

## **How does Socioeconomic Status affect a Victim's Recovery through the Scope of New Orleans and New York/ New Jersey after Hurricane Katrina and Hurricane Sandy**

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### **ABSTRACT**

Natural disasters such as Hurricane Katrina and Hurricane Sandy have highlighted the important role socioeconomic status plays in disaster recovery. The intentions of this research project is to examine how socioeconomic status correlated with response and long-term recovery in impacted study sites of New Orleans, New York, and New Jersey. Through a comprehensive review of secondary literature and conducting surveys and interviews, I analyzed the challenges faced by disadvantaged community members and their struggles in recovery. I performed a comparative analysis between the similarities and differences shown in the impact of socioeconomic status on recovery in these two urban areas. The study finds that socioeconomic status is a crucial determinant of a victim's recovery. The victims experience greater disadvantages and slower recovery rates compared to nonpeople of color and higher-income communities. I performed an analysis of stakeholder influence, and government intervention to provide aid at the local, state, and federal levels. I endeavor to underscore the necessity of improved and more robust infrastructure to minimize social and environmental harm to vulnerable communities. Overall, this study emphasizes the significance of addressing social inequalities in planning for disasters and recovery. The results provided insight into the impact that socioeconomic status had on recovery while aiming to make changes to policies in order to promote more equitable and resilient communities in the case of natural disasters.

### **KEYWORDS**

Environmental Justice, Vulnerable Populations, Climate Resilience, Post-disaster recovery, Health Disparities

## **INTRODUCTION**

Natural Occurrences are a common thing and are inevitable but the damage done by them could be minimized to a degree. Hurricanes are an unfortunate example of such realities. However, ensuring a more nuanced system to determine predicted risks is essential in mitigating future societal risks. (Elsner 2006). This applies both to the overall communities but also to individual home preparedness and how that affects the outcome. Another study done in North Carolina to survey what percentage of the population was prepared with an evacuation plan found that only 51% were prepared (Horney 2007) and this seems to be expected in other instances of Hurricanes. It is crucial to aim for new construction that will improve what was built prior and will not fuel the problem (McIntosh 2008).

Hurricane Katrina occurred from August 23rd until the 31st of 2005 and Hurricane Sandy occurred from October 22nd until November 2nd of 2012. New Orleans was affected the hardest by Hurricane Katrina with 80% of the land (Sastry 2009). For Hurricane Sandy, New York and New Jersey were affected the hardest with 17% of the land being flooded (Ambramson 2013). These areas are victims of prior injustices and have a history of redlining (Aalbers 2015). Redlining in these areas meant discrimination practices that prevent residents from these areas to purchase financial goods (loans, mortgages, etc). In both of these Hurricanes, the victims of the areas with most damage had median household incomes of just around \$30,000 (Quigley 2015). Factoring in the historical consequences of redlining, the affected communities were usually renters and so suffered when it came down to recovery as they had no insurance assistance to help them rebuild what was destroyed by the hurricanes.

Redlining created a divide in the land that resulted in some areas having a more stable infrastructure as opposed to others. These areas are victims of redlining and victims of levee building and then failure. Levees are a leading problem to infrastructure issues with the damage dealt by these Hurricanes. Not only do they make the land more at danger as it lowers it and the breaching of one is very dangerous (Goery 2022) but they were also more commonly placed in lower-income minority areas (Colten 2006). These areas being the ones most affected by Hurricane Katrina and Hurricane Sandy. 50 levees failed in New Orleans during Hurricane Katrina, 28 of which were reported in the first 24 hours, and Hurricane Sandy with a levee problem caused 1000 evacuations (Pruitt 2020). It is important to note that no government obligation to monitor levees regularly was in place and that much has to be considered if using

levees (Petroski 2006). A clear indication of infrastructure issues creating inequality even prior to the Hurricanes was the levees.

New Orleans had demographics of 344 residents that participated in a pilot study, 62% were black and 38% were a different race (Displaced New Orleans Resident Study 2005). \$30,000 was the median household income and 51% of residents who were black returned and 71% of white residents returned (Sherman 2005). 20% is a significant difference and we can assume that it's due to socioeconomic factors that prevented victims from being able to return and recover to their old lifestyle. For Hurricane Sandy, 52% were people of color in New York and 56% were people of color in New Jersey during February 2013 (FEMA 2013). Of the population, 43% had a median household income of below \$30,000. (FEMA 2013). It was also mentioned that minorities had higher rates of renting in New York and in New Jersey again shedding light on the inequalities that arise due to socioeconomic factors weighing individuals down.

My central research question is how did the aftermath of Hurricane Katrina and Sandy demonstrate climate resilience and shed light on issues of infrastructure. My subquestions are who are the individuals most at risk of exposure to hurricanes, who are the infrastructure stakeholders prior to hurricanes, and how did the community recover? My hypothesis is that there were problems within the infrastructure prior to the hurricanes that placed certain communities at a disadvantage and made it difficult for them to recover. A gap in knowledge is that both disasters occurred a decade before this study was conducted meaning it is difficult to find victims now. Also before the study, there is very little research that speaks of the experiences that disadvantaged groups experienced. Even after the study, the victims are only a small percentage of the total meaning that their experiences can not fully account for the rest of the population.

## **BACKGROUND**

The background of this study revolved around the identities of the victims. In other terms how do their income status and race/ethnicity affect their ability to be resilient when faced with the damage of natural disasters. The study focuses on the aftermath of Hurricane Katrina and Hurricane Sandy focusing on New Orleans and New York and New Jersey. The study system involved examining the impact that these hurricanes had on marginalized communities and

infrastructure issues they had throughout the duration of these disasters. The study system is valuable in addressing broader questions related to climate resilience in the face of natural disasters. Through understanding the experiences of disadvantaged communities and the shortcomings of infrastructure planning, the study aims to shed light on the factors that contribute to vulnerability and recovery rates. By studying two different events, *the research aims to identify common patterns and challenges to inform of future mitigation strategies.*

### **Research Framework**

The importance of the research question is to understand the dynamics, policymakers, and disaster management agencies to help develop more effective strategies to mitigate future risks and provide equitable recovery. It is a common misconception that hurricanes and other natural disasters are even playing fields and that everyone has equal access to receive damage from them but that is not the case. Hurricane Katrina and Hurricane Sandy can be seen from two perspectives-the stakeholders and the victims. Hurricane Katrina was one of the biggest Hurricanes to hit the United States and that translates into a lot of media coverage. Through this media, victims were seen through a negative light and looters were seen as criminals (Barsky 2006). Media coverage tends to emphasize and amplify instances of looting, framing it in a way that's damaging to the looters by making it seem like deviant behavior. This portrayal stigmatizes the individuals involved and further perpetuates negative stereotypes against these marginalized communities (Zarqa 2013). The focus on the loot though important, overshadows the socioeconomic factors that play a role in the need to loot. Through a study, it was found that media reports are often misleading during disasters and it plays a significant role in inaccuracy reports of the disaster (Eisenberg 2003). This is why it is essential to understand the socioeconomic factors that play a role in the need to loot, to have a deeper understanding, and to listen to diverse perspectives. Relying solely on media coverage to form perspectives results in biases and limited understandings. A study found that there is no clear definition of what separates looting from appropriate behavior (Barsky 2006). Understanding the root of the behavior will allow us to further explore systemic issues which is what this study aims to do.

## **Methodology**

To investigate the research question on climate resilience and infrastructure faults in the aftermath of Hurricane Katrina and Hurricane Sandy, a mixed methods approach was used through interviews and surveys. This way, there is a more in-depth understanding of the experiences victims and communities faced by the hurricanes. Interviews provide an opportunity to get a different sense of data, one that provides nuanced experiences, emotions, and perceptions. Through these interviews, community organization members and victims can be engaged in sharing their firsthand insights on what challenges were faced and what recovery strategies they underwent. Surveys allow for a larger sample size of data in order to identify trends and generalize findings. By developing a survey questionnaire that takes into account factors like income, race/ethnicity, access to resources, and recovery, outcomes can be measured. Surveys allow for this study to have a more diverse range of experiences and perspectives to be able to answer the central research question. Furthermore, surveys and interviews allow for marginalized voices and perspectives to be heard that tend to be overlooked in the past. Overall the use of interviews and surveys for this study will facilitate a comprehensive analysis of the research question by enabling synthesis of different data to provide an understanding of post-disaster recovery efforts.

## **METHODS**

### **Study Site**

My study site was New Orleans, New York, and New Jersey. I opened up my survey to any victims, community members, or anyone who had a personal tie to victims. Four interviews were conducted through phone call with two victims from New Orleans, one from New York, and New Jersey.

### *Year-long data*

This study started January 2022 by first analyzing secondary data discussed in the introduction of the groups that were most affected by these Hurricanes. Then a survey was

conducted on Google Forms consisting of 10 simple questions that ask about identity issues and whether they believe that their/others socioeconomic status affected their ability to recover. The survey also asked whether they believed that the government assisted properly at the time and how that influenced their recovery. The survey was sent out to many community organizations (Common ground relief, Headwater Relief, Occupy Sandy, Sandy Recovery, etc). From there and through different organizations, I was able to track down four victims for interviewing. The interviews followed similar structure in asking about socioeconomic factors but also dove into personal experiences with recovery and what that was like for them. This way the study would be able to point out similarities between the stories and analyze trends that were common.

## RESULTS

Of the 20 respondents 12 were tied to Hurricane Sandy and 8 to Hurricane Katrina. 12 respondents identified as men, 7 identified as women, and one person identified as non-binary. The ages of the respondents ranged from 18 to 45 (Figure 1). 13 were members of one of the community organizations, 7 knew a victim personally, and 2 were victims themselves (Figure 2). The demographics of the respondents are 45% Latino/Hispanic, 35% black, 20% white, and 5% Asian. When asked if race/ethnicity played a role in recovery 70% answered yes, 20% answered maybe and 10% answered no (Figure 3). The economic status of the respondents is 13 are lower-income and 7 are middle-income (Figure 4). When asked if economic status played a role in recovery 85% answered yes and 15% answered no (Figure 5).

When asked if they thought the government assisted 12 respondents said no, 4 respondents said yes, and 4 respondents said maybe (Figure 6). Finally when asked if the extent of the damage could have been prevented (had there been better infrastructure 13 respondents answered yes, 6 respondents answered maybe, and 1 respondent answered no (Figure 7). From their interviews, 2 were Hurricane Katrina Victims both from New Orleans one man and one woman. The other two were both men and Hurricane Sandy Victims one from New York and one from New Jersey. All four were lower-income minorities and all exclaimed not having the proper resources to recover. They all mentioned that the government did not assist them properly. I decided to use one quote from every interview and they are “I felt hopeless, the home I once knew was gone.”, “We need change to happen”, “I pray no one ever has to experience something that traumatic again” and “The government does not care about us. Never have and never will”.

### Age?

20 responses

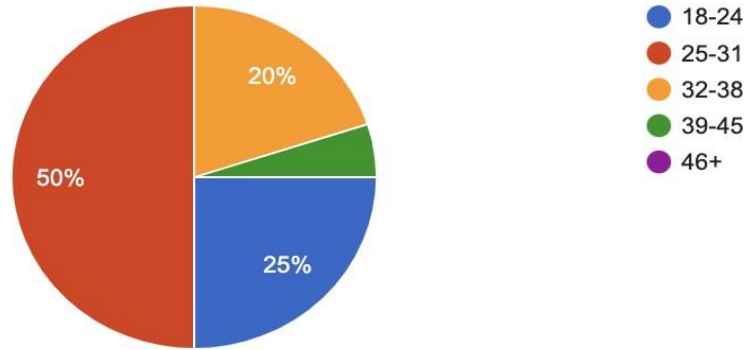


Figure 1

### What tie do you have to these Hurricanes?

20 responses



Figure 2

### Do you think that your race/ethnicity played a role in recovery?

20 responses

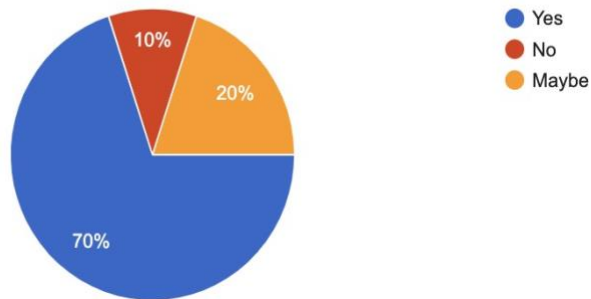


Figure 3

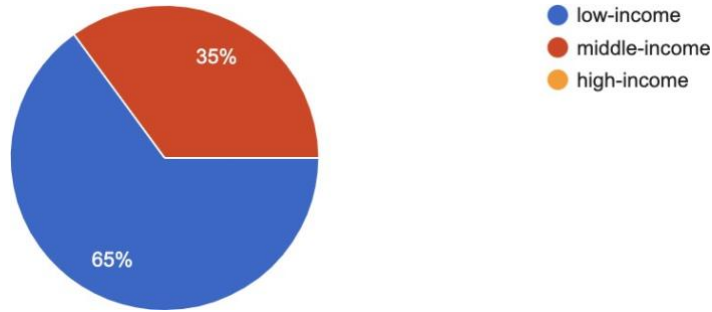


Figure 4

Do you think that your economic status affected your or others' recovery?

20 responses

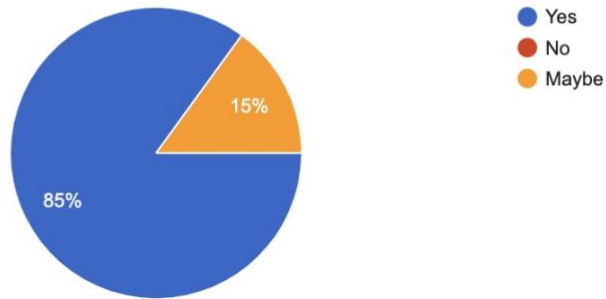


Figure 5

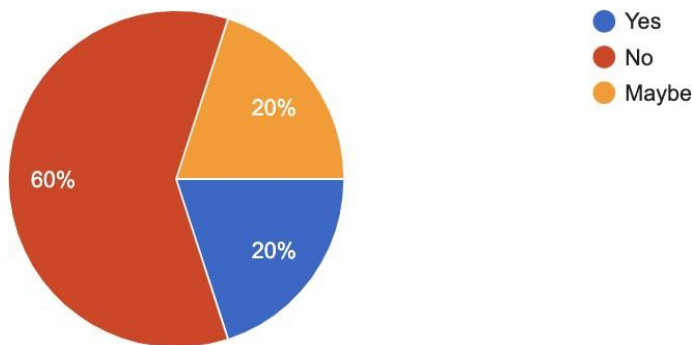


Figure 6



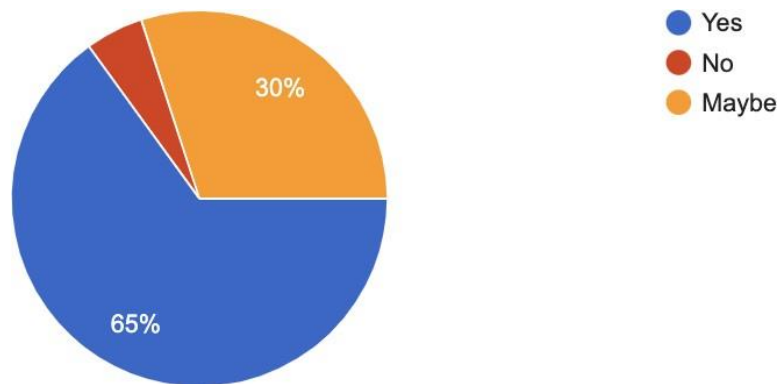


Figure 7

## DISCUSSION

The goal of this study was to determine whether socioeconomic status affected the recovery of victims of Hurricane Katrina and Hurricane Sandy. The data collected suggests that there is a significant difference in the ability to recover in terms of socioeconomic status. Lower-income minorities were more likely to experience challenges with recovery than their counterparts in both Hurricane Katrina and Hurricane Sandy. Victims expressed not being able to recover and stating stakeholders did not provide them with the resources they needed.

### Victims

In pre-existing data and this study, it was found that the majority of the victims were black and the second highest were Hispanic/Latino. This is a common trend seen throughout history where minorities suffer more and are at a disadvantage (Tierney 2011). It is a common misconception that natural disasters are even playing field meaning that there is no way to predict these events and everyone has equal opportunity to take damage. Through this study we see that is not the case, areas with a predominantly minority population have historically been victims of facing disadvantages. Also, lower-income individuals are most at risk of exposure to Hurricanes which will further contribute to future stress (Scaramella 2008). It is proven that

disadvantaged neighborhoods have lower elevations which makes them more at risk of Hurricanes and flooding (Lu 2017). This was showcased with the levees discussed, the land that was most at risk are those of lower socioeconomic populations and this was evident through the analysis of the Hurricanes.

### **Recovery and Stakeholders**

The study showed consistent results with low recovery rates. Most victims interviewed/surveyed expressed having to recover using their own resources and how little the government assisted them at the time. It took the government five days after Hurricane Katrina passed for them to provide any sort of relief (Napier 2006). In another poll, two-thirds of respondents believed that President Bush could have made more of an effort and that the response of the government was poor (Pew 2005). A huge problem discussed in the introduction is how the media was controlled at this time. Stakeholders do not just mean policymakers and government leads but also those in charge of media outlets like news hosts. Senator Rick Santorum participated in victim blaming and said that victims were at fault for not evacuating sooner (Hamill 2005). Other news hosts only shower looters and portray them in a negative light deeming them as violent. It is hard enough to recover without government assistance but on top of that victims have to deal with being seen as the problem.

### **Synthesis**

Through all the research conducted, we can answer the question: How does the socioeconomic status of victims affect their recovery rates and shed light on infrastructure issues? Research shows that individuals from lower-income communities tend to experience greater rates of physical consequences when looking at Hurricane Katrina and Hurricane Sandy. In addition, minorities tend to reside in these areas and they also are victims of disproportionate effects of Hurricane Katrina and Hurricane Sandy. The infrastructure is an indicator of socioeconomic status. As the research indicates that areas with lower-income populations have inadequate infrastructure (levees) and housing is not capable of withstanding the impact of a natural disaster. Addressing socioeconomic inequalities that are present is essential for recovery efforts and improving the resilience to the response to natural disasters.

**Limitations and Future Directions**

As mentioned, this study took a small percentage of the victims' experiences into account. Though this small percentage is significant, the greater the pool of diversity, the more accurate the data will be. If I had more experiences and percentages to work with, there would be more data and it would be easier to create relationships between socioeconomic status and recovery. In the future, I would wish to continue to advocate for these communities and continue to do research putting their experiences out there and making changes for climate equality.

**Broader Implications**

This study showed two different Hurricanes yet the similarities of there being an inequality between different communities was prevalent in both. All around the country, lower-income minorities suffer more than their counterparts even when it comes to natural disasters where they need the most support. It is significant to hold stakeholders accountable and policymakers so that these individuals are well represented and protected.

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