

Objective

When drivers park illegally in Temporary Special Zones (TSZs), they face ticketing and towing, and the person who requested the TSZ cannot use it for its intended purpose. How can we improve signage to better alert and inform drivers?

Background

An academic and cross jurisdictional scan showed that parking signage that uses visuals and clear and easy-to-read messaging is more effective. We conducted an online qualitative survey with drivers in Vancouver to better understand the barriers to TSZ compliance. Over 50% of the respondents stated that it is moderately or highly likely that TSZ signage is conflicting, confusing or not noticeable. 81% of the respondents said they did not know the current penalties for parking in a TSZ, and 22% said they were unsure.

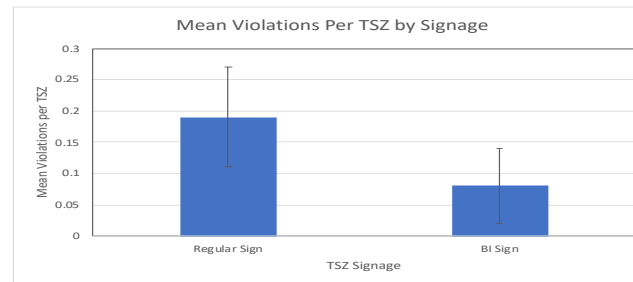
Methods

- Used principles of Salience and Loss Aversion from the EAST framework to develop an eye-catching sign that would draw the driver's attention, and 'nudge' the driver to comply.
- Conducted a Randomized Control Trial (RCT) from March 7 to April 4, 2021, to evaluate the effectiveness of the BI solution.
- Sample size consisted of 117 TSZs ($n = 68$ for control and $n = 49$ for treatment).
- **Figure: Control Sign (left) vs Treatment Sign**



Results

- The unit of analysis was the number of violations, reported to the 311 Contact Centre.
- On average, violations in with the treatment sign dropped by 57% compared to the control sign.
- The BI sign resulted in greater compliance; however, the results are not statistically significant ($p = .33$).



Error bars indicate +/- one standard error.

Recommendations

- Conduct additional testing of the TSZs, using the same signs, an increased sample size and extending the scope to include types of TSZs excluded in this study. If statistically significant results are achieved, these can inform the decision to scale.
- Develop treatment signs for a different category of parking signage (e.g., rush hour, loading zones, bus stops, commercial zones, etc.), which has a greater degree of non-compliance, and conduct a study to evaluate the effectiveness of the new sign.
- As the treatment sign did result in a 57% reduction in violations, the City may consider conducting a cost-benefit analysis to inform the decision to develop and implement the treatment signs based on the principles of Salience and Loss Aversion.

Acknowledgements

Project Advisor: Dave Hardisty
Project Sponsor: Chris Darwent
UBC Sauder Faculty, TA, RAs
City of Vancouver Staff