

- Urban Automobile Use and Local Transportation Impacts (*Chris McCahill - University of Connecticut*)

Given concerns about the negative impacts and growing costs of automobile use, there has been greater interest in dense urban areas that can support a variety of transportation options. However, automobiles are now the primary mode of transportation in many urban places in the U.S.—even those once served largely by walking, bicycling and transit. This research reveals key factors that explain the changes in automobile use in these places and important aspects to focus on for reversing this trend.

For this study, the researchers analyzed changes in six small cities between 1960 and 2000. Changes in parking provision were estimated from aerial photographs and changes in travel behavior were estimated from census data regarding commute trips. Particular attention was paid to changes in local trips, which are the most likely trips to be made by non-automobile modes and are easily influenced by changes to infrastructure and the built environment.

Case studies for these six cities reveal marked differences among them. Cities with high rates of automobile use experienced moderate increases in the quantity of commuters traveling by automobile, but substantial increases in parking provision and automobile use for short, local trips. In cities with low rates of automobile use, the growth of parking supplies slowed after 1980 and automobile use decreased for local trips. This work suggests that automobile-oriented design has contributed to a fundamental shift in local travel behavior and that there is potential to reduce automobile use for local trips.

