



MEGAREGION DISASTERS THE EFFECT OF SHADOW EVACUATION

Natural disasters like hurricanes, floods, and wildfires occur throughout the world. And while they can occur anywhere, coastal areas tend to be the most vulnerable and tend to receive the most attention. Over the last decade or so, another set of areas, referred to as megaregions, have also received growing interest. Megaregions are broadly defined as continuously populated regions of once-separate metropolitan areas that have grown together. They often cover hundreds of miles and can even cross national boundaries.

Megaregions can also be susceptible to a range of natural and manmade hazards. However, unlike coastal areas that are considered to be vulnerable based on their geography, megaregions are vulnerable because of their enormous populations and geographic extents. One example of this vulnerability is in evacuation.

Strategic emergency plans are essential to protect the health and safety of the public under disaster threats. The time to evacuate officially declared evacuation zones may be affected by the demand not only within these zones but also in lower-risk areas. This is because based on the perceived threat, some proportion of the population in proximity to the official evacuation zones are also likely to evacuate. The evacuation of areas not under mandatory evacuation are referred to as shadow evacuation.

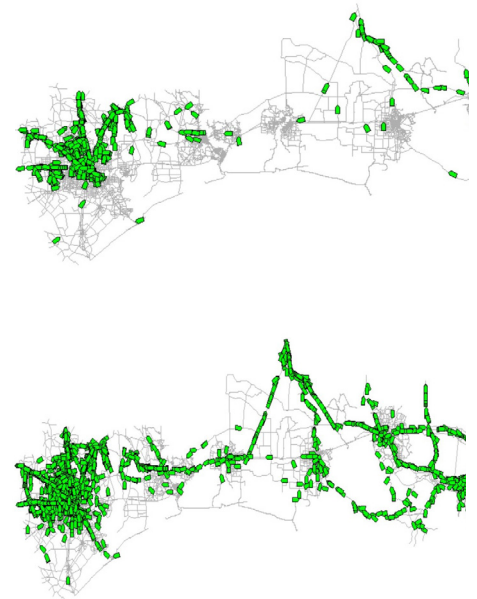
This research assesses the effect of shadow evacuation in megaregion disasters. Shadow evacuation could increase the overall clearance times of declared evacuation zones (Weinisch and Brueckner, 2015) which is important to be considered during the emergency planning process.

The Effect of Shadow Evacuation
in Megaregion Disasters: A Pilot
Study (#CM2-20)

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Final Research Report:
http://sites.utexas.edu/cm2/files/2018/09/Year-1-WolshonEtAL_The-Effect-of-Shadow-Evacuation-in-Megaregion-Disasters-A-Pilot-Study.pdf



Shadow Evacuation Scenarios

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