

# Park Access and Equity in Phoenix

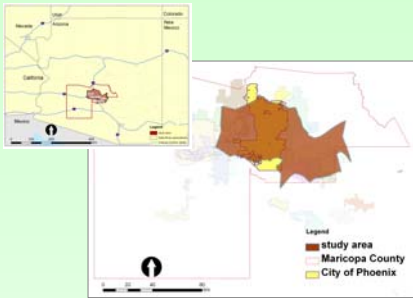
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## In the Phoenix metropolitan area, are recreational parks equitably distributed across race groups?

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

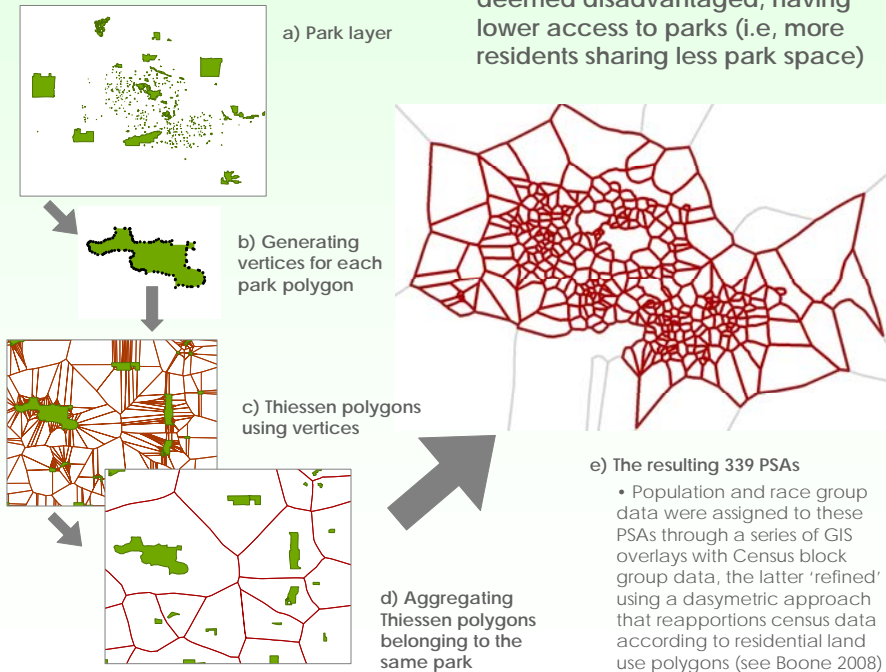
### Areal extent examined in Phoenix metro area



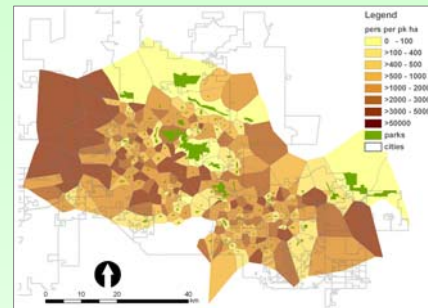
### The park service area approach:

- 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)

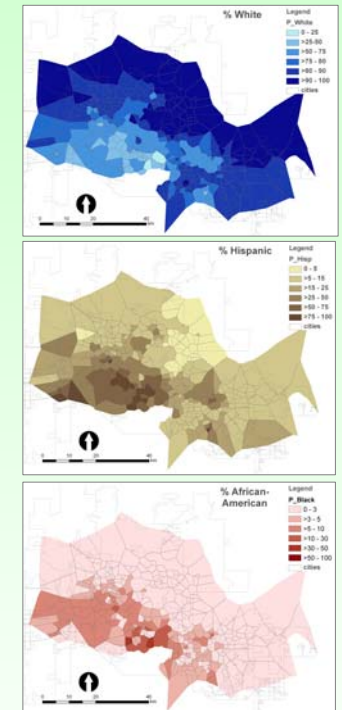
### Generating the Park Service Areas (PSAs) (Sister et al., 2007)



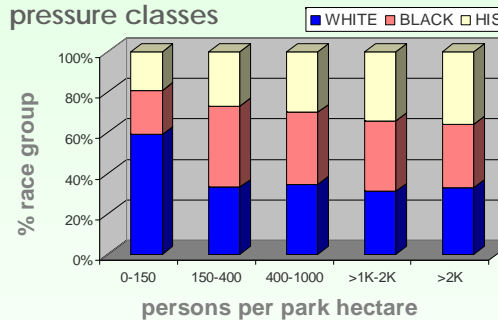
### Distribution of park pressure in PSAs across the Phoenix metro



### 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>