Business Return in New Orleans: Decision Making Amid Post-Katrina Uncertainty

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Empirical observations on how businesses respond after a major catastrophe are rare, especially for a catastrophe as devastating as Hurricane Katrina, which hit New Orleans on August 29, 2005. A team of researchers from Louisiana State University, Texas State University, and Tulane University studied the business recovery patterns in New Orleans after Katrina. They conducted telephone survey and field survey by bicycle multiple times to track the reopening status of businesses in New Orleans after Katrina. They analyzed the survey data and associated census statistics by spatial econometric and geospatial methods. The main goal of the research was to determine the key factors that affected the likelihood of business return after a major disaster. The research findings have provided quantitative measures and useful insights into the development of optimal aid strategies to speed economic recovery. The research was funded by two research awards and one dissertation research award from the National Science Foundation and an award from the National Oceanic and Atmospheric Administration (NOAA) Gulf of Mexico Regional Sea Grant Program.

For this presentation, the researchers focus on one study within the overall project. The researchers analyzed the last telephone survey of businesses in New Orleans, which was conducted in October 2007, 26 months after Hurricane Katrina. The data were analyzed using a modified spatial probit regression model to evaluate the importance of each predictor variable through time. The results suggested that the two most important reopening predictors throughout all time periods were the flood depth at the business location and business size as represented by its wages in a logarithmic form. Flood depth was a significant negative predictor and had the largest marginal effects on the reopening probabilities. Smaller businesses had lower reopening probabilities than larger ones. However, the nonlinear response of business size to the reopening probability suggested that recovery aid would be most effective for smaller businesses than for larger ones. The spatial spillovers effect was a significant positive predictor but only for the first nine months. The findings showed clearly that flood protection was considered the overarching issue for New Orleans. A flood protection plan that reduces the vulnerability and length of flooding would be the first and foremost step to mitigate the negative effects from climate-related hazards and enable speedy recovery. The findings cast doubt on the coastal protection efforts and add to the lingering debate of whether coastal Louisiana will be sustainable or too costly to protect from further land loss and flooding given the threat of sea-level rise. Finally, a plan to help small businesses to return would also be an effective strategy for recovery, and the
temporal window of opportunity that generates the greatest impacts would be the first 6.9 months after the disaster.

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**Selected Publications:**


