



## TRANSPORTATION NETWORK RESILIENCY EFFECT OF FREEWAY INCIDENTS AND DIVERSIONARY BEHAVIOR

An important role of transportation networks at scale of megaregion during an emergency evacuation is providing fast accessibility and safe mobility from the evacuation zone to safety. Disruptions on road networks throughout the evacuation potentially can put the safety of the people at risk. The resiliency of the network chiefly is functional recovery from performance reductions and costly delays which is a key element in at-risk situations. Although The initial level of functionality, type, and severity of an incident make an impact on the recovery time, in absence of external aid road users follow a diversionary behavior during the incident to alleviate the performance loss. There are different features affect this behavior such as the location of the incident, the capacity, number of alternatives routes, etc.

In an effort to illustrate this diversionary behavior, this research investigates the characteristics associated with road network resiliency under variation of incident features on megaregions. As a result, by considering the impact of diversionary behavior on the network we are able to evaluate the contrast in functional recovery in order to clarify the resiliency assessment specifically in the event of disasters.

Effect of freeway incidents  
and diversionary behavior on  
transportation network resiliency  
(#CM2-54)

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Project Information Form:  
[http://sites.utexas.edu/cm2/files/2020/04/Year-4\\_Wolshon\\_Exhibit-F\\_Freeway-incidents-1.pdf](http://sites.utexas.edu/cm2/files/2020/04/Year-4_Wolshon_Exhibit-F_Freeway-incidents-1.pdf)

