



**American
Forests™**

Tree Equity Score

Slides prepared for
The Natural Climate Solutions Working Group
Downstate Caucus of the Illinois Clean Jobs Coalition

by
Eco-Justice Collaborative
October 27, 2021

DOES IT HAVE TREE EQUITY?



<https://youtube.com/watch?v=YlnfR1dC7rM>

American Forests Tree Equity Score

The Facts

Trees are sparsest in under-resourced neighborhoods and more prominent in wealthier, often whiter communities. The findings confirm a disturbing pattern of inequitable distribution of trees that has deprived many communities of color the health and other benefits that a greater tree cover can deliver.

For example:

- Neighborhoods with a majority of people of color have 33% less tree canopy on average than majority white communities.
- And neighborhoods with 90% or more of their residents living in poverty have 41% less tree canopy than communities with only 10% or less of the population in poverty.



American Forests Tree Equity Score

Heated Related Impacts

Communities without adequate tree cover will be more affected by climate change. But rising global temperatures with predicted longer, hotter heat waves, combined with the “urban heat islands” — the creation of “islands” of heat that result in a dangerous rise in temperature — will disproportionately affect children, seniors, low-income communities and people of color.

- On average, [urban heat](#) islands are five to seven degrees warmer during the day and can increase temperatures by as much as 22 degrees at night.
- Unless action is taken to slow climate change, [heat-related deaths from 2031 to 2050 could be 57 percent higher than they were from 1971 to 2000.](#)



American Forests Tree Equity Score

Why it matters

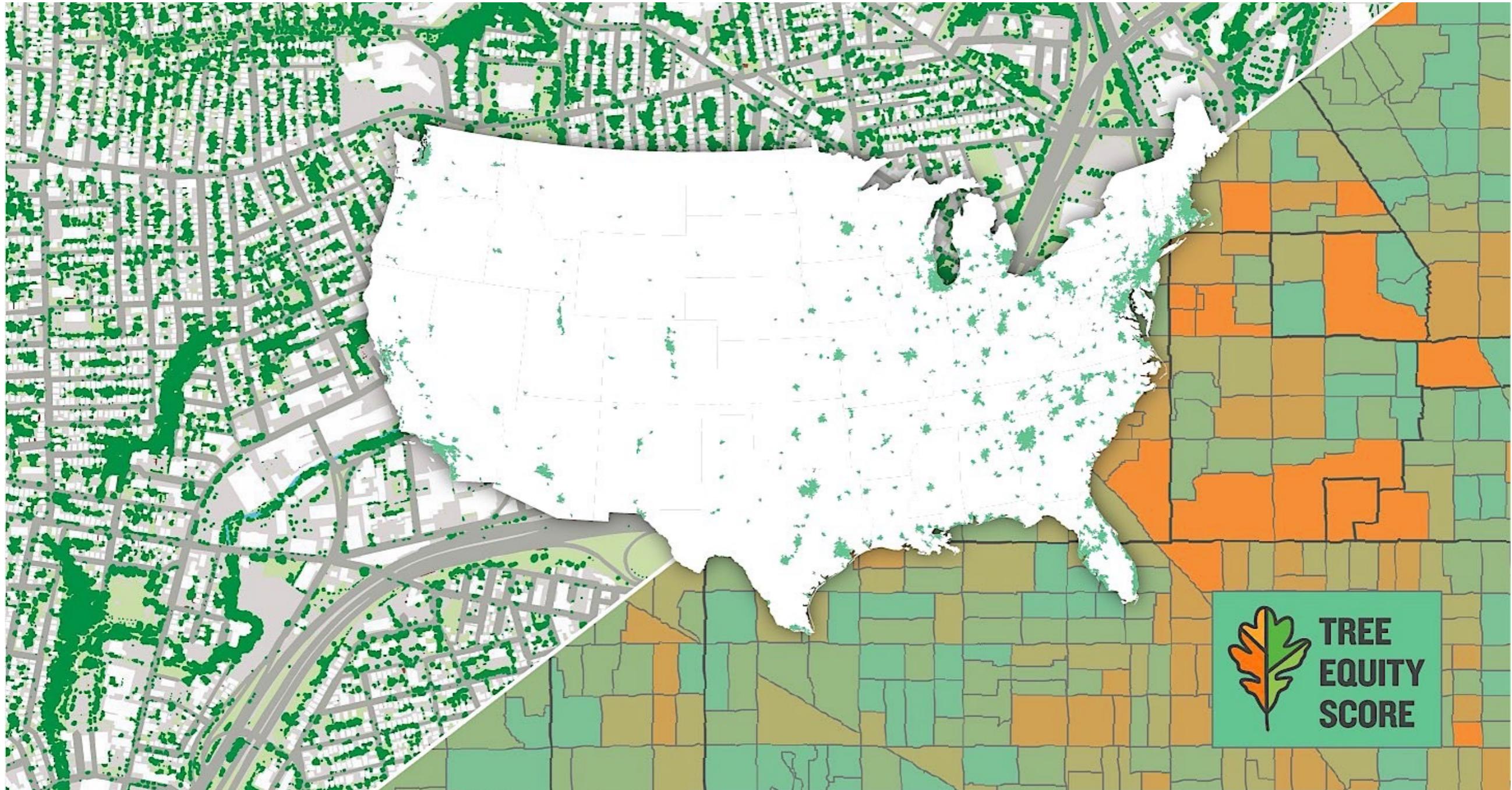
Trees provide health, economic and climate benefits that should be available to all people, regardless of income and race. Trees:

- Provide shade and lower temperatures (e.g., fewer deaths and illnesses).
- Absorb health-harming pollutants that cause respiratory disease.
- [Lower utility bills](#) (e.g., shade buildings in the summer and block wind during winter months).
- [Generate local jobs](#) (e.g., planting, watering, pruning, etc.).
- Increase property values ([three to 15 percent](#)) and [reduce violent crime](#).
- Mitigate climate change (e.g. trees in urban areas capture and store [20 percent](#) of the CO₂ emissions captured and stored by all forests in the U.S. — or nearly two percent of all U.S. emissions).



What is YOUR Score?

Measuring Tree Equity in Urban Areas



What is YOUR Score?

Measuring Tree Equity in Urban Areas



The [tree equity score](#) analyzes tree cover and socio-economic indicators by block group:



Existing tree canopy



Population density



Income



Employment



Surface temperature



Race



Age



Health

Then it identifies the:

- Number of trees required to achieve a tree equity of 75.
- Benefits to the municipality from those additional tree plantings.



What is YOUR Score?

Tree Equity, East St. Louis, IL

<https://www.treeequityscore.org/map/#11/38.6197/-90.1148>



TREE
EQUITY
SCORE
ANALYZER



NATIONAL
EXPLORER

Search for your town



East St. Louis

Municipal report →

IL Congressional District 12

Census Block Group 171635009002

34

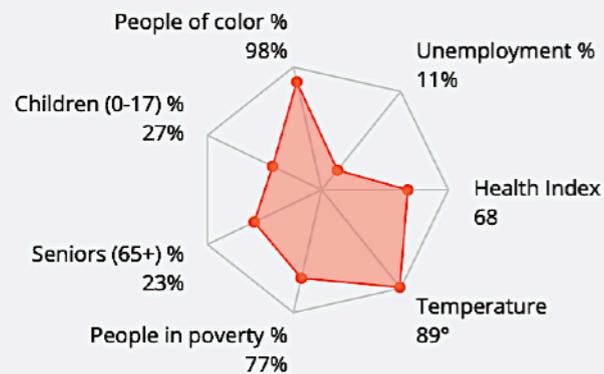
Tree Equity Score

RANK

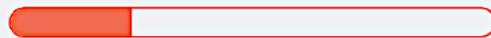
86th of 88 blockgroups in
East St. Louis

Score indicators

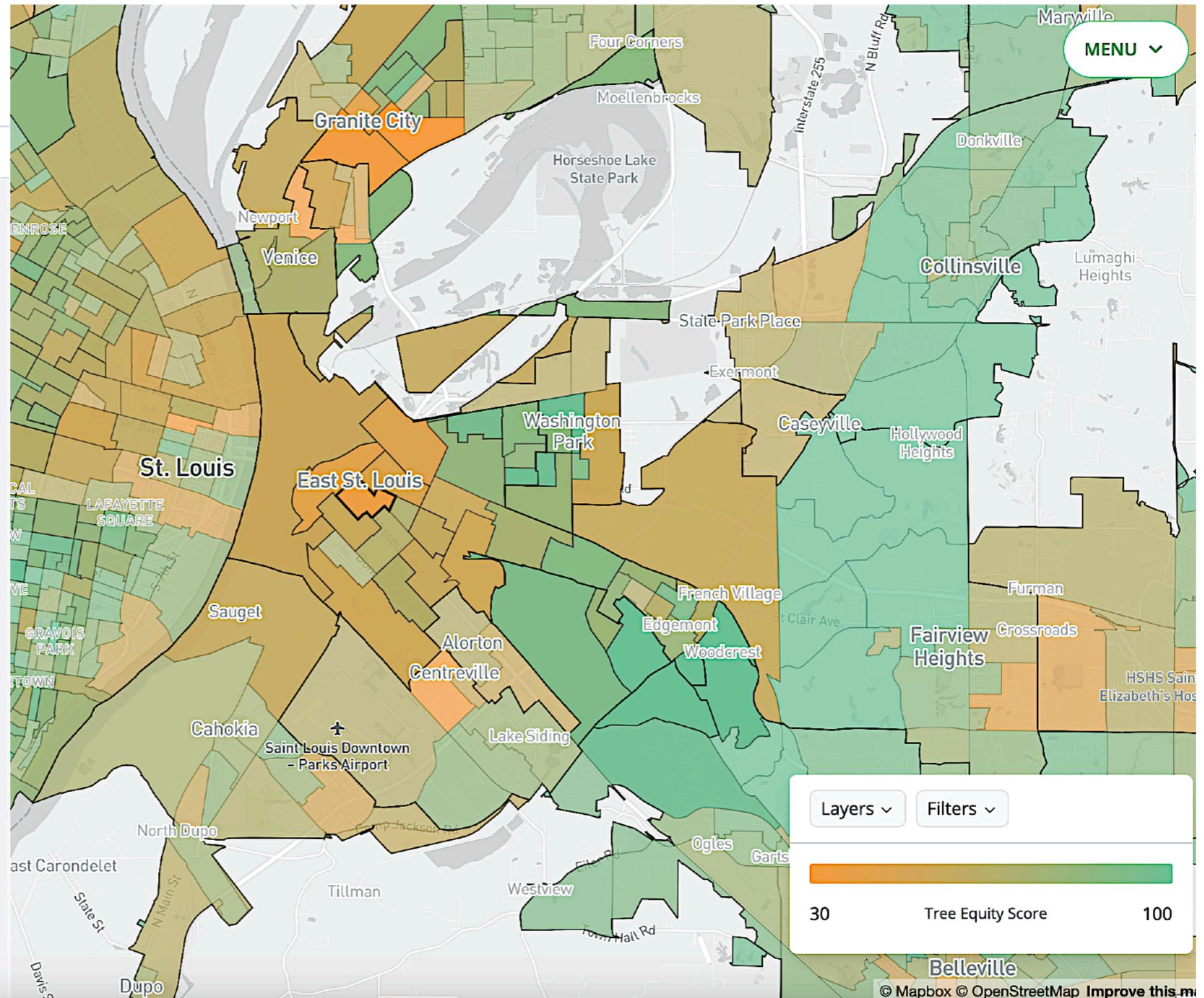
Priority index



Canopy cover goal: 48%



Current canopy cover: 12%



Layers

Filters



30

Tree Equity Score

100

What is YOUR Score?

Tree Equity, East St. Louis, IL

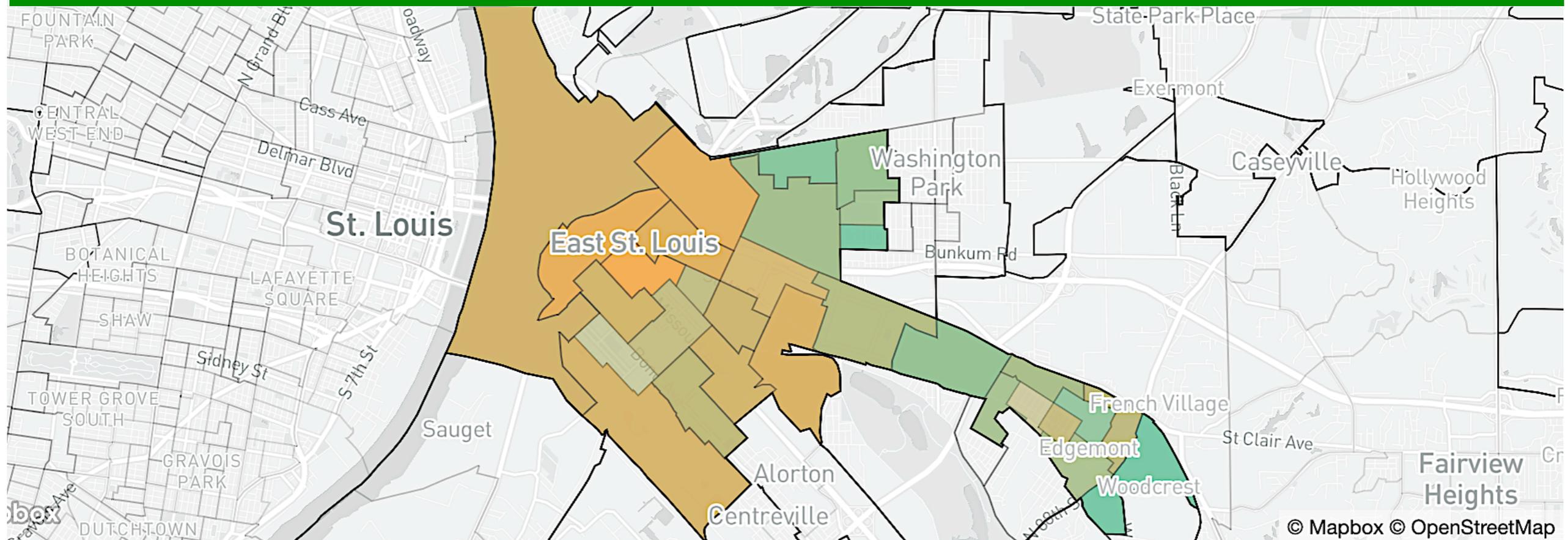


TREE
EQUITY
SCORE
ANALYZER

Tree Equity Score (entire municipality): 65

Urbanized Area Summary

Urbanized area population	27,479	Seniors	16%
People of color	98%	Children	26%
People in poverty	64%	Unemployment rate	17%



What is YOUR Score?

Tree Equity, East St. Louis, IL



Goal: Get all block groups to a Tree Equity Score of 75

In East St. Louis, 55 of 88 block groups have a Tree Equity Score below 75



Drag to adjust target score

246,335 trees will be needed to get all block groups to a score of **75**. See the significant benefits to the community this will create.

Sources: i-Tree Landscape, American Forests. For more details, review our [methodology](#).

Total Canopy Added

9.7 %

Annual Ecosystem Service Value

\$1.9 Million

Jobs Supported

1,792.0

Annual Service Benefits

Carbon Sequestered

3,888.6 tons

Carbon Monoxide

2.2 tons

Nitrogen Dioxide

7.9 tons

Sulfur Dioxide

4.4 tons

PM10* Pollution

24.2 tons

PM2.5 Pollution

3.7 tons

Ozone

63.4 tons

Runoff Avoided

205,486 m³

Rain Interception

952,319 m³

Supplemental Information



A Potential Jobs Creator

<https://af-legacy-prd.americanforests.org/our-work/urban-forestry/workforce-development/>

Planting Tree Equity and Career Pathways for Underserved Communities ...

According to American Forests, urban forestry is experiencing a substantial labor shortage. Tree Equity™ connects people to green careers, and bridges gaps between the public and private employers who have openings, but don't know where to find qualified workers. In turn, this creates opportunity for overlooked populations like unemployed/underemployed communities of color.

According to the U.S. Bureau of Labor Statistics:

- The U.S. annual wage for entry-level tree trimmers and pruners is \$40,510.
- The median hourly wage for entry-level tree trimmers and pruners is \$19.47.
- 25% of all tree trimmers and pruners are self-employed.

Two training opportunities are highlighted on their website:

- Youth Tree Team, Indianapolis, IN.
- Green Re-Entry, Chicago IL.



The Impact of Green Space on Violent Crime in Urban Environments: An Evidence Synthesis

<https://www.mdpi.com/1660-4601/16/24/5119/htm>

Findings *(excerpt)*

Safe, accessible green spaces enhance physiological and psychological human health and well-being. Researchers have found that green space in urban areas can reduce violent crime, gun violence, stress, and can lead to safer communities and improved health. At the same time, poorly maintained and badly designed green space can help encourage and spread crime:

- **Gun violence.** Studies that focused specifically on gun violence support the hypothesis that green space reduces this violence
- **Climate mitigation and reduced human aggression.** Among the many benefits trees can provide is the reduction of the heat island effect. Researchers have provided evidence that human aggression increases in higher ambient temperatures (90 degrees Fahrenheit). The heat-reducing impact of trees and green space may result in reduced crime.



Potential Source of Funding

“Build Back Better” Plan Framework (October 28, 2021)

<https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-117HR5376RH-RCP117-17.pdf>

SEC. 11003. STATE AND PRIVATE FORESTRY CONSERVATION PROGRAMS.

Section 11003 appropriates:

\$1.25 billion to provide competitive grants to States through the Forest Legacy Program established under section 7 of the Cooperative Forestry Assistance Act of 1978 to acquire land and interests in land, with priority for grant applications that (1) offer significant natural carbon sequestration benefits, or (2) contribute to the resilience of community infrastructure, local economies, or natural systems, or provide benefits to underserved populations;

\$2.5 billion* to provide multi-year, programmatic competitive grants to eligible entities through the Urban and Community Forestry Assistance program established under section 9(c) of the Cooperative Forestry Assistance Act of 1978 for ***tree planting and related activities to increase tree equity and community tree canopy and associated societal and climate co-benefits, with a priority for projects that benefit underserved populations;***

\$100 million for the acquisition of urban and community forests through the Community Forest and Open Space Program of the Forest Service.

*Was \$3 billion

