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Evacuee Perception of the Geophysical Hazards from Hurricane Irma

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Abstract:

Hurricane Irma caused the largest evacuation in U.S. history providing an inimitable chance to collect ephemeral decision-making data.  Irma achieved category 5 status early in its life cycle and remarkably maintained category 5 or 4 status longer than most storms, demanding the constant attention of research participants. This research used a previously successful strategy of interviewing evacuees at interstate rest stops stuck in traffic congestion. The specific focus of this research was to determine evacuee risk perception accuracy of the geophysical hazards from Hurricane Irma.  Participants were asked to rank their concern about damage at their property for 6 different hurricane hazards. Additionally they were asked about their perceived maximum wind speeds, and the wind speeds at which damage would occur.  Furthermore, they were asked to draw their perceived hurricane track on a map of Florida and to label their home location, and where they thought Irma would make landfall. Concern for hurricane hazards was analyzed spatially across Florida to evaluate general risk comprehension accuracy and perception.  Perception of the accuracy of maximum wind speeds, damaging wind speeds, and hurricane track locations was also assessed and is still ongoing.  Results were evaluated to determine if Impact Bias existed in the minds of Irma evacuees. As seen in previous seed research, preliminary results appear to show a perception that the storm would travel closer to the home location than what was forecasted and observed, and that the perceived wind speeds would be considerably higher than what was observed.