



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

<b>Name(s)</b> <b>Julia Vargas</b>	<b>Project Number</b> <b>S1222</b>
<b>Project Title</b> <b>Superiority In Grip Strength: Athletes or Non-athletes?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives</b> The objective of my project was to clearly see the correlation between the athletes and non-athletes grips strength versus the independent variable, which was the length and hand span in inches. My goal was to see if the their correlations would have a positive, negative, or no linear correlation.</p> <p><b>Methods</b> I used a hand dynamometer to test the grip strength in pounds, I connect to a labquest 2, both products were borrowed from my mentor. I used excel spread sheets to display my data and to help make my graphs.</p> <p><b>Results</b> My results showed that each graph had a positive linear correlation, since I used Pearson's Correlation to see if this would be my outcome. Athletes did have a superior correlation in both categories I was testing, but the difference wasn't as large as I expected it to be.</p> <p><b>Conclusions</b> This project expands in providing athletes or people looking for an improved physical health, the range that their grip strength should be in. This can help people realize that a low grip strength could be potential implications for diseases, such as heart disease.</p>	
<b>Summary Statement</b> I observed the correlations of an athlete's grip strength were higher than those of non-athletes.	
<b>Help Received</b> My mentor provided the hand dynamometer and LabQuest 2, but I decided to use Pearson's Correlation to carry out the data analysis in my experiment.	