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Abstract

“What areas along the Gulf Coast of the United States are particularly vulnerable, physically and socially, to hurricanes? Hurricane Katrina revealed the extent to which a natural disaster can devastate a community. A variety of geographic variables came into play, such as locales closest to the ocean, of lowest elevation, and where the most rain fell. Social variables, such as where the urban poor lived, also affected the outcome. By charting where the most damage occurred and why, investigators can help plan how to mitigate problems, respond to threats, and protect areas before and during similar events in the future. This lesson is part of the Spatialabs series.”

Source: <http://edcommunity.esri.com/Resources/ArcLessons/Lessons/H/hurricane-katrina-understanding-physical-and-social-vulnerability>

Abstract

The Urban Livability Index is a geospatial tool that identifies vulnerable populations that are susceptible to increased temperatures in New York City. The index is composed of four datasets: demographic, heat index, Landsat surface temperature and a social vulnerability layer. Other datasets such as wind patterns might contribute to enhancing the model. The purpose of this research would be to develop a wind pattern map of New York City and implement the results into the model.