

Abstract Submission Form



2010 ITE Western District Annual Meeting

*San Francisco, CA
June 27-30, 2010*

Paper Title:

Analysis of the Impacts of Congestion on Freight Movements in the Portland Metropolitan Area: A methodology to analyze and estimate the impacts of recurring and non-recurring congestion on commercial vehicles combining GPS, traffic sensor, and incident data

Relevant Session/Topic:

Suggested Topic: Freight and Mobility

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Abstract: 250 words maximum. Use 12 point Arial font, single space.

In order to improve the functionality of transportation networks and make efficient use of funds, it is crucial that public agencies develop the proper tools to assess existing system performance. Delay and congestion not only negatively impact the businesses that rely on efficient and timely deliveries but also increase emission levels as well as the cost of transporting goods. This research focuses on the development of tools for measuring and analyzing the impacts of recurring and non-recurring congestion on freight corridors in the Portland Metropolitan Area. Unlike previous studies, this work employs several distinct data sources to analyze the impacts of congestion: global positioning system (GPS) data from commercial trucks, corridor travel-time loop data (from Oregon DOT sensors), and incident data to study travel time reliability on interstate highway 5 (I-5) in the Portland Metropolitan Area. A new methodology and algorithms are developed to combine these data sources and to estimate the impacts of recurrent and non-recurrent congestion on freight movements' reliability and delays. Spatial and temporal "data matching" problems and issues are discussed as well as the treatment of local and through trips. The results suggest that traditional traffic sensor data tends to underestimate the impacts of congestion on commercial vehicles.

Abstracts are due by 5:00pm on Monday, January 4, 2010.

e-mail your abstracts to:

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