

ABSTRACT

THESIS: Quantitatively Evaluating Park Quality in Franklin County, Ohio using Geospatial Technology

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Parks are important public spaces that encourage physical activity and recreation, promote emotional well-being, and provide a place for social gatherings. Parks are more valuable when they offer ample space and amenities for the surrounding community to safely enjoy. This study used a similar methodology to the Trust for Public Land's ParkScore system, which scores cities in the United States based on characteristics of their public parks. In this study, the ParkScore system was modified to score individual parks rather than scoring the entire metropolitan area's parks collectively, and the additional factors of crime and sociodemographics were included to understand what parks in Franklin County offer for their communities. The scoring system applied to each park included acreage, access, investment, amenities, and crime. The results showed that median household income was statistically significant in explaining park scores, indicating that higher scoring parks are located in neighborhoods with higher incomes. Other demographic variables reflecting race, income, and educational attainment were not significant predictors of park scores. While ParkScore assigned an overall score of 56 to Columbus parks,

this study showed wide variability across individual parks with a maximum score of 69 and a minimum score of 15. This research suggests that improvements can be made for parks across Franklin County, however, those in lower-income areas have a higher frequency of criminal activity, a lower budget for parks, and poorer performance in park scoring. Thus, improving parks in lower-income neighborhoods by reducing crime and enhancing amenities may be important strategies for maximizing the benefits that residents can derive from their public parks.