



## Comparative Case Study – Regional Focus



Hurricane refugee.



Chaos in the French Quarter, New Orleans.

Hurricane force winds were recorded along a 200km stretch of coastline on the southern Gulf Coast of the United States, with similar destruction and flooding also experienced in the neighbouring states of Louisiana, Mississippi and Alabama.

Storm surges also caused flooding several kilometres inland in some places. Worst affected was the historical city of New Orleans which was flooded when several levees (or artificial embankments) were breached, causing floodwater to pour into the low-lying city. About a million homes and business were flooded and many more were without electricity for many weeks.

By 31 August, an estimated 80% of New Orleans was underwater. The situation worsened as it became apparent that thousands of people had been unable to evacuate or had chosen to stay put. Many took refuge in the city's main sports arena but without sanitation or proper supplies, conditions inside the crowded and overheated stadium became increasingly unbearable. In the days that followed, law and order across the city broke down, with reports of widespread looting and violence.



August 28, 2002



September 2, 2005

### Effects on the cultural environment

Hurricane Katrina was the deadliest hurricane to strike the United States in 70 years and at an estimated recovery cost of US\$25 billion, it was also the most expensive natural disaster in United States history. Over 500,000 people were evacuated. Nearly 233,000 square kilometres were declared a disaster area (an area a little less than the land mass of New Zealand). More than 1,600 deaths occurred and over 1,000 remained missing more than a year after the event. The economic and social effects of Hurricane Katrina continue to this day.

### Effects on economic activities

#### Agricultural and fishing activities

The direct impact of Hurricane Katrina on agricultural activities was minimal, with most crop damage limited to small scale producers of corn, soybeans, and cotton. Of greater concern was the destruction of the Gulf Coast ports which serve as major gateways for United States agricultural exports. The Gulf Coast region contains five of the top 12 US ports, including South Louisiana, the country's top port by cargo volume. Imports arriving at Gulf ports include steel, rubber, coffee and fresh fruit.



Heavily damaged homes.

Many sea-based industries were also affected by the strong winds, large waves and storm surges caused by the hurricane. The Gulf Coast where Hurricane Katrina struck is an especially important centre of commercial and recreational fishing, producing

10% of the shrimp and 40% of the oysters consumed in the United States. Most oyster and shrimp farms in the region were destroyed beyond repair and it will be many years before these industries are re-established in the Gulf region. Many areas have since been closed to fishing due to contamination concerns as a result of pollution.

#### Oil production

Before the storm, one-tenth of all the crude oil consumed in the United States came from refineries in the states along the shores of the Gulf Coast. The storm interrupted oil and natural gas production and refining in the Gulf of Mexico. This in turn had a major effect on global fuel prices and even affected the price of petrol in countries as far away as New Zealand. Power outages in the weeks after Hurricane Katrina also caused problems distributing oil from the Gulf States to other regions of the United States.

#### Tourism

Hurricane Katrina forced many casinos along the Gulf Coast to close. For example, the 1718 room Beau Rivage waterfront casino was severely damaged by water and needed to be rebuilt as a result of being flooded by a 10m storm surge. The President Casino Biloxi was uplifted by storm waves and washed across State Highway 90 only to land on top of the Biloxi Holiday Inn, nearly 2km from the casino's original location.

#### Damage to infrastructure

As a result of the hurricane, the levee and flood bank system protecting New Orleans and its surrounding communities failed and the Mississippi River breached its levees in approximately

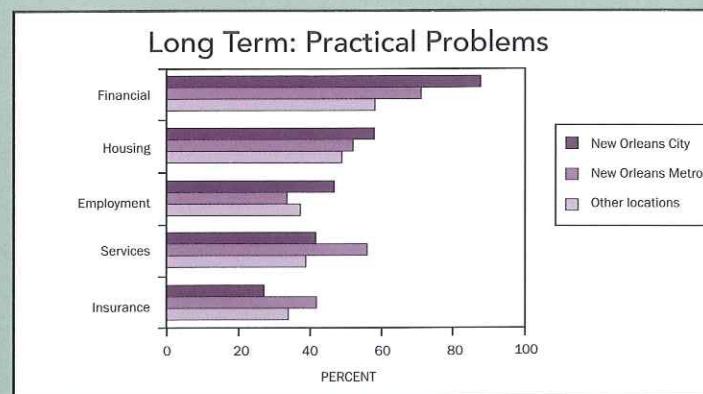
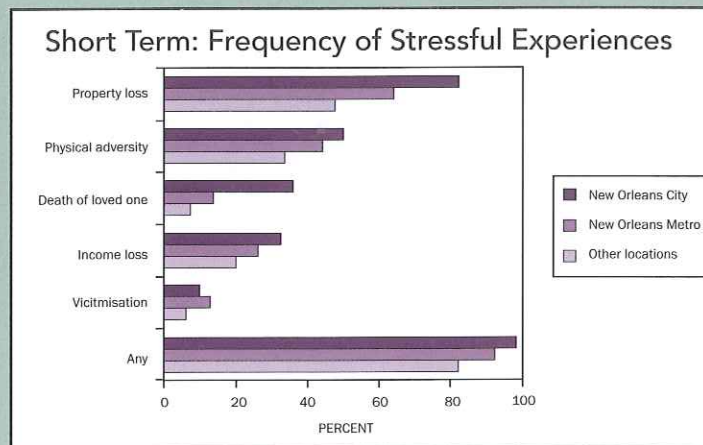
20 places. In the years since the hurricane, state and federal agencies have spent millions on improving the levee protection system.

### Effects on social activities

Hurricane Katrina affected one of the poorest regions in the United States. Many people lost their homes, material possessions, and jobs. Some had insurance to replace their material property losses but many did not and instead had to rely on aid from government agencies or take out loans to purchase emergency supplies or replace property.

### Mass displacement

The hurricane displaced 700,000 people and fractured communities. The effects of this were both immediate and long term.



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### Disproportionate effects on minorities and the poor

Hurricane Katrina disproportionately impacted communities where the poor and minorities, mostly African-Americans, lived. The three states where communities were damaged or flooded by the hurricane rank among the poorest in the nation. According to the 2000 United States Census, Mississippi ranked second only to the District of Columbia in its poverty rate; Louisiana was right behind it ranking third, and Alabama ranked sixth. Estimates suggest that about one-fifth of the population most directly impacted by the storm was poor. That poverty rate (21%) was well above the national poverty rate of 12.4% recorded in the 2000 Census.

The hurricane's impact on New Orleans also took a disproportionate toll on African Americans. An estimated 310,000 black people were directly impacted by the storm, largely due to flooding in Orleans Parish. Black people are estimated to have accounted for 44% of storm victims.



Home destroyed by Hurricane Katrina.

**Effects on the elderly**

The elderly were especially affected by Katrina. Many had close ties to their communities, some having lived there for their entire lives. Some may have found it more difficult than others to evacuate. The elderly are more likely to live alone and less likely to own a car, or be able to drive. Some may have been more isolated, living alone, or homebound due to frailty or disability.



People from all over America are encouraged to help their fellow citizens.