Evacuation and Return: Increasing Safety and Reducing Risk

Background

This project was undertaken in an effort to improve the ability of cities to implement effective evacuation planning and improve execution of the evacuation process. Although New Orleans served as the testing ground for this project, the fundamental issues and situations involved are not unique to this setting. It is hoped that the insights gained through this research may prove beneficial to communities throughout the country facing similar challenges.

The Federal Transit Administration (FTA) funded this project as part of an initiative to develop and showcase promising technologies, methods, practices and techniques that improve public transportation systems in the area of all-hazards emergency response and recovery. The project was approached as a partnership among the City of New Orleans, the New Orleans Regional Transit Authority (NORTA), and the University of New Orleans Center for Hazards Assessment, Response & Technology (UNO-CHART). Emphasis was placed on improving the City's ability to ensure the safe and efficient evacuation of its most vulnerable residents.

Objectives

Using New Orleans' City-Assisted Evacuation as a case study, this project sought to improve the ability of cities to implement effective evacuation planning and improve execution of the evacuation process. Much of this research focused on vulnerable populations and efforts to ensure that the evacuation process adequately supports their needs.

Findings and Conclusions

The study found that, in many cases, the needs of New Orleans' vulnerable populations were not sufficiently met by the existing City-Assisted Evacuation process.

A series of exercises simulating the evacuation process revealed multiple areas in need of improvement. Though the process was functional, challenges related to coordination, staffing, training, and resource limitations resulted in a process that, without improvement, would likely not happen quickly enough to meet the demands of a limited evacuation timeframe. More specifically, the process became bogged down as staff struggled to accommodate the diverse medical and functional needs of evacuees while simultaneously navigating a complicated registration and tracking process. In some cases, a lack of access to communications and inadequate information-sharing presented

further challenges. These issues highlighted the importance of planning for the medical and functional needs of evacuees, ensuring that all staff are able to communicate effectively, and designing a registration and tracking process that prioritizes speed and efficiency.

Additionally, evaluation by the University of New Orleans and additional partners found that aspects of the City's evacuation planning process and public awareness campaign were not as efficient or accessible as they could be. An analysis of three transportation databases used for evacuation planning found that a lack of information-sharing resulted in significant overlap and redundancy, for which consolidation was recommended as a potential solution. Public outreach surrounding the City-Assisted Evacuation had not reached fully into the community, and many still were unaware of the option. To address this, an outreach strategy was developed that detailed multiple recommendations for increasing awareness. Furthermore, geospatial analysis suggested that the locations of the 17 pick-up points that constitute the backbone of the City-Assisted Evacuation process did not completely align with today's areas of vulnerability. This leaves coverage gaps, areas in which evacuees without transportation may need to walk long distances to the nearest pick-up location.

Benefits

The research conducted under the scope of this project resulted in several actionable recommendations, many of which are already in the process of being implemented. Since completion in 2017, the City of New Orleans has taken steps to address identified areas for improvement and ensure that its City-Assisted Evacuation process is capable of meeting the needs of the city's population. These improvements include identifying a larger venue to support expanded staffing and coordination for the evacuation process, improving the evacuation database structure, expanding public outreach to raise awareness of the process, identifying more efficient ways to evacuate medical and special needs residents, and increasing support for the evacuation of pets and service animals. The result is an evacuation plan that officials believe is much more likely to be safe, accessible, efficient, and, most importantly, successful the next time it is needed. To them, each resident evacuated represents a potential life saved.

The insights and recommendations generated by this project may also provide inspiration and guidance to other communities across the U.S. who seek to evaluate and improve their own evacuation plans. Whereas New Orleans served as the testing ground, many of the challenges detailed in this report are common to jurisdictions throughout the country. As such, we believe that the solutions, recommendations, and lessons learned here may also prove to be applicable.