

National Neighborhood Data Archive (NaNDA): Parks by Census Tract, United States, 2018



openICPSR-117921
nanda_parks_tract_2018_01P.dta
nanda_parks_tract_2018_01P.csv
nanda_parks2018T_01P.sas7bdat

Overview and Data Dictionary

Documentation Version: 1.1
Last updated: 3/19/2020

Dataset Overview

Description

This dataset describes the number and area of parks in each census tract in the United States. Measures include the total number of parks, park area, and proportion of park area within each census tract.

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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

Source data was obtained from ParkServe, a database of parks in 14,000 United States communities (Trust for Public Land, 2018b). ParkServe data was compiled by the Trust for Public Land in 2018 based on GIS data obtained directly from local communities and from publicly accessible websites and satellite imagery. ParkServe includes publicly owned local, state, and national parks; certain school parks; and privately owned parks that are publicly accessible. Parks in gated communities, golf courses, and private cemeteries are excluded (Trust for Public Land, 2018a).

Census tract boundaries are based on the 2010 US TIGER/Line shapefiles (United States Census Bureau, 2010).

Coverage

The dataset contains one observation per census tract in the United States, including Alaska and Hawaii. US island territories are excluded.

Methodology

Prior research has demonstrated that access to parks and greenspace can have a positive impact on many aspects of and contributors to health, including physical activity levels (Kaczynski et al., 2007), healthy aging (Finlay, 2015), and sense of well-being (Larson et al., 2016). Neighborhood parks can also contribute to sense of community (Gómez, 2015). This dataset builds on this research by allowing researchers to examine the number and density of parks within any census tract in the United States.

We began by projecting the 2010 TIGER/Line shapefiles for census tracts to the North American Albers equal-area conic projection in ArgGIS Pro. (The ParkServe shapefiles already used the Albers projection). We then performed a pairwise intersect between the ParkServe shapefile and TIGER/Line shapefiles.

To obtain the total number of parks in each tract, we counted the unique ParkIDs of open parks fully or partially overlapping the tract. An “open” park was defined as one with ParkStatus = Open and ParkAccess = Open. A few additional parks had ParkStatus = Open and a ParkAccess value not found in the documentation. We treated these as open since over 90% of parks in the dataset were open.

To control for a few census tracts containing very high numbers of parks, we added four total parks variables top-coded at one, three, five, and ten parks respectively.

Lastly, we calculated the total area of each census tract in square meters and square miles (1 square meter = 3.86102e-7 square miles), the total park area within each census tract in square meters and square miles, and the proportion of park area to census tract area.

Variables

Variable Name	Type	Obs	Unique	Mean	Min	Max	Label	Additional Information
tract_fips10	string	73057	73057	.	.	.	Census tract 2010 FIPS code	
any_open_park	float	73057	2	0.692035	0	1	Indicator variable: one or more open parks in census tract	
count_open_parks	float	73057	60	2.140178	0	95	Total number of open parks in the census tract	
count_open_parks_tc10	float	73057	11	2.021381	0	10	Total number of open parks (top coded at 10) in census tract	A value of "10" indicates that there are 10 or more parks in the tract.
count_open_parks_tc5	float	73057	6	1.771316	0	5	Total number of open parks (top coded at 5) in census tract	A value of "5" indicates that there are 5 or more parks in the tract.
count_open_parks_tc3	float	73057	4	1.446295	0	3	Total number of open parks (top coded at 3) in census tract	A value of "3" indicates that there are 3 or more parks in the tract.
tract_area	float	73057	73017	134,600,646	8298.575	234,473,721,515	Census tract area, square meters	
tract_area_sqmiles	double	73057	73017	51.9696	0.003204	90530.81	Census tract area, square miles	
tot_park_area	double	73057	50557	8985530	0	12338856166	Total area of open parks in the census tract, square meters	
tot_park_area_sqmiles	double	73057	50557	3.469333	0	4764.059	Total area of open parks in the census tract, square miles	
prop_park_area_tract	double	73057	50549	0.0439329	0	1	Proportion of open park land within census tract (tot_park_int_area / tract_area)	

References

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