



IMPACTS OF AUTONOMOUS VEHICLE (AV) THE APPLICATIONS OF GIS-BASED MEGAREGION TRANSPORTATION PLANNING MODEL

Autonomous vehicles (AVs) represent a disruptive and beneficial technological innovation with the potential for significant impacts on the energy and environmental characteristics of the transportation sector. According to the 2018 HNTB Corporation America THINKS national public opinion survey, 70% Americans believe that self-driving, autonomous vehicles will be commonplace in America within next 15 years. The survey also found that reduced accidents and increased safety, improved safety for pedestrians and bicyclists, reduced congestion were being identified as the significant benefits of autonomous vehicle. Studies also found that this new technology should reduce crashes, ease congestion, improve fuel economy, reduce parking needs, bring mobility to those unable to drive, and eventually revolutionize travel. Aside from the issues of safety and congestion, autonomous vehicles are expected to change the contribution to greenhouse gas emissions in US, but the manner in which it change is still uncertain. Studies also found that while AVs could facilitate unprecedented levels of efficiency and radically reduce transportation sector energy and environmental impacts, consumer choices could result in a net increase in energy consumption and environmental impacts.

This project aims to extend previous research, GIS-based Megaregion Transportation Planning Model, into the exploration of the impacts of self-driving vehicles, including the development of planning strategy in environmental change by a new and sustainable transport technique.

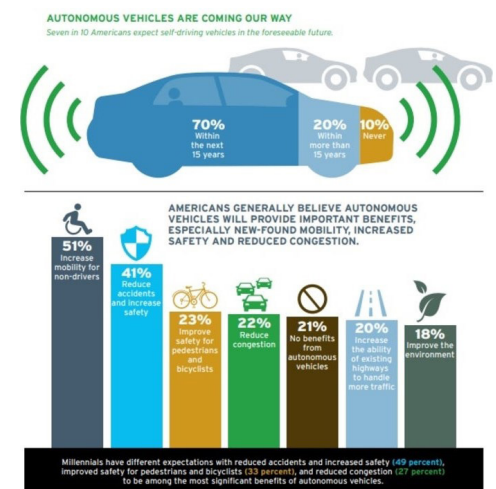
The Applications of GIS-based Megaregion Transportation Planning Model: A Case Study on the Impacts of Autonomous Vehicle (AV) (#CM2-55)

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Project Information Form:
<https://sites.utexas.edu/cm2/files/2020/04/Exhibit-F-Y4-Pan-Autonomous-Vehicle.pdf>



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Source: HNTB Corporation America THINKS national public opinion survey

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