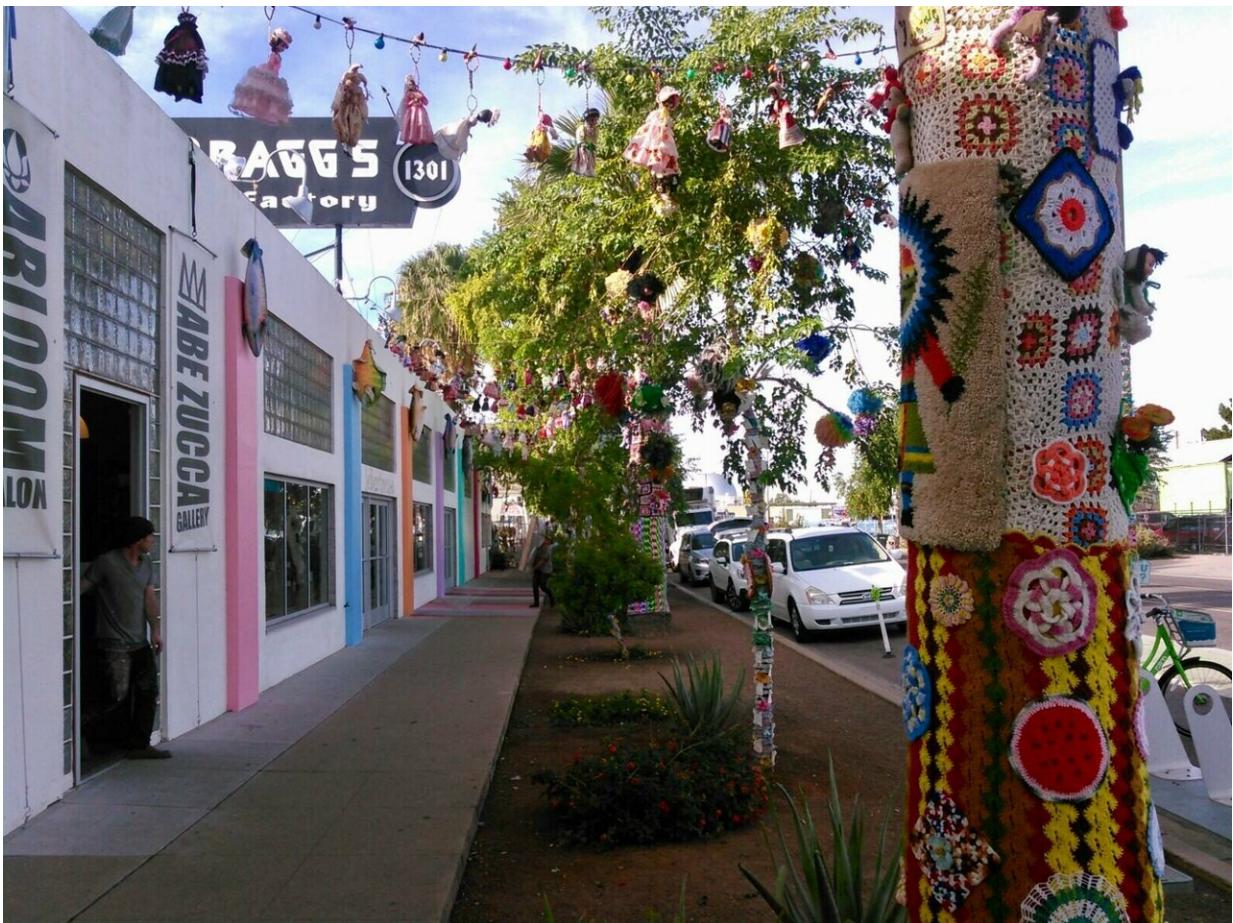


Study highlights lack of fair access to urban green spaces

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Phoenix knitted trees. Credit: Lorien Nesbitt

People with higher incomes and more education tend to have greater

access to urban green spaces than their less privileged neighbours, a new University of British Columbia study of parks and greenery in 10 major North American cities has found.

The study examined [census data](#) and highly detailed aerial imagery in 10 [major cities](#)—Chicago, Houston, Indianapolis, Jacksonville, Los Angeles, New York, Phoenix, Portland, Seattle and St. Louis. It compared the amount of vegetation and parkland available to residents in their home neighbourhoods with socioeconomic indicators like income, education, or racial background.

"Vegetation keeps our cities cool, improves air quality, reduces [storm water runoff](#) and reduces stress—it makes a huge difference in citizens' well-being," said lead author Lorien Nesbitt, a postdoctoral research and teaching fellow in the department of forest resources management at UBC's faculty of forestry. "The issue is that when access to greenery isn't equitable, those benefits aren't always fairly distributed, reducing access for our most marginalized citizens who need them most."

Ideally, people should be able to access parks within a 10-minute walk from home, and trees and vegetation along their street or in their backyard, Nesbitt added.

"For most cities, the more income and education you had, the more access you had to mixed or woody vegetation, while parks were more equitably accessible," said Nesbitt.



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In Indianapolis, the effects of education and income were particularly strong. People without a [high school diploma](#) had lower access to vegetation in their home neighbourhoods, while people with post-[secondary education](#) and higher incomes had higher access. Similarly, in Los Angeles, residents with post-secondary education and [higher incomes](#) had more access to vegetation.

In New York, the effect of post-secondary education on access to urban green spaces was very strong, while income played a smaller role, and residents with higher education were much more likely to have access to vegetation in their own neighbourhood.

"In larger cities like Chicago and New York, racial and ethnic factors played an important role as well," added Nesbitt. "People from Hispanic backgrounds had less access to vegetation in Chicago and Seattle, while people identifying as African-American had less access to green spaces in Chicago and St. Louis. Those identifying as Asian-American had less access in New York."

The study highlights the need for wider distribution of trees, shrubs and pocket parks as cities continue to expand.

"For many people, the trees in their neighbourhood are their first contact with nature—maybe even the only contact, for those who have less opportunity to travel to natural spaces outside of the city," said Nesbitt. "As the effects of climate change intensify, we should plan for more [urban green spaces](#) and ensure that citizens from all backgrounds can access them readily and equitably."

More information: Lorien Nesbitt et al, Who has access to urban vegetation? A spatial analysis of distributional green equity in 10 US cities, *Landscape and Urban Planning* (2018). [DOI: 10.1016/j.landurbplan.2018.08.007](#)

Provided by University of British Columbia

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