By: Joana Nuñez, Ezequiel Lantigua, & Daniel Hernandez

City College Academy of the Arts, Hunter College, & The City College of New York

Objective: To investigate the social vulnerability of New Orleans, infrastructure and government to find out why Hurricane Katrina was so damaging and what to avoid in the future.

Abstract: Hurricane Katrina has taught the general public and the government a valuable lesson in evacuation and the dangers of hurricanes. Hurricane Katrina serves as an important reminder that nobody is completely safe from natural disasters. New Orleans was flooded, houses were destroyed and the people were forced to a shelter of last resort in a stadium. After the storm, you would be forgiven for thinking the worst had passed, but it had not. The majority of the reason for New Orleans appalling condition was due to failure of communication between the local, state, and federal governments. As a result, the aftermath of this crisis was devastating.

- In 2004, New Orleans had a total population of approximately 440,000.
- 68% were black, 28% were white, and the last 4% were other
- After Hurricane Katrina, in 2006, the black population decreased to 46%, while white population increasing to 42%.









- Mid City, Central City, and Venetian Isles were the neighborhoods most at risk.
- These locations also had poverty rates over 40%

- Many evacuators, such as the Coast Guard, did not allow pets to be taken with them, leading some people into staying with their pets.
- This had such an impact that in less than a year after Katrina, the Pet Evacuation Transportation Standards (PETS) Act of 2006 was created to protect pets in emergency situation.

The arena was used as a "shelter of last resort" to people unable to evacuate.



Acknowledgements: Dr. Brian Vant-hull NOAA-CREST program is funded by NOAA/EPP Grant # NA11SEC4810004

NOAA CREST HIRES program is a part of the Science Research Mentoring Program and funded by Pinkerton Foundation



Social Vulnerability, **Infrastructure and Politics** of Hurricane Katrina



-On August 29, fifty levees breached around the city; enhancing the damage done by flooding.

-The Levee Board created these "floodwalls" in the 1980s to close whenever a storm comes.

-Unfortunately they failed due to overflow from height, instability caused by distress of wind (at 125 mph), and soil erosions.

-New Orleans experienced heavy rainfall and storms.

-The biggest change in rainfall occurred when the hurricane reached category 5 on August 28, 2005.

-There was an increase of over 6 inches on August 29. In total, New Orleans received 14.51 inches of rainfall.





Before Katrina, there were 215,000 housing units, but the city was left with less than half after the hurricane (105,000)

Conclusion: Our research indicates that those who lived in low elevation, and had lower income areas were at most risk during a hurricane. The most flooded places were by the coast, which were inhabited by people of higher income who had greater access to transportation. Therefore, they were less likely to be affected than those of a lower income who did not have access to transportation. Additionally, these people did not receive immediate help from their government. This is because the mayor, the governor, and FEMA could not manage to work together and help their people as fast as they could have.







Questionable Leadership



Mayor Nagin

- Mayor Nagin distributed DVDs to the poor saying the city wouldn't be able to help evacuate them.
- Before the storm, he sent empty amtrak trains out of the city, and failed to mobilize available buses.
- He hesitated to call a mandatory evacuation in fear the city would face lawsuits from local businesses.
- Week two of Katrina: the CEO of a local utility company accompanied him to visit family in Dallas while the city was in need.

Governor Blanco

- Governor Blanco said she tried to work with Mayor Nagin but he wouldn't cooperate with her. Blanco said he shut himself in his hotel room, not knowing what to do.
- Governor Blanco also blamed FEMA for not sending immediate help saying that if they had, the aftermath wouldn't have been so bad.



Michael Brown

- Brown stated that the federal government was unaware evacuees were stranded at the New Orleans convention center until Sept. 1.
- A day later, President Bush was quoted saying "Brownie, you're doing a heck of a Job..."
- A week after Bush's comments, Brown was relieved of his onsite duties in New Orleans
 - Comprehending the disaster
 - New response plans
 - Integrating command structures
 - Emergency housing
 - Search and rescue
 - Ice, water and supplies
 - Meeting expectations

CREST TO SUSTAIN THE EARTI

The Pinkerton Foundation