



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Gabriel Lipow	Project Number S0414
Project Title Does Giving Children the Opportunity to Recycle Increase Waste Output?	
Abstract Objectives/Goals This experiment aims to determine whether giving children the opportunity to recycle will increase their waste output. This was tested by measuring paper towel usage at a middle school for one week by weighing paper towel rolls on a daily basis. The next week, I introduced recycling bins to the restrooms, and repeated the process. The results disproved my hypothesis, as they show that schoolchildren actually use 25% less paper (on average), and shows that children are actually more aware of their environmental impact than adults, based on a prior experiment (Caitlin and Wang, 2013) Methods/Materials Measured paper usage at a middle school for one week by weighing paper towel rolls in four restrooms daily then compiling them onto a graph. The following week, added recycling bins and repeated the process. Results The results show that middle school students will actually (on average) use 25% less paper when given the opportunity to recycle relative to when they are not allowed to recycle. Conclusions/Discussion When tested with middle school students, it was found that children actually decrease the amount of waste they produce when given the opportunity to recycle, although the result was not statistically significant. This is completely contrary to what was recorded in Catlin and Wang's experiment with college students.	
Summary Statement This project is testing whether giving children the opportunity to recycle will increase their waste (paper towel) usage.	
Help Received While I conducted this study, my father explained how to run a regression with the associated statistics.	