



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Elaine Noh; Amy Shimizu	Project Number S1521
Project Title The Effect of Public Restroom Stall Location on the Bacterial Growth on Toilet Seats in Each Stall	
<p style="text-align: center;">Abstract</p> <p>Objectives Observe how the location of a stall relative to the entrance affects its bacterial contamination. Higher bacterial contamination indicated a higher number of uses in each stall.</p> <p>Methods Nutrient agar, Petri dishes, sterile swabs, incubator. Measured the amount of bacterial growth by counting the colonies visible to the naked eye.</p> <p>Results The bacterial contamination of each toilet seat was graphed for each restroom, and the trends between the stalls were compared in addition to the ones between the restrooms. The second stall was found to have the highest amount of bacterial contamination in each restroom.</p> <p>Conclusions In general, the middle stalls were found to have the highest amounts of bacterial contamination, indicating that the centrality preference influenced the stalls into which the users would enter. Since the psychology and situation of the users at each location differed, however, the remaining bathrooms stalls did not have clear trends among them when compared to other restroom locations.</p>	
Summary Statement We found how the location of a stall relative to the entrance affects its bacterial contamination.	
Help Received A researcher affiliated with the University of California, Irvine, advised us on how to collect bacterial samples. We collected the bacterial samples ourselves.	