

Replication Data for: New Open-Source Analyses of Transit Job Access and Transit Ridership

Dataset available at: <https://doi.org/10.7910/DVN/S2WRF2>

(This dataset supports report **New Open-Source Analyses of Transit Job Access and Transit Ridership**, <https://doi.org/10.7922/G2862DSW>)

This U.S. Department of Transportation-funded dataset is preserved by the Pacific Southwest Region University Transportation Center in the digital repository Harvard Dataverse (<https://dataverse.harvard.edu>), and is available at <https://doi.org/10.7910/DVN/S2WRF2>

The related final report **New Open-Source Analyses of Transit Job Access and Transit Ridership**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/61709>.

Metadata from the Harvard Dataverse Repository record:

Dataset Persistent ID: doi:10.7910/DVN/S2WRF2

Publication Date: 2022-04-19

Title: Replication Data for: New Open-Source Analyses of Transit Job Access and Transit Ridership

Author:

- W Boarnet, Marlon (University of Southern California) - ORCID: 0000-0002-0890-347X
- Florez Moctezuma, David (University of Southern California)
- Gross, James (University of Southern California)

Description: This research project examines the link between job access and stop/station level transit ridership. Job access, following recent literature, is measured as the number of jobs that can be reached within a 30-minute transit travel time, including transfers and walk time to access jobs once exiting a transit station. Cumulative opportunity job access measures of this sort – i.e. the number of jobs that can be reached within 30 minutes – have become common in the recent access literature, and those measures have often focused on access via transit. Yet there have been few studies that examine the link between transit job access and transit ridership, and of those none that examine the link at a station or stop level. We use station and stop level ridership data for the Los Angeles Metro bus and rail system and the BART rail system in the San Francisco Bay Area. We calculate transit job access as jobs that can be reached within 30 minutes, using the Remix software tool. Regression analysis of 1,000 randomly selected Los Angeles bus stops reveals a robust relationship between stop-level ridership and job access. The association between transit job access and bus stop ridership (embarkations and disembarkations at the stop) is statistically significant. Converting that association into an elasticity, if the number of jobs accessible within 30-minutes were to increase by 1 percent, on average stop-level ridership would increase between 0.6 to 0.8 percent. The same association, with similar magnitudes, exists for Metro rail stations and BART rail stations, but due the smaller sample sizes, those relationships are not statistically significant when control variables are added to the regression. Our findings show that job access is closely related to ridership at the bus stop level, suggesting transit agencies can increase job access by increasing bus frequency, reducing transfers, siting lines that connect job concentrations to residents, and by improving bus stop/rail station access/egress times. (2022-04-18)

Subject: Social Sciences

Related Publication: <https://metrans.org/research/new-open-source-analyses-of-transit-job-access-and-transit-ridership>

Depositor: Brinkerhoff, Cort

Deposit Date: 2022-04-19

Recommended citation:

Boarnet, Marlon; Florez Moctezuma, David; Gross, James, 2022, "Replication Data for: New Open-Source Analyses of Transit Job Access and Transit Ridership", <https://doi.org/10.7910/DVN/S2WRF2>, Harvard Dataverse, V1

Dataset description:

This dataset contains 1 file, described below.

Collapsed_Master-Analysis-Data-Only.xlsx

The .xlsx and .xls file types are Microsoft Excel files, which can be opened with Excel, and other free available software, such as OpenRefine.

National Transportation Library (NTL) Curation Note:

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://doi.org/10.21949/1503647>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at <https://doi.org/10.7910/DVN/S2WRF2> on 2022-05-05. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.