Assessing the Relationship between Transportation Mode Choice and Transportation Land Consumption

PI: Dr. Garrick

Without the automobile, the American city as we know it today would not exist. As is such, parking has been a large priority of U.S. cities since the 1950s. Some cities have managed their land usage during the advent of the automobile effectively, while others have been very ineffective. Despite the importance of this problem, Dr. Garrick’s initial proposal reads, it has received little interest from researchers.

His study takes aim at understanding how the amount, and placement of land dedicated to parking affects the overall transportation choices of citizens residing in a city. By visually inspecting aerial maps of the 8 diverse urban centers from the 1960s, to the 2000s, Dr. Garrick and his team identified the growth of land dedicated to parking over the course of 40 years, and compared that to the mode of transportation most used by residents traveling to work. Dr. Garrick’s study will help meet the goals of the HUD-DOT-EPA partnership (developing economically, socially and environmentally sustainable places) by quantifying:

1) Why places like Cambridge have maintained themselves as prosperous cities while urban centers like Hartford have found themselves faltering in the wake of the automobile revolution, and

2) How difficult it can be to reclaim land use in a city with ‘broken’ parking systems because the “relationship between land use and mode choice does not flow just one way but rather it is a complex interrelated cycle.”