

## Research Question

How has infrastructure and government failed Puerto Rico after natural disasters

### Abstract

1. In the past three years Puerto Rico has been hit with; category 5 hurricane, 3.7 earthquake, and COVID-19. Resulting in 130,000 population loss, 2,975 fatalities and, a job loss of 40,000 people.
2. More than half of Americans didn't know that Puerto Ricans are American citizens.
3. I have personally seen how my Aunt was affected on the island with not being able to have access to health care or supplies.
4. It took 11 months to restore power after hurricane Maria. 1.5 million Puerto Ricans lost power resulting in the largest blackout in US history
5. I looked at infrastructure technology and why the government continues to treat Puerto Ricans as second class citizens.



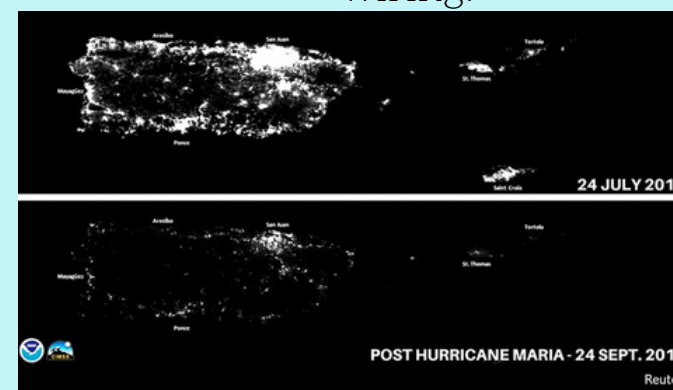
# REBUILDING

## Puerto Rico



### Results of Research

- The Federal Emergency Management Agency ( FEMA) approved payments of \$142m to victims of Harvey and \$6m to victims of Maria.
- Federal Government sent 30,000 relief works to Houston within nine days of its hurricane; it sent 10,000 to Puerto Rico. Over the same period.
- Of the nearly 1.2m application FEMA has recieved for money to repair damaged houses, it has rejected 60% for lack of title deeds or because the shacks in question were built on stolen land or in contravention of building codes.
- Illegal construction was an important factor in losing more than 250,00 homes in Puerto Rico due to hurricanes Irma and Maria.
- Housing in Puerto Rico is of concrete or block construction which are considerably more expensive than wood frame construction.
- Wood frame construction is considerably more resistant to earthquake shaking than is concrete block construction
- The Puerto Rico Electrical power authority was in no shape to handle Maria's Electrical winds. The utility had severely inadequate stockpiles of poles, transformers, insulators and wiring.



## Methods of Inquiry

- Scholarly articles
- Academic books and articles



### Conclusion

1. The island faces the permanent challenge of avoiding construction in high risk areas and encouraging residents from the zones to move to safer areas.
2. Being able to have a redundancy approach in a technology dependent society is key.
3. Public agencies should attempt to convince Puerto Ricans to invest in inexpensive, simple measures to increase preparedness and to reduced damage in areas susceptible to various natural disasters.
4. Deaths that occur during the impact phase could be prevented if officials issued timely evacuation orders and provided transportation for those unable to transportation.
5. Need for education about the importance of building codes.
6. The application of new construction codes is an important factor too, and limiting the granting for permits in high risk areas could reduce the number of people affected by coastal erosion, cyclonic storm surge, landslides, and flooding that results in losing homes



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