



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Wylie H. Drummond, IV	Project Number J1808
Project Title Sticky Fingers: Getting More Bond for the Buck	
Abstract Objectives/Goals What white glue will give you the most bond for the buck? I believe my experiment is important to others because it will help them save money when purchasing white glue. Methods/Materials Two wooden pieces were glued and clamped together using six different brands of white glue. The glued was allowed to harden for 24 hours and then a hook was screwed into each side of the glued wooden piece. The top hook of the glued wooden piece was then hung from a beam which was suspended between two chairs. The bottom hook was attached to a bucket which was filled with 70-95 pounds of bar-bell weights. Water was then added to bucket until the glued bond between the two pieces of wood broke. The bucket was weighed on a digital bathroom scale and the weight needed to break the glued bond was entered into a spread sheet and averaged. Results The more expensive glues did not produce bonding strengths in proportion to their cost. However, my experiment may have some errors in it because some of the glue seeped under the masking tape used to keep part of the wooden piece glue free. This "seepage" allowed some pieces to have more surface area "glued" than others which may explain why some of my results have some unexplained "spikes" in the weight needed to break the glued bond. Conclusions/Discussion The next time you want to use "white glue" to hold something together, do not reach for the expensive name brand. Reach for the white glue that is the least expensive for what you want to glue so you can get "More Bond for the Buck."	
Summary Statement To find out which brand of "white glue" gives you more bond for the buck.	
Help Received My dad helped me cut the wood because of my broken wrist from snow boarding.	