

Flattening the curve: a behavioural economics approach to increase activity in summer months

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The purpose of this study was to determine if the behavioural economics principle “Fresh Start Effect” was evident within population-based patterns of cycling-specific active transportation (AT). The primary hypothesis was that cycling traffic along AT trails would not exhibit a fresh start effect, compared to cycling traffic along leisure trails. To test the study hypothesis, we compared daily cycling counts along five multi-use trails, and bicycle parking rates at one of the largest public companies in the City of Winnipeg, Canada from 2012-2019. Cycling counts along 5 multi-use trails were obtained using closed loop Zelt Eco-counters, while bicycle parking was obtained via individual swipe card access. Trails were categorized as AT or leisure based on hourly cycling count profiles. Generalized linear mixed effects models compared cycling counts between Mondays and other weekdays for all 4 datasets. The effect sizes and trends in cycling counts were compared with daily fitness centre attendance, a control for the original Fresh Start effect and coffee shop sales, a control for daily trends in professional occupation attendance. Cycling traffic declined by ~22% from Monday to Friday for both AT trails (-89 cyclists/day; 95% CI: -33 to -145 cyclists/day) and leisure trails (-86 cyclists/day; 95% CI: -38 to -135 cyclists/day). These trends were evident when analyses were restricted to cycling counts collected during AT time windows (6h00-9h00 and 15h00-18h00). Daily rates of occupational bicycle parking declined by 14% over the week (-12 cyclists/day; 95% CI: -7 to -17 cyclists/day). Daily rates of fitness centre attendance (i.e. leisure physical activity) declined by 21% from Monday to Friday (-592 counts; 95% CI: -425 to -759 counts) while daily coffee sales increased 15% from Monday to Friday (+32 counts; 95% CI: +22 to +42). Population-based AT and leisure-based cycling are susceptible to a “Fresh Start Effect” behavioural pattern with significant declines in ridership from Monday to Friday. The magnitude of the decline in cycling is similar to the original Fresh Start Effect behaviour observed with fitness centre attendance.

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