



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Catherine P. Biehl	Project Number J0402
Project Title How Do Cell Phone Conversations Affect Reaction Time?	
Abstract Objectives/Goals The objective of my project was to determine how cell phone conversations affect one's reaction time. I will be doing this by testing hands-on cell phone conversations, and hands-free cell phone conversations to see how each type will affect reaction time. Methods/Materials My data was obtained by 15 people with various ages and genders. I used the ruler method to test the subject's reaction time, but I used a yardstick instead of a ruler. The control group is the subject's reaction time without distraction (without being involved in any cell phone conversation). Part 2 (hands-on conversation) was tested by having my assistant go into another room to ask questions to the subject on the phone while the same procedure was happening. Part 3 (hands-off conversation) was tested the same way as part 2 but with the phone on speaker phone. Results The data proved that when involved in a hands-on cell phone conversation, reaction time increases. When involved in a hands-free cell phone conversation, reaction time increases as well, but not as long of a difference as a hands-on conversation. Conclusions/Discussion The results proved that it is in fact more dangerous to be involved in any type of cell phone conversation while driving, then when completely focused on the road. The overall experiment suggests that talking on the phone while driving should be illegal, because it increases the driver's reaction time and it makes the task a lot more dangerous.	
Summary Statement Measuring human reaction times showed that individuals involved in a hands-on cell phone conversation have slower reaction times.	
Help Received None	