

Supporting active commuting

Lack of time is the most frequently stated factor keeping people from being more active.¹ Increasingly, individuals are being encouraged to choose activities that can fit conveniently into their daily schedules. Active commuting is one such activity. It has the added benefit of reducing pollution arising from unnecessary automobile use, particularly the use of the automobile for short trips that could feasibly be made on foot or by bicycle.

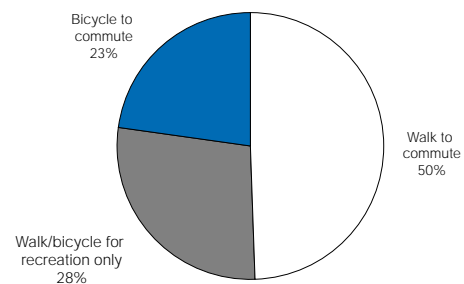
According to the 1997 Physical Activity Monitor, 64% of Canadians choose, whenever possible, to walk all or part of the way to work or school or to do errands; 24% bicycle.² This shows a receptivity among Canadians to make active commuting choices. What can communities do to encourage and support active transportation?

To address this important issue, the 1997 Physical Activity Monitor explored the relative importance attached to two environmental supports by Canadians who choose to commute by walking or bicycling compared with Canadians who walk or bicycle solely during their leisure time. The vast majority of Canadians report having walked or bicycled in the last year. Among them,

- almost one-quarter indicate that they commute by bicycle whenever possible;
- half report walking all or part of the way to work or school or to do errands;
- the rest (28%) walk or bicycle for recreation only (Figure 1).

Figure 1

WALKING AND BICYCLING AMONG CANADIANS % of adults 18+ who walk or bicycle



1997 Physical Activity Monitor, CFLRI

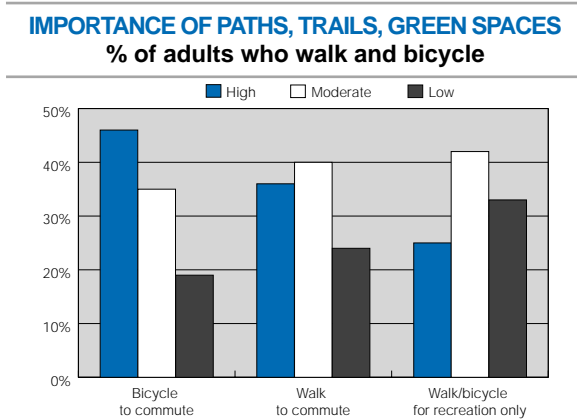
Paths, trails, green spaces

Two of the three resources and services rated most frequently by Canadians as very important for making it easier to be active are particularly relevant to supporting active transportation. The first is access to paths, trails, and green spaces, and the second is access to safe streets and public places.

Physically active commuters are clearly more likely to attach a high importance to being able to access paths, trails, and green spaces as supports for an active lifestyle. Figure 2 shows that bicycle commuters tend to rate the importance of paths, trails, and green spaces higher than do those who walk to commute, who in turn rate such spaces higher than do those who walk and bicycle solely during leisure time.



Figure 2



1997 Physical Activity Monitor, CFLRI

Age Views about the importance of the role that these spaces play in enabling participation differ by age group among active and non-active commuters. Among Canadians under 65, those who bicycle to commute are more likely to cite paths, trails, and green spaces as very important supports than are those who walk to commute. Within this overall pattern, statistically significant differences also occur with age group. For example, among those who walk or bicycle only during leisure time, 31% of adults aged 25–44 view these spaces as very important supports, compared with only 20% of those aged 45–64.

Sex Gender contributes to differences in the views of active commuters and other participants in walking and bicycling when age is taken into account. Among *bicycle* commuters, men are more likely than women to rate paths, trails, and green spaces as very important, with the difference arising primarily among 25- to 44-year-olds. Among those aged 25 and older who *walk* to work or school or to do errands, women are more likely than men to view paths and green spaces as important in enabling them to be active. In contrast, men and women who walk and bicycle solely for recreation hold equivalent views.

Education and income If age differences are taken into account, education-related differences in ratings of importance between active

commuters and others disappear. Income level, on the other hand, plays a part in determining whether spaces are deemed to be very important supports based on whether or not someone walks or bicycles to commute. Among those who walk or bicycle recreationally, people with family incomes under \$60,000 are more likely than those earning over \$60,000 to view paths, trails, and green spaces as very important supports for activity.

Unlike education level, the effect of income on ratings about the importance of paths, trails, and green spaces persists after accounting for age differences. There is a significant association between income level and sex in explaining the importance attached to these types of infrastructure supports by active and non-active commuters. In contrast, while employment status is associated with ratings of supports by commuting type, its influence is accounted for by associations with age, sex, and income level.

Income, age, and sex are paramount in understanding the importance people attach to paths, trails, and green spaces as supports for an active lifestyle. Adults under 45 are more likely to commute by bicycle and to say that paths, trails, and green spaces play an important role in helping them pursue such active choices. Similarly, people having lower family incomes are more likely to rate these supports as very important. Public paths and spaces represent low-cost opportunities to be active and provide a less expensive option for commuting, particularly for short trips under two kilometres.

Community size As the size of the community increases, paths, trails, and green spaces are seen to be more important supports for physical activity among bicycle commuters and among those who walk or bicycle for recreation only. Furthermore, these differences in ratings persist when other factors such as age, sex, and household income are taken into account.

Safe streets and public places

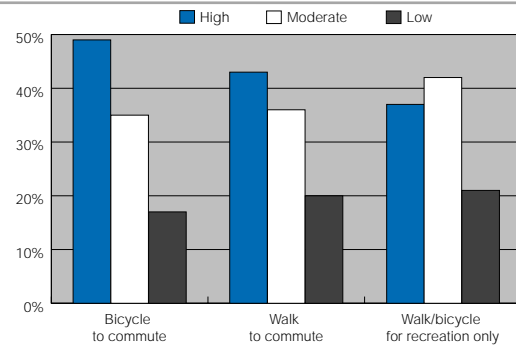
Safe environments appear to be a central concern for all Canadians, regardless of whether or not they commute actively, with only about 20% of Canadians viewing safe environments as only of some, little, or no importance, regardless of their mode of commuting. In addition, views differ on the relative importance of safe streets and public places in supporting an active lifestyle by type of participation in walking and bicycling. As shown in Figure 3, bicycle commuters are the most likely to see safe environments as a very important support for physical activity, followed by those who walk to commute and those who walk or bicycle only during leisure time.

Age The relative importance attached to safe streets and public spaces varies by age and type of participation in walking and bicycling. Among young adults who walk and bicycle, there is no difference in the importance attached to safe places by active commuters and other walking/bicycling participants. On the other hand, the differences in ratings are most pronounced among those aged 45–64, among whom just over half of those choosing to commute by bicycle view safe places as very important, compared with just under one-third of those who walk and bicycle solely for recreation.

Sex Whereas male and female bicycle commuters hold equivalent views on the role of safe environments toward being active, more women than men who walk to commute rate safe streets and public places as very important in making it easier for them to be active. The same similarities and differences between men and women can be seen among those who walk and bicycle solely for recreational purposes. These findings are consistent across most age groups and show that safety is an especially important concern among women in supporting walking as part of an active lifestyle.

Figure 3

IMPORTANCE OF SAFE STREETS AND PUBLIC PLACES % of adults who walk and bicycle



1997 Physical Activity Monitor, CFLRI

Education and income Whereas there are no differences based on education, views on the importance of safe environments vary by income level among individuals who commute actively and those who do not. However, income differences disappear after age is taken into account.

Community size The size of the community in which people live is associated with the importance given to safe streets and public places by active commuters and others. In small communities, whether or not a person chooses an active mode of commuting is unrelated to his or her views about the importance of safe streets and public places. In large communities, however, those who bicycle to work or to do errands attach a higher importance to safe environments, perhaps as a result of increased traffic and its accompanying hazards.



Note to the statistically inclined

The information in this bulletin was derived using multivariate techniques. While data in the enclosed tables are provided only for respondents rating access to paths, trails, and green spaces and to safe streets and public places as very important, all data (whether very important, moderately important, or of little or no importance) were used to establish the relationships among commuter types presented in this bulletin.

Making active commuting easier

Active commuting can be made easier by adapting our current infrastructure to accommodate the needs of pedestrian traffic and bicycle commuters. Physical activity professionals and policy makers must collaborate with urban planners to incorporate supportive features such as the following in the design of new and existing communities:

- Separate bike paths from traffic by means of separate paths, physical dividers, delineators, or marked lanes. Ensure that the shoulder width of highways can safely accommodate bicycle traffic.
- Develop a network of lanes, paths, and shared roadways linking residential, business, and retail areas. Have the network well signed and maps readily available.
- Develop and maintain streetscapes that include store windows and attractive landscaping in order to protect and entice pedestrian traffic.
- Link transit systems with networks supporting physically active modes of transportation.
- Increase access to parks and trails by ensuring adequate links to public transit and by providing parking for cars and buses where possible.
- Provide wide sidewalks to permit comfortable passing distance among pedestrians and similarly wide trails to safely allow shared use by pedestrians and cyclists. Ensure that sidewalks are maintained and cleared year-round.
- Conduct safety audits of lanes, paths, sidewalks, and shared roadways to identify and rectify potential safety hazards. Consider aspects such as lighting, traffic speed, traffic signals, traffic-calming measures, safety of crossings (particularly on highways), signage, and dense bushes.

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References

- ¹ Canadian Fitness and Lifestyle Research Institute. (1996). Barriers to physical activity. *Progress in Prevention*, Bulletin no. 4.
- ² Canadian Fitness and Lifestyle Research Institute. (1997). Making active choices. *Progress in Prevention*, Bulletin no. 23.

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1997 Physical Activity Monitor

	% saying access to paths, trails, green spaces is very important among those who		
	Bicycle to commute	Walk to commute	Walk/bicycle for recreation only
TOTAL, ADULTS (18+)	46%	36%	25%
<i>women</i>	42	40	25
<i>men</i>	50	29	24
18–24	47	30	–
<i>women</i>	–	–	–
<i>men</i>	–	–	–
25–44	48	39	31
<i>women</i>	40	44	33
<i>men</i>	55	33	29
45–64	–	40	20
<i>women</i>	–	44	–
<i>men</i>	–	33	–
65+	–	28	–
<i>women</i>	–	–	–
<i>men</i>	–	–	–
EDUCATION LEVEL			
<i>Less than secondary</i>	–	35	–
<i>Secondary</i>	48	35	27
<i>College</i>	59	38	–
<i>University</i>	42	35	26
HOUSEHOLD INCOME			
< \$20,000	50	34	–
\$20,000–29,999	–	35	–
\$30,000–39,999	51	36	–
\$40,000–59,999	44	33	–
\$60,000–79,999	–	35	–
\$80,000–99,999	–	–	–
≥ \$100,000	–	–	–
EMPLOYMENT STATUS			
<i>Full-time worker</i>	44	38	22
<i>Part-time worker</i>	64	36	–
<i>Unemployed</i>	–	–	–
<i>Homemaker</i>	–	–	–
<i>Student</i>	–	–	–
<i>Retired</i>	–	29	–

– Data unavailable because of insufficient sample size.

% saying access to paths, trails, green spaces is very important among those who			
	Bicycle to commute	Walk to commute	Walk/bicycle for recreation only
COMMUNITY SIZE			
< 1,000	–	35%	–
1,000–9,999	38	30	–
10,000–74,999	49	38	–
75,000–299,999	52	35	–
≥ 300,000	53	38	–
FAMILY COMPOSITION			
<i>Living with a partner</i>	47	37	23
<i>with children at home</i>	51	35	–
<i>without children at home</i>	43	37	25
<i>Widowed, divorced, separated</i>	–	43	–
<i>with children at home</i>	–	–	–
<i>without children at home</i>	–	44	–
<i>Never married</i>	48	28	–
<i>with children at home</i>	–	–	–
<i>without children at home</i>	50	25	–
ENERGY EXPENDITURE			
<i>Active (≥3 KKD¹)</i>	51	42	31
<i>Moderately active (1.5–2.9 KKD)</i>	43	32	–
<i>Somewhat active (0.5–1.4 KKD)</i>	–	35	–
<i>Sedentary (<0.5 KKD)</i>	–	–	–
ACTIVITY PATTERN			
≥ <i>Every other day</i>	48	39	31
≥ <i>Twice a week</i>	–	–	–
< <i>Twice a week</i>	–	29	–

1 Kilocalories/kilogram of body weight/day; an energy expenditure of 3 KKD is equivalent to walking one hour every day.

– Data unavailable because of insufficient sample size.

**% saying access to safe streets/public places
is very important among those who**

	Bicycle to commute	Walk to commute	Walk/bicycle for recreation only
TOTAL, ADULTS (18+)	49%	43%	37%
<i>women</i>	50	51	47
<i>men</i>	49	32	28
18–24	38	38	–
<i>women</i>	–	38	–
<i>men</i>	–	–	–
25–44	55	47	42
<i>women</i>	48	59	53
<i>men</i>	60	32	31
45–64	–	41	31
<i>women</i>	–	49	40
<i>men</i>	–	32	–
65+	–	41	–
<i>women</i>	–	49	–
<i>men</i>	–	–	–
EDUCATION LEVEL			
<i>Less than secondary</i>	46	45	45
<i>Secondary</i>	51	39	35
<i>College</i>	52	48	33
<i>University</i>	49	42	40
HOUSEHOLD INCOME			
< \$20,000	–	39	–
\$20,000–29,999	–	42	–
\$30,000–39,999	60	43	–
\$40,000–59,999	51	46	41
\$60,000–79,999	–	41	–
\$80,000–99,999	–	–	–
≥ \$100,000	–	55	–
EMPLOYMENT STATUS			
<i>Full-time worker</i>	45	43	34
<i>Part-time worker</i>	61	41	–
<i>Unemployed</i>	–	–	–
<i>Homemaker</i>	–	61	–
<i>Student</i>	–	–	–
<i>Retired</i>	–	39	–

– Data unavailable because of insufficient sample size.

% saying access to safe streets/public places is very important among those who			
	Bicycle to commute	Walk to commute	Walk/bicycle for recreation only
COMMUNITY SIZE			
< 1,000	–	42%	–
1,000–9,999	38	35	34
10,000–74,999	45	45	–
75,000–299,999	53	48	–
≥ 300,000	57	43	45
FAMILY COMPOSITION			
<i>Living with a partner</i>	53	43	36
<i>with children at home</i>	58	48	31
<i>without children at home</i>	47	39	40
<i>Widowed, divorced, separated</i>	–	56	62
<i>with children at home</i>	–	53	–
<i>without children at home</i>	–	56	–
<i>Never married</i>	46	34	–
<i>with children at home</i>	–	–	–
<i>without children at home</i>	47	31	–
ENERGY EXPENDITURE			
<i>Active (≥3 KKD¹)</i>	51	45	45
<i>Moderately active (1.5–2.9 KKD)</i>	51	41	28
<i>Somewhat active (0.5–1.4 KKD)</i>	–	42	40
<i>Sedentary (<0.5 KKD)</i>	–	39	–
ACTIVITY PATTERN			
≥ <i>Every other day</i>	51	45	41
≥ <i>Twice a week</i>	–	–	–
< <i>Twice a week</i>	–	37	38

1 Kilocalories/kilogram of body weight/day; an energy expenditure of 3 KKD is equivalent to walking one hour every day.

– Data unavailable because of insufficient sample size.