

Abstract Submitted
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Estimating Natural Disaster Trends Using Statistical and Computational Simulations SEUNG MIN CHO, RICHARD KYUNG, Choice Research Group — In order to combat the heightened natural disasters, data stations were expanded, allowing experts to closely monitor the intensity and breadth of the disasters. Among the many disasters, floods are the most common natural disaster, causing natural disaster fatalities worldwide. Modeling natural disasters in a specific area and carrying out data analysis can be a difficult task when the pattern is complicated. It is not easy for researchers to extract the patterns from the analytical process in order to characterize the natural disaster. The objectives of this research are to describe the impact of flood events on human populations and to identify risk factors associated with these outcomes using statistical and computational simulations. In this paper, several functions, such as regression analysis using least square method, are used to find trends and proper curves that describe the natural disasters. Developing a better outcome that would decrease the deviation or minimize the total sum of the squares of the residuals, it is statistically possible to describe if the pattern of a sample data exists for a certain period, or if this technology is a reliable way to design new environmental experiments.

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