

UTC Project Information	
Project Title	Development of a Prediction Model for Crash Occurrence by Analyzing Traffic Crash and Citation Data
University Partner	University of Puerto Rico at Mayagüez
Principal Investigator	Enrique Gonzalez-Velez, Ph.D. Armando Gonzalez-Bonilla, BSCE
PI Contact Information	Department of Civil Engineering and Surveying University of Puerto Rico at Mayagüez PO Box 9000 Mayagüez PR 00681-9000 Tel: (787) 832-4040 x 3499; Fax: (787) 265-3390 Email: enrique.gonzalez1@upr.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	TransInfo UTC: \$31,800 University of Puerto Rico at Mayaguez: \$19,618
Total Project Cost	\$51,418
Agency ID or Contract Number	DTRT13-G-UTC48
Start and End Dates	1/1/2016      4/30/2017
Brief Description of Research Project	It is commonly acknowledged that factors such as human factors, vehicle characteristics, road design and environmental factors highly contribute to the occurrence of traffic crashes (WHO, 2004). Since human factors usually have the most significant influence on traffic crash occurrence, studies normally focus on the effect that some driver characteristics have on the occurrence of a traffic crash, such as age, gender, alcohol usage and driving. One of the topics that these types of studies explore is the effect that a driver's traffic violations and crash history has on the same driver being involved in a future vehicle crash. This research project aims to estimate the likelihood of a driver being involved or not in a vehicle crash by performing stepwise multiple logistic regression analyses. The data used was obtained by performing a survey on a sample of the driving population of Puerto Rico. Information such as age, gender, years of driving experience, daily hours spent driving and traffic violation and crash history were determined for a sample of the driving population of Puerto Rico. Results indicate that years of driving experience, gender and traffic violations history are significantly associated with being involved in a vehicle crash.
Describe Implementation of Research	

Outcomes (or why not implemented)  Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links Reports Project website	<a href="http://www.buffalo.edu/transinfo/Research/DevelopmentPredictionModelCrashOccurrence.html">http://www.buffalo.edu/transinfo/Research/DevelopmentPredictionModelCrashOccurrence.html</a>