

Title: Occupational differences in active commuting among Canadian workers from 2006 to 2016

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Abstract (350/350 words):

Background: Active commuting (AC) to and from work is important for increasing physical activity levels, which in turn may lead to health, well-being, economic, and environmental benefits. Understanding the likelihood of workers, by occupation groups, to engage in AC is important to understand which occupations may benefit from AC-promotion efforts. This study examined whether occupation groups and work hours, by sex, were associated with AC in a population-based sample of Canadian workers.

Data and Methods: Cross-sectional Public Use Microdata Files from the 2006 (n = 363,048), 2011 (n = 370,672), and 2016 (n = 362,310) Canadian Census were examined. Multinomial logistic regression models were used to estimate the odds of cycling, walking, and using public transit, relative to private motorized vehicle by occupation, work hours and sex. Time trends in mode share were also analysed.

Results: In 2016, commuting by private motorized vehicle and cycling were more common among males, while public transit and walking were more common among females. Occupations in ‘art, culture, recreation, and sport’ were associated with the greatest odds of cycling (Odds Ratio [OR]: 3.02, 99% Confidence Interval [99%CI]: 2.65 to 3.39) and significantly greater odds of walking and using public transit, while ‘trades, transportation, natural resources, and manufacturing’ had the lowest odds of cycling (OR: 0.47, 99%CI: 0.44 to 0.51) and walking (OR: 0.36, 99%CI: 0.33 to 0.38). Working part-time compared to full-time hours was also associated with increased odds of walking (OR: 1.21 99%CI: 1.15 to 1.26). From 2006 to 2016 a relative decline of 1% and 8% in the proportion of workers commuting by driving and walking was observed (absolute change of -1% each); whereas relative increases of 14% and 12% were observed for cycling and public transit (absolute changes of <1% and 1.5%, respectively).

Interpretation: Our findings can help inform AC strategies for the Canadian adult workforce. We found that sex differences and occupation are important correlates of AC among Canadian workers. Further research aimed at understanding occupational barriers and facilitators may further inform future AC interventions.

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