Wind Hazard Interdisciplinary Research at the Intersection of Economics and Engineering

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Abstract

The study of extreme wind events and their impact on Society requires the scholarly expertise of many disciplines ranging from Atmospheric Science and Engineering to Social and Economic Sciences. Several decades of cross disciplinary collaboration has evolved into *convergence* research that recognizes the interdependencies within the built, social, and economic ecosystem. Over time with increased computational power the models have become more complex and capable of providing both detailed and comprehensive analysis of policy designed to manage risk and enhance resilience to natural hazards. We will trace integrated modeling and analysis accomplishments that include the Wind Mitigation Initiative at Texas Tech; the National Science Foundation-funded Leading Engineering for America's Prosperity, Health and Infrastructure (LEAP HI) collaboration of University of Delaware, Cornell University and East Carolina University; and the Center for Risk-based Community Resilience Planning, a twelve university consortium funded by National Institute of Standards and Technology and headquartered at Colorado State University.