

Park Access and Equity in Phoenix

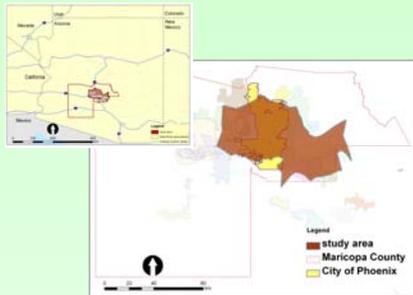
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In the Phoenix metropolitan area, are recreational parks equitably distributed across race groups?

The EJ Hypothesis: Communities of color have disproportionately lower access to parks

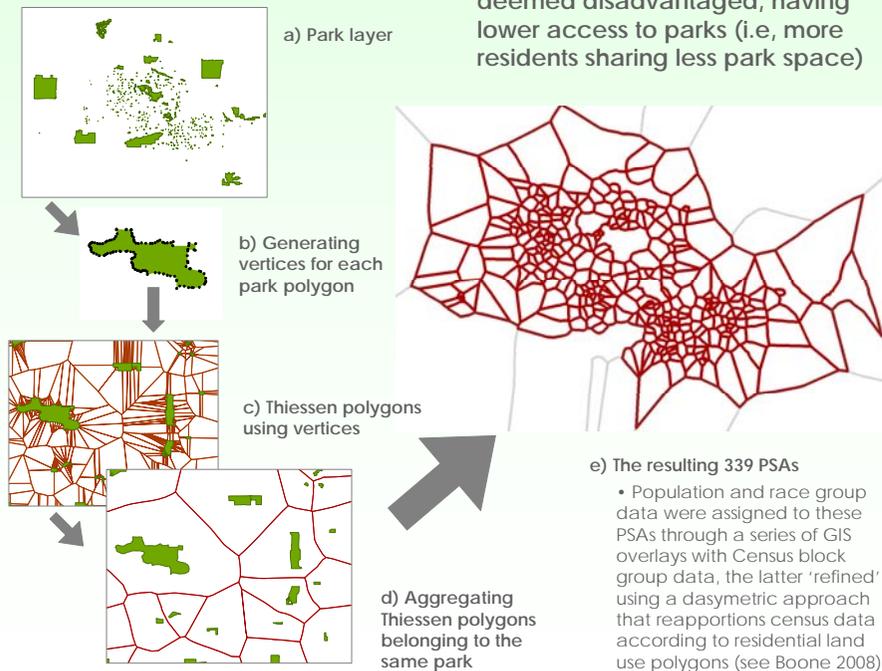
Areal extent examined in Phoenix metro area



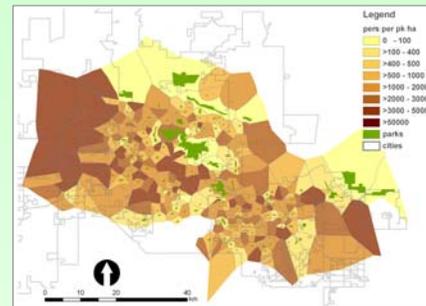
The park service area approach:

- Delineates a service area for each park such that residents are assigned to the closest park
- Number of residents per park area can be quantified, providing an estimate of "potential park pressure" (i.e., demand or congestion level if residents were to use closest park)
- Areas with high park pressure are deemed disadvantaged, having lower access to parks (i.e., more residents sharing less park space)

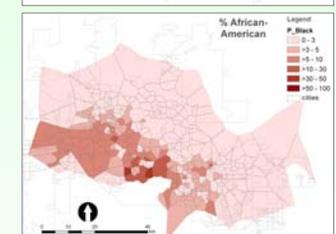
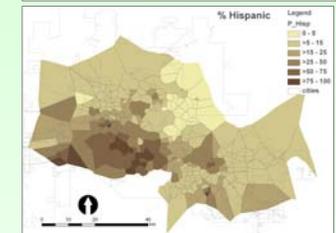
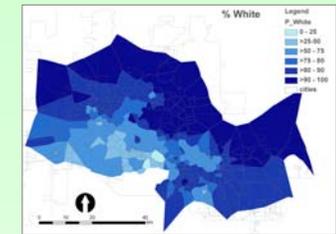
Generating the Park Service Areas (PSAs) (Sister et al., 2007)



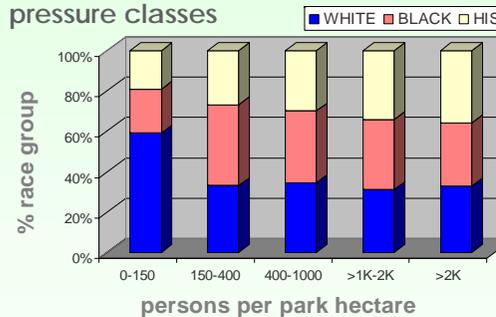
Distribution of park pressure in PSAs across the Phoenix metro



Percent race groups in PSAs across the Phoenix metro



Percent race group across 5 park pressure classes



- % Hispanic positively correlated with park pressure levels (Pearson's = 0.118*)
- At 0-150 park pressure class, % White negatively correlated with park pressure levels (Pearson's = -0.543*)
- % African American was not correlated with park pressure

Conclusions

- Parks are not equitably distributed across the Phoenix metro, with Hispanics more likely located in areas with parks that are potentially more congested
- Utilizing the park service area approach facilitates examination of equity in the distribution of amenities (e.g., parks) without using pre-defined boundaries such as Census or political boundaries, which may mask differences in service distribution.

References

Boone, Christopher G. 2008. Improving Resolution of Census Data in Metropolitan Areas using a Dasymetric Approach: Applications for the Baltimore Ecosystem Study. *Cities and the Environment* 1, (1). Article 3. Online: <http://scholarship.bc.edu/cats/vol1/ps1/3/>

Sister, Chona, John Wilson and Jennifer Wolch. 2007. Park Congestion and Strategies to Increase Park Equity. *Green Vision Plan for 21st Century Southern California*. 15. University of Southern California GIS Research Laboratory and Center for Sustainable Cities, Los Angeles, California. Online: <http://www.greenvisionsplan.net/html/publications.html>