



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kaitlin M. Walker</b>	<b>Project Number</b> <b>S0327</b>
<b>Project Title</b> <b>Big Brother Is Watching You</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of my experiment was to demonstrate that a driver's behavior can be influenced by the presence of surveillance cameras. I hypothesized that a smaller percentage of drivers would run red lights in intersections where cameras were present than in those without cameras. This experiment was an exploration of how the presence of red light cameras at intersections deters drivers from running red lights.</p> <p><b>Methods/Materials</b> Over a period of 10 hours (twenty-30 minute sessions), I observed a total of 9,026 vehicles. I divided my observations so that I conducted 10-30 minute observations at a photo-enforced intersection and 10-30 minute observations at an intersection without cameras. I used a tally system to record the vehicles. IV was the intersections with cameras. DV was the drivers that ran red lights. Control was intersection without cameras.</p> <p><b>Results</b> A mean of 1.78% of vehicles observed ran red lights when there was not a camera as compared to a mean of .35% that ran red lights when a camera was present. A total of 105 cars ran red lights, 20 of these were at photo enforced intersections. The range of data for red light running in unmarked intersections was .60% to 3.27%. The range in photo-enforced was from 0% to 1.7%. Drivers were also more likely to enter intersections on yellow lights without cameras, than when cameras were present.</p> <p><b>Conclusions/Discussion</b> Data supported my hypothesis. Based on the data collected during my experiment, the results indicate that photo-enforced lights do serve as a deterrent to red light running behavior, as well as, to running yellow lights. It should be noted that my experiment did not take into account other external variables that might have had an effect on safety such as, weather conditions, driver's emotional state, or situational factors. Futher studies need to be conducted to determine the benefits of camera surveillance as it relates to motorist safety.</p>	
<b>Summary Statement</b> The purpose of this experiment was to demonstrate that a driver's red light running behavior can be influenced by the presence of surveillance cameras.	
<b>Help Received</b> I recruited 3 data collecting assistants for my project	