

A Study of Environmental Equity in Tree Planting Programs

Tree canopy is an important component of urban environmental infrastructure, providing many benefits for municipalities and their residents, many of which have been shown to have a positive impact on mental and physical health outcomes. Trees remove some air pollutants, help mitigate the urban heat island effect, contribute to improved stress recovery, and have a positive effect on attention levels in children, to name a few. These benefits, however, are spatially-dependent---accruing primarily to citizens in the immediate vicinity. And recent research has shown that lower tree canopy is often correlated with lower-income neighborhoods and communities of color---areas that have historically been impacted disproportionately by environmental burdens.

Municipal and nonprofit tree planting programs may be able to lessen this disparity, but little research has been done to identify what programmatic strategies are likely to be effective at penetrating these neighborhoods. This project seeks to address this knowledge gap, and provide guidance to planting program administrators seeking to achieve environmental justice goals.

For this research, we interviewed municipal and nonprofit planting program administrators in six U.S. cities, gathering information on program history, strategies, and tactics. This information was generalized into a taxonomy of planting program tactics to allow comparison between programs. We were also provided with datasets containing recent tree planting locations for each program, which we combined with demographic data for U.S. Census block groups. This allows us to characterize locations by their income level and racial and ethnic composition. Using the taxonomy, we can then see which tactics are associated with greater success at reaching underserved populations.



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PROJECT TIMELINE

2014: Interviews and data gathering

Spring 2015: Data analysis

Summer 2015: Results available

PROJECT FACULTY

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