



HOUSTON ACTION RESEARCH TEAM



Christina Hahn, Jan Dudek (Team Coach)
Christina Wang, Rafael Butiong

Understanding Emergency Decision Making, Summer 2016

This NSF funded project conducted in cooperation with the Houston Office of Emergency Management (OEM) consisted of a team of undergraduate students majoring in Mathematical-Economic Analysis, Political Science, and Statistics. In order to examine decision-making during extreme weather events, the team analyzed an array of data sources and conducted interviews with emergency management professionals from Rice University, UT Health, the Texas Medical Center, and the OEM. The students combined flood-related 311 calls, Twitter information, rainfall data, road closure information, as well as news reports.

Using this mix of data sources, the team created a methodological guide for research of emergency decision-making and applied their theoretical findings to two flooding events in Houston – Memorial Day, 2015 and Tax Day, 2016. This research will serve emergency managers by providing new ways to identify decision points during extreme events and benefit researchers attempting to navigate the complex network of data and decision processes in cities and large organizations.

