### **Team Members**

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## Partners

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### Disclaimer

The content described in this brochure is a survey of flood risk based on geographic factors and socioeconomic data in Kentucky. Project methodologies did not verify the accuracy of these maps due to time constraints, and the maps do not incorporate precipitation data.

### **Data Sources**

This project used data from the National Weather Service, KyGovMaps Open Data Portal, KyFromAbove, Kentucky Natural Resources Conservation Service, Kentucky Geological Survey, Multi-Resolution Land Characteristics Consortium, US Geological Survey, US Census Bureau Planning Database, US Department of Homeland Security, and Kentucky Geography Network.



# DEVELOP NATIONAL PROGRAM

Operating under NASA Earth Action, DEVELOP conducts feasibility studies that bridge the gap between Earth science information and society. DEVELOP works with communities and organizations to address environmental and policy concerns through 10-week projects that help both participants and partners learn about using NASA Earth observations.

### Be a Part of the DEVELOP National Program

For more information on becoming a participant or project partner, visit us online at https://appliedsciences.nasa.gov/nasadevelop

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# National Aeronautics and Space Administration





### Multi-Hazard Approach to Mapping Flood Susceptibility and Vulnerability in Kentucky







**Susceptibility:** We used a weighted combination of topographic factors to **locate areas** that are prone to flooding.



**Vulnerability:** We used an unweighted combination of socioeconomic and infrastructure data to **identify frontline communities**.



### Flood Risk

Flood risk is not just about **geography** it's about **communities**. We combined data on **topographic factors** (Susceptibility) with **community characteristics** (Vulnerability) to create an integrated map of **Flood Risk\***. Flood risk gives a comprehensive view of exposure to both flood occurrence and exacerbated effects on the community. Our map, shown at the census tract level, is intended to serve as an additional tool for flood risk management. The interactive map is also hosted on the Kentucky Climate Center website (https://kyclimate.org/).



To learn more about projects like this, visit https://appliedsciences.nasa.gov/what-we-do/capacity-building/develop/projects