

WALKING DISTANCE TO TRANSIT – FACTS & SOURCES

AGREEMENT BY RESEARCH AND CONSENSUS

- High access to public transit (PuT) is one of the key factors to reduce dependence on private vehicles ^{1,3}
 - To improve access to PuT, improvements must be made in walking catchment areas to transit stops ^{1,2,3}
 - Short walks increase the probability of using PuT for commutes ^{2,13}
 - Walking behavior is influenced by availability of walking pathways ^{1,3,13}
- People are willing to walk further/longer for faster rail services (train or subway) than for bus or tram services ^{1,2,4,5,12,15}
 - Walks are longer on the workplace side than on the home side ²
- Most people are willing to walk 5-10 minutes or approximately ¼ to ½ mile to a transit stop ^{5,6,8,9,12,24}
 - If you chose a single walking distance standard for all situations or transit oriented development (TOD), 400 meters (¼ mile) walking distance of PuT is recommended ^{3,4,5,6,13}
 - However, if you vary distance from transit by service mode
 - 400 meters or ¼ mile is most commonly applied for bus and tram (trolley) service ^{3,5,6,12,13,15}
 - ❖ Less than 10% of transit users said they would walk 15 minutes (¾ mile) to take a bus ¹
 - 800 meters or ½ mile is most commonly applied for heavy rail or a train station, including by the U.S. Department of Transportation ^{2,7,12,13,18,21}

- In California, distance to transit makes a big difference
 - Only 15.9% of residents who live within ½ mile of San Diego transit options use it ¹⁰
 - 13.5% take bus
 - 1.6% take street car (trolley)
 - 0.8% take train
 - Beyond that ½ mile, transit usage falls by 74% to 4.2% ¹⁰
- Even the CA Department of Health believes ½ mile is the optimal and healthy distance for a PuT walkshed ¹¹
- San Diego Association of Governments (SANDAG)
 - Scores transit access “within a comfortable ¼-mile walk of a transit corridor, or a transit stop” ²³
 - Recommends the walking “catchment area” as “conveniently accessible within 5-minutes of each transit station by foot” ²⁵
 - Considered transit equity within a 5-minute walkshed²⁹
- In the San Diego region, most people walk **to/from** PuT
 - In 2015²⁶
 - **88%/90%** walk
 - **9%/7%** come/**go** via auto
 - 3% roll via bike, skateboard, etc.
 - ❖ Males were 70% more likely to roll vs. females
 - 0.3% travel via wheelchair
 - In 2019¹⁹
 - **97%/89%** walk
 - **2%/10%** come/**go** via auto
 - **1%/2%** roll via bike, skateboard, etc.
 - **1.5%/.8%** come/**go** via transit/air (long distance mode)

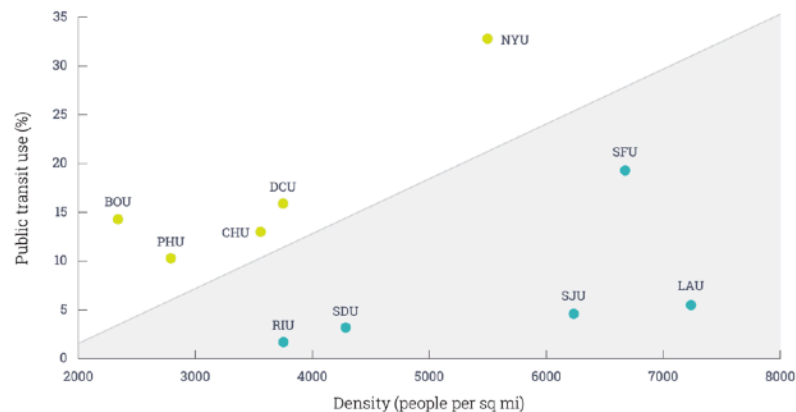
- In San Diego, per MTS: "Passengers are typically willing to walk between a quarter mile and a half of a mile from a transit station to their destination; this range varies based upon factors such as route frequency, neighborhood walkability, lighting, and security."²⁰
- As a causal factor, density itself is a weak predictor of transit usage^{12,13,17}
 - Density *plus* transit provides a precondition for other factors that can reduce driving
 - Higher density is often thought to be a precondition to produce higher transit usage. However, CA and San Diego specifically already have some of the densest urbanized areas (UZAs) in the U.S., yet still ridership falls below less dense UZAs in the country.

17

DESPITE OUR DENSITY, TRANSIT USE IS COMPARATIVELY LOW

Higher density is often thought to be a condition for better transit, theoretically producing higher use. However, California already has some of the most dense UZAs in the country, yet still ridership falls below many less dense UZAs in the country. In California, only San Francisco-Oakland is competitive.

Urbanized areas:
Public Transit Use
vs. Density



Source: American Community Survey 5-year (2017), Federal Transit Administration, National Transit Database UZA Sums 2017.

8

- Only 3.8% of San Diegans commute via public transit.²⁷
- "Dense development beyond walking distance from transit does not support ridership and may actually detract from it if existing transit services are rerouted in an inefficient manner" to accommodate larger catchment.¹³

There are no data to suggest that people are going to

- Walk further than $\frac{1}{4}$ - $\frac{1}{2}$ mile (bulk of PuT users)
- Significantly increase bike trips to transit
 - Buses carry only two bikes
 - Trolleys carry only one to two bikes per car
 - Only approximately secure 700 bike parking spaces at PuT in San Diego County; reserved for regular commuters²⁸
- Significantly increase other “rolling” trips to transit

There are no data to support making the Sustainable Development catchment areas $\frac{3}{4}$ to 1 mile from public transit.

- Doing so will create density in unwalkable neighborhoods, increasing
 - Urban sprawl
 - VMT
 - Congestion
 - GHG emissions
- Doing so will not
 - Increase transit adoption
 - Create compact, walkable neighborhoods
 - Create the concentrated mass needed to sustain economic development

SOURCES:

1 <https://ridewithvia.com/resources/articles/long-walking-distance-prevents-people-from-using-transit-heres-how-to-change-that/> (2022)

Walking to a public transport station: Empirical evidence on willingness and acceptance in Munich, Germany; Rumana Islam_Sarker_Markus_Mailer_Sujit Kumar_Sikder; Smart and Sustainable Built Environment ISSN: 2046-6099 (2019)

2 <https://www.sciencedirect.com/science/article/pii/S1361920922000013> (2022)

3 https://www.researchgate.net/publication/353067957_Acceptable_walking_distance_accessible_to_the_nearest_bus_stop_considering_the_service_coverage (2021)

4 <https://humantransit.org/2011/04/basics-walking-distance-to-transit.html> (2011)

5 https://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/ch4.cfm. (2013)
U.S. Department of Transportation

6 <https://www.mwcog.org/newsroom/2019/07/16/walksheds-show-planners-how-easily-people-can-walk-to-transit/> (2019)

7 Land Use Impacts on Transport – How Land Use Factors Affect Travel Behavior, 15 April 2011, Todd Litman, Victoria Transport Policy Institute With Rowan Steele

8 Transportation Research Board PLANNING FOR TRANSIT-FRIENDLY LAND-USE. A HANDBOOK FOR NEW JERSEY COMMUNITIES 1994-96

9 .”Dittmar, H., and G. Ohland, eds. The New Transit Town: Best Practices in Transit-Oriented Development. 2004. Island Press. Washington, D.C. p. 120.

10 https://www.ppic.org/content/pubs/report/R_211JKR.pdf
Making the Most of Transit, Density, Employment Growth, and Ridership Around New Stations, February 2011, Public Policy Institute of California, Jed Kolko with research support from Marisol Cuellar Mejia, Davin Reed, and Eric Schiff

- 11 <https://data.chhs.ca.gov/dataset/walkable-distance-public-transit-2008-2012>
- 12 <https://www.translink.ca/plans-and-projects/strategies-plans-and-guidelines/transit-oriented-communities>
- 13 https://www.translink.ca/-/media/translink/documents/plans-and-projects/managing-the-transit-network/transit_oriented_communities_design_guidelines.pdf#view=fitH (2012)
- 14 All data from Ewing and Cervero (2010). Demand management data from Kuzmyak, Weinberger, and Levinson (2003) and Vaca and Kuzmyak (2005) as documented in Litman (2012)
- 15 https://kipdf.com/relationship-of-walk-access-distance-to-transit-with-service-travel-and-personal_5afc77c78ead0e821b8b4599.html (2007)
- 16 Reid Ewing & Robert Cervero (2010) Travel and the Built Environment, Journal of the American Planning Association, 76:3, 265-294, DOI: 10.1080/10.1080/01944361003766766 <https://doi.org/10.1080/01944361003766766>
- 17 <https://secureservercdn.net/198.71.233.65/r3g.8a0.myftpupload.com/wp-content/uploads/2020/02/Californias-Soaring-Transit-Expenditures-are-Failing.pdf>
- 18 Transit Use and Proximity to Rail: Results from Large Employment Sites in the San Francisco, California, Bay Area Journal Transportation Research Record: Journal of the Transportation Research Board
- 19 2019 TNC Survey Data_Transit Egress Mode_TAN QA-QC (San Diego) https://www.sandag.org/uploads/publicationid/publicationid_4868_32650.pdf
- 20 Designing for Transit A Manual for Integrating Public Transportation and Land Development in the San Diego Metropolitan Area Published by San Diego Metropolitan Transit System, Feb 2018 https://www.sdmts.com/sites/default/files/attachments/mts_designingfortransit_2018-02-02web.pdf
- 21 Department of Transportation, Build America Bureau, Transit-Oriented Development Grants, July 27, 2021 <https://www.transportation.gov/buildamerica/TOD/faqs>
- 22 Department of Transportation, Federal Transportation Administration, Circular FTA C 7050.1B <https://www.transit.dot.gov/sites/fta.dot.gov/files/2020-08/Joint-Development-Circular-C-7050-1B.pdf>
- 23 San Diego Association of Governments (SANDAG), *Designing for Smart Growth/Creating Great*

Places in the San Diego Region, Smart Growth Scorecard 2015

24 Institute for Transportation and Development Policy, TOD Standard, 3rd Edition, New York, ITDP, 2017, www.itdp.org

25 Transit-Oriented Districts A Strategy For The San Diego Region, SANDAG 2015 https://www.sandag.org/uploads/projectid/projectid_500_19413.pdf

26 On-Board Transit Passenger Survey: Results of the 2015 On-Board Transit Passenger Survey for San Diego Region; Prepared for SANDAG
https://www.sandag.org/uploads/projectid/projectid_494_21412.pdf

27 SD Planning Dept. Mobility Presentation 6/29/22 2 Mobility and Streetscape Boards
https://d52279eb-3ba9-4389-8e70-cd9564a4ea99.filesusr.com/ugd/26f591_0c99cc8012b64d76bbe943319eff83b3.pdf

28 <https://www.icommutesd.com/bike/bike-parking>

29 SANDAG Regional Mobility Hub Implementation Strategy Equity Considerations 12/15/17
https://sdforward.com/docs/default-source/default-document-library/equity-considerations-memo_12-15-17_final.pdf?sfvrsn=c0d0f965_0