

UBC Transportation Targets

Table 1 provides a summary of the transportation targets which UBC has committed to achieve over a five-year period from 1997 to 2002. The following discussion describes how these targets were developed, and compares these targets with experience at other post-secondary institutions.

Table 1
UBC Transportation Targets

Mode	Daily Trips to/from UBC (autumn weekday person trips, both directions across UBC screenline)					
	1997 Person Trips	2002 Current Trends	2002 STP Target	2002 Change STP Target vs. Trend	2002 U-TREK Results	2002 Change U-TREK vs. Trend
Single-occupant vehicles	46,000	53,500	42,800	-20%	36,800	-31%
Carpools, vanpools and motorcycles	36,300	42,100	46,400	+10%	48,200	+15%
Transit	19,000	22,100	26,500	+20%	30,000	+36%
Bicycle	2,700	3,100	4,900	+58%	5,400	+74%
Pedestrian	1,400	1,600	1,800	+13%	2,000	+25%
Totals	105,400	122,400	122,400		122,400	

In 1997, there were 105,400 person trips to and from UBC during a 24-hour weekday period. With increased enrolment and additional development on campus, it is expected that by 2002, the number of daily person trips to and from UBC will increase to 122,400. This additional 17,000 daily person trip is equivalent to a 16% increase in person trips.

If current trends were to continue, additional person trips to and from UBC would result in an estimate 7,500 additional single occupant vehicle (SOV) trips. Ridesharing, transit use, cycling and walking would also increase a proportional amount.

How The Targets Were Developed

UBC has committed to reducing SOV traffic by 20%, and to increasing transit use by 20%. The *STP Target* in Table 1 is based on a 20% reduction in SOV traffic relative to trend levels. This means that daily SOV trips would be reduced to 42,800 trips, which is equivalent to a reduction of 10,700 trips from trend levels, and a reduction of 3,200 trips from 1997 levels.

The 10,700 SOV trips eliminated under the *STP Target* are reallocated to other modes as indicated in Table 1. Transit use is increased 20% from trend levels, in accordance with UBC's commitment. The remaining trips are allocated primarily to ridesharing (carpools, vanpools and motorcycles).

It is expected that when the proposed U-TREK card program is implemented, further reductions in SOV trips can be achieved. Estimates are identified in Table 1 as *U-TREK Results*. The estimated number of daily SOV trips reflects a 20% reduction from 1997 levels, which is equivalent to a 31% reduction from 2002 trend levels. The 16,700 SOV trips eliminated under the *U-TREK Results* are reallocated to other modes as indicated in Table 1. Transit use is increased 36% from trend levels, ridesharing is increased 15% and cycling is increased 74%.

How The Targets Compare

Table 2 compares the anticipated results of the U-TREK card program at UBC with the results achieved at the University of Washington in Seattle as a result of the U-Pass program. The reduction in the SOV mode share from 43% to 33% achieved at the University of Washington is comparable to the reduction from 44% to 30% anticipated at UBC. This provides confirmation that UBC's transportation targets are reasonable.

Table 2
Mode Shares at UBC and U. of Washington

	UBC			U. of Washington		
	1997 and 2002 Trend	2002 U-TREK	Change	Before (1989)	After (1996)	Change
SOV	44%	30%	-31%	43%	33%	-24%
Rideshare	34%	39%	+15%	10%	12%	+20%
Transit	18%	25%	+36%	21%	32%	+53%
Bicycle	3%	5%	+74%	8%	8%	0
Walk	1%	1%	+25%	23%	21%	-9%

It should be noted that the increase in the transit mode share achieved at U. of W. exceeds the increase anticipated at UBC. The reason for this is that most of the eliminated SOV trips at U. of W. were shifted to transit. At UBC, it is expected that eliminated SOV trips will be shifted to

ridesharing as well as transit.

It should also be noted that at U. of W., the bicycle mode split has remained at an impressive 8%. Although it is conservatively estimated that the bicycle mode split at UBC will increase to 5%, it is recognized that a higher mode split is likely.

Table 3 provides a summary of changes to automobile and transit travel patterns at other post-secondary institutions, as the result of TDM programs similar to the proposed U-TREK program at UBC. Generally, the experience at these institutions is consistent with UBC's targets.

Table 3
Travel Pattern Changes at Post-Secondary Institutions

Mode	Institution	Experience
Vehicles	Cornell University	Reduction from 8,850 to 6,473 vehicles/day (27% reduction) in 1 year
Transit	U of Georgia	Increase from 328,000 to 567,000 student trips/year (73% increase) in 1 year
	UC Santa Barbara	Increase from 480,000 to 584,000 student trips/year (22% increase) in 7 years
	U of Victoria	Increase from 11% to 15% mode share forecast (36% increase)

Are Commuters Willing To Switch?

As described above, it is anticipated that 16,700 SOV trips per day can be shifted from SOV travel to other modes, as a result of the U-TREK card program and other on-campus initiatives such as improved transit services, bicycle facilities and changes to parking prices. This represents a 31% reduction in SOV trips as compared with the trend forecast for 2002.

Surveys of UBC commuters indicate that this target is reasonable. One-third of SOV commuters would consider using transit for most trips to UBC, and a further 54% of SOV commuters would consider using transit for some trips. Only 11% would not consider transit.

Focus group sessions with UBC commuters also indicate a willingness among SOV commuters to switch to transit for some trips. Most commuters indicated that they would use transit part of the time, provided that they could continue to drive half to three-quarters of the time.

In all cases, feedback from commuters indicates that the majority are willing to use non-SOV modes for many trips to and from UBC, provided that alternatives are attractive. This means frequent, direct transit service, ridematching assistance, preferred parking for carpools and vanpools, a

comprehensive network of bicycle routes and bicycle parking, and supporting measures such as a guaranteed ride home and a campus shuttle service. In response to this feedback, these and other programs and facilities have been incorporated into the proposed U-TREK program.