# IMPROVING NOVICE CYCLISTS' SAFETY AND COMFORT DURING WINTER MONTHS TO SUSTAIN YEAR-ROUND BIKE RIDERSHIP



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# **PROBLEM**

# How might we increase and sustain ridership year-round among novice riders aged 18-30 while focusing on safety?

- Cycling (emits 21g/km) is nearly 8 times more environmentally friendly than driving a car (emits 170g/km)
  [1]
- Novice undergraduate riders may feel unsafe and discomfort from the cold weather
- Cyclists are at an increased risk to accidents during higher precipitation months [3]
- Cyclists less likely to use helmets, reflective gear, or proper lighting which is essential in the winter [3]

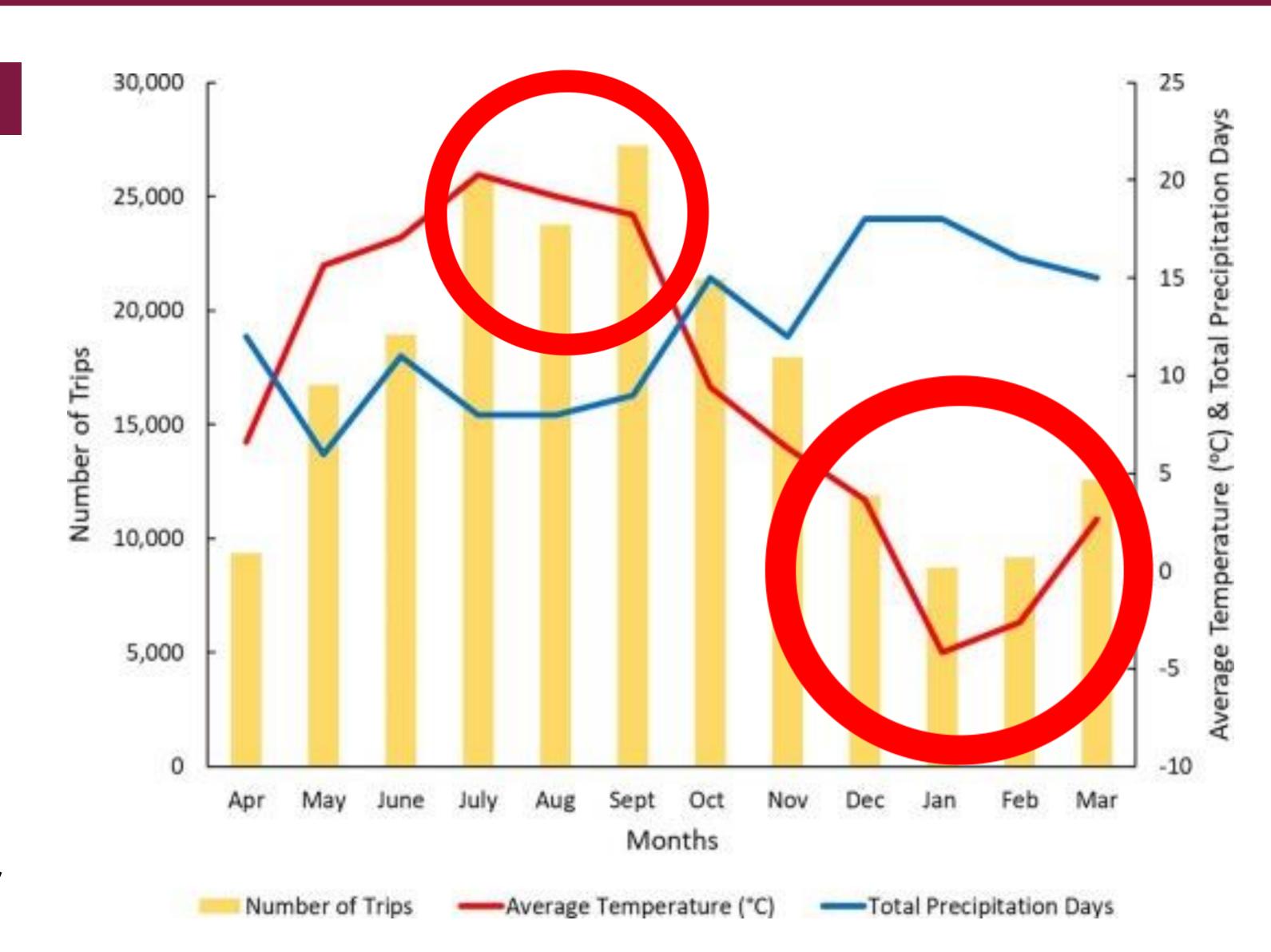
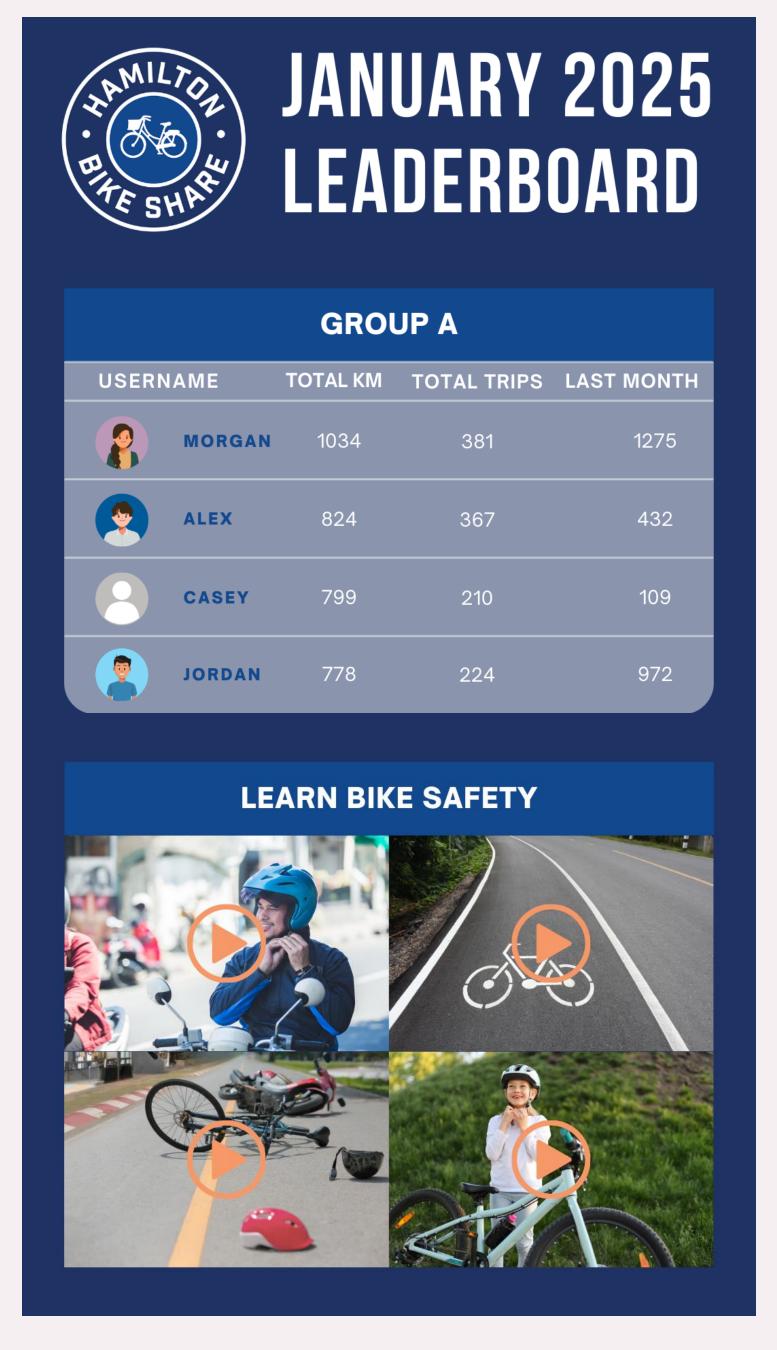


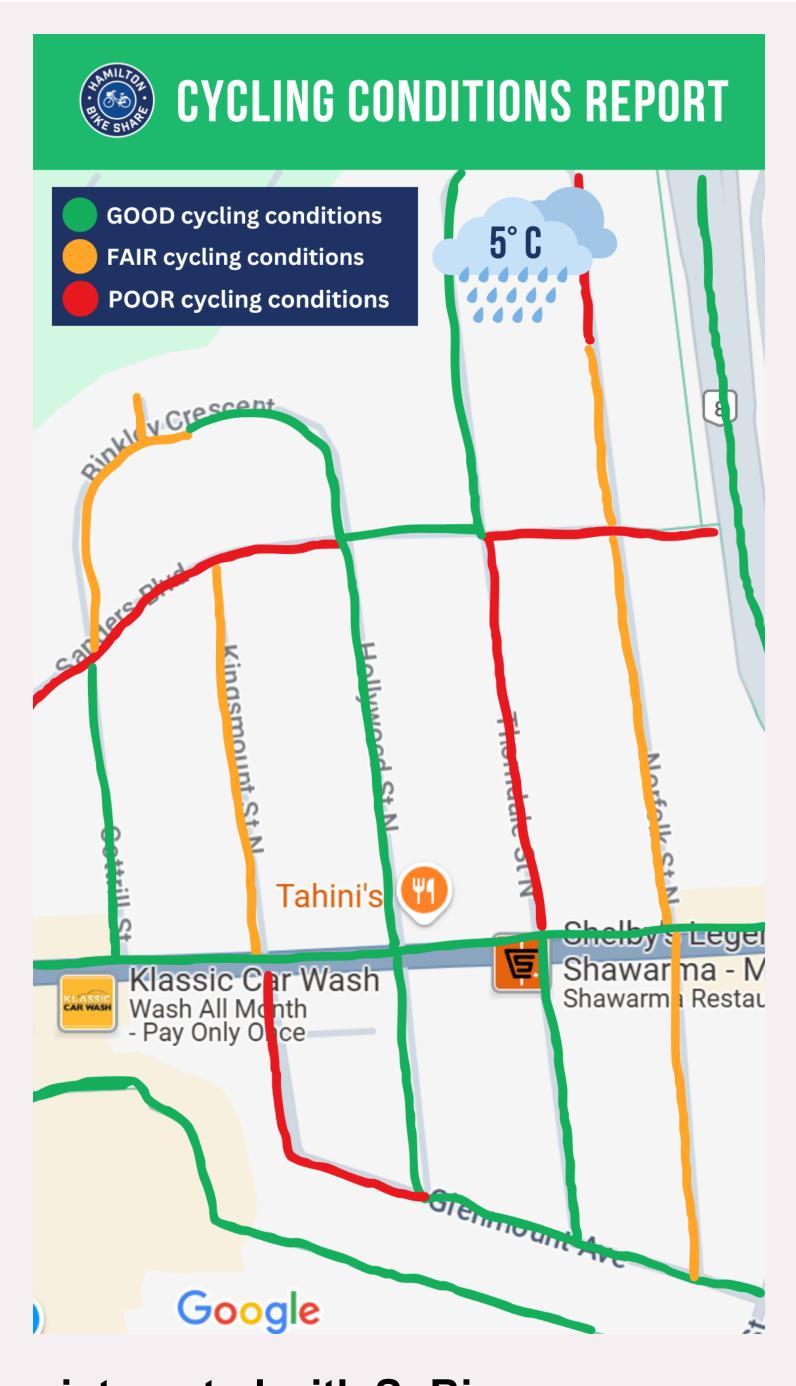
Figure 1: Low Ridership in Winter Months [2]

# SOLUTION

- 1) Monthly "Leaderboard" Section on SoBi app
- 2) Bike Safety Videos
- 3) User-reported Cycling & Weather Conditions
- Users can compete on a monthly leaderboard, earning points in various ways to win prizes

Points	Activity
1	1 km spent on a bike
2	1 bike safety video watched
1	3 weather conditions reported





Prototype of our solution integrated with SoBi app

#### **NEXT STEPS**

- 1) Propose our solution to SoBi
- 2) Complement the new app features with real-life community engagement and competitions
  - Inter-faculty leaderboard points competition
  - Report the most road and weather conditions for prizes
- 3) Connect with local business and online retailers to supply prizes and discount codes
  - Mutually beneficial partnerships
  - Cycling-related prizes



### REFERENCES

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- 3. B. Savan, E. Cohlmeyer, and T. Ledsham, "Integrated strategies to accelerate the adoption of cycling for transportation," Transportation Research Part F: Traffic Psychology and Behaviour, vol. 46, pp. 236–249, Apr. 2017, doi: https://doi.org/10.1016/j.trf.2017.03.002

#### ACKNOWLEDGEMENTS



