

When and where are limited-stop bus services justified?

Larrain, H., & Muñoz, J. C. (2016). When and where are limited-stop bus services justified?. *Transportmetrica A: Transport Science*, 12(9), 811-831. <10.1080/23249935.2016.1177135> Accessed 09 Jan 2021.

Abstract

Although limited-stop bus services around the world have proven to benefit users and operators alike, there are few published studies on design methodologies for such services and little clarity on when or where they are best applied to a given bus corridor. This article reports on an experiment in which a design algorithm for limited-stop services in a corridor was used to optimise almost 1000 scenarios. A regression model was then calibrated to estimate the benefits of operating limited-stop bus services as a function of various attributes of the corridor. The benefits from limited-stop services increase with higher dwell times, number of trips, concentration of trips in few origin–destination pairs and critical arc load, and with lower wait time values and vehicle capacity. The analytic expression derived from the regression model provides an unprecedented tool to forecast the benefits of implementing limited-stop services..

Keywords

Limited-stop services, Express services, Bus rapid transit, Public transport, Network design.