

Abstract

Walking and biking have always been important ways for children to get to school, but these modes of transportation have declined significantly in recent years as the majority of children now arrive to school via bus or automobile. Importantly, walking or riding a bike to school can help students; not only does it promote better health, but it also improves student concentration and academic success. Studies have shown that students who walk or ride their bike to school perform better due to the exercise they receive prior to beginning their learning for the day. For this reason, this thesis focuses on finding suitable locations for schools that promote pedestrian accessibility and student walking. Greenville County, in South Carolina, is used as the study area for this thesis. The question that this site suitability analysis (SSA) examines is the following: where are the best possible locations for new schools that meets the district's needs and maximizes the student's pedestrian accessibility? This study uses seven different criteria to determine the most suitable location for an elementary, middle, and high school to answer that question. The data are analyzed and a few suitable locations are identified. Then, the data are scored using population density and pedestrian accessibility. Lastly, the results are tabulated to reveal the best possible location for this SSA. This study could serve as a guide for future planning committees, school boards, districts, or city developers to help determine how and where schools should be placed throughout the country.