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### Expert Judgment Versus Yours: Understanding Local Flood Risk Perceptions

In 2018, five deaths, 16 injuries, and \$31.03 million in damages to crops and property were the significant results of major flooding in Pennsylvania (PA) (NWS, 2019). Lancaster County, PA (LancCo) experienced measurable damage to homes, businesses, and infrastructure as 2018 was the wettest year dating back to 1914 (Blest, 2018, Stauffer, 2019). With the growing threat of extreme rainfall events, as explained in the 2014 National Climate Assessment, flood awareness, reception, and understanding of hazard messaging is imperative (Di Liberto, 2018).

Past studies have confirmed that individuals respond appropriately when they are aware of and understand the dangers associated with a given hazard (Slovic, 1987). Additionally, people selectively absorb information that is relevant and convenient to their reality; and risk judgment is attributed to thoughts and emotions (Baan and Klijn, 2004, Burn, 1999, Ludy and Kondolf, 2012). Hence, communities with low flood awareness, risk perception, preparedness, and mitigation efforts, are more susceptible to sociocultural and economic damages (Messner and Meyer, 2005).

Therefore, this study attempted to evaluate local flood risk perceptions of LancCo residents. The research focused on two specific summer 2018 extreme flooding events in LancCo to learn how communities perceived the risks communicated to them. Flood risk perceptions were assessed directly from LancCo residents and

from first-hand field experiences of experts and decision-makers that disseminate messaging and order evacuations. Ultimately, results implied that flood hazard messaging should be tailored to the perceptions of the target audience in order to enhance safety and reduce loss of life and property.

**Presentation Theme:** Flood risk perception and use of flood safety messaging

**Collaborators, Advisor(s) and Department(s) that assisted with this research:**

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