

2008-2009

CAMOSUN
COLLEGE

A SURVEY OF TRANSPORTATION DEMAND MANAGEMENT AT COLLEGES AND UNIVERSITIES IN BRITISH COLUMBIA



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Executive Summary

This report describes the results of a survey of campus parking and transportation policies at twenty-three British Columbia colleges and universities. The purpose was to provide Camosun College's transportation and parking sector greater insight into the current practices as well interesting transportation demand management initiatives within British Columbia as it begins to implement its own plan. It includes six universities (UBC, Simon Fraser, Victoria, Northern BC, Royal Roads and Thomson River), three institutes (BC Institute of Technology, Emily Carr Institute of Art and Design and Nicola Valley Institute of Technology), three university-colleges (Kwantlen, Malaspina and Fraser Valley), five urban colleges (Camosun, Capilano, Douglas, Langara and Vancouver Community) and six rural colleges (New Caledonia, Rockies, North Island, North West Community, Okanagan, Selkirk).

The following data were collected:

1. Locations
2. Number of Parking Stalls Total
3. Number of Parking Stalls Allocations (staff/students/carpool/other)
4. Number of Students Carpooling
5. Free parking for staff/ faculty or for any other situations
6. Any TDM strategies – for future or present successes
7. Any subsidies for transit or other programs
8. Bike facilities

This information was collected from campus websites, interviews and telephone interviews with various institutional representatives. FTE student numbers for 2007-2008 were obtained from Paul Merner, Director of Educational Research and Development at Camosun College.

This survey and report highlights six main areas, including automobile parking costs, parking supply, bicycle facilities, UPASS program, Carpool Initiatives and Transportation Demand Management (TDM) strategies, goals and successes. Campuses were categorized by location and type of institution (university, institution, university-college, urban college, and rural college).

Automobile parking fees were collected from all twenty-three campuses. Because of the variety of pass types, prices were converted into staff monthly pass fees and student daily parking fees for comparison. Four small rural colleges (College of the Rockies, North Island College, North West Community College, and Selkirk College) do not charge staff, students or visitors for parking at any time. One urban college (Camosun) and one rural college (Okanagan) offers staff free parking as a taxable benefit. Of institutions that charge for parking, Vancouver Community College has the highest monthly rate for staff at \$127.00, while Langara charges the least at \$6.88 (calculated from annual preferred lot rate/free in other lots) (Strachan). Three universities and one urban college, all of which are located in Vancouver, have the highest daily parking rate (\$1.50/ hour) for students (SFU, UBC, Emily Carr and Vancouver Community College), while Nicola Valley Institute in the rural area of Merritt, BC, charges the least (\$0.12/ hour). The average monthly staff parking rate is \$46.46, while the average daily rate for students is \$0.65/ hour or \$5.20/8-hour day.

Parking Supply was compiled for the main campus of each of the twenty-three colleges and universities, excluding Camosun College and Douglas College which each having two similarly-sized campuses. Total parking stall numbers were collected from six universities (UBC Vancouver, Simon Fraser-Burnaby, UVIC-Main, Northern BC-Prince George, Royal Roads-Main and Thomson River-Kamloops) three institutes, (BCIT-Burnaby, Emily Carr Institute of Art and Design and Nicola Valley-Merritt) three university-colleges (Kwantlen-Surrey, Malaspina-Nanaimo and Fraser Valley-Abbotsford), five urban colleges (Camosun-both, Capilano-North Vancouver, Douglas-both, Langara and Vancouver Community-Downtown) and six rural colleges (New Caledonia-Prince George, Rockies-Cranbrook, North Island-Comox Valley, North West Community-Terrace, Okanagan-Kelowna, Selkirk-Castlegar.) The ratio of Full Time Equivalent (FTE) Student Populations versus general parking spots was analyzed. The range of ratios was from 0.01 at the urban Vancouver Community College to 0.44 at the rural University of Northern B.C.

All twenty-three universities and colleges studied have some sort of bike facilities. The institution's bike facilities were categorized into one of these four groups: Excellent, Good, Fair or Poor. Such categorization was based on the abundance of bike racks, amount of other facilities in campus, website resources and other programs available. Two institutions (9% of all studied - Nicola Valley Institute of Technology and College of the Rockies) received a "poor" rating for bike facilities. Ten institutions (44% of all studied) received a "fair" rating for bike facilities, which included four rural colleges (New Caledonia, Okanagan, North Island and Selkirk), three urban colleges (Douglas, Vancouver Community and Capilano), two University-Colleges (Kwantlen and Malaspina) and one University (Northern British Columbia). Nine schools (39% of all studied) received a "good" rating for bike facilities, which include one rural college (North West community), two urban colleges (Camosun and Langara), two urban institutes (Emily Carr and BCIT), and four Universities (Royal Roads, Simon Fraser, Thomson River and Fraser Valley). Two institutions received an "Excellent" rating for bike facilities, and they are UVIC and UBC.

Ten out of the twenty-three colleges and universities studied have some sort of carpool initiatives. These include five universities (UBC- Vancouver, Simon Fraser, Fraser Valley, Victoria and Royal Roads), two university-colleges (Kwantlen and Malaspina), and three urban colleges (Camosun, Capilano, and Langara). Of the ten institutions with carpool initiatives eight of them have dedicated carpool parking spots, which include five universities (UBC, SFU, UVIC, Fraser Valley, Royal Roads) and three urban colleges (Langara, Capilano and Camosun). Transportation Demand Management (TDM) Plans have been put into place at four universities (UVIC, UBC, SFU and Royal Roads) and TDM plans have been newly adopted or in the beginning stages at two urban colleges (Malaspina and Camosun).

Automobile Parking Fees

Table 1: Pay Parking Prices for the twenty-three universities and colleges studied in British Columbia (November 2008)

Employee Parking						General/ Student Parking						
College / University	Annual (8 month)	Semester (4 month)	Monthly	Weekly	Daily	Annual (8 month)	Semester(4 month)	Monthly	Carpool	Motorcycle	Daily 8 hours(per hr) #	Short Term (hr)
Camosun College	Free as taxable benefit					N/A	N/A	64.00	1.75/ day	10.00	0.50 (4.00/day)	\$1.50
College of New Caladonia	N/A	N/A	\$36.75	N/A	\$2.00	N/A	N/A	\$36.75	N/A	N/A	\$0.25(2.00/day)	\$1.00
College of the Rockies	Free - small rural college					Free - small rural college						
Douglas College	N/A	\$80.00	20.00#	N/A	\$2.50	N/A	\$90.00	N/A	N/A	N/A	\$0.31(2.50/day)	\$1.00
Langara College	\$55.00	N/A	6.88#	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$0.63 (5.00/day)	\$2.00
Okanagan College	Free as taxable benefit					\$90.00	\$50.00	\$20.00	N/A	N/A	\$0.25 (2.00/day)	\$1.00
North Island College	Free - small rural college					Free - small rural college						
Northwest Community College	Free - small rural college					Free - small rural college						
Selkirk College	Free - small rural college					Free - small rural college						
Vancouver Community College	N/A	N/A	\$127.00	N/A	N/A	No parking provided for students during the day at the Down Town Campus: must find own way by bus or other surrounding pay lots					\$6.00 after 4:45pm staff lot(-1.50/hr)	N/A
Malaspina University College	\$99.00	\$45.00	\$15.00	N/A	N/A	\$49.50	\$22.50	\$7.50	49.50/year	37.14/year	\$0.25(2.00/day)	\$0.50
BC Institute of Technology	N/A	N/A	\$50.00	\$17.50	\$3.50	N/A	N/A	\$50.00	regular general	\$12.50 / week	\$0.44(3.50/day)	\$2.50
Kwantlen University/College	\$120 - \$200 (unreserved or reserved)	N/A	\$52.00	\$13.00	\$4.00	N/A	\$95.00 - \$165	\$52.00	\$82.50 / semester	same as car	\$0.50(4.00/day)	\$1.00
Nicola Valley Institute of Technology	N/A	\$65.00	\$18.00	N/A	\$1.00	N/A	\$65.00	\$18.00	regular general	N/A	\$0.12 (1.00/day)	N/A
Capilano University	\$180.00	\$100.00	\$30.00	N/A	\$3.00	\$180.00	\$100.00	\$30.00	Free	Free	\$0.38(3.00/day)	\$1.00
Emily Carr U. of Art and Design	N/A	\$248.00	\$62.00#	N/A	N/A	N/A	\$248.00	N/A	regular general	N/A	N/A	N/A
Royal Roads University	115.00 (80.00 for hybrid)	N/A	\$35.00	\$15.00	N/A	115.00 (80.00 for hybrid)	N/A	\$35.00	\$30 - \$80 / yr	\$100 / year	\$1.00(8.00/day)	\$2.00
Thomson River University	\$300.00	N/A	\$37.50#	N/A	\$2 - \$3	\$100 - \$150	\$100 - \$150	\$34 - \$50	N/A	same as car	\$0.31(2.50/day)	N/A
SFU**	N/A	\$110 - \$380	\$61.25#	N/A	\$11.75	N/A	\$110 - \$380	N/A	\$236.00 / semester	\$43.45 - \$79.11/ semester	\$1.49(11.75/day)	\$2.75
UBC *	\$804.00	\$292.00	\$73.00#	\$22.50	N/A	\$588 - \$682	\$315 - \$357	\$84 - \$99	N/A	N/A	\$1.50(8.13/day)	N/A
University of the Fraser Valley	N/A	N/A	\$25 - \$15 depending on yearly salary (20.00#)	N/A	N/A	N/A	\$150.00	\$70.00	\$150.00 / semester	Free	\$0.44(3.50/day)	\$0.50
UVIC	\$688.80	N/A	\$113.42	\$31.80	\$10.60	\$320.65	\$184.44	\$61.48	regular general or reserved rate	\$5.30/day \$15.90/week 98.05/ year	\$0.75(6.00/day)	\$1.00
University of Northern BC	\$385.00	\$128.40	\$32.10	\$10.00	\$2.00	\$385.20	\$128.40	\$32.10	21.00/month	same as car	\$0.25(2.00/day)	N/A

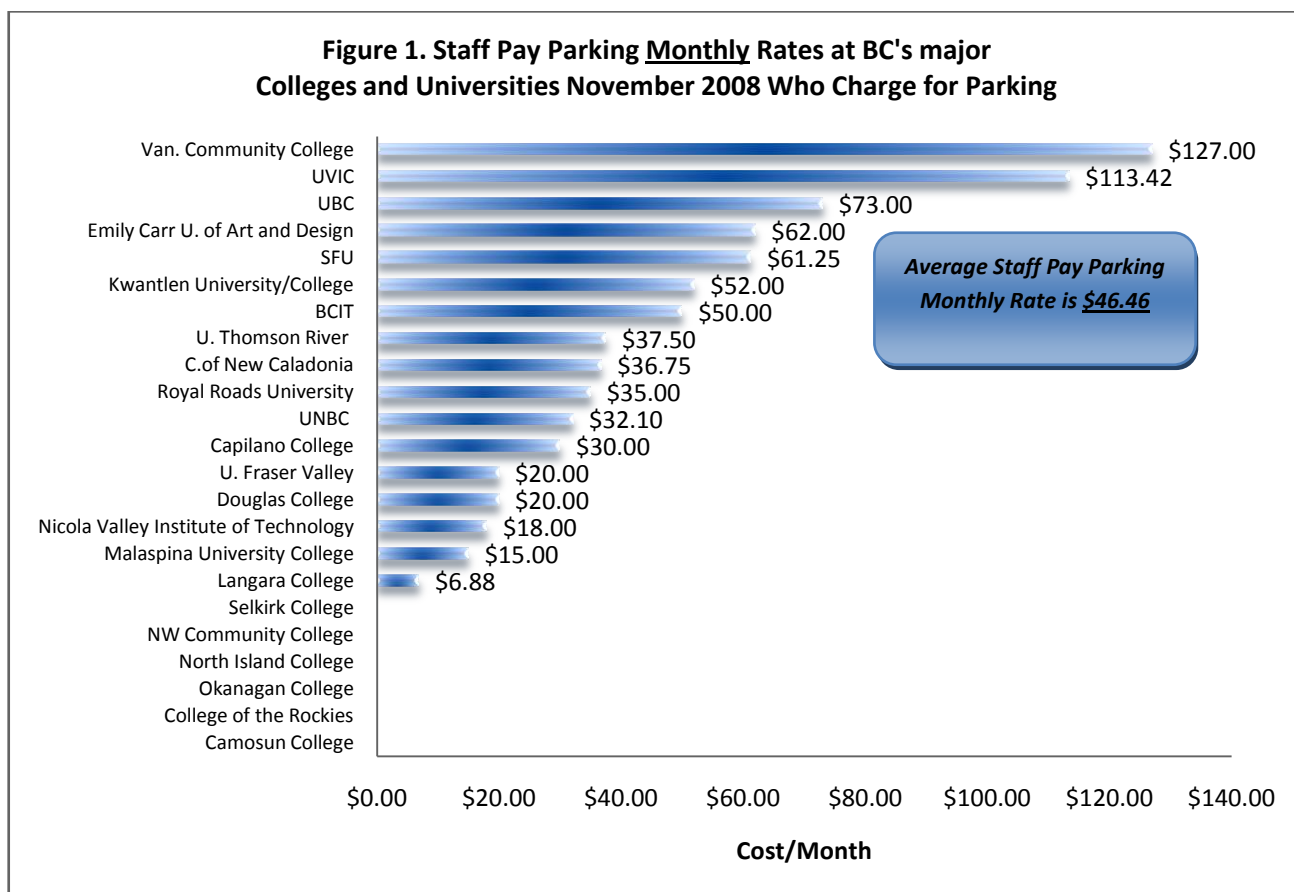
**SFU: 14 different Pass Types, depending on lot, day and time

*UBC: Prices are from 2007 as new FLEX pass (2008) is calculated by lots/ times/ days/ employee/ staff/ faculty

Price calculated from other permit (semester/annual/short-term)

Table 1 summarizes parking fees. Four small rural colleges (College of the Rockies, North Island College, North West Community College, and Selkirk College) do not charge staff, students or visitors for parking at any time. One urban college (Camosun in Victoria, Population: 331,491) (Canada) and one rural college (Okanagan in Kelowna – Population: 107,707 (Kelowna)) (see Table 1), provide staff free parking as a taxable benefit. All other seventeen major colleges and universities studied charge for both students and staff for parking.

Figure 1 below compares staff monthly parking fees from all colleges and universities studied. For institutions which did not have a monthly pass, these numbers were calculated based on Semester (4 month) or Annual (8 month) parking pass prices.

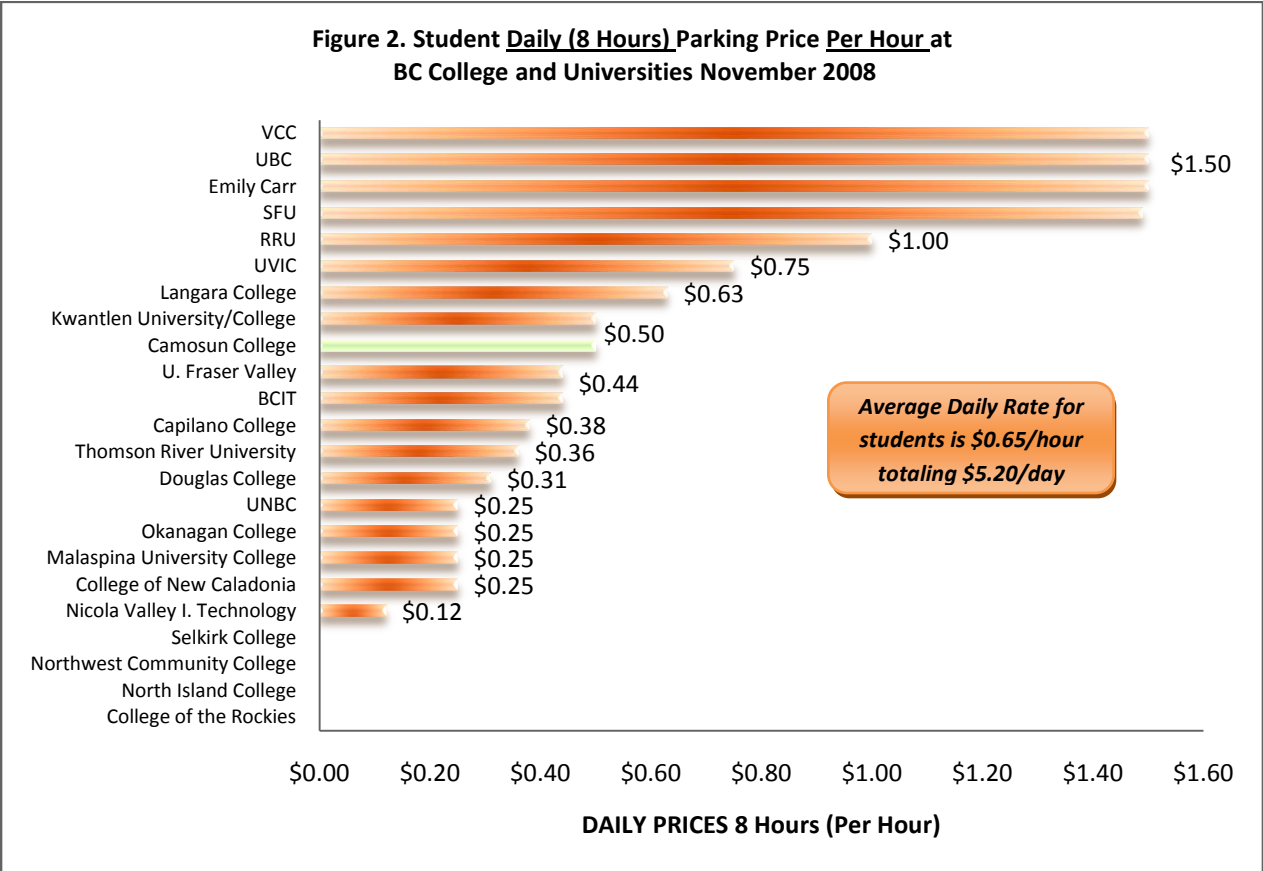


Please note that UBC's prices are from 2007 due to a change to a flex-pass type of system where there are various prices for lot, time, day and others. Douglas College, Langara, Emily Carr, SFU and UBC prices were calculated out from other pass types. (REFER TO TABLE 1)

Vancouver Community College has the highest monthly rate for staff at **\$127.00**, as seen in Figure 1. Its main campus is centrally located in downtown Vancouver, British Columbia's largest city, with central population being 600,000 (Vancouver), and regional population being over 2 million. On the other hand, Langara College has the lowest monthly rate of **\$6.88** (calculated from annual preferred lot rate/ free in other lots) (Strachan). Langara College is also located in Vancouver.

The overall average staff parking fee for campuses that charge for parking is **\$46.46** per month.

Figure 2 below compares student daily parking rates per hour for all BC colleges and Universities studied. For institutions that do not have a daily rate, the figures were calculated based on other permit types.



Please note that UBC's prices are from 2007 due to a change to a flex-pass type of system where there are various prices for lot, time, day and others. VCC only has pay parking available to students after 4:45pm so their prices were only for 4 hours (4:45pm – 8:45pm) (REFER TO TABLE 1)

Three universities and one college, all of which are located in Vancouver, have the highest daily parking rate (\$1.50/ hour) for students (SFU, UBC, Emily Carr and Vancouver Community College.) Vancouver Community College only provides the option of parking for students after 4:45pm within the staff parking lot, for the rate calculated. The lowest daily rate of institutions which charge students for parking was calculated to be (\$0.12/ hour) at Nicola Valley Institute in the rural area of Merritt, BC (Population: 6,253).

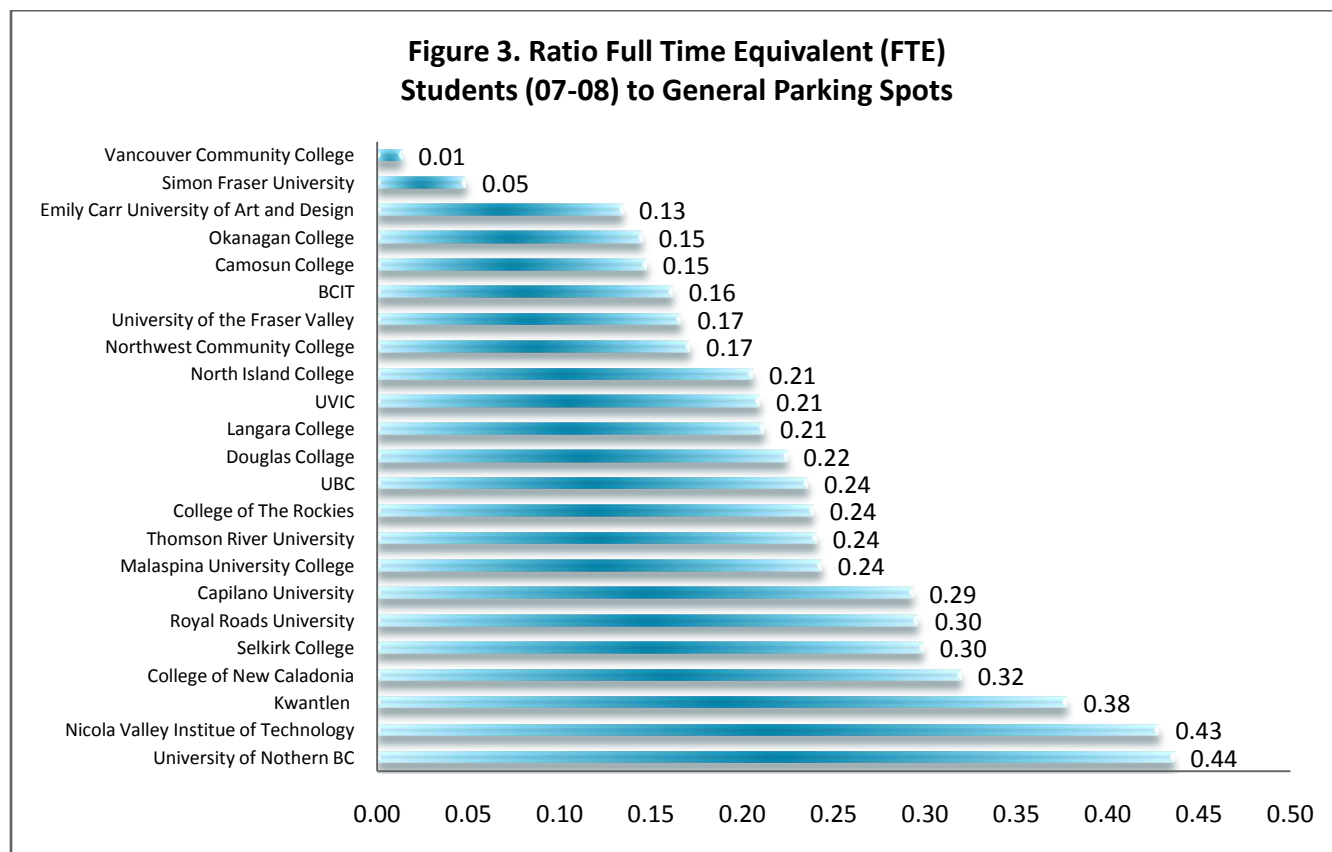
The average daily rate per hour for parking at major colleges and universities in British Columbia whom charge for parking is **\$0.65/ hour** (or \$5.20/8-hour day).

Camosun College (see Figure 2, green column) currently charges \$0.50/hour (or \$4.00/day.) This is \$0.15/hr lower than the calculated British Columbia average.

Parking Supply

Parking Supply was studied by compiling information from the main campuses of the twenty-three colleges or universities, with Camosun College and Douglas College having two equally-used campuses. Total parking stall numbers were collected from six universities (UBC Vancouver, Simon Fraser-Burnaby, UVIC-Main, Northern BC-Prince George, Royal Roads-Main and Thomson River-Kamloops) three institutes, (BCIT-Burnaby, Emily Carr Institute of Art and Design and Nicola Valley-Merritt), three university-colleges (Kwantlen-Surrey, Malaspina-Nanaimo and Fraser Valley-Abbotsford), five urban colleges (Camosun-both, Capilano-North Vancouver, Douglas-both, Langara and Vancouver Community-Downtown) and six rural colleges (New Caledonia-Prince George, Rockies-Cranbrook, North Island-Comox Valley, North West Community-Terrace, Okanagan-Kelowna, Selkirk-Castlegar). The FTE student numbers are from all campuses of an institution.

Figure 3 below compares the ratios of Full Time Equivalent (FTE) Students from 2007 and 2008 (Camosun) to the number of general use parking spaces. For institutions which did not have staff and general parking spot allocations, the total numbers for parking spots were used.



Vancouver Community College in Vancouver had the smallest ratio 0.01 of full time equivalent student to general parking spots. This urban institution has only 103 parking spots and they are only available to staff with paid parking permits and only available to students after 4:45 pm (see Table 1). The University of Northern BC has the highest student to parking

stall ratio of 0.44. This could be partially due to the rural location of this institution and its role as a research institution with higher number of people coming into campus from other locations.

Bicycle Facilities

All twenty-three universities and colleges studied had some sort of bike facilities. Data collected regarding bike facilities were compiled from personal interviews as well as reference information from the university or colleges website for the main campus only (see Figure 1). No personal visits to any bike facilities occurred in this study. From the information compiled, the institution’s bike facilities was placed into one of the following four categories: Excellent, Good, Fair or Poor.

Table 2. Rating System for Bike Facilities within British Columbia major Universities and Colleges

Poor	Fair	Good	Excellent
<ul style="list-style-type: none"> •small amount of bike racks •no information on website •No other facilities 	<ul style="list-style-type: none"> •Modest amount of bike racks •Few other facilities •Small amount of website resources 	<ul style="list-style-type: none"> •Ample bike racks • Shower and locker facilities •Good website resources 	<ul style="list-style-type: none"> •Ample bike racks, showers, lockers and bike lock-up facilities • Various bike programs •Innovative and new ideas •Great website resources

Table 3. Bike Facility Ratings for the twenty-three major colleges and universities studied

Poor	Fair	Good	Excellent
<ul style="list-style-type: none"> •Nicola Valley Institute of Technology •College of the Rockies 	<ul style="list-style-type: none"> •Capilano College •University of Northern BC •Kwantlen College •Malaspina University College •Vancouver Community College •Selkirk College •North Island College •Okanagan College •Douglas College •College of New Caladonia 	<ul style="list-style-type: none"> •Emily Carr Institute of Art and Design •Royal Roads University •Simon Fraser University •Thomson River University •University of the Fraser Valley •BCIT •North West Community College •Langara College •CAMOSUN COLLEGE 	<ul style="list-style-type: none"> •University of Victoria •University of British Columbia

One small rural colleges and one rural institution (9% of all studied - Nicola Valley Institute of Technology and College of the Rockies) received a “poor” rating for bike facilities. Nicola Valley Institute of Technology has its main campus in the small city of Merrit (Population: 6,253 (Corporation)) and has the smallest number of FTE students of all institutions studied (197.2) (see Figure 1). It does not have the necessity to improve bike facilities (Whittiker). The College of the Rockies with its main campus in the rural town of Cranbrook (Population: 18,500 (Cranbrook)) also received a “poor” rating. This college also has a small FTE student population (2,120 (Cameron)) and the harsh seasonality of Cranbrook is a key factor for limiting the number of months feasible for biking (see Table 3).

Ten institutions (44% of all studied) received a “fair” rating for bike facilities, with four rural colleges (**New Caledonia, Okanagan, North Island and Selkirk**), three urban colleges (**Douglas, Vancouver Community and Capilano**), two university-colleges (**Kwantlen and Malaspina**) and one university (**Northern British Columbia**) (see Table 3). When asked the question: “What does your institute have for bike facilities?” all but one of the institutions with the rating as “fair” stated that bike racks are available throughout campus. Capilano College also has a “*Sports-Plex*” facility with showers (Clifford) as well as bike racks. Kwantlen Polytechnic University- College, located in the Lower Mainland (Population: 2 million (Vancouver)) had the greatest FTE student numbers in this group with 9,307.9 (Camosun). With four campuses in total, Kwatlen has bike facilities at all campuses (Lee). However, Kwatlen’s website did not outline such information. All other institutions in this study had FTE student numbers under 8,000 (Camosun).

Nine institutions (39% of all studied) received a “good” rating for bike facilities (see Table 2), which included one rural college (**North West community**), two urban colleges (**Camosun and Langara**), two urban institutes (**Emily Carr and BCIT**), and four universities (**Royal Roads, Simon Fraser, Thomson River and Fraser Valley**) (see Table 3). North West Community College website did not provide much information about bicycle facilities. However, this college does have a unique program for bikers: students who rode their bikes to school will have a punch-card, and it will be punched every time they ride to school. When the punch-card is filled with punches, the students will receive a \$25.00 gift certificate to a local bike shop. (Harmel). All other institutions have some bicycle information on their website. For example, BCIT’s website provides details of bike facilities, showers, the benefits of biking, and map information (BCIT). It must be noted that Simon Fraser University, while having a very large FTE student number (20,505), is located on the top of a hill, which makes biking rather challenging (Agosti). However, SFU is planning to create community pods or bike lockers in the future. Furthermore, Royal Roads University has tried to implement different bicycle strategies to their campus but its geographic characteristics and location (large hill) imposed challenges for students to cycle to school. (Whitmore)

Camosun College received a “good” rating. With ample bike racks, shower facilities, good website resources, lockers available at both campuses and one bike lock-up facility at the Interurban Campus.

Two large universities (UVIC and UBC) received an “Excellent” (see Table 2) rating for bike facilities. These two institutions were both leaders in providing bicycle facilities to their populations. Both institutions main campuses are held within very large cities (Vancouver: ~2million and Victoria: 331,491 (Vancouver) (Canada)) and have large student FTE numbers (UBC Vancouver: 34,880.5 UVIC: 15,572 (Camosun)).

Highlights of UVIC Programs (UVIC, UVIC Bicycle Users Committee)

- 120 full lengths lockers designated for cyclists
- 68 bike lockers to rent with more being built (2008-09)
- SPOKES bike bursary program
- Excellent Website (links, maps, information)
- Over 2,900 bike spaces
- Change rooms and showers with towel service
- Pressurized air hose
- Bike Kitchen in the works for Winter 2009
- September 2009 – 4 free designated electric bike charging stations
- Bike Engraving Program
- Spring Cycling Safety Program

Highlights of UBC Programs (Trek)

- Bike Kitchen (Non-profit, student run, full service bike shop)
- BIKE CO-OP (membership \$20-\$30) access 50-100 public bikes for on campus riding
- Bike Locker Rentals (\$23.00/month)
- Secure bike parking facilities
- Various bike racks (600+)
- Shower Facilities
- Can-Cart Rental (utility cart which can be added to bikes to hold heavy things such as books and equipment)
- Great website resources; best of survey
- Shower, Change Room and Locker facilities

Universal Bus Pass Program (UPASS) Program

Table 4 British Columbia Colleges and Universities with (“YES”) and without (“NO”) UPASS program (November 2008)

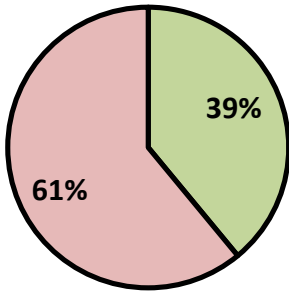
YES	 <p>■ YES ■ NO</p>	NO
<ul style="list-style-type: none"> • College of the Rockies • Langara College • Capilano College • Camosun College • Simon Fraser University • Thomson River University • University of BC • University of Northern BC • University of Victoria 		<ul style="list-style-type: none"> • College of New Caledonia • Douglas College • Okanagan College • North Island College • North West Community College • Selkirk College • Vancouver Community College • Malaspina University – College • BCIT • Kwantlen College • Nicola Valley Institute • Emily Carr Institute • University of the Fraser Valley • Royal Roads University

Table 4 indicates the portion of surveyed campuses that have UPASS (Universal Bus Pass Program) program in place or in the plans for the near future. Thirty-nine percent of institutions studied did have a UPASS system in place or had this in the plans for the near future, which include one rural college (Rockies), three urban colleges (Langara, Capilano (*Spring 2009*), Camosun) and five universities (Simon Fraser, Thomson River, British Columbia, Northern British Columbia and Victoria) (see Table 4). College of the Rockies’ campus in Cranbrook is the only rural college to offer a UPASS, which gives the pass holder unlimited bus service, free access for public swims at the city Rec-Plex, and the benefit of an evening shuttle for night classes.

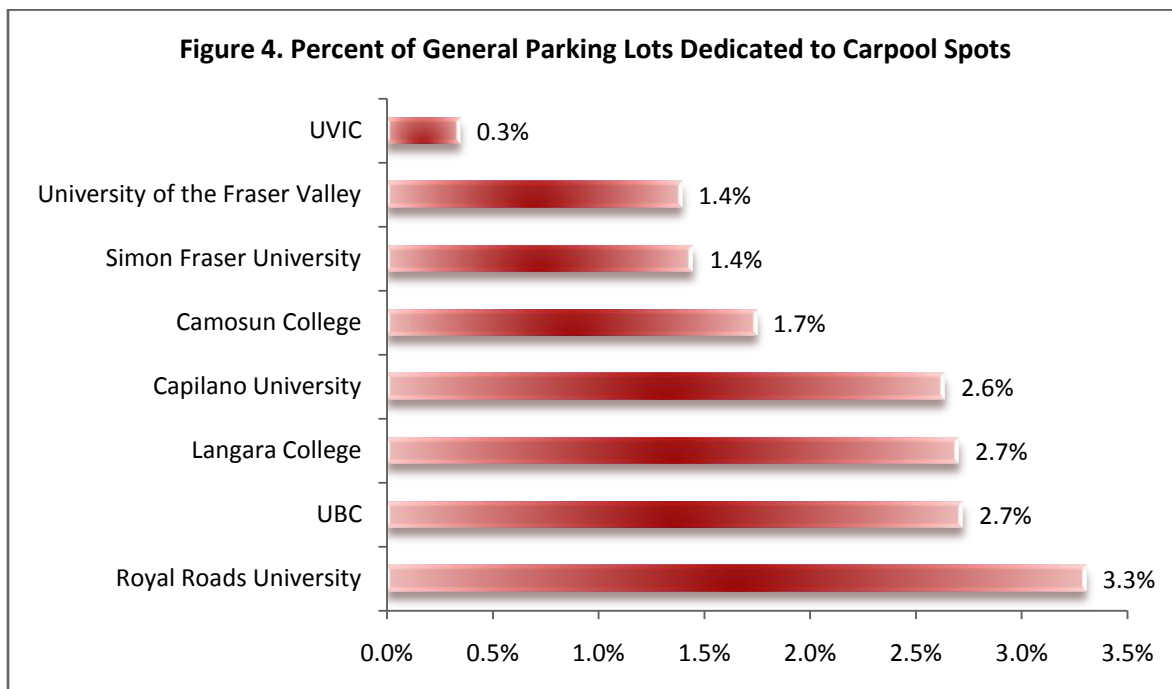
Sixty-one percent of the institutions surveyed do not have UPASS programs in place, which include five rural colleges (New Caledonia, Okanagan, North Island, North West Community and Selkirk), two urban colleges (Douglas and Vancouver Community), three university-colleges (Malaspina, Kwantlen, Fraser Valley), three institutes (BCIT, Nicola Valley and Emily

Carr) and one university (Royal Roads) (see Table 4). Royal Roads University does not have UPASS because the amount of online and distance learning it provides is very high. Also, its location is rather isolated and bus services is limited (only one route). These factors make UPASS uneconomical for their students (Whitmore).

Some others highlights and transit initiatives are: Simon Fraser University has a non academic population called “university community” living within their campus. Because of this they have implemented at C-Pass (community pass) for residents who are not eligible for the UPASS to have the same opportunities and access to public transit (Agosti). UBC has an emergency ride home program which helps people with a UPASS when an emergency happens and there is no bus service accommodating them. UVIC has instituted a heavily subsidized Employee Bus Pass at \$33.00/month, which is \$44.00 cheaper than a regular pass.

Carpool Initiatives

Ten out of the twenty-three colleges and universities studied have some sort of carpool initiatives. These include five universities (UBC- Vancouver, Simon Fraser, Fraser Valley, Victoria and Royal Roads), two university-colleges (Kwantlen and Malaspina), and three urban colleges (Camosun, Capilano, and Langara). Of the ten institutions with carpool initiatives, eight of them had dedicated carpool spot. Figure 4 below compares what percentage of the general parking lot is dedicated to Carpool for all or part of the day. For institutions which did not have staff and general parking spot allocations, the total numbers for parking spots were used.



Royal Roads University has the highest percentage of general parking lot dedicated to carpool spots. Royal Roads is located within Victoria B.C. but geographically it is located outside of the major urban area, and is only serviced by one major bus route. This institution is part of www.Carpool.ca ride matching service as well as a local intranet “cross-roads” service. (Budgeon)

UBC, with 2.7% of their general parking lot dedicated to carpool spots, is utilizing the three online resources for carpooling: www.Carpool.ca, the Jack-Bell foundation website, and the new www.ride-club.ca. UBC also has its own ride match tools on the website (my.ubc.ca). Furthermore, this major university has Ride-Board, a traditional bulletin board located at Student Union Building which contains local carpool listings, local transportation information, and rides offered/wanted to destinations outside of Vancouver. Other programs promoting carpooling and ridesharing include preferred carpool parking, a rewards program, an emergency ride home program, additional campus shuttles, and a car-sharing program. (Trek)

UVIC, with 0.3% of their general parking lot dedicated to carpool spots, also has a variety of initiatives to perpetuate carpooling and ridesharing on campus. At UVIC a rideshare permit allows the user to easily find a great parking stall on campus. Those who have a rideshare permit with three or more people in the vehicle get priority parking in designated rideshare stalls between 7 a.m. and 10 a.m. After 10 a.m., any available rideshare stalls revert back to general parking. Four carshare vehicles are available on campus for students, faculty or staff who sometimes need a car for errands or trips. In addition, the campus motor pool fleet is available for rental by UVIC staff and faculty. Vehicles, including mini vans and a hybrid car, are available for short or long term rentals. Charges are based on length of rental plus mileage driven. Insurance and gas will also be provided.

TDM Strategies Goals and Successes

Transportation Demand Management (TDM) Plans have been put into place at four Universities (UVIC, UBC, SFU and Royal Roads) and TDM plans have been newly adopted or at the beginning stages at two urban colleges (Malaspina and Camosun).

Royal Roads University

Royal Roads has created a TDM plan; however, the University is in the process of adding more buildings and realizes that the plan needs to be changed and enhanced. (Budgeon)

Simon Fraser University

Simon Fraser University’s TDM plan aims at reducing the number of spots per person from 0.38 spots per person on the Burnaby Campus to 0.21 spots per person. SFU has a variety of TDM programs including the UPASS, car-share cars and pricing structure initiatives. In 7 years, the total population at SFU has increased by 17%, while the parking supply (permit

and visitors) decreased by 12%. The decrease in parking supply and increase in parking costs reflects implementation of TDM measures to encourage alternative modes of travel. (Agosti)

University of Victoria

University of Victoria's Office of Campus Planning and Sustainability's *Travel Choices Program* is a comprehensive parking and transportation demand management program that encourages the use of public transit, cycling and walking and less reliance on single occupant vehicles. (UVIC, UVIC Transportation and Travel Choices)

The program goals are:

- To reduce the number of commuter trips by students, faculty and staff to and from the University of Victoria.
- To shift travel time away from peak hours to reduce traffic congestion and improve local air quality.
- To shift the mode of travel from the Single Occupant Vehicle to either High Occupant Vehicles (carpool, rideshare, car-share, public transit etc.) or Active Transportation (cycling, walking, roller-blading etc).
- To improve the efficiency of campus circulation on Ring Road.

The *Travel Choices Program* has had the following impacts:

- Since 1996, the campus population increased by 19% but vehicle traffic to campus decreased by 17%.
- Since 1996, auto drivers to campus has decreased from 57.5% to 37.5% in 2008.
- In 2008, 31% of the campus population used public transit as their main mode of travel.

UVIC has been involved in TDM strategies (College) which were not a part of this survey. One of the strategies is *Campus Safewalk Program*, which is provided by Campus Security Services. This is a safe walk service, which is available to members of the University Community 24 hours a day, 7 days a week. The service is provided from building to building, building to vehicle, and vice versa within the boundaries of the campus. UVIC is a leader in technology such as videoconferencing. The University has videoconferencing facilities that can be used to substitute for physical travel. These facilities can accommodate up to 25 people in various configurations. They have three cameras per room, an Elmo visual presenter, twelve push-to-talk microphones and two 50' TV viewing monitors.

University of British Columbia

The University of British Columbia (UBC) TREK Program is one of North America's oldest and most comprehensive campus transportation and parking management programs. In July 1997, the Greater Vancouver Regional District (GVRD) adopted an Official Community Plan (OCP) bylaw for UBC. The OCP described a number of transportation objectives which UBC would pursue. An accompanying Memorandum of Understanding (MoU) described in more detail how these objectives would be achieved and how key objectives would be measured. One of the commitments which UBC made through the

OCP and MoU was to implement a “comprehensive and integrated transportation management strategy.” The resulting *Strategic Transportation Plan (STP)* was approved by UBC’s Board of Governors in November 1999. The STP is updated every five years. A *Campus Transit Plan* describes how the UBC campus will be served by transit in the future, including transit routes and facilities. As part of this program, UBC established the TREK program which coordinates campus transportation management activities. (Lovegrove) This program has helped developing the following:

- A UPASS program, established since 2003, provides unlimited regional public transit service to all regular students. In addition, numerous transit service improvements have been carried out, including planned development of a new below-grade transit station in the campus center.
- A 25% reduction in the commuter parking supply since 1997, accompanied by an increase in parking prices (from \$2.00 per day in 1997 to \$4.50 per day in 2007) and stringent parking regulation and enforcement on nearby streets.
- Adjusted morning class start times - some classes begin at 8:00 a.m., some at 8:30 a.m., and others at 9:00 a.m. As a result, 12% more transit trips per day were accommodated on the same number of buses. Numerous walking and cycling improvements have been carried out.
- Various programs and services to encourage use of alternative modes. For example, UBC has a comprehensive carpooling program providing web-based ride-matching service, preferred carpool parking and a reward program for carpooling. UBC also offers emergency ride home program, additional campus shuttles, a car-sharing program, a public bike program, bicycle carts and traffic calming measures.
- Additional campus area housing and commercial services are in place to help reduce the number of trips to campus.

The TREK program produces an annual *Transportation Status Report* which provides statistics on the program and its impacts. During the ten year period from 1997 to 2007, campus daytime population increased 32%. Although total person-trips increased by 14%, vehicle trips declined 20% due to large shifts to public transit. (Lovegrove) (Trek)

Conclusion

This survey provides an overview of British Columbia’s colleges and universities with regards to their current transportation and parking conditions. It acknowledges current leaders in Transportation Demand Management in British Columbia by outlining their successes. The survey indicates comparative areas of strength, weakness and opportunity for implementing alternatives for the twenty-three institutions researched. Two large universities in BC - University of British Columbia and University of Victoria - have successfully implemented various transportation demand management strategies and the success has been apparent. Many of these successful strategies mentioned in this report should be explored by Camosun College to further improve the current transportation and parking conditions.

(College) (Caladonia) (Rockies) (D. College) (L. College) (O. College) (N. I. College) (N. C. College) (S. College) (V. C. College) (M. U. College) (BCIT)

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Appendix 1: Basic Data

College	Location	# FTE Students (07/08)	# FTE Staff (07/08)	# Parking Stalls	# Parking - Staff	# Parking - General	# Carpool spots	Free Parking?
Camosun College								
http://www.camosun.bc.ca								
Lansdowne Campus, Interurban Campus	Residential Large City, Victoria, Population: 331,491	8,000	1,200	2,001	573	1,231 (general)	35	For Staff, Many Special Events/ People
College of New Caladonia								
http://www.cnc.bc.ca								
Prince George Campus MAIN, Lake District, Mackenzie, Nechako, Quesnel	Residential Medium City Prince George Population: 72,406	3,800	591	1,100	No allocations	No allocations	None	No
College of The Rockies								
http://www.cotr.bc.ca								
Cranbrook Campus (X2) MAIN, Creston, Fernie, Golden, Invermere, Kimberly	Small Rural City, Cranbrook Population: 18,500	2,120	400	506	No allocations	No allocations	None	All parking is free
Douglas Collage								
http://www.douglas.bc.ca								
New Westminister and David Lam Campuses	Large City Centre New Westminister Population: 46,000 Surrounding: 2,000,000	10,000	1,100	1,550	No allocations	No allocations	No allocations	No
Langara College								
http://www.langara.bc.ca								
Vancouver Campus	Very Large City Vancouver Population: 2,000,000	Head Count: 8,224	687	1,480	139	1,341	40	Free for employees who do not use the preferred parking lot. Guest Speakers and Specials guests.
Okanagan College								
http://www.okanagan.bc.ca/site15.aspx								
Kelowna (Main Campus), Penticton, Salmon Arm, Vernon	Residential Rural Medium City Kelowna Population: 107,707	Total all Campus: 5,258 Head Count Kelowna: 3,581	702.3 (All Campuses) Kelowna: 480	1,426	353	972	0	Staff as taxable benefit

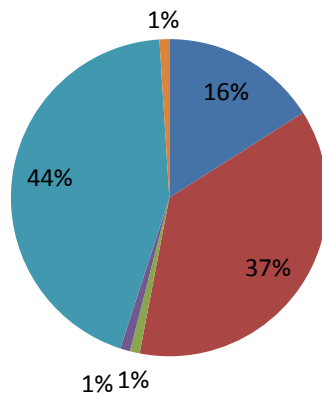
College	Location	# FTE Students (07/08)	# FTE Staff (07/08)	# Parking Stalls	# Parking - Staff	# Parking - General	# Carpool spots	Free Parking?
North Island College								
http://www.nic.bc.ca								
Comox Valley	Small Rural Comox Valley Population: 62,326	735.14	176	458	No allocation	No allocation		All free
Northwest Community College								
http://www.nwcc.bc.ca								
6 Small Campus and 4 learning centres	Small City RURAL Terrace/ Kitimat Population: 70,000	Terrace: 763 All: 1,862	All: 262.93	319	N/A	N/A	N/A	All free
Selkirk College								
http://www.selkirk.bc.ca								
Castlegar (Main Campus), Nelson, Trail, Grand Forks, Nakusp, Kaslo	Very Small City Rural Castlegar Population: 7,002	2,457.5	339	735	N/A	N/A	N/A	All free
Vancouver Community College								
http://www.vcc.ca								
Downtown (Main), Broadway, Alberni Street	Very Large City Lower Mainland Population: 2,000,000	7,901	1,276	103	103 (15 spots off site rented from Queen Elizabeth Theatre)	N/A	N/A	No
Vancouver Island University (formerly Malaspina University-College)								
http://www.mala.ca								
Nanaimo (Main Campus), Cowichan, Parksville - Qualicum, Powell River	Large City Residential Nanaimo Population: 138,631	13,692	1,249	2,327	372	1,626	0	No
British Columbia Institute of Technology								
http://www.bcit.ca								
Burnaby	Very Large City Burnaby Population: 202,799 Lower Mainland Population: 2,000,000	15,000	2,400	5,000	2,000	3,000	0	Very rarely for important BCIT business
Kwantlen Polytechnic University								
http://www.kwantlen.bc.ca								
Surrey, Richmond, Langley	Very Large City Lower Mainland Population: 2,000,000	12,366	1,353	3,414	N/A	N/A	N/A	Parking may be complimentary for institutional events or community-based supported events.
Nicola Valley Institute of Technology								
http://www.nvit.ca/								
Merritt (Main Campus), Vancouver	Small City Merritt Population: 6,253	197.2	61	103	N/A	N/A	N/A	Elders with 5 spots allocated for them

<u>University</u>	<u>Location</u>	<u># Parking Stalls</u>	<u># Parking for Staff</u>	<u># park. Students</u>	<u># Carpool spots</u>	<u>Free Parking?</u>	<u>Facilities for Bikes?</u>
Capilano University							
http://www.capilanou.ca							
North Vancouver Squamish Sunshine Coast, Squamish, Sunshine Coast	North Vancouver Large Residential City; Population 44,303 Surrounding: 2,000,000	1,517	56 (with special permit)	1,358 (general spots)	40	Carpools and Motorcycles	Fair
Emily Carr University of Art and Design							
http://www.emilycarr-university.ca							
	Very Large City Lower Main Land Population 2,000,000	182	N/A	N/A	N/A	Only very few specific special events or people	Good
Royal Roads University							
http://www.royalroads.ca							
	Residential Large City, Victoria, Population: 331,491	605	N/A	N/A	20	Very Rare. Donor activities.	Good
Simon Fraser University							
http://www.sfu.ca							
Burnaby Campus (MAIN) , Down Town , Surrey (sent email)	Very Large City Burnaby: 202,799 Lower Main Land Population 2,000,000	5,107	3,787	997	74	Only very few events: convocation	Good
Thomson River University							
http://www.tru.ca/							
	Med City Kamloops Population: 84,000	2,256	576	1,518	N/A	No	Good
University of British Columbia							
http://www.ubc.ca							
Vancouver * Main Campus* Okanagan	Very Large City Lower Main Land Population 2,000,000	10,653	1,188	9,175	290	No	Excellent
University of the Fraser Valley							
http://www.ufv.ca							
Abbotsford (Main Campus), Chilliwack, Mission, Hope, Agassiz	Med - Large City, Abbotsford Population: 131,000	1,361	266	1,038	19	No	Good
University of Northern BC							
http://www.unbc.ca							
	Residential Med. City Prince George Population: 72,406	1,771	129	1,299	0	Disabled Parking is free	Fair

Appendix 2: Mode Split Data

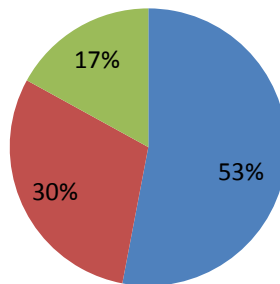
UBC Mode Split Fall 2008

■ carpool/vanpool ■ SOV ■ Walk ■ Bike ■ Transit ■ Other



SFU Mode Split 2007

■ Transit ■ SOV ■ HOV



End of Report