The Risk, Preparation, Evacuation, and Rescue Report examines the factors that lead to the actions taken by New Orleans residents prior to, during, and post Hurricane Katrina which hit the city the morning of Monday, 29 August 2005. The report was completed as a collaboration of UNC Charlotte, Duke University, and Tulane University supported by the National Science Foundation (NSF). 291 residents or former residents of New Orleans and New Orleans Parish were interviewed about the evacuation decisions prior to Katrina’s landfall. The results would show that “individuals need to be better educated about the risks, and better informed at earlier points in time, about specific risks that are eminent.”

When interviewing the residents or former residents, certain factors were considered including geographical location, socio-economic factors and mobility characteristics. The study shows that most residents relied on their past experiences concerning their plan of action in dealing with storms rather than critical information about the specifics of the approaching storm such as size and intensity. As seen through personal testimony, most respondents underestimated the effect of the storm, and none expected the levees to fail. Throughout the report, Mission Improbable: Using Fantasy Documents to Tame Disaster (1999) by Lee Clark, explains various factors of risk analysis as a science. The report states that a better understanding of the way that individuals make decisions during critical times should be taken into account by those in decision making roles, such as government officials and emergency management to better prepare and effectively take action.

The study methodology targeted three separate groups; of the 291 residents or former residents interviewed, 113 were completed by a personal one on one interview, 109 were completed by the using the CATI telephone survey through landlines, and 69 were completed by using the CATI telephone survey through personal cell phones. Personal interviews were conducted from February to June 2006 by a team of researchers form Tulane University and UNC Charlotte. The landline telephone group was interviewed by a computer automated telephone system (CATI), which pulled randomly generated numbers local to New Orleans’ landlines and were contacted by interviewers from UNC Charlotte in June 2006. The cell phone group was conducted in the same manner as the landline group, using randomly generated numbers local to the New Orleans region. The interviewers asked to speak with the current or former head of the household for the survey questions. Of the interviews completed, results showed that most residents were between the ages of 35-54 and 54% were Caucasian and 46% were non-white. The report shows that of those surveyed, approximately 75% had previously experienced hurricanes, which perhaps resulted in their decision making of whether or not to evacuate for Katrina. The report suggests that the resident’s past experiences with hurricanes caused a false sense of security and affected the resident’s decision making in their lack of plans to evacuate. The results of the report show that an astounding 20% of the interviewed made no preparations for Katrina at all. The results also show that 1 in 5 of those interviewed did not know the elevation of their home and/or if it was in a flood zone. Those interviewed that did prepare for Katrina’s landfall took actions such as boarding up their home, moving belongings to higher elevations and buying extra food and water. The report shows that residence over the age of 64 made the fewest preparations possibly due to their residences existing at a higher elevation of the city, lower ownership of personal vehicles (not needing to fill up for gas), and thirdly physical ability. Most preparations were made by the age group of 35-54, possibly due to personal/family decisions.
Prior to the days of Katrina’s landfall, officials began to observe the intensity of the storm and warn of possible effects, and possible need for evacuation. On Friday, 26 August, Katrina was labeled a category 2 storm and the Louisiana Governor declared a state of emergency. Few residents showed any signs of evacuating at this time. On Saturday the 27th, Katrina was declared a category 4 storm and the Governor ordered reversible lanes, doubling the capacity of the freeways. At 5:00pm on Saturday, the Mayor of New Orleans issued a voluntary evacuation notice. By Sunday, the 28th at 8:00am, Katrina was declared a category 5 storm with only 22% of those interviewed having evacuated prior to that day. On Sunday the 28th, transportation action was taken by the Regional Transit Authority to send buses to ten shelter locations; however, all buses were sent to the Superdome. By 10:00am on Sunday the 28th, the Mayor issued a mandatory evacuation order. The sudden movement to evacuate caused “the normal two-hour travel time from New Orleans to Baton Rouge [to take] ten hours” at an approximated speed of twelve miles per hour. The report further notes that the evacuation situation was similar three weeks later on the 23rd of September with the occurrence of Hurricane Rita. During the evacuation of Rita, 137 people died due to crashes and heat exhaustion from stalled vehicles. Katrina accounted for over 1,800 fatalities with Louisiana accounting for 1,580 of those deaths. The Superdome held most of the evacuees with approximately 20,000 people by 9:00pm on Sunday the 28th. On the late morning of August, Monday the 29th, the Street Canal levee breached and by 4:00pm the same day, two levees on the London Ave. Canal failed. On Tuesday the 30th, USDHS declared Katrina an Incident of National Significance and federal response was dispersed. On Wednesday the 30th, FEMA announces buses will move evacuees to the Astrodome in Houston. By Thursday, September 1st, evacuees were scattered across the southern United States. On Monday, September 5th, the Mayor issues a 2nd mandatory evacuation and Hurricane Rita makes landfall on Friday, September 23rd. The three most prevalent reasons stated to leave by the 291 residents or former residents that were interviewed were 5.5% in response to an evacuation order, 30% to television or radio coverage and 29% due to personal/family decision. Approximately 80% of New Orleans’ population evacuated before or during the storm, while approximately 10% had to be rescued.

The U.S. Bureau of Census tracked population changes as seen in the report with the results showing a population decrease in Orleans Parish of 280,000 people between 1 July 2005 and 1 January 2006. The report concludes with a few key notes pulled from the data as lessons learned such as awareness of the “level of knowledge” of the all individuals to expect the unexpected and consider all possible preparations. Also it is essential to examine worst case scenarios and recognize the lack of preparedness. It is crucial to have personal and family evacuation plans and within the community understand crisis communications where there is proper training for the public to have the knowledge and capabilities to deal with situations as a first responder. It’s important to acknowledge the cascading effects, and understand the dependency of all factors in an infrastructure. And possibly the most important lesson is to expect the unexpected as Clark quotes, “things that have never happened before happen all the time.” (http://understandingkatrina.ssrc.org) (Clark/p4), 2005.