

Economic Impact Post-Hurricane Katrina in Louisiana and Mississippi

Juliana Sempertegui^{1,4}, Rabia Akhtar^{2,4}, Jose Pillich^{3,4}, Jianting Zhang^{4,5}

¹ City College Academy of the Arts, ² Stuyvesant High School, ³ CUNY Graduate Center, ⁴ CUNY CREST, ⁵ City College of New York

Abstract

The primary purpose of this research is to show the economic impact of Hurricane Katrina in Louisiana and Mississippi. Within the state of Louisiana, the most impacted city was New Orleans which resulted in very costly damages. Typically, a category 3 hurricane is expected to produce damages hovering around 10-12 billion dollars. In the case of Hurricane Katrina, the damages exceeded this amount and the final total damage culminated to 135 billion dollars. The impacts of this storm were substantial and major problems were seen in employment figures. To understand the economic impacts of the storm, Python, Arcmap and Matlab were utilized to create maps and graphs that show descriptive statistics of the damage. Essentially, the analysis seeks to compare and contrast the impact of Hurricane Katrina versus other storms.

Background

In 2005, Hurricane Katrina made landfall in Louisiana and Mississippi. One of the most devastated cities was New Orleans, with damage of about 135 billion dollars. Katrina not only severely damaged the city of New Orleans from a physical perspective but also impacted it from an economic point. From personal property to employment, the financial impacts extended into every part of people's lives.

The social and economic perspective are highly intertwined; it is a simple cause and effect dynamic. For example, the economy was further weakened because people no longer felt safe and left the city. The flight of people really hurt the economy. And if people were not available to work, then different industries were further damaged. These created substantial employment problems which led to lower wages in the city further debilitating the overall structure of the economy.

Since the storm occurred, the city has invested substantial amounts of money to rebuild the city. These types of social, infrastructural and environmental investments should have been considered before the storm.

Methodology

Name

Hurricane Katrina: Understanding Social and Physical Vulnerability

Data

U.S Bureau / NOAA

Process

Color Path of Storm according to its intensity

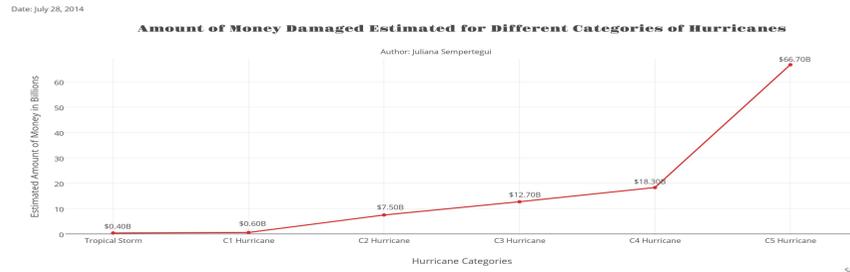
Create an average of the rainfall between August 23-31, 2005

Name of Maps

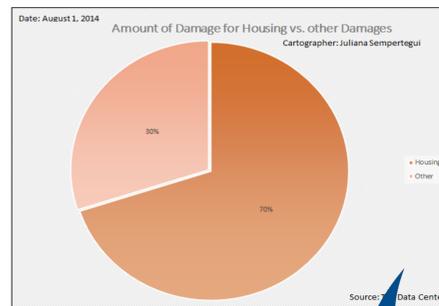
Hurricane Katrina's Categorical Path

Hurricane Katrina's Categorical Path: Total Rainfall

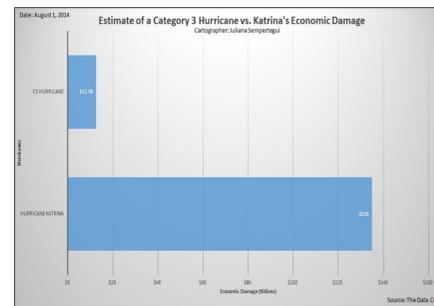
Analysis



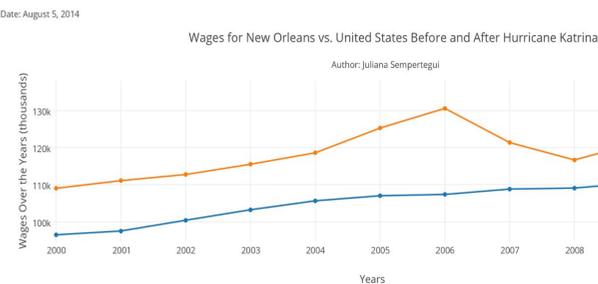
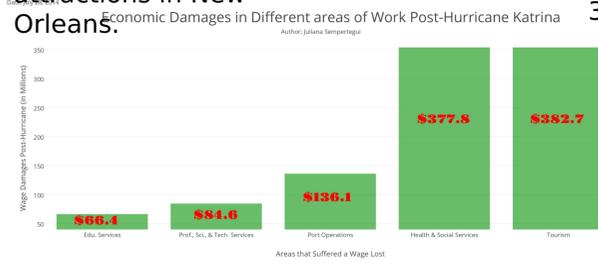
This graph shows the estimated economical damage between different category hurricanes.



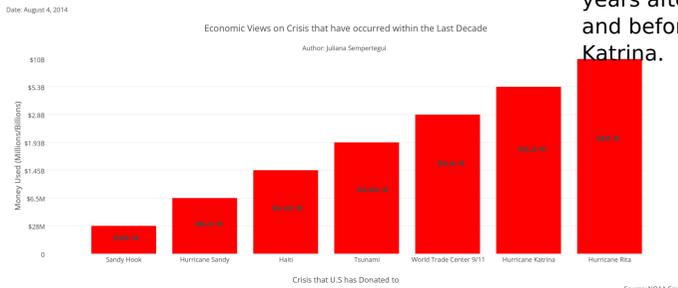
This graph shows the property damage done by Hurricane Katrina; both people's property and attractions in New Orleans.



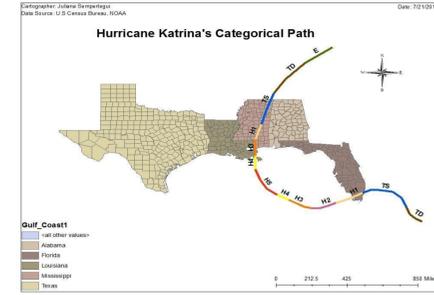
This graph is showing the difference between the economical damage from Hurricane Katrina and the estimated economical damage from a category 3 hurricane.



This graph shows money invested in different crises that have occurred in the United States.



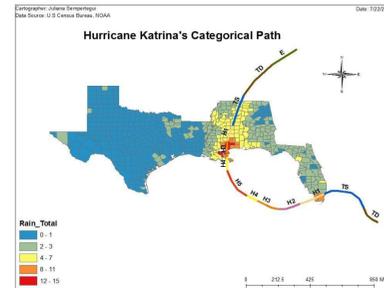
Results



This map shows the way that Hurricane Katrina hit both Louisiana and Mississippi. It also shows how Katrina was a Category 5 hurricane but when it hit land it was

Before Hurricane Katrina, New Orleans had nice houses and attractions.

After Hurricane Katrina, many households were destroyed as well as attractions.



This map shows the severity of the rainfall that occurred during Hurricane Katrina. One could notice that there were areas far away from the hurricane that still received some rainfall during Katrina. The red and yellow parts of the map show where most of the damage took place.

Conclusion

New Orleans did not only lose lives but they also lost a lot of land and their economy went down. As the progress has continued, some changes were made to bring the economy back to its feet. Building codes were made stronger to allow people to feel more safe in their homes and new attractions have been placed around the city to attract people. The attractions and the new building codes have allowed for people to be more interested and invested in the city allowing the city to make more money and bring up their economy. Some things that should be considered is the evacuation system in case of other hurricanes. This is

Acknowledgements/ References

This research was supported by NOAA CREST (NOAA CREST- Cooperative Agreement No: NA11SEC4810004) and funded by the Pinkerton Foundation. A very special thanks to my mentor Jose Pillich, Rabia Akhtar, and Professor Jianting Zhang for all their help and guidance throughout the research.

<http://www.nbcconnecticut.com/news/local/28M-Donated-to-Sandy-Hook-Charities-After-Shooting-265436131.html>
http://money.cnn.com/2011/09/06/news/economy/katrina_donations_911/
<http://www.americares.org/emergency-response/hurricane-sandy-recovery.html>
<http://ra.louisiana.gov/assets/docs/searchable/reports/FitaReportFinal091808.pdf>