

U.S.

How Does Harvey Compare With Hurricane Katrina? Here's What We Know

By SHAILA DEWAN and JOHN SCHWARTZ AUG. 28, 2017

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A late August hurricane menacing the Gulf Coast. Residents plucked from rooftops. A convention center repurposed as an emergency shelter. A test of a presidency.

Although it is still unfolding, Harvey, now a tropical storm, evokes comparisons to Hurricane Katrina in 2005. Here's a quick rundown of what we know about similarities and differences between the two.

The Cities

Katrina: Before the storm, New Orleans — with its distinctive Creole-Acadian-French-Haitian-Vietnamese cultural *mélange* — was a small city of about 455,000 people that lay in large part below sea level, ostensibly protected by a system of levee walls. Its population never fully recovered from the evacuation and destruction and remains below 400,000.

Harvey: Houston is a sprawling, car-dependent, diverse city, low-lying but not below sea level. It has a population of more than two million people, with a system of bayous and waterways to manage flooding.

The Storms

Katrina: It made landfall near the Louisiana/Mississippi border on Aug. 29, 2005, as a Category 3 storm and measured 350 miles across. However, the relatively low classification, based on wind speed, was deceptive because Katrina produced the highest storm surge ever recorded in the United States.

Harvey: It made landfall in Rockport, Tex., on Friday as a Category 4 storm, measuring 200 miles across, but was quickly downgraded. But flooding and rain topped 47 inches in some areas by the time Harvey was downgraded to a tropical depression Wednesday.

Deaths and Damage

Katrina: One of the deadliest hurricanes ever to strike the United States, Katrina was responsible for 1,833 deaths, and some bodies were untouched for days. The storm inflicted more than \$100 billion in damage, with most of it caused by wind, storm surge and the failure of the levees. Katrina also left three million people across the region without power.

Harvey: Local officials said there were at least 39 deaths in Texas so far that were related or suspected to be related to the storm. Officials said they were prepared for that number to inch higher as floodwaters began to recede.

As for the economy, the Gulf region's capacity as an oil and gas hub — Houston accounted for 2.9 percent of the nation's gross domestic product in 2015 — does not appear to have been seriously compromised. So far in Texas, there are 300,000 people without power.

Rainfall

Katrina: Rain was not the main problem with Katrina, which yielded 5 to 10 inches of rainfall in a 48-hour period.

Harvey: By contrast, Harvey brought a deluge, with up to 50 inches of rain in some areas — more than Houston receives in a year.

Evacuation

Katrina: The mandatory evacuation of New Orleans was announced a day before the storm hit. An estimated 100,000 people remained stuck in the city. A few weeks later, in another chaotic evacuation, more than 100 people died leaving the Houston area to escape Hurricane Rita.

Harvey: Houston did not call on residents to evacuate, then urged those who could to shelter in place. However, as the rain continued on Monday, a growing number of other jurisdictions — like Bay City, which expected 10 feet of water downtown — urged residents to leave. More than 30,000 people remained in shelters in the region Thursday.

Assistance

Katrina: The storm displaced over a million people and damaged or destroyed 275,000 homes. Almost a million households received individual assistance from the Federal Emergency Management Agency.

Harvey: Tens of thousands of homes were either damaged or destroyed. But the vast majority of homes in Harvey's path are not insured against flooding, according to figures from the National Flood Insurance Program. FEMA officials estimated that 450,000 people were likely to seek federal aid. So far, 95,745 people in Texas have been approved for emergency assistance, which includes financial help with rent, repairs and lost property. FEMA has so far disbursed about \$57 million to citizens in Texas.

The Takeaways So Far

Katrina: Evacuation chaos and mostly unfounded panic over riots and violence made issues of race, poverty and government failures impossible to ignore. The breaches of the levees compounded those problems and represented an engineering failure of grave proportions.

Harvey: Harvey will likely sharpen an ongoing debate over whether Houston, a city driven by real estate, has overbuilt at the expense of flood control. While Katrina

showed a failure to build well, Harvey might come to represent a warning about climate change.

Correction: August 28, 2017

Because of an editing error, an earlier version of a caption on a photograph of floodwaters in East New Orleans with this article misstated the date it was taken. It was Aug. 31, 2005, not Aug. 9, 2005.

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