



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Megan E.B. Miller</b>	<b>Project Number</b> <b>S0313</b>
<b>Project Title</b> <b>The Effect of Driving on Freeways on Blood Pressure</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective is to determine if the length of time spent driving on freeways affects the driver's blood pressure, causing it to go up or down. I believe that the stress caused by driving will cause the blood pressure to go up as the time spent driving increases. <b>Methods/Materials</b> Using a standard blood pressure cuff and a stethoscope, the blood pressure of 4 people was measured at 15,30,and 60 minute intervals while driving. The test was repeated 3 times on each subject. The mean of the average blood pressure was calculated and trends were noted. <b>Results</b> The data did not show a big change in blood pressure. In the interval from 15 to 60 minutes blood pressure stayed within 1 point of the 15 minute pressure in 2 people, blood pressure went up 5 points in 1 person, and down 5 points in the 4th person. <b>Conclusions/Discussion</b> There were not significant changes in the blood pressure of the subjects. The study did not support the hypothesis that blood pressure would go up under the stress of driving. It would be interesting to see if the blood pressure would change more dramatically if the tests were done during commute traffic or with other stressors such as children in the car, radios or cell phones were added.	
<b>Summary Statement</b> This project is designed to see if the stress of driving on freeways can affect the blood pressure of drivers.	
<b>Help Received</b> I had 4 people help me with my project. My mom, my dad, my uncle, and my aunt let me test them. My mother taught me how to measure a blood pressure and let me use her stethoscope and blood pressure cuff. My dad helped me with the computer data graphs. My mom helped me edit my report.	