

# Travel, Environmental, and Equity Impacts of Income-Conditioned E-Bike Rebates in British Columbia

Polina Polikakhina, Amir Hassanpour, Kyla Yu, Meghan Winters, & Alexander Bigazzi (2025)  
Funding by Social Sciences and Humanities Research Council of Canada (SSHRC) & Mobilizing Justice



## Program

In 2023, the BC Ministry of Transportation and Transit distributed over 4,900 income-conditioned rebates of \$350 to \$1,400 to make travel more affordable, boost active transportation, and cut CO<sub>2</sub> emissions, with a total program cost of \$6.5m.

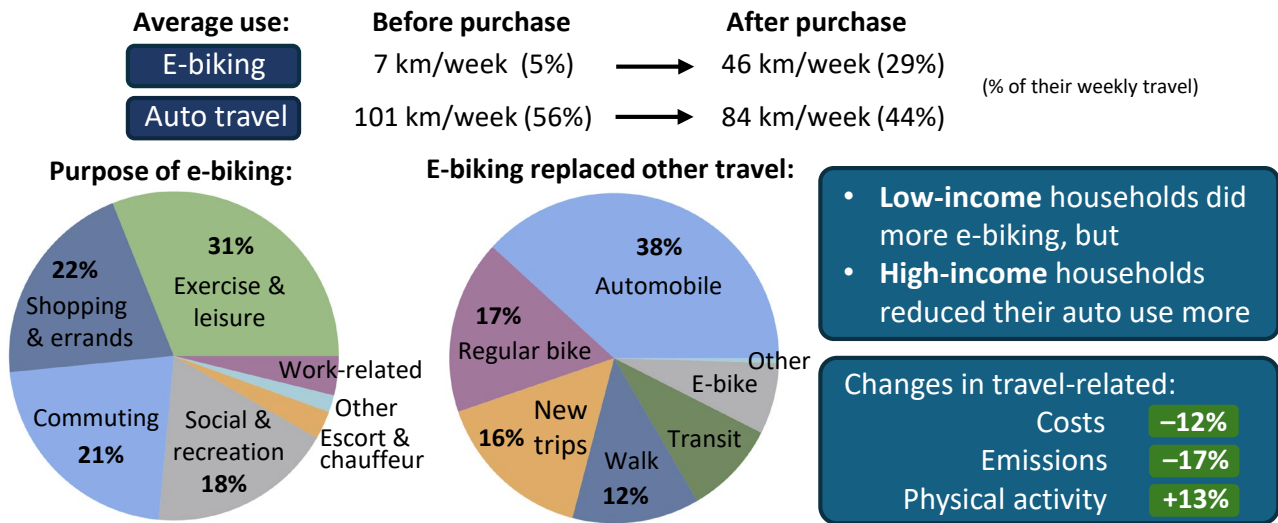
## Study

- Researchers at UBC and SFU recruited and surveyed over 1,000 of those rebate recipients
- Surveys were completed: near the time of purchase, +3 months later, and +12 months later

## New E-bike Adoption

- **58%** of rebate recipients would not have purchased an e-bike without the rebates
- Rebates were more effective when received by: **Lower-income households**

## Changing Travel Habits



“Owning an ebike has had a huge impact on my daily quality of life”

“E-bike changed my life. I bike everyday, down 100lbs since getting the e-bike. I can walk again without stick, honestly changed my whole life...”

“...I do love how I feel after riding to and then home from work. I don’t want to give that up. Makes my mental health so much better, happier...”

## Total Program Impacts

Total impacts due to new e-bike purchases created by the rebate program :

- 5 million km** more annual e-biking
- 3 million km** less annual travel by auto
- 1,000 tonnes CO<sub>2</sub>** less annual emissions (average abatement cost of \$1,300/tonne CO<sub>2</sub>)
- \$8.7 million** new retailer revenue (only from new e-bike purchases)

## Recommendations

- **Continue the e-bike rebate program** to advance a range of Provincial priorities
  - Consider **benefits beyond CO<sub>2</sub>**: increased affordability, accessibility, and physical activity
- Continue to **income-condition rebates**: it enhances rebate effectiveness & equity benefits
  - Use **total household (not personal) income** as the qualification criterion
- Set rebate amounts and income thresholds based on program priorities:
  - **Smaller** rebates are more cost-effective, but **larger** rebates are more equitable
  - Target **moderately low-income households\*** to balance e-bike uptake and auto reduction
- Consider **lottery-based distribution** & continue to evaluate program effectiveness & impacts
- Consider partnering with employers to provide **commuter-focussed rebates**

\* Recommended threshold around 2x LICO (Low Income Cut-Off)

See the full report: <https://reactlab.civil.ubc.ca/bc-ebike-incentives/>

