A Comprehensive Data Driven Evaluation of Wide Area Probe Data: Opportunities and Challenges.

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A Comprehensive Data Driven Evaluation of Wide Area Probe Data: Opportunities and Challenges.

Abstract
There is a growing desire, among transportation organizations and state DOTs, to consider augmenting traditional traffic data collection with probe-based services for expanded coverage under constrained budgets. The nature of traffic data collection with probes is however dramatically different from traditional traffic data collection techniques. This affects how the new technology is applied and used to solve current traffic problems such as traffic incident management and roadway performance assessment. The current paper summarizes the experiences and lessons learned while using probe data for traffic operations and safety management and makes recommendations on opportunities to maximize the use of probe data in light of its limitations.

Keywords
Probe data, Incident Management, Sensor Data, Work Zone Performance Assessment

Disciplines
Civil and Environmental Engineering | Transportation Engineering

Comments
This paper was peer-reviewed by TRB and presented at the Annual Meeting of the Transportation Research Board, Washington, D.C. and can be cited as Adu-Gyamfi, Yaw Okyere, Anuj Sharma, Skylar Knickerbocker, Neal Hawkins, and Michael Jackson. "Comprehensive Data Driven Evaluation of Wide Area Probe Data: Opportunities and Challenges." In Transportation Research Board 95th Annual Meeting, no. 16-6482. 2016. Posted with permission.
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- Rezaei-Tarahomi, A. (§), Kaya, O. (§), Ceylan, H., Gopalakrishnan, K., Kim, S., and Brill, D.


***This paper was published in TRR. https://doi.org/10.3141/2551-02


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