

How Does the Natural Disaster Affect the Maternal Labor Force Participation and Children's Outcomes?

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Abstract

We investigate how a natural disaster affects the children's health status, non-cognitive skill formation, and the maternal labor supply by focusing on the Great East Japan Earthquake in 2011. Utilizing the administrative panel data tracing the children born in 2001 and adopting the difference-in-differences and triple differences estimator, we find that the earthquake significantly deteriorates the children's health status, while the defiant behavior of children was significantly diminished and children are likely to help with household chore more frequently after the experience of the disaster. On the other hand, maternal labor supply was declined after the earthquake.

If we allow for the migrated households after the earthquake, the results are not qualitatively changed for the children's outcome. However, the negative effect on maternal labor supply lose its significance, implying that some households having lived in devastated regions migrated to seek for the job opportunity of mothers.

When we estimate the same regression model only with households living in non-devastated area, all the above-mentioned effects cannot be observed and the assumption of common trend is strictly satisfied for all the outcomes; and therefore, the robustness of our results is corroborated.

Keywords: Natural Disaster; Non-Cognitive Skills; Maternal Labor Supply; Health Outcome; Difference-in-Differences

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