MarTREC UTC Project Information Form
USDOT Tier 1 University Transportation Center
Agency ID or Contract Number 69A3551747130

Project Title: Evacuation Behavior and its Mobility Impacts in Coastal Communities from Across the Nation
Project Abstract (Brief Description): Coastal communities are at risk from a multitude of potentially disruptive events. Severe weather, climate change, and sea-level rise all pose serious and long term societal challenges. Community resiliency, as defined by the National Academies of Sciences, is a community's ability "to prepare and plan for, absorb, recover from and adapt to stressors from acute and longer-term adverse events". Community resiliency in coastal areas is paramount for preserving the infrastructure, business continuity, and ultimately saving lives. One way coastal communities try to mitigate the impact of adverse events is through orderly evacuations. The withdrawal of the population from the area of threat is done to prevent injury and loss of life and to mitigate property damage. Several recent evacuations have occurred in the U.S. Hurricane evacuations have been ordered in the state of Florida while wildfires and impending dam failures have led to evacuations in the state of California. It has generally been accepted that the evacuation from a regional hurricane is fundamentally different than the evacuation from a wildfire. Hurricane evacuations generally encompass larger areas when compared to wildfire evacuations and provide several days of advanced warning. Whereas, wildfires impact smaller areas with significantly shorter warning time. However, at the broadest level, evacuees and their vehicles move in both time and space. This research seeks to develop a better understanding of the travel flow principles that govern the evacuation process and its impact on the mobility of a community, for different hazard types. This knowledge can be leveraged to better plan for and respond to evacuations, regardless of the event. The research will also allow agencies to identify best practices by learning from each other .
Describe Implementation of Research Outcomes (or why not implemented) - Place any photos here *To be determined upon conclusion of the project*: Project outcomes will be shared with both Florida and California state departments of transportation (FDOT/CALTRANS) as well as both states' office of emergency management. It is planned that the analysis and conclusion drawn will contribute toward improving evacuation planning for future events. Other states as well as other nations, namely Australia, could potentially benefit from the project outcomes. The research team will seek to make contact with transportation officials outside of Florida, California, and the US in an effort to help preserve the lives and property of those impacted by natural disasters elsewhere in the nation and world at large.
Impacts/Benefits of Implementation (actual, not anticipated) *To be determined upon conclusion of the project:* Based on the of the findings, the team will generate at least one article for scholarly journals and-or professional trade-publications; present findings at professional conferences and webinars.
Web Links: martrec.uark.edu
Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): $97,768 USDOT + $55,151 Matching Funds= $152,919
Project Start and End Dates: 07/01/20 to 09/30/23 complete
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