Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Highways and Wealth Distribution: A Geospatial Analysis
University	The University of Connecticut
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Agency ID or Contract Number	
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Brief Description of Research Project	Highways have changed America's land use patterns, affected travel behavior, shaped domestic and international trade, and influenced the development of the manufacturing sector, as well as other industries. The magnitude of highway investment economic impacts remains subject to significant debate because of a great deal of variance in the estimates of the impacts. But relatively little research has been published on the distributional effects of the introduction of the U.S. interstate highway system on household travel behavior, land use, and the associated changes in wealth. A major focus of this research is to leverage geospatial analysis to assess the net benefits households have received from living near highways (which may be positive or negative), and the associated

wealth distribution across society. Housing is the largest expenditure item for many American households, and it is one of the major mechanisms for households to accumulate wealth. The introduction of new highways, or extending or moving existing highways, can substantially change land use patterns and the values of real estate nearby. In addition to the possibility of household wealth accumulation, the issue of wealth distribution and inequality is equally important. For instance, wealth due to homeownership is expected to vary across cities as well as within cities. For this reason, geospatial analyses are crucial tools to examine highways, land use, and wealth distribution.

More specifically, in an attempt to bridge the highway infrastructure impacts literature with geospatial analysis, and the literatures on wealth distribution and land use, we aim to examine the question: how has the spatial distribution of wealth due to highways infrastructure been different within a particular city?

This study contributes to several aspects of the literature on land use and wealth distribution. First, it adds to the knowledge of the temporal and spatial distribution of household wealth. Second, this study presents a unique framework to analyze the issue of land use, transportation and wealth distribution. It uses an innovative approach to addressing the research question by focusing on the impacts of highways on household wealth, proxied by home values

	that are dependent on land use patterns and residential location, using a counterfactual framework. The counterfactual analysis is an identification strategy to assess how (if at all) a "placebo effect" might have impacted property values. Third, geospatial analysis together with innovative statistical estimation techniques are applied to address the challenge of counterfactual effects and spatial variation. We focus our empirical analysis at the property-level within one major city in Connecticut. Our study examines the period before and leading up to the development of the U.S. interstate highway system (i.e., the 1940's) through the present. We expect to develop several peer-reviewed conference presentations and/or poster sessions, and journal article submissions, to disseminate our findings.
Describe Implementation of Research Outcomes (or why not implemented) *Place Any Photos Here*	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • *Reports* • *Project website*	https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2019-UTC-Project-Information-09-Cohen.pdf https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2019-UTC-Project-Report-09-Cohen-Final.pdf