

<b>UTC Project Information</b>	
Project Title	Developing Predictive Border Crossing Delay Models
University	State University of New York at Buffalo
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Funding Source(s) and Amounts Provided (by each agency or organization)	
Total Project Cost	
Agency ID or Contract Number	
Start and End Dates	
Brief Description of Research Project	<p>In recent years, and as a result of the continued increase in travel demand across the border coupled with the need for tighter security and inspection procedures after September 11, border crossing delay has become a critical problem with tremendous economic and social costs.</p> <p>This project aims at taking advantage of the wealth of data, now available thanks to the recent advances in sensing and communications, to develop predictive models which can be used to predict the delay a passenger car or a truck is likely to encounter by the time the vehicle arrives at the border.</p> <p>The project, which is building on some initial work done by UB TransInfo researchers, breaks down the problem into two steps: (1) the short-term prediction of the hourly traffic volume at the border; and (2) the development of queueing models which predict delay given knowledge of the predicted volume from step 1, the number of customs inspection stations open, and the distribution of service and inter-arrival times. The project will also develop mechanisms to adjust delay predictions in real-time, and will validate the predictions against blue-tooth data from the Niagara Frontier borders.</p>
Describe Implementation of Research Outcomes (or why not implemented)	

Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none"><li>• Reports</li><li>• Project website</li></ul>	<a href="http://www.buffalo.edu/transinfo/Research/bordercrossing.html">http://www.buffalo.edu/transinfo/Research/bordercrossing.html</a>