GREEN SCHOOLYARDS PROJECT

Children in modern times are spending less time in nature than ever before, missing the physical, mental, and emotional health benefits of engaging with the natural world. To increase nature contact, one strategy that is gaining momentum is to add green features such as trees, gardens, and nature trails to parks and playgrounds.

As temperatures rise and heat waves become more frequent and intense because of climate change, it's critical to understand how trees and other sources of shade affect temperatures and how children play. Further, nature play may help to improve children's social-emotional learning (SEL) skills—those related to self-awareness, self-management, navigating relationships, social awareness, and responsible decision making—as well as provide health benefits during life-altering events such as the COVID-19 pandemic.

Austin Parks and Recreation Department and UTHealth School of Public Health developed the Green Schoolyards Project to determine how green features in joint-use school parks in Austin, Texas, impact heat index (the measure of "how it really feels") within parks and physical activity levels of children, and how children's connection to nature relates to their SEL skills

See our Methods for the Green Schoolyards Project here.

GREEN SCHOOLYARDS PROJECT FINDINGS

Temperatures Vary Significantly Within Parks, and their Shaded Areas are Cooler and Safer

At one school park, two playgrounds had more than a 10°F difference: an unshaded playground had a heat index of 114°F, while less than 150 feet away, a shaded playground only reached 103°F. That range is the difference between "Extreme Caution" and "Danger" levels for likelihood of extreme heat disorders.

During Extreme Heat, Children Engage in Less Physical Activity and Seek Shade (see more)

- As temperatures rise, children decrease physical activity and seek shade.
- At and above 91°F, children were most likely to not engage in physical activity and to seek shade during school recess.

Green Schoolyards Promote Physical Activity (see more)

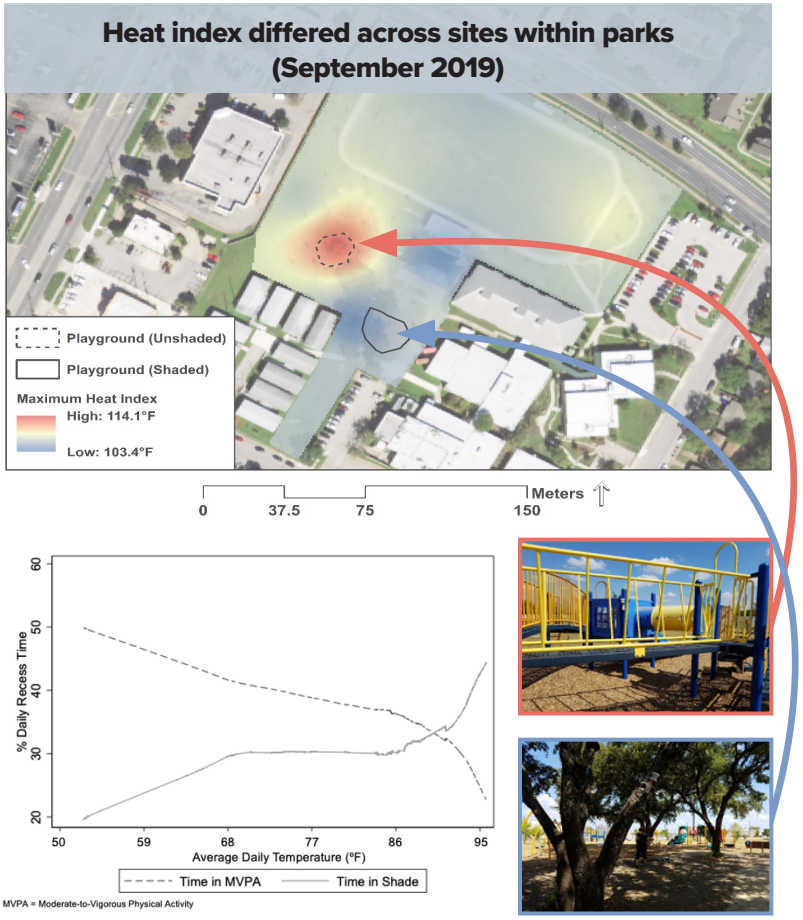
- Children at the park with the most tree canopy spent 6% more of recess time engaging in physical activity, relative to children at the park with the least tree canopy.

Children Connected to Nature Have Higher SEL Skills (see more)

- Children's connection to nature was found to have a significant positive association with their overall SEL skills, self-awareness, self-management, and relationship skills.

Communities Used School Parks Less during COVID-19 Pandemic (see more)

- During the pandemic (fall of 2020), 46% fewer girls and 62% fewer boys were observed at school parks outside of school hours, relative to before the pandemic (Fall of 2019).



EQUITY CALLOUT BOX

Like communities across the country, the ability for children in Austin to access high-quality park space isn't equitable. As a result of historical disinvestment and discriminatory practices, many communities of color—specifically Latino communities—and those with low incomes live farther from high-quality parks that are designed to be fun and safe to use on the hottest days. Results from the Green Schoolyards Project are critical as the city and its partners implement equitable solutions for child health and development to adjust to projected warming from climate change.

RECOMMENDATIONS BASED ON

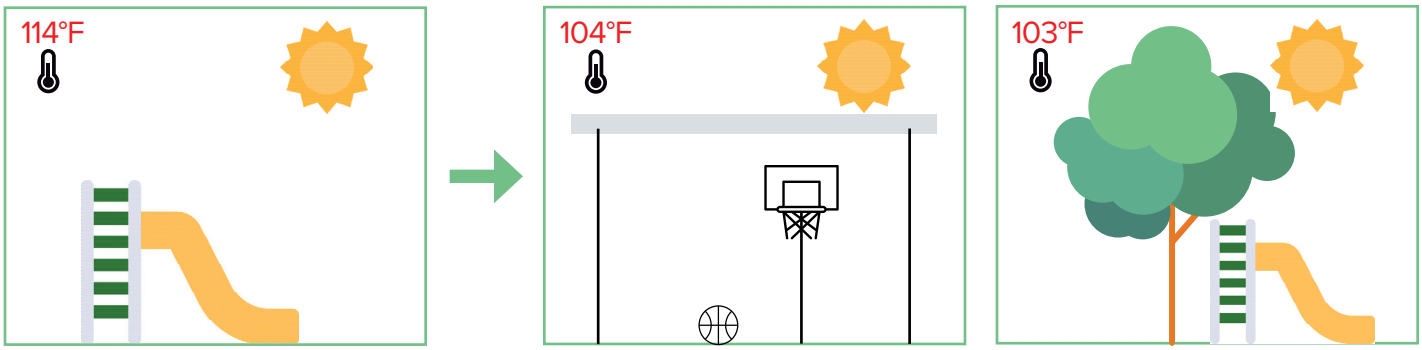
GREEN SCHOOLYARDS PROJECT FINDINGS

Be Intentional in School Park Design

- Temperature variations within parks and patterns of where children play tells us that public health researchers and practitioners are important partners to inform the redesign of greenspaces in the face of climate change and to address persistent health inequities.
- If we want kids to play outside longer and safely, their play spaces (e.g., playground, basketball court) should be shaded, preferably by trees when able.
- Along with its impact on thermal comfort and physical activity, greening schoolyards may strengthen children's connection to nature and social-emotional learning skills.

Revisit School Park Policy

- Scheduling recess and outdoor physical education class during cooler times of day or under shade can maximize physical activity participation, comfort, and safety of children.
- Requiring school parks to include shade cover over any features intended for physical activity, where feasible, will keep vulnerable populations safer during play.
- Ensuring joint-use school park access is clearly displayed and promoted to the community may encourage use, especially during the COVID-19 pandemic or future events.



Temperature values are the maximum heat index measured at these park sites in September 2019.

How to Get Involved

- Nature is a right, not a luxury. Ensure all children in Austin can connect to quality nature near their home by signing the Austin Children's Outdoor Bill of Rights.
- Want more shade in your neighborhood park? Use the Community Activated Park Project form to propose community-led changes to your local park.
- Need trees? Treefolks' NeighborWoods Program provides 5,000 free trees for Austinites to adopt from October through March each year.

QUESTIONS?

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