



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Elias B. Gilbert	Project Number 34118
Project Title Whoa, Bro! Why So Fast? What Makes People Drive Over the Speed Limit in Santa Cruz?	
Abstract Objectives/Goals My project was to determine why people go over the speed limit in their cars. I expected that men would drive faster than women, and that drivers with kids in their car would go slower than drivers without kids. I also thought that narrower streets would make people go slower, but that street slope would not affect speeding. Finally, I expected having a speed limit sign nearby would make people go slower. Methods/Materials I measured the speed of 323 cars at 8 different sites using a radar gun. I also noted the driver gender, if there were kids in the car, the street width, slope, and if there was a speed limit sign. Results First of all, everyone speeds. 73% of people go over the speed limit and the average person goes 5mph over. I found that both genders drive at the same speed. I also found that having a kid in the car did not affect speeding, but there was a tendency for both genders to drive slower with kids. There was no correlation between street width and driver speed. People actually went a bit faster uphill. If anything, having a speed limit sign in the area actually makes people go faster. Conclusions/Discussion My study provides information to help solve the problem of speeding. Putting out more speed limit signs would probably not be helpful because it does not seem to make people slow down. Do not attempt to widen streets. Insurance companies should not make higher insurance rates for men than women because men do not actually drive faster. On the other hand, if men are paying higher rates on insurance, maybe this makes them more cautious drivers. A bigger sample size would help clarify whether people slow down with kids in their car.	
Summary Statement Using a radar gun I asked whether driver gender, passengers, and street characteristics influenced whether people went over the speed limit.	
Help Received Parents helped organize poster; Prof. Adam Millard-Ball at University of California, Santa Cruz gave me papers on this subject; Father taught me to use R statistics language and helped record data as I collected them	