

The Methodology of the 2017 Hurricane Harvey Survey

The Hobby School of Public Affairs at the University of Houston conducted a telephone survey in November and December 2017 to understand the experiences of people impacted by Hurricane Harvey and to gauge their support for flood mitigation policies. A total of 2,002 respondents living in Harris, Fort Bend, Brazoria and Montgomery Counties participated in the initial survey. Using a panel survey design, this survey is the first of several to be conducted with the same respondents over a five year period.

The survey was conducted by telephone (50 percent with landline telephones and 50 percent with cell phones) between November 20 and December 20, 2017 with a random sample of 2,002 adults age 18 and older living in Harris, Fort Bend, Brazoria and Montgomery Counties. The four counties were divided into eight sample areas based on the probability that structures in a designated area had a high or low probability for significant flooding. Areas in each county that received two or more feet of rainwater between August 26 and 30 were identified¹ as having the greater potential for flooding to residential and commercial property. A sample of active landline and cell phone numbers matched to residential household² street addresses was purchased from Marketing Systems Group in Horsham, PA. Interviews were conducted in English and Spanish by Customer Research International of San Marcos, Texas. Sampling was based on the proportion of households in each county and areas where flooding was expected to have occurred.

Weighting of the sample was deemed unnecessary for an accurate representation of the population for either areas where flooding was expected to have occurred or by county. The oversampling in areas where flooding was expected to have occurred produced an unrepresentative sample of owner and renter occupied households in Harris County. Weights were applied for the Harris County portion of the sample to reflect the current share of renter and owner occupied households based on the U.S. Census Bureau's 2016 American Community Survey (ACS) for Harris County, Texas. Weighting for the sample of surveys completed in Harris, Fort Bend, Brazoria and Montgomery Counties was not necessary. Demographic measures for these counties are within the range reported by the ACS for each county.

The margin of error for the entire sample of 2,002 completed surveys is +/- 2.2%. The margins of error for other subsamples (e.g., counties, racial and ethnic groups) vary and exceed 2.2%. Note that sampling error is only one of many potential sources of error in this or any other public opinion poll.

¹ U.S. Army Corps of Engineers (USACE) 1 and 2 foot extents added to the inundation surface extent from the stream gage and twitter crowd sourced raster provided by Chris Emrich, University of Central Florida.

² Only one phone number per household was selected with the same address.