Predicting Academic Success Through Standardized Testing at Georgia State University

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Abstract: Standardized tests are used in education to predict future academic success, although less common, standardized tests are still used in higher education. At Georgia State University a new form of testing is being used for Economics students. A standardized test known as the Test of Understanding College Economics (TUCE) by the National Council for Economics Education has been instituted as part of the curriculum in many universities across the nation. Many economics courses in universities in the United States use the TUCE to assess their students. This exam serves to compare Economics students across the nation, but also to predict future success. Using de-identified data from Georgia State University’s Test of Understanding College Economics (TUCE), we will assess if the TUCE score is a good predictor for a success in upper level Economics courses. We will look at de-identified individuals that have taken the TUCE exam, throughout their undergraduate program. We use Economics majors, which have taken principals of macroeconomics, intermediate macroeconomics, and the senior Capstone in Economics and that have taken the TUCE in all of these to track the progress and assessment of the TUCE. Using 13 questions of the TUCE and controlling for GPA we measure the accuracy of the TUCE in measuring present and future Economics knowledge retention.

Proposed Model
Grade upper level course_i = b_0 + b_1 * TUCE_i + b_2 * GPA_i
For i individuals.