Collaborative Sciences Center for ROAD SAFETY

RESEARCH BRIEF

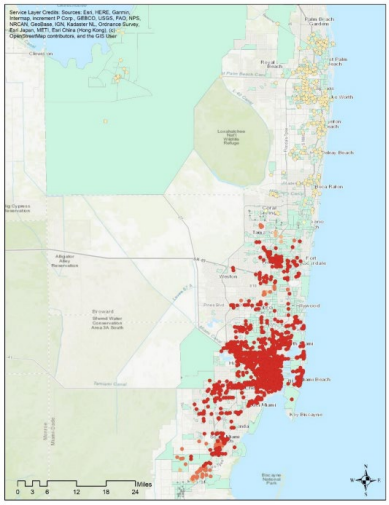
Crash Risk for Low-Income and Minority Populations: An Examination of At-risk Population Segments & Underlying Risk Factors

Socio-economic status (SES) is a well-known predictor of crash risk. Lower-income, minority, and less-educated persons are disproportionately likely to be injured or killed in a traffic accident.

This study examines pedestrian and cyclist crashes occurring in lower-income areas in Broward, Palm Beach, and Miami-Dade counties with three specific objectives: (1) estimate the relative risk of pedestrian and cyclist crashes in lower-income communities, compared to their more affluent counterparts to understand the nature of the pedestrian and cyclist crash risk in lower-income areas; (2) identify specific at-risk population cohorts within lower-income census block groups, stratified by age, gender, and the time of day to develop a profile of the unique characteristics of crashes experienced by pedestrians and cyclists in these areas; and (3) examine the effect of the commuting patterns on vehicle-pedestrian and vehicle-cyclist collisions.

This study, like much of the prevailing road safety research, found that crashes involving pedestrians and bicyclists are more common in lower-income areas than more affluent ones. This study sought to fill a critical gap in our understanding of pedestrian and bicyclist crashes in lower-income areas by identifying the characteristics of specific at-risk cohorts, as well as the environmental risk factors that may exacerbate this risk.

This study concludes by discussing the underlying causes of crashes occurring in lower-income areas, which appear to be principally the result of normal travel activities undertaken in poorly adapted environments to high levels of walking and bicycling.



Hotspots of vehicle-pedestrian collisions involving adult pedestrians (aged 20+)

Much of the observed safety issues are not solely the result of deficiencies in the transportation system, but rather the product of inconsistencies between the design and operation of the transportation system and local land development policies, which result in conflicts of use and errors of expectancy.

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