# New Haven ParkScore Index ®

September 2021

Overview

The ParkScore® index is the most comprehensive rating system developed to measure how well the 100 largest U.S. cities are meeting the need for parks. Across the country, more than 100 million people—including 28 million kids—don't have a park within a 10-minute walk of home. Among the 100 largest U.S. cities, residents in neighborhoods of color have access to 44% less park space than those in white neighborhoods. In partnership with the Urban Resources Initiative, the Trust for Public Land applied the ParkScore Index® methodology to New Haven's park system to identify its strengths and weaknesses relative to both the 100 most populous U.S. cities as well as selected cities of similar size and location. This analysis reflects all park and recreation facilities within the city of New Haven including those owned and/or managed by New Haven Parks & Recreation, Urban Resources Initiative, Gather New Haven, the State of Connecticut and publicly accessible community schoolyards.

The ParkScore index measures how well New Haven compares against the nation's most populous cities on measures across 5 categories reflective of an excellent city park system: Acreage, Access, Investment, Amenities, and Equity. The Acreage and Access categories reflect the importance of both large 'destination' parks as well as ensuring all residents have access to a public park within a short 10-minute walk of their home. The Investment and Amenities categories reflect the importance of high-quality parks – the spending needed to maintain them and a wide range of activities available for multi-generational user groups. The Equity category reflects the importance of ensuring park resources are fairly distributed between neighborhoods within a city.

For each measure, points are awarded on a relative basis, based on how a city compares to the 100 most populous cities. For example, a score of 90 can be interpreted that New Haven is among the top 10% of cities for that measure. The score for each of the five categories is an average of its measures; a city's overall rating is an average of the five categories. The measures are selected to facilitate comparison across a wide-range of cities; more information can be found in the methodology section (Appendix C).

In addition to the ParkScore analysis, we have provided a summary of the park acreage per capita statistics by city neighborhood (Appendix A) and additional benchmarks where data are available for each of the five categories (Appendix B).
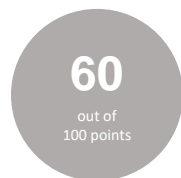
Overall Score

60 out of 100 points

Based on our analysis, New Haven's park system received a ParkScore rating of 60.4 out of a possible 100 points, indicating that it ranks slightly above average when compared to the most populous cities in the country. A strength of New Haven's park system is that 96% of its residents live within a 10-minute walk of a park (see Access Map). The city ranks among the middle of the pack in terms of its amenities and park acreage, indicating that although most residents live within a walkable half-mile, there is room to increase the range of activities and space for residents to enjoy once they get to their nearby parks. This is particularly true when analyzing the city's equity metrics. In New Haven, residents who identify as Black, Hispanic and Latinx, Indigenous and Native American, or Asian Americans and Pacific Islander are equally likely to live within a 10-minute walk of a park as white residents. However, residents in neighborhoods of color have access to 47% less park space per person than those in white neighborhoods; a similar gap exists when comparing by income (see Equity Map). Perhaps the biggest opportunity to improve New Haven's park system is to increase the total investment in park and recreation facilities. After aggregating across all park agencies and organizations in the city, New Haven ranks among the lowest third of the country's most populated cities in terms of spending per resident.

Acreage

36 out of 100 points

1,469 acres of parkland (12% of city area), median park size of 1.53 acres (~size of a schoolyard)

The acreage score indicates the relative abundance of large 'destination' parks, which include large natural areas that provide critical mental health as well as climate and conservation benefits. This category is scored as an average of two metrics, parkland as percentage of city area and median park size. New Haven scores above average in overall acreage (12% of city area, 62 / 100 points) while scoring among the lowest in the country in terms of median park size (1.53 acres, 10 / 100 points). This suggests that while New Haven has a significant amount of park acreage, its overall mix of parks heavily skews towards smaller parks.

Access

95 out of 100 points

96% of New Haven residents live within a 10-minute walk of a park

The access score indicates the percentage of a city's residents that live within a walkable half-mile of a park – the average distance that most people are willing to walk to reach a destination. In New Haven, 96% of its residents live within a 10-minute walk of a park, making the city one of the best in the nation in ensuring residents have access to at least one close-to-home park. This strong network of parks throughout the city provides a strong foundation in which to provide high-quality park activities.

Investment

35 out of 100 points

An average of $77 per person is spent on parks and recreation in New Haven each year

The investment score indicates the relative financial health of a city's park system, which is essential to ensuring parks are maintained at a high level for all to enjoy. This category is scored based on the total parks and recreation spending per person across all agencies and organizations, including monetized volunteer hours. With a score of 35 points ($77 per resident per year), New Haven ranks below most cities in terms of sufficient spending to maintain its parks at a high level. Of the $77 per resident spending, 98% reflects spending from the city's park and recreation department, with the remainder reflecting volunteers and non-profits.

Amenities

71 out of 100 points

71 basketball hoops, 4 dog parks, 78 playgrounds, 5 senior and rec centers, 2 restrooms, and 14 splashpads

The amenities score indicates the relative abundance of six park activities popular among a multi-generational cross-section of user groups (playgrounds, basketball hoops, dog parks, senior and rec centers, splashpads, and permanent restrooms). With a score of 71 points, New Haven ranks above average in terms of providing key amenities that drive the park usage necessary for residents to enjoy the full range of benefits parks can offer. Of the six amenities, New Haven ranks among the nation's best in terms of splashpads, playgrounds, and dog parks (100/ 100 points each) and one of the lowest for permanent restrooms (2 / 100 points).

Equity

65 out of 100 points

In New Haven, 97% of people of color live within a 10-minute walk of a park; 98% of low-income households
When comparing park space per person, neighborhoods of color have 47% less than white neighborhoods and low-income neighborhoods have 47% less than high-income neighborhoods.

The equity score indicates how fairly parks and park space are distributed within a city. This category is an average of two types of metrics: 1) the percentage of people of color and low-income households within a 10-minute walk of a park and 2) a comparison of the amount of park space between neighborhoods by race and income. Similar to most cities with strong Access scores, New Haven scores well on the access component of the equity category. However, New Haven scores among the lowest in the country when comparing the amount of park space between neighborhoods – residents in neighborhoods of color have access to 47% less park space per person than those in white neighborhoods.

Custom ParkScore Inputs & Results: New Haven

Total	60.4

ParkScore points are out of 100, and generally correlate to the percentile New Haven would rank among the 100 most populous cities for that metric (100 is highest, 1 is lowest)

		ParkScore (out of 100) Points	Benchmarks — New Haven Per capita	ParkScore benchmarks Lowest	Median	to get 100 points	New Haven Aggregated Inventory City-Wide Total	By Agency City	State	Schools	Preserves	URI
Acreage		36										
parkland as % city area		62	12%	2%	9%	19%	1,469	1,003	341	52	74	
median park size	acres	10	1.53	0.58	5.39	10.77						
Amenities		71										
Basketball Hoops	per 10,000	78	5.3	0.8	3.29	6.59	71	47		24		
Dog Parks	per 100,000	100	3.0	0.3	1.21	2.43	4	4				
Playgrounds	per 10,000	100	5.8	1.0	2.84	5.68	78	57		21		
Senior/Rec Centers	per 20,000	47	0.7	0.1	0.76	1.52	5	5				
Restrooms	per 10,000	2	0.1	0.1	1.60	3.20	2	2				
Splashpads	per 100,000	100	10.5	0.1	1.29	2.59	14	14				
Investment		35										
Overall Investment	pp, 3yr avg	35	$ 77.26	$ 16.12	$ 94.97	$ 189.95						
Spending												
2017	per person		$ 67.80				$ 9,008,043	$ 8,761,130			$ 246,913	
2018	per person		$ 80.40				$ 10,730,700	$ 10,335,480			$ 395,220	
2019	per person		$ 79.03				$ 10,540,311	$ 10,116,793			$ 423,518	
Volunteer Hours												
2017	per person		$ 1.10				$ 146,210.40				1,198	3,637
2018	per person		$ 1.56				$ 208,314.45				2,565	4,144
2019	per person		$ 1.89				$ 251,557.08				4,045	3,799

Volunteer hours are monetized according to the Independent Sector's Value of Volunteer Time report, using the dollars per hour value for Connecticut

		Points	Per capita	Lowest	Median	to get 100 points						
Access		95										
% population within 10 min walk		95	96%	35%	73%	100%						
Equity		65										
% _____ within 10 min walk of park												
people of color		96	97%	38%	74%	100%						
low income households		97	98%	43%	74%	100%						
Ratio of park space per person between:												
neighborhoods of color and white neighborho...		34	0.53	0.09	0.69	1.37						
low-income and high-income neighborhoods		32	0.53	0.11	0.71	1.41						

Inputs

Population 2017	132,866
Population 2018	133,467
Population 2019	133,379
Adjusted Area	11,839

Adjusted area excludes the acreage of large water bodies and industrial areas, such as railyards and airports, to better enable comparison across cities

Appendix A: Park Space by Neighborhood

Whereas the equity measures in the ParkScore index compare the distribution of park space between neighborhoods by race and income, as measured via census block groups (~1,000 people), this analysis reports the park acreage per capita by the city's neighborhood boundaries (Table 1). There are stark differences in access to park space – with the West Rock neighborhood consisting of 100 times as much park space per person as the Dwight neighborhood. Based on our analysis of park acreage per capita in each of New Haven's 20 neighborhoods, neighborhoods ranked in the bottom 5 for acres per capita all consist of majority people of color - populations who identify as Black, Hispanic and Latinx, Indigenous and Native American, or Asian Americans and Pacific Islander. Additionally, 62% of households within these 5 neighborhoods are low-income, earning less than 75% of the city median income.

This analysis includes all publicly-accessible park acreage that falls within each neighborhood boundary. All water area has been excluded from this calculation.

Table 1: Park Acreage per Capita by Neighborhood Boundary

| Neighborhood | *Park Acreage* | | | *Demographics* | |
	Acres per 1,000 pop	Park Acreage	Population	% Low-Income	% People of Color
West Rock	91.9	364	3,956	70%	59%
East Shore	48.2	222	4,612	32%	30%
West River	27.2	105	3,877	67%	93%
Long Wharf	22.8	27	1,205	93%	89%
East Rock	21.0	206	9,835	39%	47%
Edgewood	13.5	59	4,389	59%	83%
Quinnipiac	12.0	70	5,778	56%	82%
Amity	11.5	51	4,461	53%	84%
Beaver Hills	9.7	56	5,765	54%	86%
Newhallville	8.0	57	7,117	80%	98%
Fair Haven Heights	6.8	48	6,971	67%	71%
Westville	6.5	52	7,946	34%	50%
Annex	5.1	33	6,516	54%	77%
Wooster Square/Mill River	3.2	11	3,288	47%	58%
Dixwell	2.9	15	5,326	77%	91%
Fair Haven	2.4	38	15,509	68%	91%
Prospect Hill	1.7	7	4,415	47%	66%
Downtown	1.4	18	12,944	51%	54%
Hill	1.3	20	14,918	67%	94%
Dwight	0.9	4	4,154	76%	79%

Appendix B: Benchmarking

In addition to comparison against the 100 most populous cities via the ParkScore Index, we also compared New Haven against selected cities that share similar traits. Among the ParkScore cities, we selected six cities with similar characteristics: two post-industrial university cities (Baltimore, Durham), two cities with Olmsted park plans (Louisville, Buffalo), and two aspirational cities (Boston, Minneapolis). Where data were available, we also compared New Haven against five cities more similar in size (South Bend, Grand Rapids, Portland Maine, Rochester, NY, and Lowell, MA) using data from NRPA Park Metrics. Finally, we also provided park acreage and access statistics for Connecticut cities from our ParkServe mapping platform.

Acreage & Access

New Haven dedicates the same or a higher percentage of its city to parkland (12% of city area) than 4 of the 6 ParkScore benchmark cities, and all 8 supplementary benchmark cities (Table 1). Half of the city's parks are smaller than 1.53 acres, or the size of a typical schoolyard, which is a smaller median park size than 3 of the 6 benchmark cities and among the bottom 10% of the nation's most populous cities (Figure 1). When comparing New Haven's Access metric, the percentage of a city's residents within a 10-minute walk of a park, the city ranks among the best nationally, but so do many of its peers. Compared to high-density benchmark cities, New Haven ranks middle of the pack – three score higher (including Hartford, Connecticut) and three score lower.

Table 1 Acreage & Access Benchmarking Data

City	Population	Adjusted City Area	Density	*Acreage* % Parkland of City Area	Median Park Size	ParkScore Rating	*Access* % 10MW	ParkScore Rating
New Haven	133,379	11,839	High	12%	1.53	36	96%	95
Selected ParkScore Cities								
Durham, NC	279,277	68,678	Medium-Low	4%	8.33	45	51%	25
Baltimore, MD	609,422	51,318	High	10%	0.83	25	87%	81
Louisville, KY	627,770	216,524	Low	8%	7.5	53	38%	6
Buffalo, NY	260,357	25,308	High	9%	1.09	25	89%	85
Boston, MA	699,253	29,175	High	16%	1.35	47	100%	100
Minneapolis, MN	424,175	33,958	High	15%	5.61	63	98%	98
Supplementary Benchmark Cities								
South Bend, IN	102,026	26,861	Medium-Low	4%			64%	
Portland, ME	66,215	13,804	Medium-Low	9%			94%	
Grand Rapids, MI	198,917	28,646	Medium-High	5%			76%	
Rochester, NY	211,328	22,893	Medium-High	13%			88%	
Lowell, MA	115,554	8,710	High	6%			92%	
Connecticut								
Bridgeport, CT	146,455	10,395	High	7%			73%	
Stamford, CT	136,653	24,575	Medium-Low	5%			74%	
Hartford, CT	126,731	11,555	High	9%			99%	
Median CT City (>25,000 pop.)				5%			55%	

Figure 1 Comparison of New Haven Acreage & Access ParkScore ratings
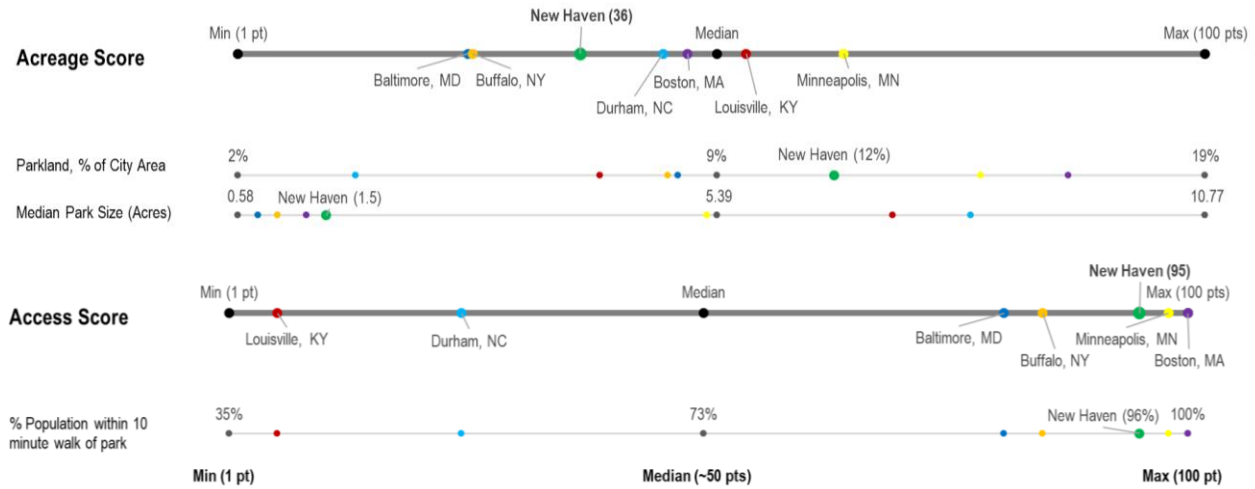
Investment & Amenities

Park and recreation facilities in New Haven receive less investment than all but one of the ParkScore benchmark cities and 3 of the 5 supplementary benchmark cities (Table 2). In New Haven, 98% of the parks and recreation investment comes from the city directly, with only $1 per person coming from private agencies or volunteers. Of the 6 selected ParkScore benchmark cities, 5 benefit from at least $15 per person in annual private spending. Among amenities, New Haven scores higher than all, or nearly all, benchmark cities in four categories: playgrounds, basketball hoops, dog parks and splashpads. Approximately 30% of the city's playgrounds and basketball hoops are located on publicly accessible community schoolyards, one of the best marks in the country. New Haven ranks in the middle of the pack for senior/rec centers (#5 out of 10). A major opportunity for improvement is increasing the number of permanent restrooms – New Haven ranks among the lowest in the country.

Table 2 Investment and Amenities Benchmarking Data

| City | Amenities | | | | | | | Investment | | |
	Play grounds per 10,000	Basketball hoops per 10,000	Dog parks per 100,000	Splashpads per 100,000	Senior / Rec Centers per 20,000	Rest rooms per 10,000	ParkScore Rating	Public Agencies per capita	Total Investment per capita	ParkScore Rating
New Haven	5.85	5.32	3.00	10.50	0.75	0.15	71	$ 76	$ 77	35
Selected ParkScore Cities (Includes all public and private park organizations in city)										
Durham, NC	2.04	4.12	1.43	1.43	0.72	3.01	54	$ 82	$ 82	38
Baltimore, MD	3.28	2.56	0.49	0.98	1.48	0.59	40	$ 117	$ 134	68
Louisville, KY	3.35	2.77	1.27	6.21	0.57	3.54	61	$ 50	$ 75	34
Buffalo, NY	2.38	6.34	0.77	4.22	0.69	2.38	61	$ 72	$ 98	47
Boston, MA	3.90	3.53	1.86	11.30	1.06	1.26	65	$ 122	$ 154	79
Minneapolis, MN	4.05	3.47	1.65	4.24	2.31	2.95	78	$ 312	$ 334	100
Supplementary Benchmark Cities (City Parks & Rec Agency Only)										
New Haven	4.27	3.52	3.00	10.50	0.75	0.15		$ 76		
South Bend, IN	4.37	4.66	0.97		0.97			$ 174		
Portland, ME	4.38	3.62	3.02		na			$ 153		
Grand Rapids, MI	1.94	5.77	0.99		0.30			$ 103		
Rochester, NY	2.15	4.50	0.48		1.44			$ 60		
Lowell, MA	3.26	7.60	0.90		0.18			$ 46		

For the amenities category, we estimated the impact on the city's score if those amenities that are currently broken or in disrepair were fixed:

- Fixing 6 broken or in disrepair basketball hoops would increase New Haven's per capita basketball hoops from 5.3 to 5.8 per 10,000 and its corresponding ParkScore points from 78 to 86
- Fixing 6 closed or in disrepair senior/rec centers would increase New Haven's per capita amount from .7 to 1.6 per 20,000 and its corresponding points from 47 to 100
- Fixing 6 closed or in disrepair restrooms would increase New Haven's per capita amount from .1 to .6 per 10,000 and its corresponding points from 2 to 16.
- Fixing 4 broken or in disrepair splashpads would increase New Haven's per capita amount from 9 to 12 per 100,000 but would not have an impact on its points because New Haven already has the maximum value for splashpads.

Collectively, fixing broken, closed, or in disrepair amenities would move New Haven from an above average city in the amenities category (71 out of 100 points) to among the top 15% (84 out of 100 points) for offering a diverse range of activities in its park system.

Figure 2 Comparison of New Haven Investment & Amenity ParkScore Ratings

Equity

In New Haven, and across the six ParkScore benchmark cities, residents who identify as Black, Hispanic and Latinx, Indigenous and Native American, or Asian Americans and Pacific Islander have about the same, and in some cases better, 10-minute walk access as white residents. The same pattern olds when comparing by income. However, we know this doesn't tell the complete picture. When comparing the distribution of park space between neighborhoods in New Haven, people who live in neighborhoods of color have access to 47% less park space per person than those in white neighborhoods. This ratio also holds true when comparing people living in low-income neighborhoods relative to high-income neighborhoods. Among all 100 ParkScore cities, New Haven ranks among the 35 cities with the largest disparities in park space between neighborhoods by race and income. Among the six benchmark ParkScore cities, New Haven has a bigger disparity than two of the six when assessing by race, and has a larger park space disparity than all but one city when assessing by income (Table 3). These equity measures reflect longstanding, historical inequities that are part of almost every city's history and are offered as a common starting point for each city to continue to refine its understanding of how equitably their park resources are distributed and aid in future decision-making.

Table 3 Equity Benchmarking Data

City	__% more/less park space between neighborhoods		__% within 10-minute walk of a park			ParkScore Rating
	in neighborhoods of color relative to white	in low-income neighborhoods relative to high-income	people of color	low-income households	Entire City	
New Haven	47% less	47% less	97%	98%	96%	65

Selected ParkScore Cities

City						
Durham, NC	72% less	11% more	55%	59%	51%	37
Baltimore, MD	43% more	2% more	89%	89%	87%	83
Louisville, KY	69% less	13% less	48%	52%	38%	27
Buffalo, NY	53% less	15% less	91%	90%	89%	64
Boston, MA	13% less	20% less	100%	100%	100%	79
Minneapolis, MN	58% less	65% less	98%	98%	98%	60

Figure 3 Comparison of New Haven Equity ParkScore Ratings
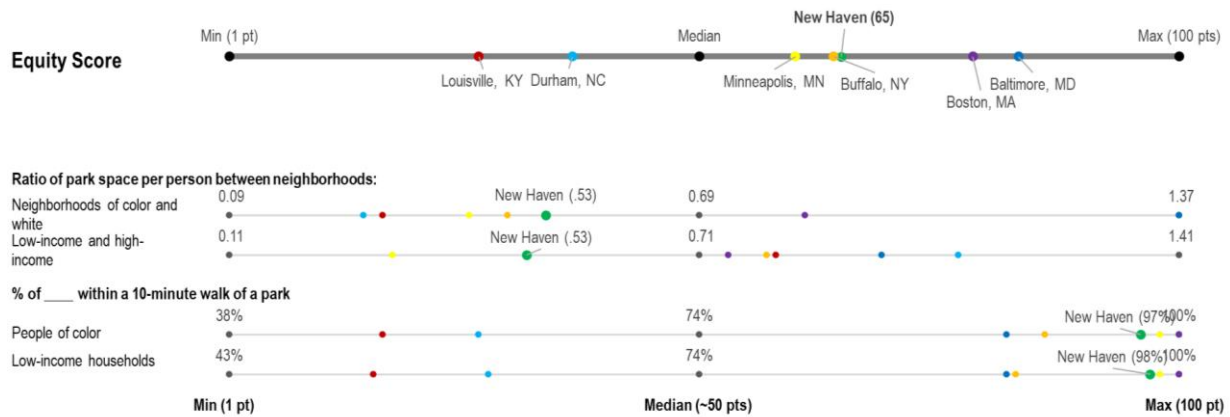
Appendix C: Methodology

To determine a city's ParkScore rating, we assign points for 14 measures across five categories: acreage, investment, amenities, access, and equity.

For each of the 14 measures, points are awarded on a relative basis, based on how a city compares to the 100 largest U.S. cities. To prevent outliers from skewing the results, the top bracket for each measure includes all values equal to more than double the median of the data range. To control distortion from local anomalies, all cities that score more than double the median value are assigned to the highest bracket. With the top bracket thus defined, the parameters for the remaining brackets are established so that each bracket comprises an equal portion of the remaining data range.

In order to accurately represent park access across large communities, open public access is the key criteria for inclusion in our database. We include a wide variety of parks, trails, and open space, so long as there is no barrier to entry. Across all five categories, including the new equity measures, large water bodies are generally excluded from any acreage calculations to better compare across the 100 cities.

Examples of parks we include:
- Publicly owned local, state, and national parks, trails, and open space
- School parks with a joint-use agreement with the local government
- Privately owned parks that are managed for full public use

Examples of parks we don't include:
- Parks in gated communities
- Private golf courses
- Private cemeteries
- School parks/playgrounds without active joint-use agreements
- Zoos, museums, professional sports stadiums

Acreage: The ParkScore index awards each city up to 100 points for acreage based on the average of two equally weighted measures:
- Median park size is calculated using park inventories acquired from park-owning agencies within each city. Parks less than .1 acres are excluded.
- Parkland as a percentage of city area is calculated for all publicly accessible parkland with the city limits. We remove unpopulated railyard and airport areas from the baseline city land area.

Access: The ParkScore index awards each city up to 100 points for access based on the percentage of the population living within a 10-minute (half-mile) walk of a public park.
- For each park, a 10-minute walkable service area was created using a nationwide walkable road network dataset provided by Esri. The analysis identifies physical barriers such as highways, train tracks, and rivers without bridges and chooses routes without barriers.
- All calculated population statistics are based on 2020 US Census Block Group estimates provided by Esri.

Investment: The ParkScore index awards each city up to 100 points for investment in its park system based on a three-year average of total spending per resident. This figure is a sum of the following: public spending, nonprofit spending, and monetized volunteer hours.

Amenities: The ParkScore index awards each city up to 100 points for the availability of six key park amenities on a per capita basis: Basketball hoops, Off-leash dog parks, Playgrounds, Recreation and senior centers, Restrooms, Splashpads and spraygrounds

Equity: The ParkScore index awards each city up to 100 points for equity based on the average of four equally weighted measures that compare the availability of nearby park space between neighborhoods within a city:

- On a per person basis, ratio of nearby public park space between neighborhoods of color and white neighborhoods
- On a per person basis, ratio of nearby public park space between low-income neighborhoods and high-income neighborhoods
- Percentage of people of color living within a 10-minute (half-mile) walk of a public park
- Percentage of low-income households living within a 10-minute (half-mile) walk of a public park

Nearby park space per person measures the available park space within a 10-minute walk of a micro-neighborhood (census block group, which is about 1,000 people), identified as those with the highest concentrations of people of color or white population and high-income or low-income households. The metrics for people and neighborhoods of color reflect each of the Census-designated race/ethnicity groups: Black, Hispanic, Indigenous and Native American, Asian American, Pacific Islander, multiple races, and other communities of color.