

Abstract

Safe transportation for employees is a perk many organizations are offering to mitigate women abuse in public transportation. This research extends the home-to-work employee transportation problem by adding two constraints: (a) an escort must be present if a female passenger is alone in the vehicle; (b) a ride-time threshold for all passengers. Route generation heuristics for inbound (home to work) and outbound (work to home) scenarios are developed. Even distribution of passengers across routes and minimal use of escorts are the hallmarks of the proposed solution. Results from representative datasets provide valuable insights to employee transportation providers.

