Creative math competitions are increasingly being used by universities as an indicator of a student’s general ability to problem solve.

This study seeks to examine the relationship between participation in a creative math competition and successful academic performance and behavior, using the MAA American Mathematics Competitions. Three years of academic performance data for students who wrote the MAA AMC will be compared to a control group of students who did not take the MAA AMC. The study will also compare non-cognitive measures of academic success, specifically academic self-efficacy, motivation, and engagement. It will also analyze the relationship between demographic factors and competition success, specifically gender, ethnicity, and household income. The authors’ hypothesis is that the correlation between participation in creative math competitions and measures of academic success will be high. The results of this study could be used to justify the use of MAA AMC scores as a metric in the college admissions process, and encourage students to participate in creative math competitions.

This talk will present the validity of the authors’ hypothesis, the detailed framework of the study, the data that was collected, the analysis and the conclusion. (Received September 17, 2019)