

National Neighborhood Data Archive (NaNDA): Public Transit Stops by Census Tract, United States, 2016-2018



openICPSR-111109

nanda_transit_tract_2016-2018_05P.dta

nanda_transit_tract_2016-2018_05P.csv

nanda_transit1618T_05P.sas7bdat

Overview and Data Dictionary

Documentation Version: 1.4

Last updated: 1/4/2021

Dataset Overview

Description

This dataset lists the number of public transit stops per United States census tract based on data from the National Transit Map (NTM). Each observation represents the count and density of transit stops within a census tract, as voluntarily reported to NTM by one of 270 regional transit agencies choosing to participate between 2016 and 2018. Density is measured both by population density (per 1000 people) and distance (per square mile).

Principal Investigators

- Philippa Clarke, University of Michigan Institute for Social Research
- Robert Melendez, University of Michigan Institute for Social Research

Funding Sources

- United States Department of Health and Human Services. National Institutes of Health. National Institute on Aging (RF1-AG-057540)

- United States Department of Health and Human Services. Administration for Community Living. National Institute on Disability, Independent Living, and Rehabilitation Research (90RTHF0001)

Data Sources

Geospatial source data were obtained from the NTM Stops GIS dataset within the National Transit Map Data Catalog (Bureau of Transportation Statistics, 2019b). Census tract boundaries were obtained from the 2010 TIGER/Line census tract shapefiles (United States Census Bureau, 2010). TIGER/Line shapefiles are created and distributed by the United States Census Bureau.

Coverage

The dataset contains one observation per census tract in the fifty United States and US island territories. Each observation represents the count, density per capita, and density per square mile of fixed-route and fixed-guideway public transit stops within the tract, as voluntarily reported by NTM participating agencies between 2016 and 2018.

Methodology

Two key features of the source data are critical to properly interpreting the values in this dataset.

First, data is continually updated by participating agencies. The NTM was initially compiled in 2016 based on data provided by 270 regional transit authorities in the United States (Bureau of Transportation Statistics, 2018). Data were continually updated by participating agencies through publication in April 2018. Stop counts were captured and aggregated by researchers in April 2019. Thus, each stop count represents an unspecified point in time between 2016 and 2018.

Second, NTM participation by regional transit authorities is voluntary and optional, but the dataset includes census tracts representing areas where regional transit authorities declined to participate. As a result, a value of 0 may indicate either that the tract contains no stops, or that its transit agency declined to participate in NTM.

Variables

Variable Name	Type	Obs	Unique	Mean	Min	Max	Label	Additional Information
tract_fips	str11	73803	73803	.	.	.	Census 2010 tract fips code	
census_tract_area	double	73803	26566	47.90224	0	85425.74	Census tract area (sq. miles)	
count_ntm_stops	float	73803	141	6.682276	0	315	Count of transit stops reported to National Transit Map as of 2018	
tot_pop_2010	float	72870	9264	4241.096	0	39143	Total population, 2010	
stops_per_capita	double	72406	26384	3.320082	0	20750	Transit stops per 1000 people	
stops_per_sqmile	double	73641	20406	11.38826	0	484.375	Transit stops per square mile	

References

Bureau of Transportation Statistics (2018, February 27). The National Transit Map.

<https://www.bts.gov/national-transit-map/about>

Bureau of Transportation Statistics (2019a). National Transit Map: Participating agencies [Data set].

<https://maps.bts.dot.gov/arcgis/apps/webappviewer/index.html?id=8aa7d21846524c09a1fbf72d89e9b38d>

Bureau of Transportation Statistics (2019b). NTM stops [Data set]. [https://osav-](https://osav-usdot.opendata.arcgis.com/datasets/63b933cc83ec4aa2b9d20eeb5d00630f_0)

[usdot.opendata.arcgis.com/datasets/63b933cc83ec4aa2b9d20eeb5d00630f_0](https://osav-usdot.opendata.arcgis.com/datasets/63b933cc83ec4aa2b9d20eeb5d00630f_0)

United States Census Bureau (2010). TIGER/Line shapefiles, 2010 census tracts (2010 version) [Data set].

https://www2.census.gov/geo/tiger/TIGER2010/TRACT/2010/tl_2010_us_tract10.zip

United States Census Bureau (2012). 2010 Census TIGER/Line shapefiles: Technical documentation.

<https://www.census.gov/programs-surveys/geography/technical-documentation/complete-technical-documentation/tiger-geo-line.2010.html>

Appendices

Appendix A. NLM Participating Organizations, September 2019

- Alameda-Contra Costa Transit District, Oakland, CA
- Altoona Metro Transit, Altoona, PA
- Anaheim Transportation Network, Anaheim, CA
- Ann Arbor Area Transportation Authority, Ann Arbor, MI
- Annapolis Department of Transportation, Annapolis, MD
- Arlington Transit - Arlington County, Arlington, VA
- Asotin County PTBA, Clarkston, WA
- Athens Transit System, Athens, GA
- Atlanta Regional Commission, Atlanta, GA
- Augusta Richmond County Transit Department, Augusta, GA
- Bay Metropolitan Transit Authority, Bay City, MI
- Beaver County Transit Authority, Rochester, PA
- Berkshire Regional Transit Authority, Pittsfield, MA
- Bettendorf Transit System, Bettendorf, IA
- Birmingham-Jefferson County Transit Authority, Birmingham, AL
- Bi-State Development Agency of the Missouri-Illinois Metropolitan District, d.b.a.(St. Louis) Metro, St. Louis, MO
- Blacksburg Transit, Blacksburg, VA
- Bloomington-Normal Public Transit System, Normal, IL
- Bois Forte Reservation Tribal Council, Nett Lake, MN
- Broome County Department of Public Transportation, Vestal, NY
- Butler County Department on Aging, Augusta, KS
- Cache Valley Transit District, Logan, UT
- Cambria County Transit Authority, Johnstown, PA
- Capital Area Transit, Raleigh, NC
- Capital Area Transportation Authority, Lansing, MI
- Capital District Transportation Authority, Albany, NY
- Carson Area Metropolitan Planning Organization, Carson City, NV
- Central Arkansas Transit Authority, North Little Rock, AR
- Central Contra Costa Transit Authority, Concord, CA
- Central Indiana Regional Transportation Authority, Indianapolis, IN
- Central New York Regional Transportation Authority, Syracuse, NY
- Central Ohio Transit Authority, Columbus, OH
- Central Oklahoma Transportation and Parking Authority, Oklahoma City, OK
- Central Puget Sound Regional Transit Authority, Seattle, WA
- Champaign-Urbana Mass Transit District, Urbana, IL
- Chapel Hill Transit, Chapel Hill, NC
- Chattanooga Area Regional Transportation Authority, Chattanooga, TN
- Chicago Transit Authority, Chicago, IL
- Chittenden County Transportation Authority, Burlington, VT
- City of Albuquerque Transit Department, Albuquerque, NM
- City of Alexandria, Alexandria, VA
- City of Anderson Transportation System, Anderson, IN
- City of Appleton - Valley Transit, Appleton, WI
- City of Beloit Transit System, Beloit, WI
- City of Clemson/ Clemson Area Transit, Clemson, SC
- City of Commerce Municipal Buslines, Commerce, CA
- City of Corona, Corona, CA
- City of Danville/Danville Mass Transit, Danville, IL
- City of Detroit Department of Transportation, Detroit, MI
- City of Fairfax CUE Bus, Fairfax, VA
- City of Harrisonburg Department of Public Transportation, Harrisonburg, VA
- City of Jackson Transportation Authority, Jackson, MI
- City of Jacksonville, Jacksonville, NC
- City of Kingston Citibus, Kingston, NY
- City of Lawndale, Lawndale, CA
- City of Manteca, Manteca, CA
- City of Monterey Park, Monterey Park, CA
- City of Phoenix Public Transit Department dba Valley Metro, Phoenix, AZ
- City of Pocatello, Pocatello, ID
- City of Porterville, Porterville, CA
- City of Redondo Beach - Beach Cities Transit, Redondo Beach, CA
- City of San Luis Obispo, San Luis Obispo, CA
- City of Santa Rosa, Santa Rosa, CA
- City of St. George, St. George, UT
- City of Valparaiso, Valparaiso, IN
- City Transit Management Company, Inc., Lubbock, TX
- Clark County Public Transportation Benefit Area Authority, Vancouver, WA
- Cleveland Area Rapid Transit, Norman, OK
- Cobb County Department of Transportation, Marietta, GA
- ColumBUS Transit, Columbus, IN
- Confederated Salish and Kootenai Tribes, Pablo, MT
- Connecticut Department of Transportation - CTTRANSIT - Hartford Division, Hartford, CT
- Coos County Area Transit, Coos Bay, OR
- Culver City Municipal Bus Lines, Culver City, CA
- DDOT - Progressive Transportation Services Administration, Washington, DC
- Delaware County Transit Board, Delaware, OH
- Delaware Transit Corporation, Dover, DE

National Neighborhood Data Archive (NaNDA)
Public Transit Stops by Census Tract, United States, 2016-2018

- Denver Regional Transportation District, Denver, CO
- Des Moines Area Regional Transit Authority, Des Moines, IA
- Detroit Transportation Corporation, Detroit, MI
- Duluth Transit Authority, Duluth, MN
- Durham Area Transit Authority, Durham, NC
- Eau Claire Transit, Eau Claire, WI
- Fairfax Connector Bus System, Fairfax, VA
- Fayette Area Coordinated Transportation, Lemont Furnace, PA
- Fayetteville Area System of Transit, Fayetteville, NC
- Fond du Lac Area Transit, Fond du Lac, WI
- Foothill Transit, West Covina, CA
- Franklin Transit Authority, Franklin, TN
- Gaston County, Gastonia, NC
- Georgia Regional Transportation Authority, Atlanta, GA
- GO Transit, Oshkosh, WI
- Gold Coast Transit, Oxnard, CA
- Golden Empire Transit District, Bakersfield, CA
- Greater Attleboro-Taunton Regional Transit Authority, Taunton, MA
- Greater Lafayette Public Transportation Corporation, Lafayette, IN
- Greater Lynchburg Transit Company, Lynchburg, VA
- Greater Peoria Mass Transit District, Peoria, IL
- Greater Richmond Transit Company, Richmond, VA
- Green Bay Metro, Green Bay, WI
- Greenville Transit Authority, Greenville, SC
- Gwinnett County Board of Commissioners, Lawrenceville, GA
- Harford Transit, Abingdon, MD
- High Point Transit, High Point, NC
- Indianapolis and Marion County Public Transportation, Indianapolis, IN
- Intercity - Chenango Valley Bus Lines, Mahwah, NJ
- Intercity Transit, Olympia, WA
- Interurban Transit Partnership, Grand Rapids, MI
- Jackson Transit Authority, Jackson, TN
- Jonesboro Economical Transportation System, Jonesboro, AR
- Kalamazoo Metro Transit System, Kalamazoo, MI
- Kansas City Area Transportation Authority, Kansas City, MO
- King County Department of Transportation, Seattle, WA
- Kitsap Transit, Bremerton, WA
- Knoxville Area Transit, Knoxville, TN
- Laketrans, Grand River, OH
- Lane Transit District, Eugene, OR
- Lehigh and Northampton Transportation Authority, Allentown, PA
- Lewiston Transit System, Lewiston, ID
- Lexington Transit Authority, Lexington, KY
- Link Transit, Wenatchee, WA
- Livermore / Amador Valley Transit Authority, Livermore, CA
- Long Beach Transit, Long Beach, CA
- Los Angeles County Metropolitan Transportation Authority dba: Metro, Los Angeles, CA
- Lowell Regional Transit Authority, Lowell, MA
- Luzerne County Transportation Authority, Kingston, PA
- Marin County Transit District, San Rafael, CA
- Maryland Transit Administration, Baltimore, MD
- Memphis Area Transit Authority, Memphis, TN
- Merrimack Valley Regional Transit Authority, Haverhill, MA
- Mesa County, Grand Junction, CO
- METRO Regional Transit Authority, Akron, OH
- Metro Transit, Minneapolis, MN
- Metro Transit System, Madison, WI
- Metro-North Commuter Railroad Company, dba: MTA Metro-North Railroad, New York, NY
- Metropolitan Atlanta Rapid Transit Authority, Atlanta, GA
- Metropolitan Council, St. Paul, MN
- Metropolitan Transit Authority, Nashville, TN
- Metropolitan Tulsa Transit Authority, Tulsa, OK
- MetroWest Regional Transit Authority, Framingham, MA
- Michiana Area Council of Governments, South Bend, IN
- Mid-Ohio Regional Planning Commission, Columbus, OH
- Milwaukee County Transit System, Milwaukee, WI
- Minnesota Valley Transit Authority, Burnsville, MN
- Missoula Urban Transportation District, Missoula, MT
- Monongalia County Urban Mass Transit Authority, Morgantown, WV
- Monroe County Transportation Authority, Scotrun, PA
- Montachusett Regional Transit Authority, Fitchburg, MA
- Montebello Bus Lines, Montebello, CA
- Monterey-Salinas Transit, Monterey, CA
- MTA Bus Company, New York, NY
- MTA Long Island Rail Road, Jamaica, NY
- MTA New York City Transit, New York, NY
- Nashua Transit System, Nashua, NH
- New Jersey Transit Corporation, Newark, NJ
- New York City Department of Transportation, New York, NY
- New York City Economic Development Corporation, New York, NY
- Niagara Frontier Transportation Authority, Buffalo, NY
- Northeast Illinois Regional Commuter Railroad Corporation dba: Metra Rail, Chicago, IL
- Northern Arizona Intergovernmental Public Transportation Authority, Flagstaff, AZ
- Norwalk Transit District, Norwalk, CT
- Oneida County, Utica, NY
- Orange County Transportation Authority, Orange, CA
- Oswego County, Oswego, NY
- Pace - Suburban Bus Division, Arlington Heights, IL
- Pee Dee Regional Transportation Authority, Florence, SC

National Neighborhood Data Archive (NaNDA)
Public Transit Stops by Census Tract, United States, 2016-2018

- Piedmont Authority for Regional Transportation, Greensboro, NC
- Pierce County Transportation Benefit Area Authority, Tacoma, WA
- Port Authority of Allegheny County, Pittsburgh, PA
- Port Authority Trans-Hudson Corporation, Jersey City, NJ
- Port Authority Transit Corporation, Lindenwold, NJ
- Potomac and Rappahannock Transportation Commission, Woodbridge, VA
- Prince George's County Transit, Largo, MD
- Pueblo of San Ildefonso, Santa Fe, NM
- Pueblo of Santa Clara, Espanola, NM
- Red Rose Transit Authority, Lancaster, PA
- Regional Public Transportation Authority, dba: Valley Metro, Phoenix, AZ
- Regional Transportation Commission of Southern Nevada, Las Vegas, NV
- Reno-Sparks Indian Colony, Reno, NV
- Research Triangle Regional Public Transportation Authority, Research Triangle Park, NC
- Rides Mass Transit District, Harrisburg, IL
- Rio Metro Regional Transit District, Albuquerque, NM
- River Valley Metro Mass Transit District, Bourbonnais, IL
- RiverCities Transit, Longview, WA
- Riverside Transit Agency, Riverside, CA
- Rock Island County Metropolitan Mass Transit District, Moline, IL
- Rockland Coaches, Inc., Westwood, NJ
- Rogue Valley Transportation District, Medford, OR
- RTS - Monroe County, Rochester, NY
- Sacramento Regional Transit District, Sacramento, CA
- Salem Area Mass Transit District, Salem, OR
- San Francisco Bay Area Rapid Transit District, Oakland, CA
- San Francisco Municipal Railway, San Francisco, CA
- San Joaquin Regional Transit District, Stockton, CA
- San Luis Obispo Regional Transit Authority, San Luis Obispo, CA
- Santa Barbara Metropolitan Transit District, Santa Barbara, CA
- Santa Clara Valley Transportation Authority, San Jose, CA
- Santa Clarita Transit, Santa Clarita, CA
- Santa Cruz Metropolitan Transit District, Santa Cruz, CA
- Santa Maria Area Transit, Santa Maria, CA
- Santa Monica's Big Blue Bus, Santa Monica, CA
- Shoreline Metro, Sheboygan, WI
- Solano County Transit, Vallejo, CA
- Sonoma County Transit, Santa Rosa, CA
- South Bend Public Transportation Corporation, South Bend, IN
- Southeastern Pennsylvania Transportation Authority, Philadelphia, PA
- Spartanburg Transit System, Spartanburg, SC
- Spirit Lake Tribe, Fort Totten, ND
- Spokane Transit Authority, Spokane, WA
- Spokane Tribe of Indians, Wellpinit, WA
- Stanislaus County Public Works - Transit, Modesto, CA
- StarTran, Lincoln, NE
- Su Tran LLC dba: Sioux Area Metro, Sioux Falls, SD
- Suburban Mobility Authority for Regional Transportation, Detroit, MI
- SunLine Transit Agency, Thousand Palms, CA
- Tesuque Pueblo, Santa Fe, NM
- The City of Bowling Green/Community Action of Southern Kentucky, Bowling Green, KY
- The Eastern Contra Costa Transit Authority, Antioch, CA
- The Greater Cleveland Regional Transit Authority, Cleveland, OH
- Thousand Oaks Transit, Thousand Oaks, CA
- Toledo Area Regional Transit Authority, Toledo, OH
- Topeka Metropolitan Transit Authority, Topeka, KS
- Torrance Transit System, Torrance, CA
- Town of Highlands Dial-A-Bus, Highland Falls, NY
- Transit Authority of Northern Kentucky, Fort Wright, KY
- Transit Authority of River City, Louisville, KY
- Transit Joint Powers Authority for Merced County, Merced, CA
- Transit Services of Frederick County, Frederick, MD
- Tri-County Metropolitan Transportation District of Oregon, Portland, OR
- Unitrans - City of Davis/ASUCD, Davis, CA
- University of Michigan Parking and Transportation Services, Ann Arbor, MI
- University of Minnesota Transit, Minneapolis, MN
- Utah Department of Transportation, Salt Lake City, UT
- Utah Transit Authority, Salt Lake City, UT
- Valley Metro Rail, Inc., Phoenix, AZ
- Valley Regional Transit, Meridian, ID
- Vermont Agency of Transportation, Montpelier, VT
- Victor Valley Transit Authority, Hesperia, CA
- Virginia Railway Express, Alexandria, VA
- Washington County Transportation Authority, Washington, PA
- Washington Metropolitan Area Transit Authority, Washington, DC
- Western Contra Costa Transit Authority, Pinole, CA
- Western Piedmont Regional Transit Authority, Conover, NC
- Whatcom Transportation Authority, Bellingham, WA
- Williamsburg Area Transit Authority, Williamsburg, VA
- Yakima Transit, Yakima, WA
- Yuba-Sutter Transit Authority, Marysville, CA