

Project NUMBAT

A comprehensive multi-rail demand data set for London

Purpose

Transport for London (TfL) produces the NUMBAT dataset to provide statistics on usage and travel patterns on TfL railway services. It is the most comprehensive multi-rail demand data set available for London. This detailed dataset can be used to assess train service provision, demand profiles and customer experience, as well as service planning and performance measurement.

Coverage

The dataset represents the travel demand on a typical autumn weekday (Monday-Thursday), Friday, Saturday and Sunday at all stations and lines of the London Underground, London Overground, Docklands Light Railway, TfL Rail / Elizabeth Line and London Trams. Data covers every 15-minute period throughout the traffic day and assumes a perfect train schedule being operated.

Features

NUMBAT uses ticketing data from smartcards and gateline entry/exit totals for each station, utilising a much larger sample size than previous datasets. It uses timetable-based assignment which enables better coverage of lower-frequency parts of the network, as well as creating more granular outputs.



Outputs

Line Boarders	Number of passengers boarding each line by 15 mins
Link Load	Number of passengers travelling along a link between one stations and another by 15min
Station Entry / Exit	Number of passengers entering / exiting a station by 15 mins
Station Boarders / Alighters	Boarders / Alighters by station, line and direction by 15mins
Station Link Flows	The number of passengers moving points within stations by 15 mins
Service Frequency	The number of trains going through a line section (between stations) by 15 mins
Route Choice	Number of passengers on each route for a given O/D pair by time band
Journey Time	The time it takes to travel between stations by time band
O/D by network	Number of trips between Origin and Destination station by time band

For further information please contact: SMBRailDemandQueries@tfl.gov.uk