: Transportation Patterns of Downtown Vancouver and Separated Bike Lane Corridors

The following sections provide an overview of the transportation patterns that are occurring within Downtown Vancouver peninsula, as well as specifically along the separated bike lane corridors. Where data is available, comparisons have been made before and after the separated bike lanes opened. This information provides a better understanding of the transportation trends that are occurring within Downtown Vancouver and along the study corridors. This information has also been cross-referenced with the study's survey results as a check to see if the economic impacts that have been reported are reasonable. For those areas where more significant economic impacts have been reported, more detailed analysis of the traffic changes resulting from the construction of the separated bike lanes has been conducted and the results have been included in the main body of the report in Section 5..

PENINSULA LEVEL TRENDS

In 1996, approximately 112,200 work trips were made to and within Downtown Vancouver each day. 49% of these trips were done by car, while transit use made up 39% and walking and cycling made up the remaining 12%. By 2006, the number of commute trips made each day increased to 130,900, and the percentage of commuters who were getting to work by car dropped to 42%. Meanwhile transit use rose to 41% and walking and cycling also increased to 17%. This shows that over this time period, the total number of trips made to and within Downtown has increased, and more people are choosing to use alternative forms of transportation (see Figure A-2).

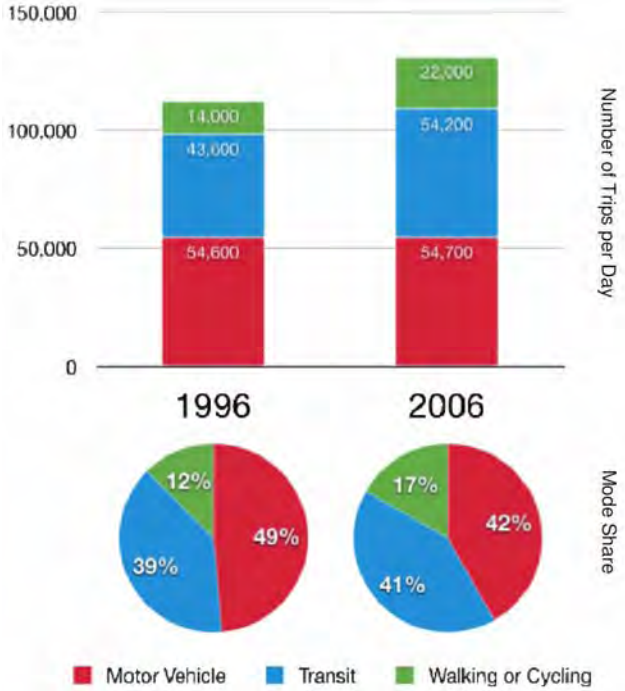


Figure A-2 - Journey-to-Work Trips to and Within Downtown Vancouver, 1996 vs. 2006
Based on 1996 and 2006 Census. Excludes commuters using other modes (<=1% of total) and commuters with no fixed place of work.
Source: City of Vancouver.

Also, pedestrian, vehicle, and bicycle counts have been collected for the Burrard Bridge between June 2009 and December 2010, and this data has revealed that compared to the same months in 2009 and 2010, the 24-hour average cycling volumes to and from Downtown via the Burrard Bridge have increased. For example, in July 2009, a daily average of 2,577 cyclists were recorded on the bridge during weekdays, while in July 2010 there was a daily average of 2,704 cyclists. Conversely, daily vehicle volumes seem to have decreased steadily since June 2009, except in the warmer months of 2010. The greatest reduction was seen between June 2009 and February 2010, and this is likely partly attributed to the Olympics and to other factors such as rising gas prices. Pedestrian volumes were higher in July 2010 than July 2009, but then dropped slightly below 2009 levels in the ensuing months. This may be due to more people cycling instead of walking, the changes in bridge access for pedestrians, and/or because it was a wetter December than usual.

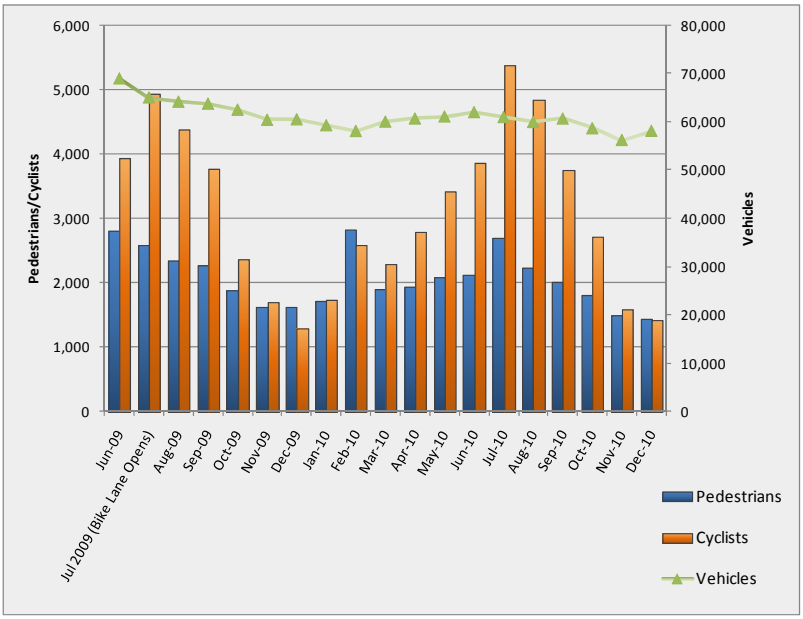


Figure A-3 – Burrard Bridge - Average Weekday Volumes

CORRIDOR LEVEL TRENDS

Bicycle volumes

While cycling data is unavailable for Dunsmuir Street prior to the installation of the separated bike lanes, cycling data has been collected on the Dunsmuir Viaduct, which leads and connects to Dunsmuir Street, since March 2010 when the bridge separated bike lane opened. Using this information, we can see that during the months of March and April 2011 (after the Dunsmuir Street separated bike lane opened), there were nearly double the number of cyclists using the Dunsmuir Viaduct on an average weekday than in March and April 2010. Thus, it is safe to assume that cycling volumes have increased significantly along this corridor since the opening of the Dunsmuir Street separated bike lane.

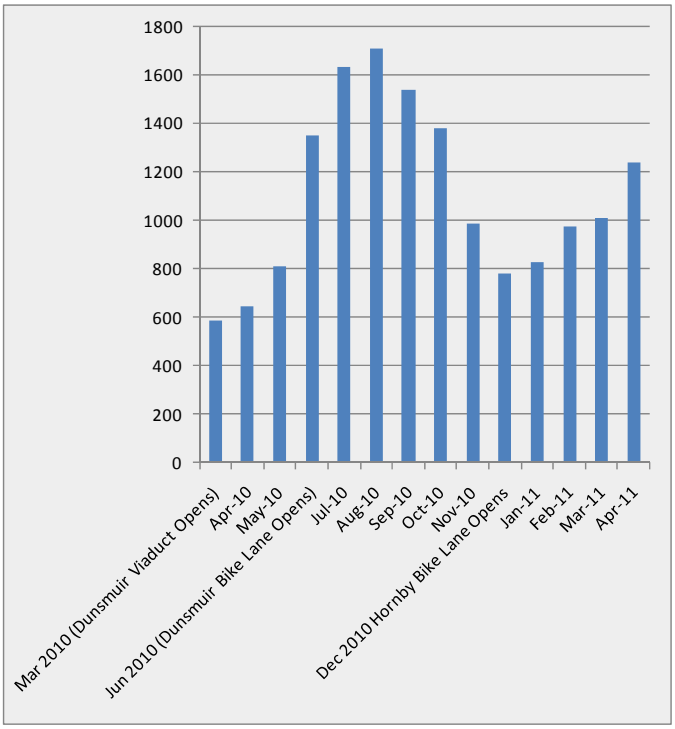


Figure A-4 - Average Weekday Cycling Volumes on Dunsmuir Viaduct

Unfortunately, cycling counts were not collected for Hornby prior to the implementation of the Hornby separated bike lane. Therefore, no conclusions can be made regarding the change in bicycle volumes.

That said, using the bicycle counts that have been collected since the separated bike lanes have opened, particular street blocks that have higher bicycle volumes can be identified. The following map shows the daily bicycle volumes along Hornby and Dunsmuir corridors during the months of September 2010 (for Dunsmuir Street) and for February 2011 (for Hornby Street). These months were chosen as they had the most complete and recent data for the two corridors (note that for some blocks, cycling counts have not been collected).

As shown in Figure A-5, it appears that the heaviest bicycle volumes tend to be at the outer limits of Downtown. As you get further into the core of downtown, although the number of cyclists still remains above 400 per day, the volume does gradually decline. This may be due to cyclists exiting onto other streets to get to their ultimate destination.

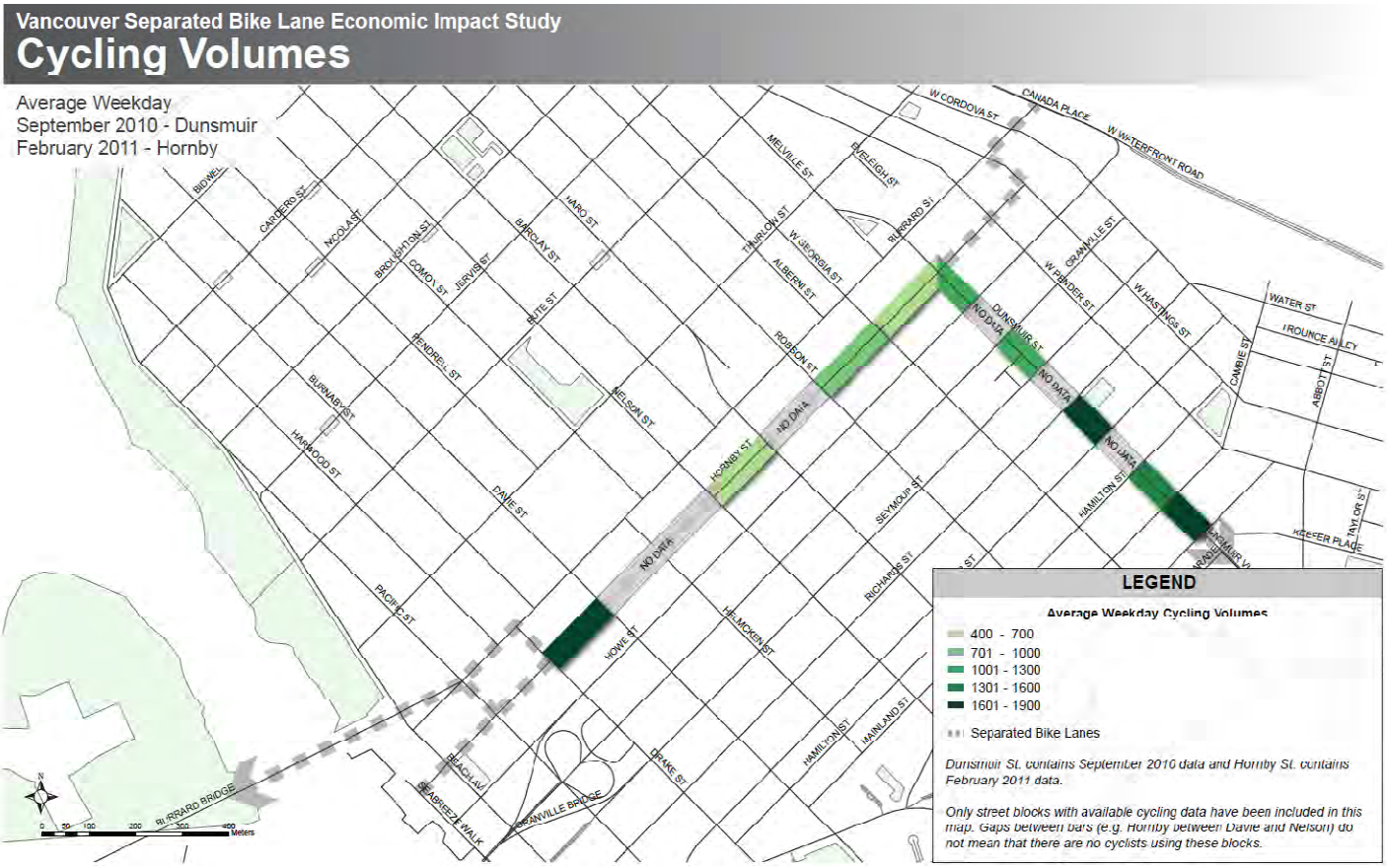


Figure A-5 - Average Weekday Cycling Volumes on Hornby and Dunsmuir

Vehicle volumes

Vehicle volume data has also been examined to determine if there have been any significant changes in along the study corridors over the last several years, both before and after the separated bikes were implemented. This information has been collected at various intersections throughout Downtown Vancouver, typically for two days at a time and no more than once per year. The time of year when the data is collected often varies year-to-year.

The three graphs in Figure A-6 show average weekday vehicle volumes over 24 hours along the 100, 300, and 500 blocks of Dunsmuir in 2006, 2008, and 2010 between the months of April and August. For the 100 block of Dunsmuir, the vehicle volumes in August 2010 appear to be lower than the vehicle volumes in August 2006. As for the 300 and 500 blocks of Dunsmuir, while the volumes in August 2010 were lower than the volumes in June 2006 and April 2008, as these sets of data were collected during different times of the year, the results are inconclusive. As no recent traffic data is available for the western section of Dunsmuir, no conclusions can be made about the change in traffic volume along this stretch of Dunsmuir Street either.

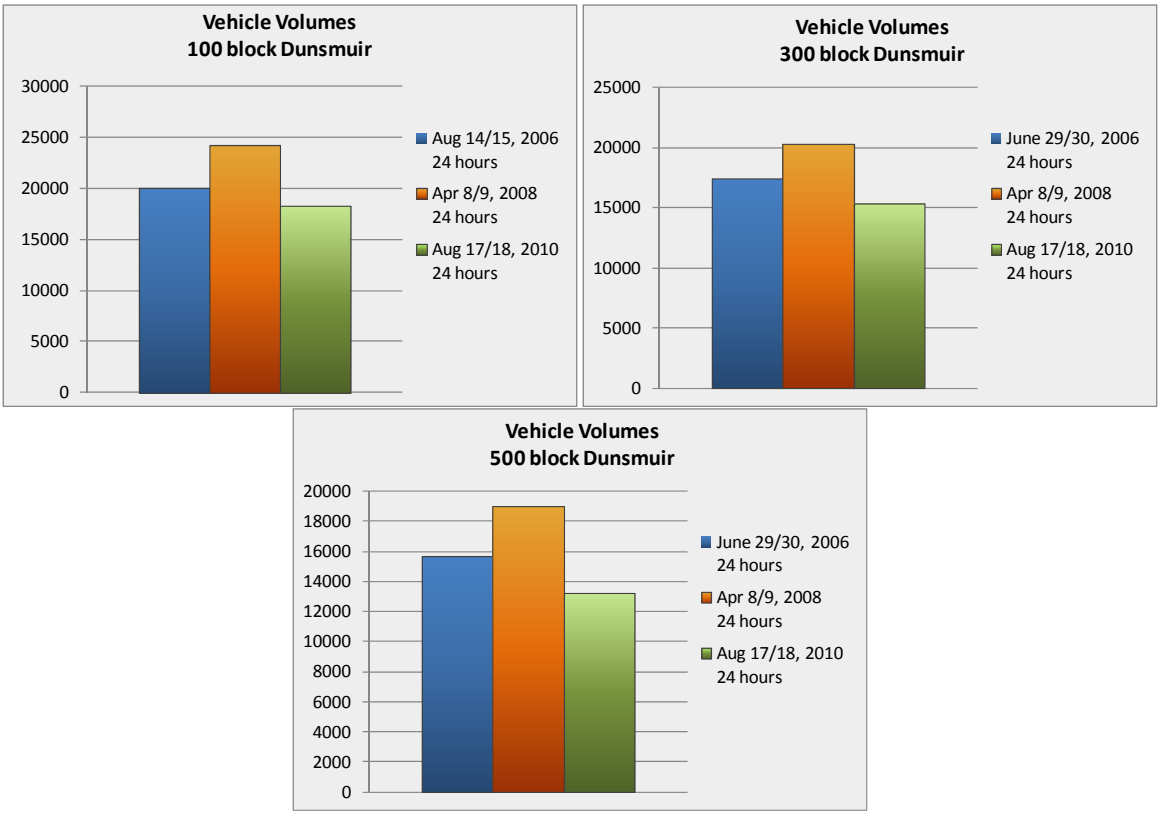


Figure A-6 - Vehicle Volumes on 100, 300, and 500 Blocks of Dunsmuir

Along Hornby, the average weekday traffic volume along the 500 block in March 2011 seems to be lower when compared to May 2006 levels. However, further south along the 900 block, vehicle volumes seem to have remained relatively steady between 2005 and 2011. Meanwhile, in March 2011 traffic volumes along the 1300 block seemed to be higher than 2005 and 2006 levels.

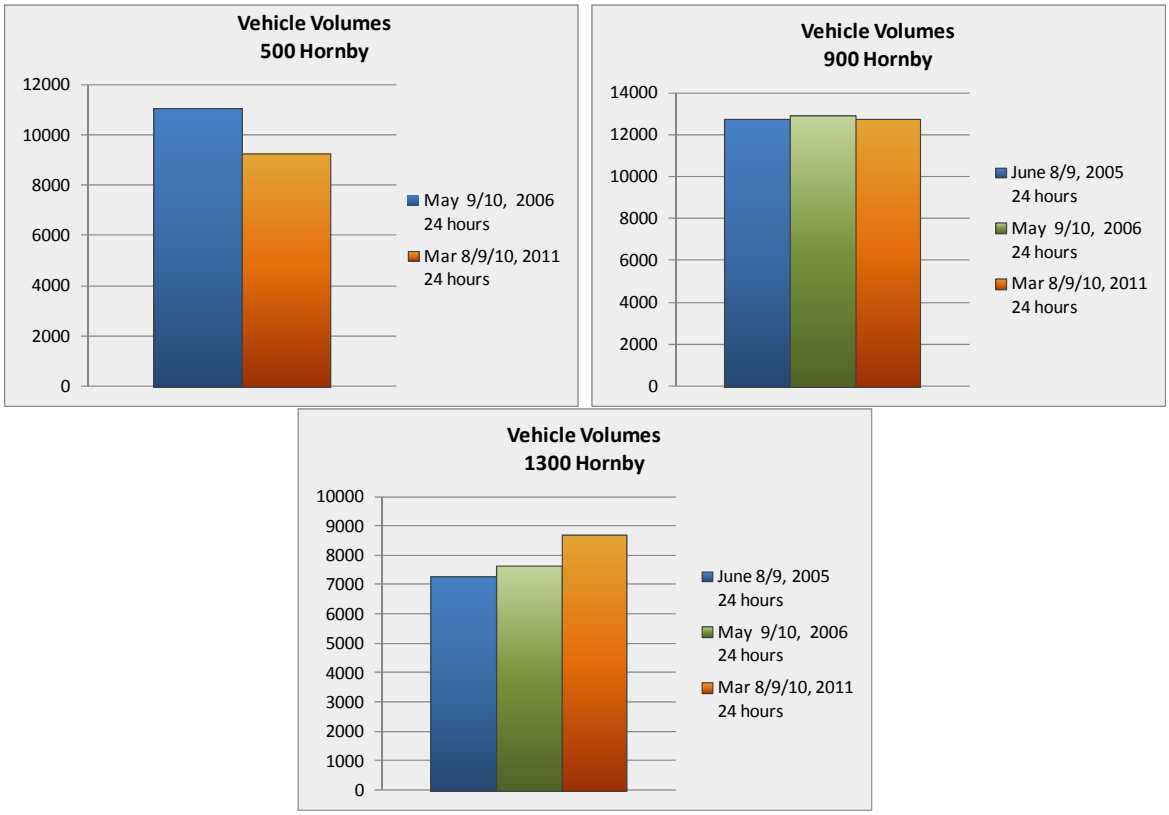


Figure A-7 - Average Weekday Vehicle Volumes on 500, 900, and 1300 Blocks of Hornby

Appendix L: Calculation of Travel Time Delay on Hornby

		Vehicle Travel Time		
Block	**Street**	**Average Vehicle Travel Time (min) Sept & Oct 2010**	**Average Vehicle Travel Time (min) Mar & April 2011**	**Change in Vehicle Travel Time between Sept/Oct 2010 and Mar/April 2011 (min)**
400	Hornby	0.68	1.27	0.59
500	Hornby	0.62	0.57	-0.05
600	Hornby	0.62	0.57	-0.05
700	Hornby	0.69	0.78	0.08
800	Hornby	0.53	0.45	-0.08
900	Hornby	0.53	0.45	-0.08
1000	Hornby	0.39	0.39	0.00
1100	Hornby	0.39	0.39	0.00
1200	Hornby	0.41	0.44	0.03
1300	Hornby	0.41	0.44	0.03

Appendix M: Transportation Trends and Best Practices of Successful Downtowns

Vancouver, like many other cities across North America, Europe and Australia is taking strides to become more sustainable, healthy, and livable. By adopting transportation plans that emphasize the importance of alternative forms of transportation, downtowns are becoming more attractive, vibrant and enjoyable places for residents and visitors to get around by walking, cycling, and public transit.[4] This trend has been led by the strategies, lessons and successes developed in many cities such as Copenhagen, Denmark.

Like many European cities in the mid-twentieth century, Copenhagen had become increasingly auto-dependent, and its land use and transportation patterns were similar to those of Vancouver and other North American cities today. However, due to a number of factors including rising oil prices in the 1980s, there was a conscious decision to start switching to alternative forms of transportation. This involved an intentionally slow process of improving public space for people rather than traffic, and for pedestrians and cyclists rather than vehicles. Planners in Copenhagen began with the 'pedestrianizing' of a main street in 1962,[5] and then continued with the gradual reduction of parking lots, traffic, and on-street parking (car parking has declined by 2-3% each year), and increases in pedestrian thoroughfares, housing density, pedestrian and cycling infrastructure, and the availability of bicycles.[6,7]

Recently, the city of Copenhagen has paid greater attention to the economic health they have gained from their commitment to cycling infrastructure and promotion. A 2009 press release from Copenhagen's City declared; "Cycling is healthy for the economy".[8] The Technical and Environmental Mayor of Copenhagen concludes that the city's investments "have significance in relation to the national bottom line". Further, he reiterates that "it is imperative that we meet the needs of cyclists when investing in tomorrow's Copenhagen". According to this press release, the following economic and other benefits have been achieved:

- Copenhagen has a net *gain* of 0.16 € ($0.27 CAD, 2009 dollars) per kilometre cycled, versus a net *loss* of 0.1 € ($0.17 CAD, 2009 dollars) per kilometre travelled by car;
- Cycling offers socio-economic health and lifestyle benefits that are *seven* times higher than accident costs;
- Adults who cycle to work or use the bike everyday have a *30% lower mortality rate* than others with similar living conditions and health who do not cycle; and

[4] City of Vancouver. (2009). "Sustainability: Cycling towards a Sustainable City, City of Vancouver". Accessed on April 11, 2011 from http://vancouver.ca/engsvcs/transport/cycling/plans/sustainability.htm
[5] Makovsky, P. (August/September 2002). "Pedestrian Cities: An interview with Danish architect Jan Gehl on how public spaces work". *Metropolis.* Accessed on June 3, 2011 from http://www.metropolismag.com/html/content_0802/ped/index_b.html
[6] New Urbanism. (n.d.)."Pedestrian Cities/Quality of Life. Accessed on June 3, 2011 from http://www.newurbanism.org/pedestrian.html
[7] Makovsky, P. (August/September 2002). "Pedestrian Cities: Encourage walking and cycling. Discourage cars and parking". *Metropolis*. Accessed on June 3, 2011 from http://www.metropolismag.com/html/content_0802/ped/index.html
[8] Freudendal-Peterson, M. (June 11, 2009). "Cycling is healthy for the economy. Denmark.DK: The official website of Denmark". Accessed on June 5, 2011 from http://blogs.denmark.dk/Malene/2009/06/11/cycling-is-healthy-for-the-economy/

Based on these successes, other cities are also following in Copenhagen's footsteps and implementing better pedestrian facilities and segregated bicycle facilities for utility cycling in cities. For instance, Danish planner Jan Gehl's work in Melbourne, Australia has generated a noticeable increase in the volume of pedestrians in the downtown area, especially after 7 pm.[9] Munich's efforts to pedestrianize areas of the city centre have also been described as making the German city a "living room for people".[10] More recently, the city's cycling infrastructure and educational campaigns have been key projects in Munich's efforts to become a "Bike Capital"[11,12] and to triple their current cycling mode share.[13] Closer to home, in Montréal, the installation of separated bike lanes has helped paved the way for the success of the city's extensive Bixi bike-share program. In its first year, Bixi's 5,000 bicycles logged over a million trips, and that number tripled the following year.[14]

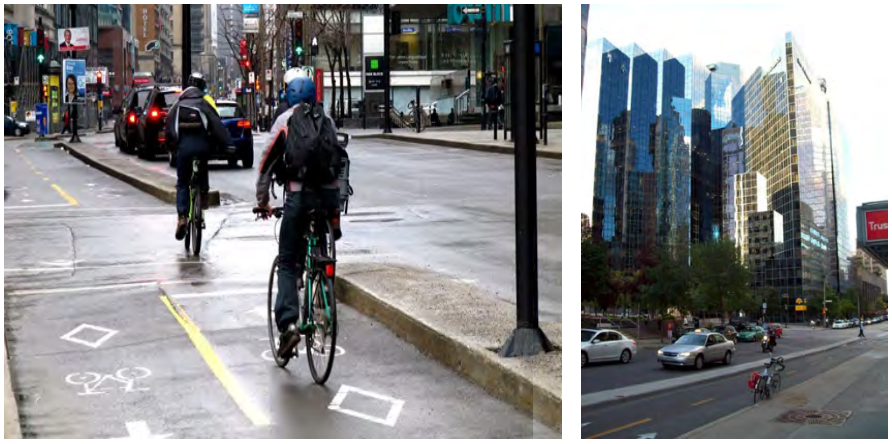


Figure A-8: Separated Bike Lanes in Montréal
Source: Pistescyclables
(http://www.pistescyclables.ca/Montreal/Montreal.htm)

Road Re-allocation and Prioritization Change in North American Cities

In the review of eleven small and mid-sized American cities with national reputations for having successful downtowns[15], all were found to be walkable and scaled for pedestrians. Downtowns that have increased the ratio of non-motorized vehicles have further increased the safety, comfort and attractiveness of pedestrians. Streets with bike lanes and sufficient bicycle parking (that does not overcrowd the sidewalk) not only reduce vehicle use, but increase the presence of people and eyes on the street.

[9] Montréal Urban Ecology Centre. (n.d.). "Melbourne: the Jan Gehl effect". *Montréal Urban Ecology Centre*. Accessed on June 5, 2011 from http://www.urbanecology.net/exemples/melbourne/melbourne-jan-gehl-effect
[10] Engwicht, D. (1993). *Reclaiming our cities and towns: Better living with less traffic.* New Society Publishers: Gabriola Island, BC. Page 26.
[11] Radlhauptstadt München. "Home Page". *Radlhauptstadt München.* Accessed on June 5, 2011 from http://www.radlhauptstadt.muenchen.de/
[12] City of Munich. "Campaign to promote Cycling". *muenchen.de.* Accessed on June 5, 2011 from http://www.muenchen.de/verticals/Mobilitaet/Fahrrad/407478/kampagneradlhauptstadt.html
[13] European Cyclists' Federation. (July 3, 2009). "Munich meets Copenhagen or how cycling cities can learn from one another". *European Cyclists' Federation.* Accessed on June 5, 2011 from http://www.ecf.com/4372_1
[14] Lalonde, M. (February 9, 2011). "Separated Montreal bike paths lower risks to riders: study".*The Montréal Gazette.* Accessed on April 11, 2011 from http://www.montrealgazette.com/news/Separated+Montreal+bike+paths+lower+risks+riders+study/4253487/story.html
[15] Ferguson, G. (2005). "Characteristics of successful downtowns: Shared Attributes of outstanding small & mid-sized downtowns". *Ithaca Downtown Partnership*. Accessed on May 9, 2011 from http://www.tannermooredesign.com/downtownbtv_WP/wp-content/uploads/2009/06/characteristics-of-successful-downtowns.pdf

In larger cities such as New York City, recent pedestrian and cyclist infrastructure improvements in New York City have also led to positive results. The city's Sustainable Streets initiative (which includes separated bike lanes) has brought traffic injuries and fatalities to a 100-year low, and prompted about a 25% growth of bicycle usage each year.[16] Further, a review of decades-old rulings of parking minimums in New York City could reduce the requirements for parking supply as higher densities and increased reliance on transit, cycling and walking help to reduce vehicle dependence.[17]

Figure A-9: New York Separated Bike Lane
Source: streetsblog.org (http://www.streetsblog.org/2011/03/18/what-backlash-q-poll-finds-54-percent-of-nyc-voters-support-bike-lanes/)

Also worthy of note, in planning their separated bike lanes, the city established set of Citizen Advisory Committees. These committees met with every single business fronting on proposed bike lanes to discuss and mitigate impacts (such as deliveries). Overall, 2,000 public meetings were held.[18]

In Chicago, the Bike 2015 Plan aims to strengthen bicycling as an integral part of daily life. Beyond their existing bikeways, bike parking, and safety and education programs, Chicago has been testing sites to install 160 km of protected bike lanes at appropriate locations to protect cyclists from fast-moving traffic.[19] The first protected bike lane is on Kinzie Street, and is protected by a four-foot buffer lane and a row of parking. According to the Transportation Commissioner, Gabe Klein, the protected bike lanes are "about balancing our right-of-way for the safety of all users...When we add bike lanes like this, we make it safer for pedestrians. We actually make it safer for motorists, and we slow motorists down".[20]

Figure A-10: Bike corrals in Portland, Oregon
Source: Portland Bureau of Transportation (http://www.portlandonline.com/transportation/index.cfm?a=250076&c=34813)

Further west, Portland, Oregon is a newer city that was designed for cars. However, 20 years of effort to successfully improve conditions for pedestrians and cyclists has earned the city the first Platinum status as a "Bicycle Friendly Community" by the League of American Bicyclists.[21] The benefits to the Portland region's economy due to its bicycle network is

[16] Naparstek, A. (March 7, 2011). "Street fight: What's behind New York City's bike lane backlash". *Citybiz Real Estate.* Accessed on April 11, 2011 from http://newyorkrealestate.citybizlist.com/18/2011/3/7/Street-Fight-What's-Behind-New-York-City's-Bike-Lane-Backlash.aspx
[17] Troianovski, A. (July 19, 2010). "Parking industry under attack". *Wall Street Journal*. Accessed on May 9, 2011 from http://online.wsj.com/article/SB10001424052748704913304575371214237202170.html
[18] The Vancouver Board of Trade. (May 24, 2011). *2011 Urban Study Tour Session Notes from session with Janette Sadik-Khan, Commissioner NYC Transportation.*
[19] City of Chicago. (2006). *Bike 2015 Plan.* Accessed on June 5, 2011 from http://bike2015plan.org/chapter1/chap1_obj3.html
[20] Spielman, F. (June 8, 2011). "Kinzie to get Chicago's first 'protected bike lane'". *Chicago Suntimes.* Accessed on June 8, 2011 from http://www.suntimes.com/news/metro/5829886-417/kinzie-to-get-chicagos-first-protected-bike-lane.html
[21] League of American Cyclists. (2008). "Bicycle Friendly Communities". *Bike Friendly America.* Accessed on June 5, 2011 from http://www.bikeleague.org/programs/bicyclefriendlyamerica/communities/bfc_portland.php

estimated at $1.2 Billion (USD) – allowing for $800 million of that to circulate within the local economy.[22]

Portland has installed two variations of 'separated bike lanes'; buffered bike lanes (six-foot bike lanes with a two-foot painted buffer on either side separating them from motor vehicle traffic) and cycle tracks (a seven-foot bike lane separated from motor vehicle traffic by a row of parked cars and a painted three-foot pedestrian buffer).[23] In addition to these bike lanes, Portland has installed over 40 bike corrals in the central city since 2003. Rather than take up sidewalk space for bicycle parking, bike corrals are an on-street facility that serve current bicycle users while helping to encourage future cyclists. A 2010 impacts study found that bike corrals helped to promote sustainability, enhance neighbourhood identity, increase transportation options and increase the visibility of businesses from the street.[24]

Figure A-11: Street and MAX light rail systems in Portland, Oregon
Source: TriMet and East Portland News (http://trimet.org/ and http://eastpdxnews.com/general-news-features/trimet-readies-max-green-line-for-september-12-grand-opening/)

In addition, the re-allocation and prioritization of road space for public transit (light rail and streetcar) has also made public transit much more attractive and helped revitalize the downtown. More than $7 billion in development has occurred along the light rail MAX lines since 1978 and the Portland streetcar system has been responsible for $1.3 billion of development located immediately adjacent to the starter streetcar line.[25,26]

Other Cities with Separated Bike Lanes

Also on the west coast, San Francisco has installed one separated bike lane each year since 2009, while earlier this year, Los Angeles county's first separated bike lanes opened in April in Long Beach.

Figure A-12: Separated Bike Lane on 3rd Street in Long Beach, California
Source: BikeLongBeach.org (http://www.bikelongbeach.org/News/Read.aspx?ArticleId=85)

Both of Australia's largest two cities have made significant investments in separated bike lanes. Melbourne's Swanston Street separated bike lane was

[22] Geller, R. (2010). "Becoming a cycling city: Lessons from Portland". *City of Sydney.* Accessed on June 6, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/LessonsFromPortland.asp (Pg. 33)
[23] Monsere, C. (January 14, 2011). "Evaluation of Innovative Bicycle Facilities: SW Broadway Cycle Track & SW Stark/Oak Street Buffered Bike Lanes". *Portland State University.* Accessed on April 11, 2011 from http://www.ibpi.usp.pdx.edu/cycletrack.php
[24] Meisel, D. (2010). "Bike corrals: Local business impacts, benefits and attitudes". *Portland State University.* Accessed on April 11, 2011 from http://bikeportland.org/wp-content/uploads/2010/05/PDX_Bike_Corral_Study.pdf
[25] TriMet. (2011). "MAX Light Rail Project History". *TriMet.* Accessed on June 6, 2011 from http://trimet.org/about/history/maxoverview.htm
[26] Gormick, G. and On Track Consulting. (2004). *The Streetcar Renaissance: Its Background and Benefits.* Accessed on June 6, 2011 from http://www.toronto.ca/wes/techservices/involved/transportation/st_clair_w_transit/pdf/report/streetcar_renaissance.pdf

installed in 2007. Since then, an additional route has been installed on Albert Street. Both initiatives are part of the city's Bicycle Plan, which has a 10% cycling mode share target for trips through the downtown within four years.[27]

Similarly, Sydney is also building a 200 km cycling network across the entire city area, including 55 km of separated cycleways.[28,29] Their network has been designed to improve connections between employment, recreational and residential destinations, and make cycling an attractive and safe transport choice. Within the Central Business District, the network is comprised of over 10 short street segments, and a further 20 segments just outside of the downtown core. To plan such a comprehensive cycle strategy, the City undertook a public consultation process to help define issues and possible design refinements a half year prior to construction.[30]

Figure A-13: Separated Bike Lane on King Street in Sydney, Australia
Source: City of Sydney (http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/CycleNetwork/CityCentral/KingStreet.asp)

In 2010, independent research quantified the economic benefits of the proposed Inner Sydney Regional Bike Network as delivering a net economic benefit over 30 years of $3.88 for every dollar spent. Also, the 66% projected increase of bike trips by 2016 would reduce Sydney's traffic congestion by 4.3 million car trips a year.[31] There is no mention of short-term "mitigation strategies", but only a brief reference to better decision making guidelines to deliver "a medium to long term solution to identified problems" (Pg. 13).

In Canada, plans are also underway to make cities more amenable for cyclists and pedestrians. In 2008, Winnipeg's efforts to promote active transportation and traffic calming included the installation of the Argue Street bikeway which included sections closed to traffic. Although controversial, a 2010 community report identified an increase in commuter cyclists using the route.[32] Likewise, Toronto announced a plan for a downtown network of separated bike lanes in May 2011,[33] shortly after Ottawa began construction on their downtown separated bike lanes along Laurier Ave.[34]

[27] City of Melbourne. (2006). *Bicycle Plan 2007-2011.* Accessed on April 11, 2011 from http://www.melbourne.vic.gov.au/ParksandActivities/ActiveMelbourne/WalkingCyclingandSkating/Documents/bicycle_plan_2007_2011.pdf
[28] City of Sydney. (2011). "Types of Cycleways". *Cycling.* Accessed on May 9, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/TypesOfCycleways/default.asp
[29] City of Sydney. (2011). "Cycleways Network". *Cycling.* Accessed on May 9, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/CycleNetwork/default.asp
[30] City of Sydney. (2006). "Attachment A: We invite you to comment". *Kent Street Cycle Route Proposal*. Accessed on April 11, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/CycleNetwork/CityCentral/KentStreet.asp
[31] AECOM. (April 15, 2010). *Inner Sydney Regional Bicycle Network: Demand Assessment and Economic Appraisal*. Accessed on May 9, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/EcononmicResearchCycling.asp
[32] City of Winnipeg. (September 2010).*Argue Street Bicycle Facilities Community Report.* Accessed on May 9, 2011 from http://www.winnipeg.ca/publicworks/MajorProjects/ActiveTransportation/PDF/2010-09-09-ArgueStreetBicycle-COMMUNITY-REPORT.pdf
[33] Kalinowski, T. (May 19, 2011). "Mayor's bike plan to physically separated lanes". *The Star.* Accessed on May 19, 2011 from http://www.thestar.com/news/article/993945--mayor-s-bike-plan-to-feature-physically-separated-lanes
[34] Worden, T. (April 26, 2011). "Work begins on downtown bike lane: Construction on Laurier to last until end of summer". *Ottawa Citizen.* Accessed on May 9, 2011 from http://www.ottawacitizen.com/travel/Work+begins+downtown+bike+lane/4673963/story.html

Cycling in Vancouver

In Vancouver, the installation of separated bike lanes represented the next step in a Transportation Plan that had identified cycling as a top priority in 1997.[35] Data from the City shows an increase in all alternative modes entering the city between 1994-2004, with cycling registering the largest growth at a 180% increase. The bicycle network has grown over this same period with the installation of a variety of cycleway types with varying levels of integration with automobile traffic. Pathways, such as the Seawall and Central Valley Greenway, offer a separated route away from motorized vehicles – often in-line with, or near to pedestrian pathways. Local street bikeways, such Ontario Street and 10th Avenue, along residential streets include traffic calming elements to reduce the impacts of motorized traffic and to help cyclists cross major roads. Bike lanes on arterial roads, such as Richards and Pender streets, are designated with painted guide ways along the right side of traffic – either along the curb, or inside from parked vehicles.

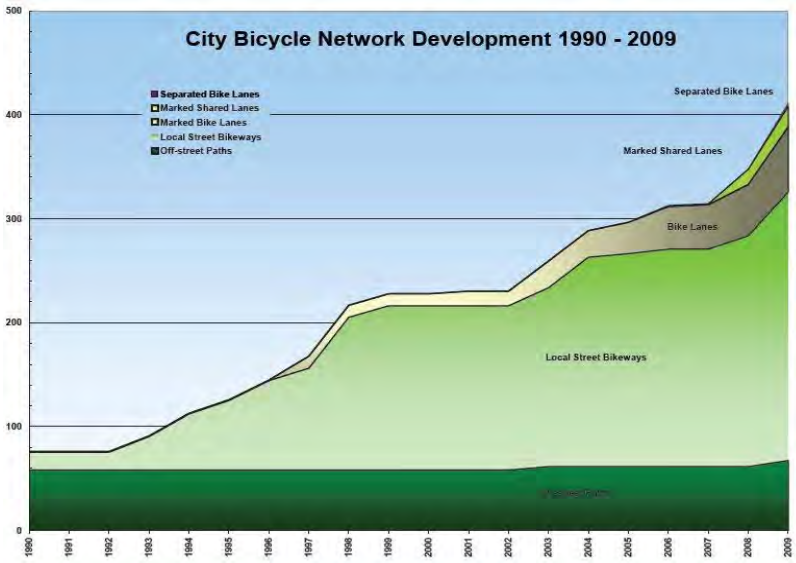


Figure A-14: City Bicycle Network Development 1990-2009
Source: City of Vancouver[35]

Vancouver's most recent bicycle infrastructure additions have included a network of separated bike lanes in and around the downtown peninsula. The first installations were access lanes connecting the downtown on the Burrard Street bridge (2009) and the Dunsmuir Street viaduct (March 2010). Separated bike lanes then followed on two streets to connect these bridges; Dunsmuir Street (June 2010) and Hornby Street (December 2010). Dunsmuir Street was selected as a separated bike route due to its extension from the viaduct, and Hornby was selected as it was already a well-used bike route without transit or trucking traffic.[36] Separated bike lanes contribute to a cyclist's feeling of safety and comfort.[37] Experience in other cities suggests that these perceptions of safety are essential in order to attract new and novice cyclists to choose commuter cycling along a non-residential route. In Portland, this has been described under the banner of "Don't plan for *cyclists*: plan for people – especially the great majority of people not yet riding but who describe themselves as *interested but concerned"*.[38]

[35] City of Vancouver. *Hornby Bike Lane.* PowerPoint Presentation. Accessed on May 10, 2011 from http://vancouver.ca/engsvcs/transport/cycling/separated/pdf/SeparatedBikeLanes-UpdatedTechnicalBrief.pdf
[36] City of Vancouver. (2010). "Why these streets?". *Cycling.* Accessed on May 9, 2011 from http://vancouver.ca/engsvcs/transport/cycling/separated/why.htm
[37] City of Vancouver. (2010). "FAQ: Why is the City installing separated bike lanes?". *Cycling.* Accessed on May 9, 2011 from http://vancouver.ca/engsvcs/transport/cycling/separated/faq.htm
[38] Geller, R. (2010). "Becoming a cycling city: Lessons from Portland". *City of Sydney.* Accessed on June 6, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/Cycling/LessonsFromPortland.asp (Pg. 46).

In the coming years the City of Vancouver will need to keep pace with an expected 23% projected growth in population and 22% growth in jobs.[35] Corresponding to these increases is an expectation of enhanced mobility to access jobs, schools, area recreational and shopping areas. To avoid greater traffic congestion and increases in greenhouse gas emissions, the City is striving to increase walking, cycling and transit usage.

Principles of Urban Bikeway Design

The decision surrounding which streets would be best used for the installation of a bikeway is the result of many factors:

- existing conditions:
  - *as an existing bike lane*
  - *relatively high cyclist volumes*
  - *relatively low/medium vehicle volumes*
  - *not a transit route*
  - *not a trucking route*
  - *a desired cycling route*
  - *connectivity with other cycling routes*
- potential affects:
  - *no/minimal affects to parking spaces*
  - *no/minimal affects to loading zones*
  - *no/minimal vehicle capacity loss*
  - *safety for pedestrians and cyclists*

Both Hornby and Dunsmuir streets satisfy the criteria identified above. Their connections to the separated bike lanes along Burrard Street Bridge and Dunsmuir viaduct are significant factors in making them safe, connected bikeway options away from transit and trucking routes.

Sources: http://nacto.org/cities-for-cycling/design-guide/
http://vancouver.ca/engsvcs/transport/cycling/separated/why.htm

Although cycling numbers are currently relatively low in comparison with other modes of travel, there remains a strong latent need for cycling and the health benefits, convenience and sense of community that it achieves. Like all other North American, European and Australian cities, the City recognizes that Vancouver will need to continue building its capacity to entice more people to commute by bicycle as an important way to reduce traffic congestion. Based on the experiences of other cities, the planning and implementation of downtown bicycle facilities will likely help this city strengthen its place as an attractive, sustainable, healthy, and livable place to live, work and visit.

Appendix N:

Road Space Reallocation Business Impact and Best Practices Review

City of Sydney Separated Bike Lanes

City of Melbourne Separated Bike Lanes

City of Portland Separated Bike Lanes

City of San Francisco Separated Bike Lanes

City of Montreal Separated Bike Lanes

City of Long Beach Separated Bike Lanes

City of Vancouver Separated Bike Lanes

City of Chicago Separated Bike Lanes

City of New York Separated Bike Lanes

City of Melbourne Tram System

City of Portland Streetcar System

City of Toronto Streetcar System

City of Seattle Streetcar System

Sydney Separated Bike Lanes

Sydney, Australia

City
City of Sydney

Infrastructure implemented
Two-way separated bike lanes, called separated cycleways

Date of implementation
May 2009 (King Street)
April 2010 (Bourke Road)
September 2010 (Union Street)
December 2010 (College Street)
May 2011 (Bourke Street)

Area of implementation
Throughout the Sydney downtown core, notably along:
King Street
Bourke Street
Bourke Road
Union Street
College Street

Separated bike lane related studies/plans conducted prior to bike lane implementation

Cycle Strategy and Action Plan 2007-2017

- City of Sydney cycling initiatives and cycling infrastructure expansion plans to 2017 based on City of Sydney conducted research

2010 City of Sydney commissioned AECOM economic impact study, *Inner Sydney Regional Bicycle Network Demand Assessment and Economic Appraisal*, regarding the benefits of proposed cycling infrastructure expansion

- Study anticipated a projected economic return of at least $506 million, or $3.88 for every dollar spent on the expansion

2007 and 2009 City of Sydney commissioned social research studies regarding Sydney cycling attitudes, and travel patterns of cyclists

Public consultation approach used

Pre-implementation

2007 and 2009 City of Sydney commissioned social research studies on Sydney cycling attitudes and cyclist travel patterns

Town hall meetings

Community consultation, led by independent professional facilitator

- Notification letters
- Information sessions
- Workshops
- Feedback forms

Public exhibition of designs and circulation of these designs to residents and stakeholders

Post-implementation

Town hall meetings

Sydney Separated Bike Lanes

Sydney, Australia

The City of Sydney has allocated **$76 million** towards the expansion of its cycling infrastructure **over the next 3 years**.

Profile of areas affected by bike lane implementation

King Street

- **Main street** through **Sydney's Central Business District**

Bourke Street

- Main street through Surry Hills suburb

Bourke Road

- Main street through Alexandria suburb

Union Street

- Main street through Pyrmont/Ultimo suburb

College Street

- **Main street** through **Sydney's Central Business District**

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- a **lane of parked cars**
- **permanent raised concrete medians**
- bollards/delineator posts

Lane signage/markings

- **bike lane symbol at beginning of lane**
- arrow markings for direction at beginning of lane
- **bicycle traffic lights**

Traffic restrictions

- no additional automobile traffic, specifically **turning**, restriction as a result of separated bike lane implementation

Marketing and outreach strategies

City of Sydney Cycling Courses

- Free city sponsored bike riding and bike maintenance classes
  - Cycling in the City Confidence Course
  - Bike Maintenance for Beginners Course

City of Sydney Cycling Ambassadors

- two local celebrities commissioned by the City of Sydney to promote cycling, as well as educate the public about planned and newly implemented cycling infrastructure

Sydney Separated Bike Lanes

Sydney, Australia

City of Sydney Cycling Events

- city sponsored bike related events and celebration, including the Sydney Bicycle Film Festival and annual Ride to Work Day

Behavioural educational campaigns

- city sponsored outreach campaigns for cyclists, as well as for motorists and pedestrians, targeting behavioural issues behind responsible road use/sharing

Business impact of implementation

Projected **net return of $506 million (in today's dollars) over 30 years** for Sydney's planned cycling infrastructure expansion (includes the installation of 55km of separated bike lanes, 200km of bike lanes total) [1]

Every $1 spent on the expansion projected to generate **$3.88 back to community** [1]

Increase in property value of properties situated around newly installed bike lanes [2]

Newly implemented lanes considered to be a success, with plans for further expansion of cycling infrastructure in development

Construction of separated bike lanes along several other major streets, including **St John's Road**, **Missenden Road** and **Bowden Street**, in progress

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies documented.

[1] AECOM Australia Pty Ltd. 2010. "Inner Sydney Regional Bicycle Network Demand Assessment and Economic Appraisal". *City of Sydney*. Accessed on June 2, 2011 from http://www.cityofsydney.nsw.gov.au/AboutSydney/documents/ParkingAndTransport/Cycling/MediaReleases/AECOM_ReportApril2010.pdf.

[2] Smith, R. 2011. "Local bike paths mean higher house prices". *Crikey*. Accessed on June 2, 2011 from http://blogs.crikey.com.au/rooted/2011/05/03/local-bike-paths-mean-higher-house-prices/.

Melbourne Separated Bike Lanes

Melbourne, Australia

City
City of Melbourne

Infrastructure implemented
One-way separated bike lanes

Date of implementation
July 2007 (Swanston St.)
June 2010 (Albert St.)

Area of implementation
Swanston St.
Albert St.

Separated bike lane related studies/plans conducted prior to bike lane implementation

City of Melbourne Bicycle Plan 2007-2011

- Municipal document based on City of Melbourne's conducted research outlining Melbourne's cycling initiatives for 2007 to 2011

Towards a Bicycle Infrastructure Plan for Metropolitan Melbourne

- University of Melbourne based Australasian Centre for Governance and Management of Urban Transport (GAMUT) study on feasibility of separated bike lanes
- Analysis of Swedish city of Örebro as potential cycling infrastructure model for Melbourne

Public consultation approach used

Pre-implementation

City of Melbourne Bicycle Plan 2007-2011

- Public feedback elicited through public consultation notices on the Melbourne City Council website and the Bicycle Victoria's website, a major Melbourne public, non-profit cycling advocacy organisation
- 45 feedback submissions received [1]

Post-implementation

Town hall meeting

- Meeting called in response to complaints against implemented bike lanes

Stakeholder meetings

- Three meetings held to discuss findings of commissioned Albert St. safety study

Melbourne Separated Bike Lanes

Melbourne, Australia

Marketing and outreach strategies

A Guide to the Use of Kerbside Running Bike Lanes

- Bicycle Victoria commissioned study following installation of the Albert St. separated bike lanes, by Alta Planning + Design, regarding the effectiveness of the implemented separated bike lanes
- Surveyed similar implemented separated bike lane designs throughout the world

City of Melbourne Bicycle Plan 2007-2011

- Proposed City of Melbourne cyclist website/online discussion forum “to report ideas about bicycle network improvements and report hazards” [1]
- Proposed annual meeting with Melbourne cyclists “to inform cyclists of work done in the past twelve months, upcoming initiatives and to seek feedback about City of Melbourne performance” [1]

City of Melbourne Ride to Work Day

- Annual city sponsored cycling event which promotes cycling as a means of commuting

Profile of areas affected by bike lane implementation

Swanston St.

- **major route** through **central Melbourne and Melbourne’s business district**, historically a **main street**
- limited private automobile traffic on Swanston St. since 1990’s, as of 2010 to be completely car-free
- passes by several iconic Melbourne landmarks

Albert St.

- **downtown street**
- motorist commuter route

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- Copenhagen lanes (Swanston St.)
  - **series of raised concrete traffic islands between bike lane and lane of car parking**
  - **car parking between traffic and bike lane**
- painted barrier and ‘Vibra-line’ (Albert St.)
  - ‘Vibra-line’ strip to alert cars when their stray out of lane
- bollards/delineator posts

Melbourne Separated Bike Lanes

Melbourne, Australia

The use of Vibra-lines, also called 'rumble strips', as a lane buffer is unique to Melbourne's cycling infrastructure. The Vibra-line alerts a car to when it has strayed too close to a bike lane, and overtop of a Vibra-line, by causing the car to vibrate.

Lane signage/markings

- bike lane symbol at beginning of lane
- striped-line markings along lane as buffer
- coloured lanes (green painted lanes)

Traffic restrictions

- **no turning restrictions as a result of separated bike lane implementation**
- no parking spaces removed in implementation

Business impact of implementation

Implementation considered to be a success, with plans for further expansion of cycling infrastructure in development.

No quantified results have been documented.

Mitigation strategies used to counter negative impacts of implementation

Post- opening stage road safety audit Albert Street bicycle lanes

- City of Melbourne's commissioned report, by Road Safety International, regarding the safety of the implemented Albert St. separated bike lane design
- commissioned in response to complaints against the safety of the implemented separated bike lanes
- report findings indicated that the majority of safety concerns presented were of "low risk", or unlikely to occur/exist and that the "uniqueness" of the implemented bike lanes – the Albert St. bike lanes "present a number of new and unique features that may surprise some road users" – have "potential to catch some drivers by surprise", and warrant that the implementation of the lanes "take some time to be understood and accepted by road users" [2]

[1] Melbourne City Council. 2007. "City of Melbourne Bicycle Plan 2007-2011" *City of Melbourne*. Accessed on June 2, 2011 from http://www.melbourne.vic.gov.au/ParksandActivities/ActiveMelbourne/WalkingCyclingandSkating/Documents/bicycle_plan_2007_2011.pdf.

[2] Road Safety International. 2010. "Post- opening stage road safety audit Albert Street bicycle lanes". *Bicycle Victoria*. Accessed June 2, 2011 from http://www.bv.com.au/file/file/RSA%20Report%20for%20Albert%20Street.pdf.

Portland Separated Bike Lanes

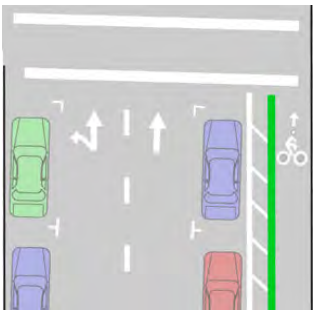
Portland, USA

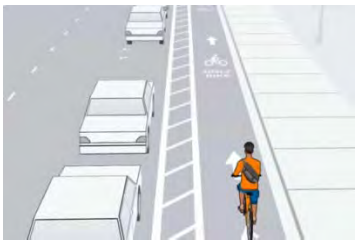
City
City of Portland

Infrastructure implemented
One-way separated bike lanes, called Cycle Tracks

Date of implementation
September 2009

Area of implementation
SW Broadway (Clay to Jackson)





Separated bike lane related studies conducted prior to bike lane implementation

Portland Bicycle Plan for 2030

- Municipal document based on City of Portland's conducted research outlining Portland's cycling initiatives to 2030

Cycle Tracks: Lessons Learned

- Alta Planning + Design and Portland City Traffic Engineer report summarizing findings of a City of Portland funded separated bike lane research tour

Public consultation approach used

Pre-implementation

Public open houses

- Series of 3 public open houses offered by the City of Portland in June 2007
- Portland's existing cycling conditions, cyclists' patterns and behaviours, cycling outreach and opportunities for cycling infrastructure expansion were addressed

Marketing and outreach strategies

City of Portland short film explaining benefits of Cycle Tracks

City of Portland Cycle Track brochure, explaining how to use implemented lanes

Profile of areas affected by bike lane implementation

SW Broadway between Clay and Johnson

- seven block stretch through the Portland State University campus

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- a **lane of parked cars**

Portland Separated Bike Lanes

Portland, USA

Portland has the highest share of bicycle commuters (6 to 8 percent) of any large U.S. city.

Lane signage/markings

- **bike lane symbol at beginning of lane**
- striped-line markings along lane as buffer
- arrow markings for direction at beginning of lane

Traffic restrictions

- **no turning restrictions as a result of separated bike lane implementation**
- **number of automobile travel lanes on SW Broadway reduced from to three to two for implementation of bike lanes**

Business impact of implementation

Estimated annual $2.6 billion in savings in transportation costs in Portland, due partly to increased bicycle commuting as a result of increased cycling infrastructure implementation, with at least $800 million of these savings contributed to local economy yearly [1]

Implementation considered to be a success, with plans for further expansion of cycling infrastructure in development

Construction of cycle track along NE Cully Boulevard in progress

Other Benefits

Portland State University study, *The Impact of Bicycle Characteristics on Bicyclists Exposure to Traffic-Related Particulate Matter*, regarding the positive health and air quality impacts of separated bike lanes implemented in Portland, and separated bike lane infrastructure in general, on cyclists and pedestrians

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

[1] Cortright, J. 2007. “Portland’s Green Dividend”. *CEOs for Cities*. Accessed on June 2, 2011 from http://www.ceosforcities.org/files/PGD%20FINAL.pdf.

San Francisco Separated Bike Lanes

San Francisco, USA

City
City of San Francisco

Infrastructure implemented
One-way separated bike lanes

Date of implementation
November 2009 (Market St)
Fall 2010 (Division St)
February 2011 (Laguna Honda Blvd)

Area of implementation
Market St (8th St to Octavia Blvd)
Division St (10th St to 11th St)
Laguna Honda Blvd (Clarendon Ave to Woodside Ave)

Separated bike lane related studies conducted prior to bike lane implementation

San Francisco Bicycle Plan

- 2009 municipal document outlining San Francisco's cycling policy initiatives and plans for cycling infrastructure expansion

2008 San Francisco State of Cycling Report

- San Francisco Municipal Transportation Agency (SFMTA) report analyzing San Francisco cycling trends using city conducted bike counts and surveys

Public consultation approach used

Pre-implementation

Community/neighbourhood meetings

- SMFTA sponsored meetings regarding planned cycling infrastructure projects
- Series of 10 meetings held in May 2009, notably one regarding the implementation of the Laguna Honda separated bike lanes
- Series of 4 meetings held in May/June 2008, regarding proposed cycling infrastructure expansion projects

Open house

- March 2008 SFMTA sponsored public open house to discuss the San Francisco Bicycle Plan, and the existing San Francisco bike lane network

Marketing and outreach strategies

San Francisco Bike Coalition (SFBC)

- Major San Francisco non-profit public cycling advocacy organization
- Sponsors and facilitates public outreach campaigns, often in conjunction with the City of San Francisco, regarding the expansion of cycling infrastructure, as well as the eliciting/collection of public input

San Francisco Separated Bike Lanes

San Francisco, USA

The implementation of separated bike lanes is heavily supported by the SFBC, with the SFBC's current campaign, *Connecting the City*, a call for the construction of a 25 mile (40km) separated bike lane network through San Francisco by 2015.

Profile of areas affected by bike lane implementation

Market St

- **Major street** running through **downtown San Francisco**
- Considered to be a transit artery of the city
- Mix of retail businesses, restaurants/cafes, banks and a hotel

Division St

- Street running through **central downtown**

Laguna Honda Blvd

- Central street through Forest Hill and Forest Knoll neighbourhoods

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- bollards/delineator posts
- painted barrier

Lane signage/markings

- **bike lane symbol at beginning of lane**
- arrow markings for direction at beginning of lane
- coloured lanes (green painted lanes)

Traffic restrictions

- **no turning restrictions as a result of separated bike lane implementation**
- **parking spots at ends of street, by intersection, removed for implementation of bike lanes**

Business impact of implementation

Implementation considered to be a success, with plans for further expansion of cycling infrastructure in development

No quantified economic impacts were documented.

Construction of separated bike lanes on Alemany Boulevard, Great Highway, John Muir Drive, Portola Drive, Cargo Way and Innes Avenue is planned to occur over the next year and a half

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

Montreal Separated Bike Lanes

Montreal, Canada

City
City of Montreal

Infrastructure implemented
Mostly two-way, and some one-way, separated bike lanes, called pistes cyclables

Date of implementation
Beginning in the late 1970's to the present

November 2007 (de Maisonneuve Boulevard)

Area of implementation
Throughout the Montreal downtown core, notably along Berri Street and De Maisonneuve Boulevard

Separated bike lane related studies conducted prior to bike lane implementation

Plan d'accessibilité et de mobilité à vélo au centre-ville

- 2005 City of Montreal document outlining municipal cycling initiatives and proposed cycling infrastructure expansion plans, notably that of the De Maisonneuve Boulevard separated bike lane, based on City of Montreal conducted research

L'État du vélo au Québec en 2005

- 2005 Vélo Québec, a Québec cycling advocacy group involved with cycling outreach, review of Québec's existing cycling policy and infrastructure network, using Vélo Québec conducted research

Public consultation approach used

Pre-implementation

Borough council/community meetings

Montreal's cycling network is well-established; cycling initiatives are often supported by the public, and cycling infrastructure expansion projects are often initiated by communities themselves

Marketing and outreach strategies

Vélo Québec

- a private, non-profit cycling advocacy organization in Québec
- sponsors and facilitates public outreach campaigns, often in conjunction with the City of Montreal, regarding the expansion of cycling infrastructure, promotion of cycling policy and the eliciting/collection of public input
    - Féria du vélo de Montréal (Montréal Bike Fest)
        - Annual cycling event featuring bike tours, races and bike to work days

Montreal Separated Bike Lanes

Montreal, Canada

Montreal's bike lane network is well-established, with almost 80% of its 326 km bike lane network, about 260 km, implemented as separated bike lanes.

Cycling is established within Québec and Montreal; pro-cycling initiatives have long been and are often presented and supported today by government and political groups, public interest groups such as Vélo Québec and the public.

Profile of areas affected by bike lane implementation

Berri Street

- **Major north-south downtown street**

De Maisonneuve Boulevard

- **Major east-west downtown street**
- Mix of retail businesses, restaurants/cafes and residential buildings

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- a **lane of parked cars**
- **permanent raised concrete medians**
- bollards/delineator posts

Lane signage/markings

- **bike lane symbol at beginning of lane**
- arrow markings for direction at beginning of lane
- **bike priority traffic signs**

Traffic restrictions

- **elimination of one parking lane, around over 200 parking spaces** along bike lane span, along south side of de Maisonneuve Boulevard for implementation of the de Maisonneuve separated bike lane

Business impact of implementation

$10 million to be invested by City of Montreal for the expansion of cycling infrastructure over the next year

According to a City of Ottawa review, implementation of the de Maisonneuve Boulevard separated bike lanes is "**not known to have precipitated business closures**" for street-level businesses situated around the bike lanes, and, in fact, had "**an overall positive impact on street-level businesses in the corridor**" [1]

No quantified impacts were documented.

Montreal Separated Bike Lanes

Montreal, Canada

A cycling infrastructure network is established within Montreal; implementation of bike lanes has occurred consistently throughout the city for almost 30 years. Cycling initiatives are often supported by both municipal political bodies/representatives and the public, and cycling infrastructure expansion projects are often initiated by communities.

Other Benefits

Risk of injury for bicycling on cycle tracks versus in the street

- 2010 Harvard School for Public Health study regarding the relative safety of separated bike lanes versus riding on the road in Montreal, finding that **separated bike lanes attract 2.5 times as many cyclists and that injury rate on separated bike lanes is generally lower**

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

[1] Vélo Québec Association. 2010. **"**Vélo Québec Cycling Expert Peer Review Report". *City of Ottawa*. Accessed June 3, 2011 from http://www.ottawa.ca/residents/public_consult/bikelane/consultation_phase/oh_2/appendix_f_en.pdf.

Long Beach Separated Bike Lanes

Long Beach, USA

City
City of Long Beach

Infrastructure implemented
One-way separated bike lanes

Date of implementation
April 2011

Area of implementation
Third St. (Alamitos Ave to Golden Ave)
Broadway (Alamitos Ave to Golden Ave)

Separated bike lane related studies conducted prior to bike lane implementation

City of Long Beach Bicycle Master Plan

- Municipal document based on City of Long Beach research outlining City of Long Beach cycling initiatives and proposed cycling infrastructure expansions

Public consultation approach used

Pre-implementation

Public forums

Public workshops

During implementation

City of Long Beach project hotline

- City hotline set up specifically to receive public feedback and address questions regarding the implementation of separated bike lanes

Post-implementation

Bike lanes implemented as a pilot project, with efficiency of implemented design to be evaluated after periods of six months post-implementation and one year post-implementation respectively

Marketing and outreach strategies

City of Long Beach project hotline

City of Long Beach project information sheet, explaining how to use implemented lanes

Profile of areas affected by bike lane implementation

Third St. between Alamitos and Golden

- One-way **downtown street** running parallel to Broadway

Long Beach Separated Bike Lanes

Long Beach, USA

The separated bike lane design implemented in Long Beach is patterned directly after similar bike lane designs implemented in downtown Manhattan, New York.

Broadway between Alamitos and Golden

- One-way **downtown street** running parallel to Third St.

Physical design of implemented separated bike lane

Pilot project physical separation of traffic and bike lanes using

- painted median
- **planters**
- a **lane of parked cars**

Proposed permanent physical separation of traffic and bike lanes using

- **permanent raised concrete landscaped medians**
- a **lane of parked cars**

Lane signage/markings

- **bike lane symbol at beginning of lane**
- striped-line markings along lane as buffer
- arrow markings for direction at beginning of lane
- **bicycle traffic lights**

Traffic restrictions

- **no turning restrictions as a result of separated bike lane implementation**
- **number of automobile travel lanes reduced from three to two for implementation** of Third St. and Broadway separated bike lanes
- **majority of on-street parking along areas of bike lane implementation preserved**, with around only 20 out of several hundred spaces lost in implementation

Business impact of implementation

Businesses situated around the implemented bike lanes are expected to be benefited by increased foot and bike traffic, according to Bike Long Beach, the City of Long Beach sponsored cycling advocacy organization [1]

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

[1] Bike Long Beach. 2011. “Broadway & Third Bikeways Completed – Frequently Asked Questions (FAQs)”. *Bike Long Beach*. Accessed June 3, 2011 from http://www.bikelongbeach.org/News/Read.aspx?ArticleId=85.

Vancouver Separated Bike Lanes

Vancouver, Canada

City
City of Vancouver

Infrastructure implemented
Two-way separated bike lanes

Date of implementation
June 2010 (Dunsmuir St.)
December 2010 (Hornby St.)
July 2009 (Burrard Bridge)
March 2010 (Dunsmuir Viaduct)

Area of implementation
Dunsmuir St (Dunsmuir Viaduct to Howe St)
Hornby St (endpoints on Seaside Greenway, from Burrard Bridge to Canada Place)
Burrard Bridge
Dunsmuir Viaduct

Separated bike lane related studies conducted prior to bike lane implementation

2007 *Cycling in Cities* Opinion Survey

- University of British Columbia conducted web and mail based survey of Metro Vancouver adults regarding cycling facility preferences that identified separated bike lanes as the most preferred on-street cycling facility

Greenest City Action Team (GCAT) Quick Starts Report

- April 2009 City of Vancouver green initiatives report recommending the implementation of a network of protected bike lanes on existing bike routes

Public consultation approach used

Hornby St.

Pre-implementation

Information brochures/mail-out surveys

- brochures/surveys delivered to approximately 4000 businesses & residents along and near Hornby St. in August 2010

Individual stakeholder meetings

- One-on-one meetings between City of Vancouver staff and individual businesses/interest groups through July to September 2010

Online feedback form and discussion forum

- August/September 2010 online survey and public discussion forum on City of Vancouver website

Open houses

- August 11, 2010 and September 8, 2010 City of Vancouver sponsored public open houses/information sessions

Vancouver Separated Bike Lanes

Vancouver, Canada

Approximately **$25 million** is to be invested by the City of Vancouver **over the next two years to build 55 km of new bike lanes**.

Public opinion survey

- August/September 2010, Mustel Group conducted an intercept survey to assess public opinion of downtown, and specifically the proposed Hornby, separated bike lanes

Dunsmiur St

Pre-implementation

Information brochures/mail-out surveys

- brochures/surveys delivered to approximately 1000 businesses along and near Dunsmuir St in April 2010

Online feedback form

- Spring 2010 public online survey on City of Vancouver website

Individual stakeholder presentations

- April 21, 2010 City of Vancouver information presentations to individual business/interest groups such as the Downtown Vancouver Business Improvement Association (DVBIA) Access and Mobility Subcommittee and the Downtown Vancouver Association (DVA)

Burrard Bridge

Pre-implementation

Focus group research

Public opinion survey

- September 2009, Mustel Group conducted a survey regarding public awareness of and public support for Burrard Bridge separated bike lanes

Marketing and outreach strategies

Burrard Bridge

Mass media advertising in print and on radio to promote awareness of separated bike lane implementation

- Vancouver Sun, Vancouver's largest daily newspaper, front page wrap advertisement
- Television and radio interviews

Bridge banners

Dunsmuir St

City of Vancouver short film explaining benefits of implemented Dunsmuir St. separated bike lanes

Vancouver Separated Bike Lanes

Vancouver, Canada

Installation of the Dunsmuir St separated bike lanes has resulted in a **400% increase in bike ridership** along Dunsmuir St. [1]

Profile of areas affected by bike lane implementation

Dunsmuir St

- **Major east-west street** through **Vancouver downtown core**
- mix of retail businesses, restaurant/cafes, office buildings and hotels

Hornby St

- **Major north-south street** through **Vancouver downtown core**
- mix of retail businesses, restaurant/cafes, office buildings and hotels
- all driveway access along Hornby St maintained [1]
- almost every loading zone & dropoff area maintained [1]

Burrard Bridge

- bridge connecting Vancouver west side, specifically the Kitsilano neighbourhood, and downtown
- **major commuter and transit route into downtown**

Dunsmuir Viaduct

- westbound lanes of the Georgia Viaduct twinned bridge
- connects Strathcona neighbourhood with downtown

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- **permanent raised concrete medians**
- **planters**
- a **lane of parked cars**
- **concrete barriers** (Burrard Bridge and Dunsmuir Viaduct)

Lane signage/markings

- **dedicated bike lane symbol at beginning of lane**
- **bike traffic signals**

Traffic restrictions

- right turn restriction for cars as a result of Dunsmuir St separated bike lane implementation at intersections of Dunsmuir St and Seymour St and Dunsmuir St and Hornby St
- right turn restriction for cars as a result of Hornby St separated bike lane implementation at Helmcken St
- right turn restriction for cars as a result of Burrard Bridge separated bike lane implementation at intersection of Burrard St and Pacific St

- number of automobile travel lanes reduced from 6 to 5 for implementation of separated bike lanes on Burrard Bridge, with 1 southbound lane removed
- number of automobile travel lanes reduced from 3 to 2 for implementation of separated bike lanes on the Dunsmuir Viaduct, though, due to previous unrelated construction work, the number of Dunsmuir Viaduct travel lanes had already been reduced to 2 since 2003
- number of automobile travel lanes reduced from 2 to 1 on Hornby St between Beach and Davie for implementation of Hornby St separated bike lanes
- 158 on-street parking spaces along Hornby St lost due to separated bike lane implementation, though an additional 162 on-street parking spaces along adjacent streets (Howe St and Seymour St) have been added

Business impact of implementation

No quantified impacts were documented.

Business impact of implemented Dunsmuir St and Hornby St separated bike lanes to be analyzed and quantified in an ongoing City of Vancouver backed independent study (conducted by Stantec Consulting, Site Economics and Mustel Group Market Research), with study findings to be presented in July 2011

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

Other Benefits

Bicyclists' Injuries and the Cycling Environment (BICE) study

- University of British Columbia cycling safety study using data on cycling injuries on the Burrard Bridge
- Study findings indicate that accident rates for cyclists on the Burrard Bridge have decreased following implementation of the Burrard Bridge separated bike lane [2]

[1] City of Vancouver. 2010. "Hornby Separated Bike Lane – Media Technical Briefing". *City of Vancouver*. Accessed on June 2, 2011 from http://vancouver.ca/engsvcs/transport/cycling/separated/pdf/SeparatedBikeLanes-UpdatedTechnicalBrief.pdf.

[2] City of Vancouver. 2010. "Burrard Bridge Statistics". *City of Vancouver*. Accessed on June 2, 2011 from http://vancouver.ca/projects/burrard/statistics.htm.

Chicago Separated Bike Lanes

Chicago, USA

City
City of Chicago

Infrastructure implemented
One way separated bike lanes, referred to as protected bike lane

Date of implementation
June 2011

Area of implementation
Kinzie St. (between Milwaukee Ave. and Wells St.)

Separated bike lane related studies conducted prior to bike lane implementation

Bike 2015 Plan

- Municipal document outlining City of Chicago cycling initiatives, increasing bike ridership and reducing bike injuries, and proposed cycling infrastructure expansions

Public consultation approach used

Pre-implementation

Mayor's Bicycle Advisory Council meetings

- meetings 4 time yearly, since March 2007 to the present
- city representatives (from Chicago Transit Authority, Chicago Department of Transportation, Chicago Police Department, and other city departments), community organization representatives (from local bike advocacy groups, like Active Transportation Alliance and West Town Bikes) and members of the public attend to discuss cycling related issues and projects/plans

Marketing and outreach strategies

Bicycling Ambassadors

- City of Chicago bike safety and education specialists who attend public events (like music festivals, neighborhood health fairs, block parties and farmers markets) to promote cycling and give safety demonstrations/presentations
- program established 2001

Bike Chicago

- annual city bike festival featuring neighborhood, lakefront and architectural bike tours, cycling classes, bike maintenance workshops
- includes a Bike to Work Rally and Bike to Work week

Chicago Separated Bike Lanes

Chicago, USA

Rahm Emanuel, Chicago's current mayor, is a cycling enthusiast; he has pledged to install 25 miles (40km) of separated bike lanes throughout Chicago for every year of his 4 year mayoral term, for a 100 mile (160km) separated bike lane network [2]

Profile of areas affected by bike lane implementation

Kinzie St.

- downtown street through Fulton River District connecting two popular cyclist commuter routes – Milwaukee Ave. and Wells St.
- several residential high-rises, a public park and chocolate factory along section of Kinzie St. with bike lane, a large grocery store just south of Kinzie St. and bike lane

Milwaukee Ave.

- busy downtown cyclist route
- from Chicago Department of Transport (CDOT) data, approximately "22% of all the traffic" on Milwaukee Ave. is bike traffic [1]

Wells St.

- busy downtown cyclist route

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- a **lane of parked cars**
- soft-hit bollards within painted buffer

Lane signage/markings

- 4 foot wide painted lane buffer
- lane markings through intersections to indicate cyclist travel

Business impact of implementation

Chicago's bike lanes are only newly implemented; no quantifiable business impacts have yet been documented.

Plans for further expansion of cycling infrastructure, specifically the implementation of additional separated bike lanes, as pledged by Chicago's current mayor (see information side-box to the left), are in development

A separated bike lane on Stony Island Ave (69th St. to 77th St.) is to be constructed [1]

Other Benefits

Chicago's bike lanes are only newly implemented; no benefits have yet been documented.

Chicago Separated Bike Lanes

Chicago, USA

Mitigation strategies used to counter negative impacts of implementation

Chicago's bike lanes are only newly implemented; no mitigation strategies have yet been documented.

[1] Spielman, F. 2011. "Kinzie to get Chicago's first 'protected bike lane'". *Chicago Sun-Times*. Accessed on June 9, 2011 from http://www.suntimes.com/news/metro/5829886-417/kinzie-to-get-chicagos-first-protected-bike-lane.html.

[2] 2011. "Chicago Bike Lanes: Downtown Gets First In Citywide Network Of New Protected Paths". *HuffPost Chicago*. Accessed on June 9, 2011 from http://www.huffingtonpost.com/2011/06/07/chicago-bike-lanes-downto_n_872802.html

New York Separated Bike Lanes

New York, USA

City
City of New York

Infrastructure implemented
One-way and two-way separated bike lanes referred to as protected bike paths

Date of implementation
June 2008 (Eighth Ave)
June 2008 (Ninth Ave)
October 2009 (Kent Ave)
June 2010 (Prospect Park West)
November 2010 (Columbus Ave)

Areas of implementation
Eighth Avenue (between Bank St and W 23rd St)
Ninth Ave (between W 16th St and W 23rd St)
Kent Ave (between Clymer St and N 14th St)
Prospect Park West
Columbus Ave (between W 96th St and W 77th St)

Separated bike lane related studies conducted prior to bike lane implementation

Street and urban design consultation

- Renowned Danish urbanist Jan Gehl hired by New York Department of Transportation (DOT) to complete an analysis of New York streets and public spaces, with respect to pedestrian and cyclist oriented development, and provide direct recommendations for New York's urban design policy

New York City Bicycle Master Plan

- 1997 municipal document outlining City of New York cycling initiatives, particularly the promotion of cycling as a form of commuting and the installation of a bicycle network

PlaNYC: A Greener, Greater New York

- 2007 sustainability and population increase response plan which advocates cycling as a sustainable transportation choice, and outlines initiatives to "make bicycling safer and more convenient" [1]

Bicyclist Fatalities and Serious Injuries in New York City: 1996-2005

- 2006 NYC study of bike-related injuries which identifies "specific safety challenges for bicycling in New York", offers safety recommendations for road users (motorists and cyclists) and outlines a series of next steps for the City to increase ridership and improve safety [2]

Public consultation approach used

Pre-implementation

Public meetings

- 94 meetings with Community Boards over the last four years [3]

New York Separated Bike Lanes

New York, USA

To date, over 5 miles (8km) of on-street separated bike lanes have been installed in New York, as part of the city's implementation of more than 255 miles (410km) of bike routes over the last 4 years [8], [3]

Community votes

- 40 individual committee and fully community board votes and/or resolutions supporting bike projects [3]

Public notification flyers

- information flyers distributed to businesses and residents along corridors of bike lane implementation

Individual stakeholder meetings

- New York DOT meetings with every single business fronting on proposed bike lanes to discuss implementation plans and possible negative impact mitigation strategies

From a City of New York memo, by the New York's Deputy Mayor for communications and government affairs in response to criticism against newly implemented bike lanes, "in many cases" bike lanes projects have been "specifically requested by" local community boards, and "major bike lane installations", including those on Prospect Park West and Columbus Ave, "have been approved by the local Community board" [3]

Post-implementation

Individual stakeholder meetings

Marketing and outreach strategies

Bike Smart: The Official Guide to Cycling in New York

- DOT brochure explaining New York's recently implemented bike facilities, and detailing cycling safety

Two major DOT advertising and awareness campaigns – "The LOOK Campaign" and "Don't be a Jerk"

- "The LOOK Campaign"
  - 2007 campaign, with NYC Bicycle Safety Coalition (members include Transportation Alternatives, New York Police Department, NYC Department of Health and Mental Hygiene, Bike New York and the Office of the Public Advocate), targeting pedestrian and motorist behavior, with respect to pedestrian and motorist interaction with cyclists
  - series of print and radio advertisements

- "Don't be a Jerk"
  - 2011 campaign targeting cyclist behavior, specifically that of men aged 21-29
  - series of videos using humour and celebrity appearances to emphasize bike safety

New York Separated Bike Lanes

New York, USA

Profile of areas affected by bike lane implementation

Prospect Park West

- bike lane along 1.8 mile stretch through Brooklyn
- street runs along Prospect Park, a large public park

Eighth Avenue

- bike lane along 0.8 mile stretch through Manhattan
- north-south street
- mix of commercial/retail businesses, restaurant/cafes and mid-rise residential buildings

Ninth Avenue

- bike lane along 0.4 mile stretch through Manhattan
- one-way southbound thoroughfare
- continuation of Columbus Ave
- mix of commercial/retail businesses, restaurant/cafes and mid-rise residential buildings

Kent Avenue

- bike lane along 3.1 mile stretch through Brooklyn
- north-south street

Columbus Avenue

- bike lane along 1.1 mile stretch through central Manhattan
- one-way southbound thoroughfare
- continuation of Ninth Ave
- mix of commercial/retail businesses, restaurant/cafes and mid-rise residential buildings

Physical design of implemented separated bike lane

Physical separation of traffic and bike lanes using

- a **lane of parked cars**

Lane signage/markings

- **bike lane symbol at beginning of lane**
- painted striped-line markings along lane as buffer
- arrow markings for direction periodically within lane
- coloured lanes (green painted lanes)
- **bicycle traffic lights**

Traffic restrictions

Prospect Park West

- no turning restrictions as a result of separated bike lane implementation

- number of automobile travel lanes on Prospect Park West reduced from to three to two for implementation of bike lanes
- reconfiguration of loading zones
    - post-implementation addition of loading zones and no-standing zones [4]

Eighth Ave

- number of automobile travel lanes maintained
- dedicated left turn lanes, and turn bays, created
- parking loss of 2 to 5 spaces at 4 left turn lane intersections [5]

Ninth Ave

- number of automobile travel lanes on Ninth Ave reduced from to four to three for implementation of bike lanes
- left turn restriction for cars as a result of separated bike lane implementation at intersection of Ninth Ave and W 20th St
- dedicated left turn lanes, and turn bays, created at intersections of W 22nd St, W 18th St and W 16th St and Ninth Ave
- reconfiguration of loading zones
    - creation of 3 new loading zones
- net parking loss of about 20 parking spaces [6]

Kent Ave

- number of automobile travel lanes on Kent Ave reduced from two to one, with two-way north-south lanes converted to a one-way northbound lane
- addition of parking lane on west side of Kent Ave (parking lane serves doubly as separated bike lane buffer)
- addition of a northbound loading lane on east side of Kent Ave
    - restoration of approximately 200+ loading and parking spaces [7]

Columbus Ave

- number of automobile travel lanes maintained
- dedicated left turn lanes created at intersections of W 77th St and W 96th St and Columbus Ave
- parking loss of about 55 parking spaces at left turn lane intersections [8]

New York Separated Bike Lanes

New York, USA

Business impact of implementation

According to a City of New York memo, by the New York's Deputy Mayor for communications and government affairs in response to criticism against newly implemented bike lanes, "66% of the bike lanes installed have had no effects on parking or on the number of moving lanes" [3]

Implementation considered to be a success, with plans for further expansion of cycling infrastructure in development

Other Benefits

Over the last four years, bike ridership in New York has "more than doubled", though the "number of fatal cycling crashes and serious injuries had declined, due to a safer bike network" [3]

Installation of separated bike lanes has precipitated a typical drop of about "40%" and, in some locations, "more than 50%", in the number of "injury crashes for all road users (including motorists, cyclists and pedestrians)" [3]

Mitigation strategies used to counter negative impacts of implementation

Post-installation changes in response to negative community feedback

- Columbus Ave bike lane "amended after installation to increase parking at the community's request" [3]
- Bedford Ave in Williamsburg and Father Capodanno Blvd in Staten Island bike lanes "completely removed after listening to community input" [3]

The "majority of New Yorkers support bike lanes", with "54% of New York City voters" supporting bike lanes because they are "greener" and it is "healthier for people to ride their bicycles" [3]

New York Separated Bike Lanes

New York, USA

[1] City of New York. 2011. “PlaNYC: A Greener, Greater New York - Transportation”. *City of New York*. Accessed on June 13, 2011 from http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/planyc_2011_transportation.pdf

[2] Nicaj, L, Mandel-Ricci, J, Assefa, S, Grasso, K, McCarthy, P, Caffarelli, A, McKelvey, W, Stayton C & Thorpe, L. 2006. “Bicyclist Fatalities and Injuries in New York City: 1996-2005: A Joint Report from the New York City Departments of Health and Mental Hygiene, Parks and Recreation, Transportation, and the New York City Police Department”. *City of New York*. Accessed on June 13, 2011 from http://www.nyc.gov/html/doh/downloads/pdf/episrv/episrv-bike-report.pdf.

[3] Wolfson, H. 2011. “City of New York Office of the Mayor Bike Lanes Memorandum”. *City of New York*. Accessed on June 10, 2011 from http://www.nyc.gov/html/om/pdf/bike_lanes_memo.pdf.

[4] Prospect Park West Bicycle Path and Traffic Calming Update http://www.nyc.gov/html/dot/downloads/pdf/20110120_ppw.pdf

[5] Eighth Avenue Complete Street Redesign Bank Street — West 23rd Street http://www.nyc.gov/html/dot/downloads/pdf/8thave.pdf

[6] Ninth Avenue Bicycle Facility & Complete Street Redesign W16th Street – W23rd Street http://www.nyc.gov/html/dot/downloads/pdf/9thavecomp.pdf

[7] Kent Avenue Improvement Plan: Implementation Update http://www.nyc.gov/html/dot/downloads/pdf/kent_ave.pdf

[8] Columbus Avenue Parking-Protected Bicycle Path West 96th to West 77th Streets http://www.nyc.gov/html/dot/downloads/pdf/20100511_columbus_ave_cb7.pdf

Melbourne Tram

Melbourne, Australia

City
City of Melbourne

System implemented
Tram network of 28 routes extending from Melbourne's Central Business District (CBD) to its inner and middle suburbs, operated by Keolis Downer EDI Rail (KDR) Victoria in partnership with the State of Victoria, under the Yarra Trams name

Date of implementation
1906

Area of implementation
Melbourne's downtown and inner suburban residential, office and retail districts

Separated bike lane related studies conducted prior to bike lane implementation
No documented studies were conducted

Public consultation approach used

Pre-implementation
Tram Advisory Group (TAG)

- formed June 2010
- stakeholder advisory board composed of tram passengers, Yarra Trams employees and Yarra Trams management which meets at least twice yearly [2]
- intended to provide a "formal process for […] passengers and staff to have direct involvement and a better understanding of the operation of Yarra Trams" [2]

Post-implementation
Think Tram

- State Government (State of Victoria) initiative to improve tram travel times, reliability, accessibility and safety in Melbourne, managed by VicRoads in partnership with the Victoria Department of Transport and Yarra Trams and in consultation with local government and local communities
- implementation of a series of improvement initiatives - traffic management measures, use of new technology to improve traffic flow and amendments to road rules - along key tram routes
- a Think Tram communications team works with key stakeholders and the local community throughout the duration of Think Tram projects

Marketing and outreach strategies
Meet the Managers program

- initiated March 2010, public feedback sessions with Yarra Tram senior management personnel

Melbourne Tram

Melbourne, Australia

214,132 Metlink iPhone apps were downloaded in 2010. Metlink's iPhone app allows users to view service times/timetables, receive real-time arrival and departures for all tram stops and use Metlink's trip planner [1]

Online customer feedback form

- online feedback on the Yarra Trams website

Customer feedback hotline

- Yarra Trams hotline, open between 6am and midnight daily, to receive customer feedback

Metlink

- founded June 2003, the marketing body and umbrella brand for Melbourne's public train, tram and bus transport systems
- launched several customer information campaigns and community outreach campaigns "to extend the Metlink brand and public transport messages to a range of people" [1]
    - Customer information campaigns

Television advertisements

- Several TV advertising campaigns featuring Australian celebrities/entertainers
- *Take it easy, take the bus*
    - June 2010 campaign promoting Melbourne's bus services
- *I Highly Recommend You Get on the Bus*
    - July 2007 campaign promoting bus system improvements and bus usage
- *BATBYGOBSTOPL (Buying a ticket before you get on board saves time or problems later)*
    - public information campaign promoting Metlink fare policies/policy changes

Radio advertisements

- Several radio advertising campaigns featuring Australian celebrities/entertainers
- *I Highly Recommend You Get on the Bus*
- *Take it easy, take the bus*
- *BATBYGOBSTOPL (Buying a ticket before you get on board saves time or problems later)*

Online/social networking sites advertisements

Print advertisements

Bus shelter advertisements

Bus advertisements

- Community Outreach
  Sports partnerships/sponsorships
    - Three year partnership with the Melbourne Heart Football Club, a local professional soccer club

  Local events/festivals partnerships/sponsorships
    - City of Melbourne's New Year's Eve
    - Melbourne Food and Wine Festival
    - Melbourne International Jazz Festival

Profile of areas affected by streetcar implementation

Melbourne CBD

- Melbourne's economic and political centre, and location of most of Melbourne's famous sporting venues and major parks and gardens
- densest section of the tram network

Physical design of implemented streetcar system

Streetcar vehicle used

- electric powered
- 8 different types of streetcar vehicle currently in service
- rolling fleet of 487 vehicles

Traffic restrictions

- hook turn
    - right turn from leftmost travel lane, to leave tram tracks and right travel lanes free for through traffic
    - traffic manoeuvre unique to Melbourne, implemented specifically to accommodate Melbourne's tram system
- traffic preemption with traffic signals
- designated right-of-way operation
    - trams operate in on-street marked dedicated lanes, along former railroad lines and with right-of-way
- mixed traffic operation
    - trams operate with all street traffic, with no right-of-way separation/dedicated street lanes

Melbourne Tram

Melbourne, Australia

Business impact of implementation

Melbourne's tram system is well-established, having been in service for over a century. The system is well-integrated into Melbournian transportation, and Melbournian daily life as a whole. As such expansion and restoration of tram infrastructure is, in general, often heavily supported by the both local political bodies/representatives and the public.

No quantified results have been documented.

Other Benefits

Iconic cultural asset

- Melbourne's tram system is often celebrated as a cultural symbol of the city
- a 'flying' Melbourne tram (a tram with wings attached) was featured in the 2006 Commonwealth Games Opening Ceremony in Melbourne

Mitigation strategies used to counter negative impacts of implementation

Think Tram initiatives

[1] Metlink. 2010. "Connecting people and places: Metlink annual review 2010". *Metlink*. Accessed on June 20, 2011 from http://www.metlinkmelbourne.com.au/assets/PDFs/Annual-Review/Metlink-Annual-Review-2010.pdf.

[2] Yarra Trams. 2011. "Tram Advisory Group". *Yarra Trams.* Accessed on June 7, 2011 from http://www.yarratrams.com.au/desktopdefault.aspx/tabid-416/506_read-2397/.

Portland Streetcars & Light Rail

Portland, USA

City
City of Portland

Systems implemented
Metropolitan Area Express (MAX), light rail line operated by Tri-County Metropolitan Transportation District of Oregon (TriMet), the Oregon public mass transit agency and Portland Streetcar, City of Portland owned and TriMet operated streetcar line

Date of implementation
September 1986 (MAX)
July 2001 (Portland Streetcar)

Area of implementation
Portland Metropolitan area (MAX)
Downtown Portland, from Nob Hill to Portland State University (Portland Streetcar)

Streetcar related studies conducted prior to streetcar system implementation

MAX

Transit Station Area Planning Program (TSAP)

- Initiated in 1980, a joint planning program between the City of Portland, TriMet and other local government bodies “to identify, create and promote opportunities for transit-oriented development along a regional light rail corridor” [1]
- included a series of market studies, land suitability analyses, coordination with other regional planning efforts, detailed station area plans, and design guidelines

Public consultation approach used

Pre-implementation

Portland Streetcar

The Portland Streetcar Citizens' Advisory Committee

- citizen group which reviews and offers advice on all significant Portland Streetcar project planning, design and operation issues

Post-implementation

Portland Streetcar System Concept Plan

- adopted September 2009, a feasibility analysis of potential streetcar system expansions and evaluation of potential streetcar routes
- record of public involvement process from Fall 2007 to Summer 2009 (following implementation of Portland Streetcar system, concerning potential streetcar system expansion)
    - kick-off open houses
        - series of 3 City of Portland sponsored information open houses in November 2007

Portland Streetcars & Light Rail

Portland, USA

The USA's only manufacturer of modern streetcar vehicles, United Streetcar, is located just outside of Portland. Currently, United Streetcar is constructing 6 modern streetcar vehicles for Portland Streetcar and its planned line expansion.

- public workshops
  - 5 public workshops in April 2008 that introduced potential streetcar routes
- citizen focus groups
  - establishment of 5 citizen groups in April 2008 to evaluate potential streetcar routes in their communities, and assess community support for these routes
  - focus group evaluations/surveys conducted over period of 9 months
- public open house meetings
  - series of 5 open house meetings in May 2009 regarding 'next steps' towards expansion implementation

Marketing and outreach strategies

Portland Streetcar

Streetcar marketing group

- group formed from TriMet, Portland Department of Transportation and Portland Streetcar staff representatives to discuss public outreach efforts including grand opening celebrations, streetcar information distribution to the public and advertising opportunities

Profile of areas affected by streetcar implementation

Free Rail Zone

- area within Portland's downtown and the Lloyd District, a commercial neighbourhood in North/Northeast Portland, in which MAX and Portland Streetcar rides are zero-fare, or free

Park & Ride locations offering free 24hr parking for MAX riders near many MAX stations

MAX

4 MAX lines, all pass through **Portland's downtown/city centre**, with lines connecting downtown Portland with Beaverton, Clackamas, Gresham, Hillsboro, North/Northeast Portland and the Portland International Airport, other **major suburbs/areas in the Portland Metropolitan region**

- Beaverton
  - suburb 11km west of Portland, sixth largest city in Oregon
- Clackamas
  - smaller suburb, southeast of Portland
- Gresham
  - suburb immediately east of Portland, fourth largest city in Oregon

- Hillsboro
  - suburb 27km west of Portland, fifth largest city in Oregon

Portland Streetcar

1 Portland Streetcar line, running north-south through **downtown Portland**

- runs from Portland's south waterfront, through Portland State University and north to nearby homes and shopping districts

Physical design of implemented streetcar system

Streetcar vehicle used

MAX

- 4 different models of MAX vehicle, all electric
- rolling stock of 127 MAX vehicles

Portland Streetcar

- modern electric streetcar vehicles
- rolling stock of 10 vehicles, plus 1 additional locally manufactured prototype vehicle (by Oregon's United Streetcar)

Traffic restrictions

MAX

- dedicated right-of-way operation
  - streetcars operate on surface streets on exclusive right-of-ways/streetcar lanes
  - dedicated right-of-ways installed as off-street lanes, along freeways and on former freight railroad lines, and on on-street concrete medians
  - on streets, number of automobile travel lanes reduced by one to account for exclusive streetcar lane
- traffic preemption
  - along street-running tracks at intersections, MAX trains are given preemption over motorists using traffic signals

Portland Streetcar

- one-way street, mixed traffic operation
  - streetcars operate on one-way streets street, with all street traffic, with no right-of-way separation/dedicated streetcar lanes
  - streetcars run usually in the right lane

- right turn restrictions as a result of streetcar system implementation
    - right turns on red banned at 4 intersections: SW Market St At 5th Ave. and 11th Ave and NW 23rd Ave at Lovejoy St and Northup St
- white line road marking
    - white warning lines marked on the street on the right of a streetcar
    - parked cars crossing marked white warning lines are towed

Business impact of implementation

MAX

More than $6 billion in development has occurred along MAX lines since the decision to build in 1978 [5]

A 1996 economic impact study indicated that the then streetcar system was responsible for **$1.3 billion of development located immediately adjacent to this starter line** [2]

Property values in the MAX service area exceeded those outside its catchment area [2]

- property values in the MAX Lloyd Center service area increased 134.0% from 1980 to 1991
- property values in the MAX 162nd Avenue service area increased 112.0% from 1980 to 1991
- property values in the MAX 181st Avenue service area increased 491.0% from 1980 to 1991

1987 economic impact survey of retail businesses adjacent to implemented MAX line found that **66% of business owners said that their businesses had been helped by being located near MAX**. More specifically, **54% said they saw increased sales volume** as a result of being located near MAX [2]

Implementation considered to be a success, with plans for further expansion of the MAX system in progress and proposed

Portland Streetcar

2008 City of Portland economic impact study of the Portland Streetcar line found that "$**3.5 billion has been invested within two blocks" of the streetcar line**, "including over **10,000 new housing units** and **5.4 million square feet of office, institutional, retail and hotel construction**" [4], since initial identification of the streetcar line route layout in 1997 [3], representing "approximately **two-thirds of all development in Central Portland during that time**" [4]

Portland Streetcars & Light Rail

Portland, USA

The Portland Streetcar line “has been credited with sparking **more than $1 billion worth of brownfield redevelopment** (brownfields are former industrial lands that are now vacant or underused) within a 90-block area” of its installation [2]

Implementation considered to be a success, with expansion of the Portland Streetcar line, a 5.3km extension of the existing line eastwards, in progress and expected to be completed in 2012 and further line expansions also proposed

Other Benefits

High return on the capital investment of streetcars in downtown Portland, with an existing ROI ratio of 140:1 [4]

2005 E.D. Hovee & Company development impact study of the Portland Streetcar system estimates that “new development around Portland’s existing streetcar system has resulted in a 60 percent reduction in greenhouse gas emissions, as compared to what emissions would be for a similar capacity of residential and business units developed in the suburbs”, with these savings realized through “the reduction of motor vehicle trips, consolidation and reuse of building materials, reduction in land consumption and less private and municipal infrastructure” [4]

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

[1] *Case Studies of Transit Oriented Development: Portland MAX* http://www.ulisacramento.org/documents/tod/5.Project%20Profiles/CaseStudies/Portland_MAX.pdf

[2] Gormick, G. 2004. “The Streetcar Renaissance: Its Background and Benefits” *City of* Toronto. Accessed June 2, 2011 from http://www.toronto.ca/wes/techservices/involved/transportation/st_clair_w_transit/pdf/report/streetcar_renaissance.pdf.

[3] City of Portland Bureau of Transportation & Portland Streetcar, Inc. 2008. “Portland Streetcar Development Oriented Transit”. *Portland Streetcar*. Accessed on June 2, 2011 from http://www.portlandstreetcar.org/pdf/development_200804_report.pdf.

[4] City of Portland Bureau of Transportation. 2009. “Portland Streetcar System Concept Plan: A Framework for Future Corridor Planning and Alternatives Analysis”. *City of Portland*. Accessed on June 2, 2011 from http://www.portlandonline.com/transportation/index.cfm?c=35953&a=321180.

[5] TriMet. 2011. “MAX Light Rail Project History”. *TriMet*. Accessed on June 2, 2011 from http://trimet.org/about/history/maxoverview.htm.

Toronto Streetcars

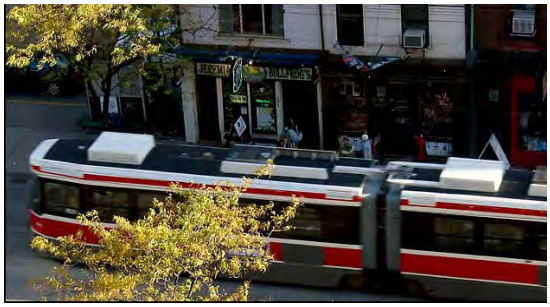
Toronto, Canada

City
City of Toronto

System implemented
System of 11 electric streetcar routes running primarily through Toronto downtown

Date of implementation
1861 (electric streetcars beginning in 1892)

Area of implementation
Throughout metropolitan Toronto



Streetcar related studies conducted prior to streetcar system implementation

Opportunities For New Streetcar Routes

- 1997 Toronto Transit Commission (TTC) report
- feasibility analysis of proposed streetcar route network expansions

Transit City

- 2007 City of Toronto document outlining general transit development initiatives and specific expansion opportunities
- calls for construction of a Toronto light rail transit (LRT) network of seven new LRT lines

Public consultation approach used

Pre-implementation

Citizen advocacy groups

- Streetcars for Toronto Committee
  - formed in 1972
  - in response to proposed TTC plans to abandon all streetcar operations
  - successful in persuading TTC to retain streetcar network and operations

Public meetings

- periodic public meetings facilitated by TTC employees, to discuss Toronto transit planning and operations
- series of in-person public consultation meetings in 2007 facilitated by TTC employees, to discuss Toronto streetcar transit planning and operations, specifically the replacement of existing streetcar vehicles with light rail vehicles (LRVs) (see information box at top left of following page for further details)
- in combination with 2007 web-based public consultation events, attended by over 10 000 people [1]

Toronto's entire existing streetcar fleet is to be replaced by 204 new Bombardier Transportation Canada Inc. designed and built low floor light rail vehicles (LRVs), with the first such production vehicle to be delivered in early 2013 and prototype vehicles in late 2011 [1]

Interactive online public consultation

- series of web-based public consultation events in 2007 facilitated by the TTC online, to discuss Toronto streetcar transit planning and operations, specifically the replacement of existing streetcar vehicles with light rail vehicles (LRVs)
- in combination with 2007 in-person public consultation events, attended by over 10 000 people [1]

Design focus groups

- launched in May 2010, series of public consultation meetings for design of proposed streetcar , facilitated by the TTC with citizen focus groups

Marketing and outreach strategies

No marketing and outreach strategies were documented.

Profile of areas affected by streetcar implementation

Toronto downtown core

- location of Toronto's CBD/financial district and large university campuses (University of Toronto and Ryerson University)
- a major commercial/shopping and high-rise residential area occupied by over 200 000 residents
- location of municipal and provincial political/government offices

Physical design of implemented streetcar system

Streetcar vehicle used

- rolling stock of 248 streetcar vehicles, of which 52 are higher-capacity articulated streetcars
- electric powered

Traffic restrictions

- both mixed-traffic, open street and designated right-of-way operation
  - most streetcars operate in car traffic, with trackage integrated in street
  - some routes, with newer trackage, operate within dedicated right-of-ways on street medians, separated from traffic by raised concrete curbs
- traffic preemption
  - streetcars given preemption over motorists at some intersections using specialized traffic signals at these intersections

Business impact of implementation
No quantified impacts were documented.

Other Benefits
No other benefits were documented.

Mitigation strategies used to counter negative impacts of implementation
No mitigation strategies were documented.

[1] Toronto Transit Commission. 2010. “About The Process”. *Toronto Meet Your New Ride*. Accessed on June 24, 2011 from http://lrv.ttc.ca/About-The-Process.html.

Seattle Streetcars

Seattle, USA

City
City of Seattle

Systems implemented
South Lake Union Streetcar, City of Seattle owned 2.1km, 11 stop streetcar line

Date of implementation
December 2007

Area of implementation
Downtown Seattle, connecting South Lake Union, Denny Triangle and the downtown retail core

Streetcar related studies conducted prior to streetcar system implementation

Seattle Streetcar Network and Feasibility Analysis

- June 2004 independent report prepared for the Seattle Department of Transportation
- an evaluation of potential Seattle streetcar routes providing general background information relevant to the implementation of a downtown streetcar system, with particular focus on the feasibility of a South Lake Union streetcar route

Public consultation approach used

Community meetings

- series of 3 City of Seattle sponsored public meetings in December 2009, regarding potential streetcar system expansions in downtown Seattle (following implementation of South Lake Union Streetcar)

Online feedback form

- online public feedback form to Seattle Department of Transportation on the Seattle Streetcar website

Marketing and outreach strategies

No marketing and outreach strategies were documented.

Profile of areas affected by streetcar implementation

South Lake Union

- at south tip of Lake Union, north end of the streetcar line
- formerly a commercial/industrial area, currently undergoing revitalization into a residential area and life science research/biotechnology hub
- quickly-growing neighbourhood

Seattle Streetcars

Seattle, USA

The South Lake Union Streetcar system is modeled on Portland Streetcar, Portland's streetcar system.

Denny Triangle

- **downtown residential and professional area** between South Lake Union and downtown retail core
- quickly-growing neighbourhood

Westlake Hub

- south end of streetcar line
- public transportation hub, connecting streetcar line with Seattle's Monorail, bus and Link light rail lines
- major retail/office centre, considered to be Seattle's town square

Physical design of implemented streetcar system

Streetcar vehicle used

- modern electric articulated streetcar vehicle
- rolling stock of 3 vehicles

Traffic restrictions

- both open-street, mixed traffic operation and off-street operation
    - streetcars operate on-street with all street traffic, with no right-of-way separation/dedicated streetcar lanes on Westlake Avenue and Fairview Avenue North
    - streetcars operate off-street along an abandoned railway track near Lake Union
- white line road marking
    - white warning lines marked on the street on the right of a streetcar
    - parked cars not to cross marked lines
- streetcar stops are extended into parking lanes at the far side of an intersection, **some on-street parallel parking spots** removed in the implementation of the streetcar system
- Westlake Avenue north of Denny Way changed from a 3 lane northbound street to a two-way, 4 lane street for implementation of streetcar system

Business impact of implementation

Urban redevelopment and economic revitalization motivated the construction of Seattle's streetcar system; implementation of the streetcar line in South Lake Union and the Denny Triangle, commercial and industrial neighborhoods near downtown Seattle with enormous redevelopment potential, was a direct acknowledgment of this motivation. Property owners in these neighbourhoods provided approximately half the total $52.9 million cost [1]

Implementation considered to be a success, with existing plans for the construction of a regional streetcar network – the addition of 4 streetcar lines throughout Seattle downtown

No quantified results have been documented.

Mitigation strategies used to counter negative impacts of implementation

No mitigation strategies were documented.

[1] Reconnecting America. 2009. “STREET SMART: STREETCARS AND CITIES IN THE TWENTY FIRST CENTURY – The Seattle Case Study: The South Lake Union Streetcar”. *Reconnecting America*. Accessed June 6, 2011 from http://www.reconnectingamerica.org/assets/Uploads/090305streetcarbook.pdf.