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Ricela Feliciano-Semidei* (ricela@niu.edu). *Use of Computer Software to Do Mathematics and the Mathematics Achievement of Students in Puerto Rico Using Restricted 2015 NAEP Data.*

This quantitative study explored the relationship between the mathematics achievement patterns of eighth grade students in Puerto Rico and their use of computer software application programs for doing mathematics. The theoretical framework used is the educational production function. The researcher analyzed 2015 restricted National Assessment of Educational Progress (NAEP) mathematics data. Data analysis consisted of descriptive statistical analysis and multilevel modeling analysis. Control variables to measure socioeconomic status and absenteeism were included in the multilevel model. Results of this study showed that average scores on NAEP 2015 were higher for students who use computer programs to do mathematics with less frequency than students who use it with more frequency. Understanding the relationship between the use of computer programs to do mathematics and the mathematics achievement of these students help the mathematics education community to cautiously create policies that do not focused on frequency of using technology. The researcher provided a discussion of the results and implications for researchers, administrators and teachers that would help them to target on the improvement of mathematics achievement of these students. (Received September 03, 2019)