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The Impact of Curfew on Transit Demand and In-Vehicle Density

Many countries have implemented restrictions to restaurant and bar operating hours at night during COVID-19 to curb the spread of the virus. Transit demand has plunged significantly during restricted operating hours, including in Canada. Seoul city also implemented a regulation on social gathering places and cut the number of operating buses by 20% after 9 p.m. This study analyzes the impact of the curfew on transit demand using smart card transit data for three weeks, from August 24 to September 11, 2020. The in-vehicle density after 9 p.m. of about 13,000 operating buses is analyzed and the locations where demand has changed significantly are identified. It was found that there was no change in bus demand before 9 p.m., but demand decreased by 12% after 9 p.m. Also, a difference is shown in users' sensitivity to transit mode choices in accordance with the restriction. This study offers a guide for implementing restrictions on transit operation and social gathering places during a pandemic. While such regulation would make people refrain from gathering, it could lead to negative impacts such as inducing a curfew rush hour on transit.



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Canadian Institute of Transportation Engineers (CITE) – Windsor Chapter
MS Teams Webinar

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