



# CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

<b>Name(s)</b> Valentina Carrillo	<b>Project Number</b> 31070
<b>Project Title</b> Who Are You Behind the Wheel? What the Vehicle You Drive Says about You	
<b>Objectives/Goals</b> The purpose of this study was to determine whether the level of compliance with driving laws is related to the type of vehicles people drive. <b>Abstract</b> <b>Methods/Materials</b> Vehicle and driver characteristics were selected for observation including color of vehicle, type of vehicle, and gender and age of driver. Driving laws selected for observation were making a complete stop at a stop sign or red stop light, and not using a cell phone or texting while driving. Several suburban locations were selected in order to get a good sample of vehicles including two shopping centers, a business park, and main road. Observations were conducted from within a vehicle at a safe distance in a nearby parking location. Video recordings were taken to assist in the tabulation of observations due to the large number of vehicles at many of the locations. <b>Results</b> Four colors of vehicles accounted for almost 50% of the vehicles that failed to make a complete stop at a stop sign or red light: silver (14%), white (14%), black (13%), and blue (7%). The types of vehicles that had the highest levels of non-compliance with driving laws (not making complete stop at stop sign or red light, or driving while talking on a cell phone or texting): pick-up trucks (80%), cars (76%), SUVs (70%), wagons (67%), and vans (57%). In addition, female drivers compared to males had a higher rate of non-compliance for both not making complete stops (71% versus 65%) and using a cell phone while driving (8% versus 2%). <b>Conclusions/Discussion</b> Vehicle characteristics such as color and type of vehicle were found to have a relationship with the level compliance with the driving laws observed. A future study in driver attitudes towards compliance with driving laws using survey data would be valuable to better understand why the vehicle characteristics relate the way they do to non-compliance. In addition, females were found to have a greater rate of non-compliance than males in the driving laws observed. This has some important implications for public television ads and how they need to be targeted to the particular gender if aimed at reducing the use of cell phone use while driving.	
<b>Summary Statement</b> The purpose of this project is to better understand the relationship between vehicle and driver characteristics and compliance with driving laws.	
<b>Help Received</b> Advisor assisted as driver and with identification of vehicles until I became more familiar with this.	